



AYUSHMAN BHARAT

AYUSH Health and Wellness Centres

Orientation Guidelines for Community Health Officers (CHOs) (under Homoeopathy Stream)



सत्यमेव जयते

MINISTRY OF AYUSH
Government of India



AYUSHMAN BHARAT
AYUSH Health and Wellness Centres

Orientation Guidelines
for
Community Health Officers
(CHOs)
(under Homoeopathy Stream)



सत्यमेव जयते

MINISTRY OF AYUSH
Government of India

© Ministry of AYUSH
Government of India
New Delhi, 2021

ISBN No. 978-93-81458-65-5

Publisher: Ministry of Ayush, Government of India, New Delhi

Disclaimer: All possible efforts have been made to ensure the correctness of the contents. However, the Ministry of AYUSH shall not be accountable for any inadvertent error in the contents. Corrective measures shall be taken up once such errors are brought to notice.

Printed by: Power Printers, 2/8A, Ansari Road, Darya Ganj, New Delhi-110002

CONTENTS

Foreword	i
Preface	iii
Prologue	v
Preamble	vii
Abbreviations	ix
Chapter 1: Introduction to Orientation Guidelines	1
Chapter 2: Roles and Responsibilities of Ayush Health & Wellness Team	7
Chapter 3: Homoeopathy	11
Chapter 4: Preventive Care and Homoeopathic Dietetics	19
Section 1: Preventive Care	19
Section 2: Homoeopathy, Diet and Regimen	23
Chapter 5: Pre-Conceptional, Antenatal and Postnatal Care	31
Section 1: Pre-Conceptional Care	31
Section 2: Antenatal Care	33
Section 3: Postnatal Care	51
Chapter 6: Child and Adolescent Care	63
Chapter 7: Reproductive Health in Women	81
Chapter 8: Management of Communicable Diseases	91
Chapter 9: Non -Communicable Diseases	109
Chapter 10: Mental Health	133
Chapter 11: Common Ophthalmic, ENT and Oral Health Issues	161
Section 1: Common Ophthalmic Issues	161
Section 2: Ear, Nose and Throat	172
Section 3: Common Oral Issues	190
Chapter 12: Geriatric and Palliative Care	197
Chapter 13: General Outpatient Care for Simple and Minor Ailments	209
Chapter 14: First Aid before Referral	237
Chapter 15: Soft Skills and Communication Skills	243
Acknowledgements	251

किरेन रीजीजू

राज्यमंत्री (स्वतंत्र प्रभार)

युवा कार्यक्रम एवं खेल मंत्रालय

आयुर्वेद, योग और प्राकृतिक चिकित्सा, यूनानी,

सिद्ध, सोवा-रिग्पा एवं होम्योपैथी (आयुष)

राज्यमंत्री अल्पसंख्यक कार्य मंत्रालय

भारत सरकार



सत्यमेव जयते

KIRAN RIJJU

Minister of State (I/Charge)

Yourth Affairs & Sports,

Ayurveda, Yoga & Naturopathy, Unani,

Siddha, Sowa-Rigpa and Homoeopathy (Ayush) &

Minister of State Minority Affairs

Government of India



FOREWORD

The AYUSH Health and Wellness Centres under Ayushman Bharat Scheme are envisaged to deliver expanded range of Comprehensive Primary Healthcare Services to people within their areas, with main focus on prevention of diseases and promotion of good health and wellness. The services of all AYUSH system such as Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa-rigpa and Homoeopathy would be made available in different areas based on their use and acceptability. Yoga is important activity at all HWCs. Total 12,500 AYUSH HWCs have to be upgraded in phased manner by year 2023-24. The idea behind establishing 12,500 AYUSH HWCs is to demonstrate the effectiveness of AYUSH based wellness model in strengthening Comprehensive Primary Health care with primary focus on preventive and promotive interventions by empowering masses for “self care” to reduce disease burden & out of pocket expenditure, and to provide informed choices to patients/needy people to choose the desired intervention.

Homoeopathy is a cost-effective system of medicine with least side effects. These guidelines provide primary preventions in each of the 12 service delivery frameworks focusing on healthy practices to be followed on a daily basis which can help in prevention and control of the diseases and also enable the community to maintain their own health to achieve the ‘wellness’ through homoeopathy, yoga and self care. The basic objective is to empower people at the community level to keep them healthy & prevent diseases through self-care.

The journey for achieving “Holistic Health & Wellness” through Health and Wellness Centres would be a continuous and dynamic process. I do believe that the integration of AYUSH including Homoeopathy would further strengthen the preventive and promotive health needs of our society for achieving the National Goal of Health & Wellness for all.

(Kiran Rijju)

401, ‘सी’ विंग, शास्त्री भवन, नई दिल्ली-110 001, दूरभाष: +91-11-2338 1185, 2338 6520, फैक्स: +91-11-2338 1898

401, ‘C’ Wing, Shastri Bhawan, New Delhi-110 001, Tel: +91-11-2338 1185, 2338 6520, Fax: +91-11-2338 1898

11वां तल, पं. दीनदयाल अंत्योदय भवन, सी.जी.ओ. कॉम्प्लेक्स, लोधी रोड़, नई दिल्ली-110003, दूरभाष: +91-11-2436 4275

11th Floor, Pt. Deendayal Antyodaya Bhawan, C.G.O. Complex, Lodhi Road, New Delhi-110003, Tel: +91-11-2436 4275



वैद्य राजेश कोटेचा

Vaidya Rajesh Kotecha



सचिव

भारत सरकार

आयुर्वेद, योग व प्राकृतिक चिकित्सा
यूनानी, सिद्ध, सोवा रिम्पा एवं होम्योपैथी (आयुष) मंत्रालय
आयुष भवन, 'बी' ब्लॉक, जी.पी.ओ. कॉम्प्लेक्स,
आई.एन.ए. नई दिल्ली-110023

SECRETARY

GOVERNMENT OF INDIA
MINISTRY OF AYURVEDA, YOGA & NATUROPATHY
UNANI, SIDDHA, SOWA-RIGPA AND HOMEOPATHY (AYUSH)
AYUSH BHAWAN, B-BLOCK, GPO COMPLEX
INA, NEW DELHI-110023
Tel: 011-24651950, Fax: 011-24651937
E-mail: secy-ayush@nic.in

PREFACE

Non-communicable diseases (NCDs) are on the rise alarmingly in India. These are to be addressed through health promotion and prevention strategy. Ayushman Bharat Yojana or Pradhan Mantri Jan Arogya Yojana (PMJAY) or National Health Protection Scheme (NHPS) aims at creating interventions in primary, secondary, and tertiary health-care systems, covering both preventive and promotive health, to holistically address the health care.

The Ayushman Bharat programme has two major pillars of services. One is Pradhan Mantri Jan Arogya Yojana for providing financial benefits up to 5 lakh per family for tertiary care. The second pillar is to transform the existing 1.5 lakh Sub-centres and Primary Health Centres into 'Health and Wellness Centres (HWCs), wherein Comprehensive Primary Health Care Services would be made available to the communities providing affordable & accessible health services to all citizens of the country.

This Orientation Guideline is an outlook of service framework for the Community Health Officers (Homoeopathy). States may design their own service delivery interventions based on available best local evidences and feasibility within the given framework. It focuses more on early interventions based on Homoeopathic principles and the best available evidence in hand so far. However, with evolving time, these guidelines would be further upgraded in the future as per the need of community and experience gained during implementation of the programme.

I also expect that the coordination between State Health Department and State AYUSH Department would enable to achieve "Holistic health" by operationalizing Yoga, appropriate use of Homoeopathic medicines, healthy routine practices and AYUSH medicine choices at the Community level in addition to existing activities under National Health Mission.

I take this opportunity to congratulate the team of Ministry of AYUSH, Central Council for Research in Homoeopathy, for framing this Guideline for the Community Health officers (Homoeopathy). I hope these guidelines will be utilized by the States for qualified manpower in achieving the desired transformation of existing AYUSH dispensaries and Sub-health Centres into efficient AYUSH Health and Wellness Centres.

वैद्य राजेश कोटेचा

(Rajesh Kotecha)

New Delhi

Dated: 12th February, 2021

रोशन जग्गी

संयुक्त सचिव

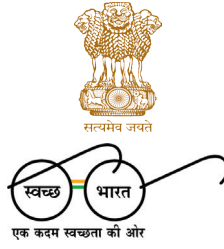
ROSHAN JAGGI

JOINT SECRETARY

Tel: 011-24651940

Fax: 011-24651953

E-mail: roshan.jaggi@gov.in



भारत सरकार

आयुर्वेद, योग व प्राकृतिक चिकित्सा

यूनानी, सिद्ध एवं होम्योपैथी (आयुष) मंत्रालय

आयुष भवन, 'बी' ब्लॉक, जी.पी.ओ. कॉम्प्लेक्स,

आई.एन.ए., नई दिल्ली-110023

GOVERNMENT OF INDIA

MINISTRY OF AYURVEDA, YOGA & NATUROPATHY

UNANI, SIDHA AND HOMOEPATHY (AYUSH)

AYUSH BHAWAN, B-BLOCK, GPO COMPLEX

INA, NEW DELHI-110023



PROLOGUE

Considerable shift has been seen after launch of National AYUSH Mission under the Ministry of AYUSH during 2014, in providing essential AYUSH clinical services, development of AYUSH Educational Institutions, quality control of drugs and promotion of Medicinal Plants. Several other reforms in the Ministry of AYUSH undertaken in the past few years have contributed to enhancing the demand and supply ratio.

The National Health Policy 2017 has highlighted the role of AYUSH in areas of Public Health Care Delivery System in an integrative manner, in alignment with existing interventions of the Ministry of Health and Family Welfare (MoHFW).

This Orientation Guideline for Community Health Officers (Homoeopathy) is an initial framework for expansion of population enumeration and family empanelment, homoeopathic intervention, promotion of behavioural change, healthy life style, Yoga, basic OPD interventions and evidence-based NCDs protocols through 12500 AYUSH Health and Wellness Centres proposed to be set up by 2023-24. Infrastructure strengthening, IT Service components, E-learning, Tele-consultations, etc. would be rolled out gradually and robust electronic health records will also be maintained for real-time monitoring and interventions in AYUSH Health & Wellness Centres. Therefore, I urge the CHOs to act in a proactive manner to execute the plan of action for operationalization of their respective Health and Wellness Centres addressing the health issues of public as well as of individuals in holistic manner.

My sincere hope is that the States/UTs would take strong ownership of this programme and make efforts to expedite action to scale up and expand the scope of AYUSH Health and Wellness Centres for achieving goal of universalization of comprehensive primary health care.


(Roshan Jaggi)



केन्द्रीय होम्योपैथी अनुसंधान परिषद्

स्वायत्त निकाय, आयुष मंत्रालय

भारत सरकार

CENTRAL COUNCIL FOR RESEARCH IN HOMOEOPATHY

An Autonomous Body under Ministry of Ayush,
Govt. of India

Dr. Anil Khurana
Director General
डॉ. अनिल खुराना
महानिदेशक



PREAMBLE

Ayushman Bharat Yojana is a big leap towards Universal Health Coverage in India. Promoting affordable, cost effective AYUSH interventions to support the vision of a holistic wellness model based on AYUSH principles and integrating AYUSH shall act as a catalyst to empower masses for “self care” to reduce the disease burden, out of pocket expenditure and to provide informed choice to the needy public. This scheme would be implemented through States/UTs within Centrally Sponsored Scheme of National AYUSH Mission. The AYUSH Health & Wellness Centres would be created by upgrading existing AYUSH dispensaries and sub health centres.

The main objective of these orientation guidelines is to provide information on specific activities to be undertaken at HWC level. Since the primary users of this document are qualified Homoeopathic physicians, the guidelines are comprehensive and indicative only. The list of medicines under different disease conditions mentioned are indicative only and the CHO can prescribe any medicine as per the context and symptom totality from among the Essential Drug list for Homoeopathy, 2013 or the available homoeopathic medicines at dispensary Sub centre. Further, the CHOs may use their expertise and wisdom to successfully manage AYUSH HWC services.

The approaches mentioned in the Orientation guidelines are known, documented & widely used. For additional requirement of medicine or facility, CHO is free to make them available to the community through the States/UTs. Further, all possible efforts have been made to avoid errors; however measures shall be taken up if any inaccuracies are brought to the notice. CHOs should note cautions, timely referrals keeping in view limitations so that patients are maximally benefitted.

Functional integration through existing establishment for providing comprehensive care by using standard protocols, up-gradation of infrastructure, community mobilization for self care, sensitization & capacity building of health care providers, linkages with higher-level facilities, AYUSH educational institutions, NGOs & trusts and documentation with the help of IT platform are the highlights of the activities.

The team at Ministry of AYUSH, CCRH, and NIH will be very happy to extend its wholehearted support to States/UTs and other stake holders for the successful implementation of the programme.

(Dr. Anil Khurana)

पता: 61-65 संस्थागत क्षेत्र, डी-ब्लॉक के सामने, जनकपुरी, नई दिल्ली-110 058

जवाहर लाल नेहरू भारतीय चिकित्सा एवं होम्योपैथी अनुसंधान भवन

Address: 61-65, Institutional Area, Opp. D-Block, Janakpuri, New Delhi-110 058
Jawahar Lal Nehru Chikitsa Avum Homoeopathy Anusandhan Bhawan

दूरभाष/Phones : 011-28525523, फ़ैक्स/Fax : 011-28521060

ई-मेल/Email : rkmanchanda@gmail.com वेबसाइट/Website : www.ccrhindia.org

ABBREVIATIONS

ADHD	-	Attention Deficit Hyperactivity Disorder
ADL	-	Activities of Daily Living
A/F	-	Ailments from
AIDS	-	Acquired Immune Deficiency Syndrome
ANC	-	Antenatal Care
ANM	-	Auxiliary Nursing Midwifery
ASD	-	Autism Spectrum Disorder
ASHA	-	Accredited Social Health Activist
AYUSH	-	Ayurveda, Yoga, Unani, Siddha, Sowa-rigpa and Homeopathy
BMD	-	Bone Mineral Density
BMI	-	Body Mass Index
CBC	-	Complete Blood Count
CBT	-	Cognitive Behavioural Therapy
CT	-	Computed Tomography
CCRH	-	Central Council for Research in Homoeopathy
CHO	-	Community Health Officer
CM	-	Centimetre
COPD	-	Chronic Obstructive Pulmonary Disease
CPHC	-	Comprehensive Primary Health Care
CRD	-	Chronic Respiratory Diseases
CRM	-	Common Review Mission
CSF	-	Cerebrospinal Fluid
CVD	-	Cerebrovascular diseases
CAD	-	Coronary artery disease
DM	-	Diabetes Mellitus
DVT	-	Deep Vein Thrombosis
ECG	-	Electrocardiography
EDD	-	Estimated Date of Delivery
EGD	-	Esophagogastroduodenoscopy
FEV	-	Forced Expiratory Volume
FHS	-	Fetal Heart Sound
FUO	-	Fever of Unknown Origin
FVC	-	Forced Vital Capacity
HDL	-	High Density Lipoprotein
HIV	-	Human Immunodeficiency Virus
HMIS	-	Health Management Information Systems
HWC	-	Health and Wellness Center
GERD	-	Gastro-Esophageal Reflux Disease
GIT	-	Gastrointestinal Tract
GM	-	Gram
HTN	-	Hypertension
IEC	-	Information, Education and Communication
IUGR	-	Intra Uterine Growth Retardation
KFT	-	Kidney Function Test

KG	-	Kilogram
LDL	-	Low Density Lipoprotein
LFT	-	Liver Function Test
LMP	-	Last Menstrual Period
MAC-ELISA	-	IgM Antibody Capture Enzyme Linked Immunosorbent Assay
MAS	-	Mahila Arogya Samiti
MCI	-	Mild Cognitive Impairment
MCQ	-	Multiple Choice Questions
MDR-TB	-	Multi Drug Resistant Tuberculosis
mmHg	-	Millimeters of Mercury
mg	-	Milligram
MHD	-	Mental Health Disorder
ml	-	Millilitre
MPW	-	Multi Purpose Worker
MoHFW	-	Ministry of Health and Family Welfare
NCD	-	Non-communicable Disease
NGO	-	Non-Governmental Organization
NHM	-	National Health Mission
NIP	-	National Immunization Programme
NMPB	-	National Medicinal Plant Board
NS1-ELISA	-	Non Structural Protein 1 - Enzyme Linked Immunosorbent Assay
OCD	-	Obsessive Compulsive Disorder
O.D.	-	Once in a Day
OPD	-	Outpatient Department
ORS	-	Oral Rehydration Solution
PCOS	-	Polycystic Ovarian Syndrome
PHC	-	Primary Health Centre
PMJAY	-	Pradhan Mantri Jan Aarogya Yojana
PMS	-	Pre - Menstrual Syndrome
PND	-	Post Nasal Drip
QoL	-	Quality of Life
RCH	-	Reproductive & Child Health
RGI	-	Registrar General of India
RT-PCR	-	Reverse Transcription Polymerase Chain Reaction
SBA	-	Special Birth Attendant
SC	-	Sub - Centre
SHG	-	Self Help Group
STD	-	Sexually Transmitted Diseases
T₁DM	-	Type 1 Diabetes Mellitus
T₂DM	-	Type 2 Diabetes Mellitus
TT	-	Tetanus Toxoid
USG	-	Ultrasonography
VHSNC	-	Village Health Sanitation and Nutrition Committee
WHO	-	World Health Organization
XDR-TB	-	Extensive Drug-Resistant Tuberculosis

INTRODUCTION TO ORIENTATION GUIDELINES

1.1 Comprehensive Primary Health Care through Health and Wellness Centres

In India, the experience with several programmes in the last few years has shown that the AYUSH systems (Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa-rigpa and Homoeopathy) have been successful in improving service delivery. Many reforms are already underway at the Ministry of AYUSH. Impetus on education policy, research & development, standardization & quality control of medicines and procedures, upgradation of healthcare facilities including tertiary care, development of infrastructure, capacity building of healthcare providers, public health initiatives, mainstreaming of AYUSH are yielding encouraging results. National AYUSH Mission (NAM) launched in 2014 in the analogy of the National Health Mission (NHM) of the Ministry of Health & Family Welfare (MoHFW) is successful in promoting AYUSH medical systems through healthcare services, strengthening of educational systems and quality control of drugs.

Realizing the importance of traditional systems of medicines in addressing public health issues, the National Health Policy (NHP) 2017 has advocated mainstreaming the potential of AYUSH systems within a pluralistic system of integrative healthcare.

The Ayushman Bharat programme launched in the country in September 2018 has two components. First component is the Pradhan Mantri Jan Arogya Yojana (PMJAY) which provides health coverage upto Rs. 5 lakh per family per year for secondary and tertiary hospitalization to poor and vulnerable families. The second component is establishment of Health and Wellness Centres (HWCs), in order to expand access to Comprehensive Primary Health Care (CPHC) in the community. It has been decided that 10% of the total HWCs (12,500) under Ayushman Bharat will be upgraded by the Ministry of AYUSH and a 5 year scheme has been approved by the Union Cabinet in its meeting held on during March 2020.

1.2 Vision

- To establish a holistic wellness model based on AYUSH principles and practices.

1.3 Objectives

- To provide comprehensive primary healthcare through AYUSH using team-based approach.
- To establish a holistic wellness model based on AYUSH principles and practices focusing on preventive, promotive, curative, rehabilitative healthcare by establishing integration with existing public healthcare system.
- To provide informed choice to the needy public by making AYUSH services available.

1.4 Health and Wellness Centres

The existing health care facilities are to be upgraded as AYUSH HWCs or AYUSH dispensaries (80%) and Sub-health Centres (SCs) (20%). At upgraded AYUSH dispensaries, expanded AYUSH services will be initiated initially, and gradually the NHM components may be incorporated as per the feasibility. In case of upgraded Sub-health Centres, AYUSH services will be in addition to already on-going National Health Programmes and other activities under the National Health Mission. To successfully run comprehensive healthcare services, there should be co-ordination between AYUSH and Health Department at State level.

1.5 Key components of Health Wellness Centres

- 1.5.1 Human resource:** The HWCs would be equipped and staffed by an appropriately trained Primary Health Care team, comprising of Multi-Purpose Workers, ASHAs at the norm of one per 1000 and Axillary Nurse Midwife (ANM) led by a Community Health Officer (CHO). Upgraded AYUSH Dispensaries may have a pharmacist, nursing staff or technicians, in addition to house keeping staff. A qualified/certified Yoga instructor would be deployed at all HWCs on a part time basis to provide continuous and customised Yoga training to the community at the HWC and various other identified public places. The CHO would be a qualified AYUSH physician, deployed on the basis of services of the particular system made available at HWC viz. Ayurveda, Homoeopathy, Unani and Siddha. The CHO will take clinical decision as per his/her specific stream of medicine; he/she is qualified in and provide mentorship to the team.
- 1.5.2 Performance linked payments:** This has been envisaged to improve the quality of services delivery by incentivizing providers to ensure better health outcomes for the population in the catchment area. This would be achieved by linking one proportion of the salary with the performance/service delivery and providing team based, incentives based on improvement in health outcomes. The guidelines for the same for AYUSH dispensary have been included in the “Operational Guidelines” and guidelines for performance linked payment at upgraded SCs would be as per the State health department.
- 1.5.3 Infrastructure and branding:** Sufficient space for outpatient care, medicine storage and dispensing, diagnostic services, display of communication material of health messages, audio visual aids will be provided. Appropriate community spaces for wellness activities, Yoga practice and display of medicinal plants in garden or in potted plants needs to be gradually made available. The particular branding pattern of HWCs developed by MoHFW has been adopted by the AYUSH also.
- 1.5.4 Digitization:** HWC team to be equipped with laptop/tablets/smart phones to serve a range of functions such as population enumeration and empanelment, record delivery of services, enable quality follow up, facilitate referral/continuity of care and create an updated individual, family and population health profile, and generate reports required for monitoring at higher levels.
- 1.5.5 Use of Telemedicine/IT Platforms:** At all levels, tele-consultation would be used to improve referral advice, seek clarifications, and undertake virtual training including

case management support by specialists.

- 1.5.6 Functional integration:** To successfully plan and run integrated services with different National Programmes under NHM, close cooperation between the Department of Health & Department of AYUSH in the States will be ensured. An agreement may be signed for sharing experience, existing facility, manpower, support the activities including integrated training, healthcare services, supply of essential medicines/ vaccines/ chemicals/ reagents/ equipment, and to run different vertical health programmes of the National Health Mission including Digitization/Telemedicine/IT Platforms. Depending on the selected facility, the deployment and duties of manpower such as ANM, MPW, AYUSH physician etc. will be assigned as per the requirement for implementation of both NHM and AYUSH services. The issues such as line of command, mechanism of fund flow etc. will be addressed in the agreement.
- 1.5.7 Continuity of care and patient centric care:** Continuity of care is one of the key tenets of Primary Health Care. Continuum of care spans for the individuals from the same facility to her/his home and community, and across levels of care- primary, secondary and tertiary. Care must be ensured from the level of the family through the facility level. Linkages need to be developed with the Departments of Health for sharing Mobile Health Units, ambulance services, higher level facilities and IT solutions.
- 1.5.8 Community mobilization:** Action on social and environmental determinants would require intersectoral convergence and build on the accountability initiatives so that there is no denial of health care and universality and equity are respected. Engagement of community level collectives such as Village Health Sanitation and Nutrition Committee (VHSNCs), Mahila Arogya Samiti (MAS), Self-Help Groups (SHGs), Panchayati Raj Institutions and creating health ambassadors in schools will be envisaged.
- 1.5.9 Inter-sectoral convergence:** Health is affected by various social and environmental determinants and actions to address these issues often do not fall in the purview of health systems alone and therefore, require intersectoral convergence and people's participation. The Health Promotion strategy recommended by the National Health Policy 2017 emphasizes institutionalizing intersectoral coordination at national and sub-national levels to optimize health outcomes, through the constitution of bodies that have representation from relevant non-health ministries. This should be in line with the emergent international "Health in All" approach as complement to Health for All.
- 1.5.10 Quality assurance and accountability:** This can be ensured through regular skill development training of HWC team (at least one such training in a year). In order to ensure quality of services and patient satisfaction, it is essential to encourage community participation. To ensure accountability, the "Citizens Charter" should be available in all centres.
- 1.5.11 Institutional mechanism:** The AYUSH HWCs would be developed and operationalized through an institutional mechanism at National, State and District level. Already established framework of NAM and further linkages with line ministries & departments will enable to successfully plan and carryout public health activities. The linkages with

AYUSH standalone hospitals, co-located facilities, educational institutions, National level organizations, schools, social groups, private bodies, community groups, local bodies, Panchayati Raj Institutions are proposed.

1.5.12 Monitoring and evaluation: Supportive supervision and record checking at periodic intervals will be carried out by the Officer at PHC/ District AYUSH Officer etc. (at least once a month). Dedicated MIS/ AHMIS monitoring and evaluation cell would be established at Centre/ State level. It is, therefore, proposed to have a Health Management Information System (HMIS) Cell at National level with HMIS Managers at State level. The physical records, electronic data updated on CPHC-portal from time to time and other IT enabled applications would be used for arriving at conclusions on the functionality of the AYUSH HWCs.

The regular evaluation of the National AYUSH Mission shall be carried out to know the implementation progress, bottlenecks and scope for improvement. Third party evaluation will also be taken up after two years of implementation.

1.5.13 Deliverables and outcomes

A. Short-term output indicators:

- i. Number of AYUSH dispensaries upgraded as AYUSH HWCs
- ii. Number of Sub Health Centres upgraded into AYUSH HWC
- iii. Number of HWCs having AYUSH services
- iv. Number of AYUSH HWCs with regular Yoga activities
- v. Number of CHOs trained for Standard Treatment Protocol
- vi. Number of MPW, ASHA underwent AYUSH training
- vii. Number of beneficiaries seeking AYUSH services
- viii. Herbal gardens successfully developed under HWC
- ix. Number of beneficiaries complying with preventive and promotive activities
- x. Number of households making use of home remedies at household level

B. Long-term outcome indicators:

The following outcome indicators would be assessed in comparison with the control HWC (developed by MoHFW), where AYUSH services are not made available:

- i. Integration of AYUSH in implementation of Sustainable Development Goal 3, as mandated by NITI Aayog measured on the basis of uninterrupted availability of AYUSH services (at HWC/ outreach level), number of beneficiaries seeking services, compliance to yoga / advises, number of plants grown.
- ii. Reduced burden on secondary and tertiary health facilities.
- iii. Enhanced accessibility to achieve universal health coverage for affordable treatment measured through the number of people utilising the services.
- iv. Reduced out of pocket expenditure due to “self-care” model measured through documenting consumer’s perception in representative samples.
- v. Validated holistic wellness model in healthcare areas measured on the basis of overall outcome in the wellness status.
- vi. Improved health and wellness status of larger population of country due to strengthening of preventive and promotive aspects of health, measured through prevalence of diseases.

1.5.14 Components of AYUSH services

- a) Preventive and promotive measures for self-care.
- b) Medicinal plants for self-care cultivation and home remedies.
- c) Management of common ailments under 12 service delivery framework i.e. Care in Pregnancy and Child birth, Neonatal and Infant Health Care, Childhood and Adolescent Health Care, Family Planning, Contraceptive and Reproductive Health Care, Communicable Diseases, Acute Simple Illness and Minor Ailments, Non-Communicable Diseases, Oral Health Care, Elderly and Palliative Health Care and Mental Health.

1.6 About the Orientation Guidelines

- The main objectives of the Orientation Guidelines are to provide information on specific activities to be undertaken at HWC level and therefore it may not be seen as a textbook containing extensive information.
- Since the primary users of the module are qualified Homoeopathic physicians, the guidelines are crisp and indicative only. Further, the CHO should use his/her expertise and wisdom to successfully manage HWC activities and services.
- The approaches mentioned in the Orientation Guidelines concentrate on the known, documented, widely used strategies and applications set out in Homoeopathy. However, if the CHO feels the need for additional medicine or facility, he /she is free to make them available to the community, within the power conformed upon him/her by the States/ UTs.

1.7 Advisory to Community Health Officers

- Major focus of HWC activities are health promotion and disease prevention by educating people on proper food, lifestyle including Yoga and managing small indispositions by themselves.
- Empowering people for self care for minor illnesses by using commonly available medicinal plants and spices would play a big role in reducing burden at HWC and higher healthcare levels.
- Community services should be successfully coordinated and conducted on regular intervals by door-to-door visits, camps at public places such as schools, panchayats, anganwadi centres, etc.
- Mentoring, motivation and sensitization of peripheral health workers and village leaders are key in achieving desired results.
- For management of diseases, proper diagnosis, understanding its severity, identifying complications are very important in deciding whether the case is suitable for Homoeopathic intervention at HWC level or needs referral to a higher facility.
- Diagnosis of the disease at HWC level should be made mainly on the basis of detailed history, clinical findings and basic laboratory tests available at the HWC. Referral may be done for further investigations, wherever it is absolutely necessary.
- The CHO may avoid too much of medication and if for mild indispositions or simple illnesses diet and home remedy alone may be sufficient.
- If the condition of the patient does not warrant for Homoeopathy treatment to begin with or to further continue, proper counselling of the patient and relatives should be done, and sufficient reasons explained before advising other alternative options.

- The patient should be referred to higher level Homoeopathy / Allopathic facility for specialty care or further investigation. Unnecessary referrals should be avoided.
- The CHO is expected to be sensitive and empathetic towards the needs of the community.
- She/He would provide an able mentorship and leadership to other healthcare providers in her/his team. She/He should ensure continuous availability of quality assured medicines and services in the jurisdiction of her/his HWC.
- Since the aim of all systems of medicine is to provide health and well-being to the society, it is expected that the services would be rolled out with a close collaboration between the Department of AYUSH & Department of Health in respective states to realize the dream of comprehensive healthcare.
- Co-existence of different systems of medicines has to be enabled, appreciated, and supported considering the patient's choice, demand and condition. It should be observed that providers of all systems exercise restraint from their own affiliations and system bias.
- The available IEC has to be displayed and used, counselling to be done wherever necessary, and community should be allowed to exercise their choice in demanding specific system-based services.

Further reference materials:

- Operational Guidelines for AYUSH Health & Wellness Centres of Ministry of Ayush
- Ayushman Bharat Training Modules for Community Health Officers published under the National Health Mission.

ROLES AND RESPONSIBILITIES OF HEALTH & WELLNESS TEAM

The aims and objectives of HWC activities can be achieved only with the proper understanding and cooperation between all the service providers. It is a team-work and individual's roles and responsibilities have no boundaries. However, this section will provide guidelines for the working areas of each service provider. It is also possible that some HWCs have more staff like pharmacist(s), staff nurse(s), housekeeper(s) etc. Therefore, it is the responsibility of the CHO to delegate and monitor the activities of all available staff at the HWC. As per the local situations and needs, all the HWC team members are desired to perform any duty, in which they are qualified or are able to handle, as assigned by the CHO.

2.1 Ministry of AYUSH

- Overall responsibility of implementation by providing essential support to the State Governments.
- Provide funds as per the norms of Centrally Sponsored Scheme.
- Prepare AYUSH training modules, standard treatment guidelines, referral protocols, and other operational documents to suit the requirement at HWC/ referral level from time to time.
- Preparing documentation tools, IEC materials from time to time.
- Developing detail guidelines (pictorial/ video) for Yoga practices.
- National Medicinal Plant Board (NMPB) will provide guidelines on Good cultivation practices and ensure the supply of the saplings with the help of State Medicinal Plant Boards.
- Provide any other support required for the States/UTs from time to time.

2.2 State Government/ UT/ Department of AYUSH

- Sharing of funds as per the norms of Centrally Sponsored Scheme.
- Close networking between the Department of AYUSH, Department of Health and other departments for inter-sectoral convergence.
- Identify the facility in consultation with Department of Health & AYUSH.
- Propose Action Plan.
- Selection & deployment of manpower.
- Uninterrupted supply of medicines.
- Operational support such as training, monitoring etc.
- Implementation, monitoring, data management, timely reporting.
- Periodic submission of timely progress reports, expenditure statements and utilization certificates.

2.3 MoHFW/ Department of Health

- Help in planning and implementation of NHM components in upgraded AYUSH HWCs.
- Support in conducting certificate courses, regular capacity building activities of HWC staff.
- Help in community mobilization for AYUSH services through ASHAs/ ANMs.
- Help in assessment of performance based incentives in overlapping catchment areas.
- Appropriate management of referrals.
- IT interface- sharing of technical know how and infrastructure.
- Data sharing/ help in data generation/ monitoring/evaluation.
- Any other areas based on the requirement in future, as per mutual agreement.

2.4 HWC Team

- Responsible for the activities at the local level within the identified catchment area of the HWC such as community out-reach for preventive/ promotive care, awareness generation/ screening/diagnostic camps/medicinal plant cultivation, inter-sectoral convergence, providing clinical service, documentation and timely reporting.
- Propose timely annual action plan and scheduling of activities.
- Placing timely proposals/indents for medicines, IEC materials and other requirements.

2.5 Referral Points

- Manage referred cases as per the need.
- Arrange for further referrals or consultation with specialists as per the need.
- Use of tele health whenever required.
- Refer back to HWC for follow up so that continuum of care is maintained.
- Propose upgradation plan including provision for AYUSH therapies wherever required.

2.6 Specific Roles of CHO

The AYUSH physician will be deployed by the State Government on regular or contractual basis, as per the specific requirement of the medical system. He/she would broadly be expected to carry out public health functions, ambulatory care, clinical management for health care needs and provide leadership and managerial functions at the HWCs. They would be responsible for the following:

- Ensure that all households in the service areas are listed, empanelled and a database is maintained in digital format/ paper format as required by the state.
- Provide clinical care as specified in the care pathways and standard treatment guidelines for the range of services expected of the HWC.
- He/she may take clinical decision and prescribe homoeopathic medicines as per the case requirement.
- Higher care through referral or facilitated through tele-health services.
- Focus attention in screening for chronic conditions. On screening, enabling confirmation of suspected cases and initiating treatment based on appropriate Standard treatment guidelines (STGs) or treatment plans made by specialists. As a team, ensure adherence, along with counselling and support as needed for primary and secondary prevention efforts.

- Coordinate and lead local response to diseases outbreaks, emergencies and disaster situations and support the medical team or joint investigation teams for epidemic identification and disease outbreaks.
- Support the team of MPWs and ASHAs on their tasks, including job mentoring, support and undertaking monitoring, management, reporting and administrative functions of the HWC such as inventory management, upkeep and maintenance, and management of untied funds.
- Support and supervise collection of population based data by frontline workers, collate and analyse data for planning and report data to the next level in an accurate and timely fashion. Use HWC and population data to understand key causes of mortality and morbidity in the community and work with the team to develop a local action plan with measurable targets, including a particular focus on vulnerable communities.
- Coordinate with community platforms such as the VHSNC/MAS/SHGs and work closely with PRI/ ULB, to address social determinants of health and promote behaviour change for improved health outcomes.
- Address issues of social and environmental determinants of health with extension workers of other departments related to gender based violence, education, safe potable water, sanitation, safe collection of refuse, proper disposal of waste water, indoor air pollution, and on specific environmental hazards such as fluorosis, silicosis, arsenic contamination, etc.
- Guide and be actively engaged in community health promotion including behavior change communication.

2.7 Additional Duties of ASHA/ANM and other community workers

The ASHAs, MPW and other community workers will be assigned following AYUSH specific activities, in addition to their routine NHM duties:

- To provide information on availability of AYUSH services in their vicinity.
- To ensure regular Yoga sessions in the community.
- Advocacy of AYUSH IEC campaigns- lifestyle, diet, behavioral codes.
- Cultivation of medicinal plants and herbs.
- Referral and follow up of patients under AYUSH care.

2.8 Additional Duties of multipurpose worker

- Coordinate and monitor community level AYUSH activities.
- At HWC he/she will help Homoeopathic physician (CHO) in providing clinical services including dispensing of medicines and record keeping.

2.9 Yoga Instructor

- Conduct minimum 32 Yoga sessions with minimum of one hour per session at HWC, schools and at community level each month as per the sessions scheduled by CHO (20 sessions at HWCs and remaining 12 sessions at outreach level).
- Out of 32 Yoga sessions, atleast 2 hours of IEC program to be conducted in the community in a month.

- Capacity building of ASHAs and ANM/MPW or any other volunteer in aspect of Yoga.
- Help CHO, ANM and ASHAs for conducting awareness campaigns.
- Help in documentation and reporting of activities related to Yoga component including monitoring of ASHA/ANM.
- Conduct at least two Yoga awareness campaigns in a year at community level.

2.10 Yoga Instructor (Female)

- To conduct 20 Yoga classes per month with minimum of one hour per session for female group wherever required, as per the sessions scheduled by CHO.
- Coordinate with the other Yoga Instructor for successful advocacy of yoga component in the community.

2.11 Additional duties of Safai Karmachari/ or any other house keeping staff

- Maintenance of herbal garden at HWC including watering, deweeding etc.
- Timely replacement of plants.

2.12 Roles of State & District Programme Management Units

- All managerial and administrative function of administrator.
- Compilation and reporting of data / information from District to State and from State to National level.
- Ensuring timely submission of monthly, quarterly and yearly progress report.
- Preparation / finalisation of yearly action plan for districts / State and submission to the national level.
- Other managerial and administrative work assigned by senior officer for smooth functioning.
- The staff will be responsible for overall coordination and linkages at all levels of implementation and service delivery.

3.1 Introduction

Homoeopathy can be defined as a dynamic and holistic system of medicine based on the law of Similars, potentially capable to cure diseases that are curable and relieve the symptoms of incurable diseases. It treats the diseases with remedies, prescribed in minute doses, which can produce symptoms similar to that disease when taken by healthy human being. It was founded by Dr. Samuel Hahnemann (1755–1843), a German physician in 1796. The key principle is *Similia Similibus Curentur*, which means let likes be cured by likes. Dr. Hahnemann being dissatisfied with the then prevalent methods of treating patients, started translating the medical books for a living. While he was translating a book by William Cullen, one of the leading physician of that time, he came across a point which ascribed the usefulness of Peruvian bark (Cinchona) in treating intermittent fever due to its bitter and astringent properties. Dr. Hahnemann was not satisfied with this explanation as there were so many other substances which were more bitter and astringent, but not effective in treating malaria. So he decided to experiment on himself and consumed several doses of Cinchona and found that it produced all the symptoms of malaria. He then concluded that the reason Peruvian bark was beneficial in malaria was because it can produce symptoms similar to malaria in a healthy person. This experimentation was published in 1796 as 'An Essay on a New Principle for Ascertaining the Curative Power of Medicinal Substances', which was followed in 1810 by his famous work, 'The Organon of the Healing Art'. Thus, if a patient was suffering from severe nausea, he will be given a medicine which in a healthy person would provoke mild nausea.

By a process, which he called 'proving', Dr. Hahnemann claimed to be able to compile a selection of prescribing indications for remedies for various disease conditions. Since Homoeopathy is a 'holistic medicine', for treating chronic diseases homoeopathic prescription needs a long consultation, in which all aspects of the patient's illness and life are discussed having a bearing on the illness.

3.2 Principles

The practitioners of health, over the ages, have developed an approach to health, disease and its treatment based on systematic observation and cumulative knowledge. The science has evolved through experimentation and deductive reasoning, whereas the art of medical practice has been dependent on the individual observation of physicians. The concept of the living body in health and disease went through a shift from the spiritualistic approach to the Cartesian mechanistic approach and to the concept of individualization and customization of treatment to suit individual constitutions. In this change the principles of Homoeopathy have become more relevant than ever before.

a) Law of Similars

Homoeopathy is based on 'Similia Similibus Curentur' (let likes be cured by likes) i. e., a set of symptoms produced by any substance on a healthy individual can cure similar symptoms in the sick. For example –the effect of peeling an onion brings watering and burning of eyes and nose. The patients suffering from common cold (a viral disease) having similar watering and burning sensation in the eyes and nose, can be treated by the medicine *Allium cepa*, prepared from red onions.

b) Drug Proving/Homœopathic pathogenetic trials

Experiments of drugs on healthy human beings known as Drug Proving/ Homoeopathic Pathogenetic Trial (HPT) assess the capacity of drugs to alter the state of health, is a unique contribution of Homoeopathy to the science of pharmacology. It is a process in which drug substances are put into trial and their pathogenetic effects are observed, noted and compiled as the first step to introduce the drug in the Homoeopathic Materia Medica. Homeopaths choose homeopathic medicines by comparing these remedy pictures with the symptoms the patient is presenting. Thus, recognition of these symptom sets underpins the clinical practice of homeopathy.

c) Minimum Dose

Homoeopathy is incontestably one of the safest healing therapies in the world today because of its use of the minimum dose. The doses used in the Homoeopathy range from those that are similar in concentration to some conventional medicines to very high dilutions, containing no detectable material of the starting substance. The minimum dose means that quantity of a medicine which, though the smallest in quantity, is sufficient to produce the necessary change in body. Though the quantity is minimum, it is appropriate, for a gentle remedial effect.

d) Potentization

Discovery and introduction of potentization of drugs revolutionized the medical practice in the 18th century. It enabled the application of inert substances as well as deadly poisonous and toxic substances as safe and effective remedial agents for the cure and also for experimental work on human beings. Potentization facilitated arousal of remedial action of the substance and mitigation of unwanted side effects and aggravations. The medicines are used as mother tincture (medicinal extract in suitable solvent) or as potency (by succussion or trituration). The dilution fraction of the potencies is on a decimal scale (1:10) or centesimal scale (1:100) or 50 millesimal scale (1:50,000). In Homoeopathic practice both lower dilutions (containing molecules of the starting material) and high dilutions (theoretically not containing any molecules of the starting material) are used.

3.3 Homoeopathic Management of Diseases

Homoeopathic management of diseases follows a holistic approach. A homoeopath, takes an overview of the patients, including their individual mind, body and spirit, life situation and other circumstances. This individualisation is central in evolving a curative approach to chronic diseases and to some extent acute diseases too. The holistic view uses the totality and the constitution of each patient to find a remedy that suits him/her, rather than just the disease. This

is a paradigm shift from the conventional model of treatment approach, i.e. how illness, health and treatment is viewed and approached.

a) Selection of Medicine

The medicine selected for each patient is tailored to person specific, taking into consideration his/her mental make-up, physical symptoms, and characteristic particulars etc. In case of long-term illness, besides the above mentioned factors, age, occupation, previous illnesses and life circumstance unique to that individual irrespective of the disease name which he/she is suffering from, are also taken into consideration; thus the dictum “Homoeopathy treats the patient but not the disease”.

b) Selection of potency

After the appropriate medicine is selected, it is essential to decide the requisite potency, dose and repetition which is imperative for optimum response and faster recovery in each case. Different types of potencies such as centesimal/ decimal/ 50 millesimal potencies can be employed for treatment of both acute and chronic diseases. However, selection of potency of the remedy is dependent on various factors like susceptibility of the patient (high or low), type of disease (acute/chronic), seat/ nature and intensity of the disease, stage and duration of the disease and also the previous treatment of the disease. In this context, given below are the basic rules as evolved through experience:

- The closer the similarity a remedy bears to the picture presented by the patient, the higher is the potency, provided no specific contra-indications to the use of high potencies exist in the case.
- A prescription that is predominantly determined by the mental symptoms in a case, gives best results when higher potencies are employed.
- When prescribing for advanced pathological conditions, it is advised to begin the treatment of the case with a remedy in lower potency.

c) Repetition of the remedy

The repetition of the remedy in regard to potency and dosage is almost as important as the selection of the remedy itself. The selection of the remedy can hardly be said to be finished until the potency and dosage have been decided upon.

Centesimal scale

- Low potencies may be repeated frequently whereas high potencies are not to be frequently repeated.
- In acute diseases, the medicine may be repeated at very short intervals of every 24, 12, 8, 4 hours or even every 5 minutes.
- In chronic cases, the medicine may be repeated at the interval of 14, 12, 10, 8 or 7 days but it has to be kept in mind Kent’s direction given in the chapter “Second Prescription” “ Wait a long time , when patient come to stand still..... the return of original symptom is observed then you have some guide to the administration to the remedy”.
- In chronic diseases resembling cases of acute diseases, the repetition may be made at still shorter intervals. In these cases, either repeated doses of a low potency of the remedy are given till the patient is cured or a single dose of high potency is administered followed by placebo till recovery ensues.

LM scale

- In acute diseases- every 2, 3, 4, 6 hours
- In very urgent cases- every hour or oftener
- In long lasting diseases the medicine may be repeated daily or every second day or at longer intervals.

d) Remedy response

After the administration of the similimum, some results are expected. Further prescription largely depends on the response of the patient to the remedy and proper interpretation of the remedy response.

1. Aggravation

There are two types of aggravation, either of which may manifest. The first relates to an aggravation of the disease condition, in which the patient becomes worse. Another type of aggravation is where the symptoms of the patient are slightly worse, but the patient feels better. Aggravation of symptoms may manifest in the following manner after the administration of a medicine:

1.1 The aggravation is quick, short and strong with rapid improvement of the patient

Interpretation: The response of the patient is satisfactory. There is not much tissue change, or is very superficial, if any. The potency was a bit higher. The medicine was most similar one. An aggravation of this kind is very much reassuring

Prognosis: Very good

Follow-up action: No medication required, till improvement continues

1.2 Long aggravation but final and slow improvement

Interpretation: After a prolonged aggravation, the patient improves slowly. This indicates the beginning of definite structural change in some organs but the disease has not progressed quite so far. The medicine was right but the potency was high. Though there have been enough tissue changes but the medicine would act for a very long time. The patient was on the borderline and had the disease condition gone further, cure would have been impossible.

Prognosis: Favorable

Follow-up action: Wait till the action of the medicine has exhausted.

1.3 A prolonged aggravation

Interpretation: The case is incurable since there have been enough irreversible tissue changes in the patient. The medicine prescribed may or may not have been a correct one but the potency was very high. The medicine was deep acting in nature, therefore, instead of helping it has established destruction.

Prognosis: Bad

Follow up action: It necessitates immediate anti-doting. After re-case taking a more similar medicine in low potency is to be given. Deep acting medicine and high potency should not be used in chronic and doubtful cases especially where tissue-change may have occurred.

1.4 Some patients prove every remedy they get

Interpretation: Some patients are hypersensitive and have a tendency to be affected by everything, i.e., they are idiosyncratic. These patients go on to prove every medicine they take and while under the influence of that medicine they are not under the influence of anything else. The medicine has its prodromal period, its period of progress and its period of decline.

Follow up action: These hypersensitive patients should be given medicine in the potencies preferably 30 or 200 both in lower potencies in acute and chronic conditions (if they have taken higher potencies) and in infrequent doses.

2. Amelioration

When the symptoms are ameliorated, the physician has to observe the pattern in greater detail and note especially the sequence of events, the duration, etc. which will enable the physician to judge whether the amelioration is long lasting or due to the palliation.

2.1 Disappearance of symptoms/no aggravation with recovery of the patient.

- Interpretation: The medicine was the most similar one and the potency exactly fitted the case. There was no organic disease or any tendency towards organic change. The trouble was only a functional disorder. This is an example of highest order of cure, mostly in acute disease conditions.
- Prognosis: Very good
- Follow up action: Wait and watch. Assessment to be done as per the nature of the disease. This case may not require further repetition of medicine.

2.2 The amelioration comes first and the aggravation comes afterwards

- Interpretation: The medicine was palliative in nature, or it was only partially/ superficially similar or the patient was incurable and the remedy was somewhat suitable. In-depth assessment may show that in majority of the cases the remedy was only similar to the most grievous symptoms and did not cover the whole case.
- Prognosis: Bad
- Follow up action: A more similar medicine is to be given after re-case taking.

2.3 Too short relief of the symptoms

Interpretation:

A) In acute diseases:

High grade inflammatory action is present that organs are threatened by the rapid processes going on. The infection is violent/ virulent in nature.

B) In chronic disease:

1. The medicine was partially similar, or
2. There is a condition which interferes with the action of the remedy, or
3. Structural changes have occurred, or organs are destroyed or are in very precarious condition.

Prognosis: Not good (especially in chronic diseases)

Follow up action: Medicine complementary to the first prescription should be prescribed in acute conditions.

A more similar medicine is to be found out and given in a chronic condition or if the patient is incurable and the subsequent medicine should be of palliative nature.

2.4 A full time amelioration of the symptoms, yet no special relief of the patient

Interpretation: There are latent conditions (existing organic conditions) in a few patients that prevent improvement beyond a certain limit. Hence the patient is curable only to a certain limit. Suitable palliation has been brought about by the homoeopathic remedies.

Prognosis: Not good

Follow up action: Palliative medicine may be prescribed.

3. No Change / Status Quo

Interpretation: when no change is observed in the symptomatology of a patient, even after waiting for an adequate period of time and a careful re-evaluation reveals no error in the previously administered remedy, the inference may be drawn that the number of doses administered or the potency selected is not correct.

Prognosis: Cannot be predicted definitely unless right remedy with proper dosage is administered

Follow up action: Intercurrent medicine may be prescribed.

4. Change of Symptoms

4.1 New symptoms appearing after the remedy

Interpretation: The medicine prescribed is not a similimum. Greater number of such symptoms indicates towards selection of a dissimilar medicine.

Prognosis: Unfavourable

Follow up action: If the symptoms are not of serious nature we should wait till the new symptoms pass off and the patient settles down to original state. After re-case taking a more similar medicine is to be given. If the symptoms are of serious nature and threatening it has to be antidoted.

4.2 Old symptoms are observed to reappear

Interpretation: The medicine is correct. Appearance of old symptoms indicates that the patient is curable.

Prognosis: Good.

Follow up action: The action of the medicine should not be disturbed. Only if the reestablished symptom/discharge/eruption stays for pretty long time, the medicine may be repeated. Here old symptom/diseases may come and go in the reverse order of their appearance (Following Hering's Law of Cure).

4.3 Symptoms take the wrong direction

Interpretation: When the symptoms go from periphery to the centre, the remedy administered was a wrong one.

Prognosis: Very bad.

Follow up action: It has to be antidoted at once. A more similar remedy has to be found out and given.

In spite of best efforts in any disease condition, if a favorable response to the treatment is not achieved, it is advised to refer the case as per the guidelines given in STGs for individual disease.

Advantages of Homoeopathy

- Treatment with homoeopathic medicines is safe, effective and based upon use of natural substances. With the use of single simple substance in micro-doses, medicines are not associated with any toxicological effect and can be safely used for pregnant women and lactating mothers, infants and children and in the geriatric population.
- Medicines, instead of having a direct action on the micro-organisms, act on the human system (self-protective) to fight disease process. The mode of administration of medicines is easy. There are no invasive methods and medicines are highly palatable, thereby enhancing treatment compliance.
- Lack of diagnosis is not a hindrance for initiating treatment with homoeopathic medicines.
- Individualized approach for treatment which is the mainstay in Homoeopathy is in consonance with increasing need for customized treatment, being realized in the modern era.
- Homoeopathic remedies are non-addictive and once relief occurs, the patient can easily stop taking them.
- Treatment is comparatively more cost-effective than other therapeutic systems.

PREVENTIVE CARE AND HOMOEOPATHIC DIETETICS

4.1 Section 1: Preventive care

Preventive medicine is one of the major components of medical practice that focuses on the health of individuals, communities, and defined populations. Its goal is to protect, promote, and maintain health and well-being and to prevent disease and disability.

4.1.1 Concept of healthy lifestyle

Healthy lifestyles like adequate sleep, good nutrition, regular exercise, protection at vulnerable times, efficient working environments etc can promote health. But more often than not, in the current scenario of disintegrating familial structures, technological advancements, globalisation, consumerism, substance abuse, competitive working styles etc., they give rise to/ maintain a plethora of illnesses.

The main factors contributing to lifestyle diseases include bad food habits (high in, fat, carbohydrates, less in fibres etc.), substance abuse (ranging from salt, sugar to smoking, alcohol, narcotic substances etc.) physical inactivity, wrong body posture and disturbed biological clock or biorhythm. In a country like India, where traditional lifestyles still persist, risk of illnesses and death are connected with lack of sanitation (hence ever-increasing burden of infectious diseases), poor nutrition, poor personal hygiene (hence poor maternal and peri-natal conditions), elementary human habits, customs and cultural patterns.

Adoption of a healthy lifestyle with a proper balanced diet, regular physical activity and paying due respect to biological clock is required to prevent or overcome these diseases.

There are three levels of prevention

- Improving the overall health of the population (Primordial prevention & primary prevention)
- Early detection of disease and prevention from getting it worse (Secondary prevention)
- Improving quality of life by reducing disability, limiting or delaying complications (Tertiary prevention).

Health Education can be applied at all the three levels of disease prevention and can be of great help in maximizing the gains from preventive care. For Example :

- At the primary prevention level – you could educate people to practice some of the preventive behaviors, such as having a balanced diet so that they can protect themselves from developing diseases in the future.

- At the secondary level, you could educate people that visit their local health center when they experience symptoms of illness, such as fever, so they can get early treatment for their health problems.
- At the tertiary level, you could educate people to take their medicines properly so that the disease will be under control and complications can be prevented or delayed and can also find ways of working towards rehabilitation from significant illness or disability.

4.1.2 Primordial prevention

This is the primary prevention in its purest sense, that is prevention of emergence or development of risk factors in countries or population groups in which they have not yet appeared. This prevention targets people to prevent them from adopting a harmful lifestyle through individual and mass education.

Medicinal intervention for primordial prevention is possible in Homoeopathy as mentioned by Dr. Hahnemann. Pregnant women or even lactating mothers can be given appropriate anti Psoric medicines to produce healthy offsprings devoid of risk factors for developing diseases later on in life.

“The power of medicines acting upon the infant through the milk of the mother or wet nurse is wonderfully helpful..... But the case of mothers in their (first) pregnancy by means of a mild antipsoric treatment, especially with sulphur dynamizations prepared according to the directions in this edition (§ 270), is indispensable in order to destroy the psora – that producer of most chronic diseases – which is given them hereditarily; destroy it both within themselves and in the foetus, thereby protecting posterity in advance.”

4.1.3 Primary Prevention

Primary prevention is defined as “Action taken prior to the onset of disease, which removes the possibility that a disease will ever occur.” It signifies intervention in the pre-pathogenetic phase of a disease or health problem (e.g. low birth weight) or other deviation from health. It includes the concept of “positive health” It concerns an individual’s attitude towards life and health and the initiative he/she takes about positive and responsible measures for him/her own self, his/her family and community. Primary prevention is a holistic approach. It utilizes knowledge of the pre pathogenesis phase of disease, embracing the agent, host and environment and focuses on holistic approach.

Primary prevention can be achieved through:

1. Health promotion
2. Specific protection

Health promotion includes recognising the exciting and maintaining causes of various disease conditions and taking preventive measures accordingly. It gives importance on health education, environmental modification (safe water& food, sanitation, control of vectors, protection against occupational hazards, basic hygiene), nutritional intervention programmes and lifestyle and behavioural changes. Here the physician and in fact each health worker acts more as an educator than a therapist.

Specific protection is achieved through immunisation (according to the National Immunization Schedule adopted by the Government of India), protection against environmental toxins, occupational hazards, carcinogens, food adulteration etc. Specific protection with homoeopathic medicinal prophylaxis is achieved by the means of *Genus epidemicus* (medicine or group of medicines) identified on the basis of common symptoms as well as uncommon or peculiar symptoms presented by a significant number of patients during an epidemic), constitutional medicine given in early childhood, and nosodes prepared from the strains of microorganisms responsible for the prevailing epidemics

4.1.4 Secondary Prevention

Secondary prevention is defined as an “action which halts the progress of a disease at its incipient stage and prevents complications”. Specific interventions are early diagnosis (e.g. screening tests, case finding programmes), and adequate treatment. This arrests further disease progression, restores health by seeking out unrecognized disease, treating it before irreversible pathological changes have taken place and reverse communicability of infectious diseases.

Secondary prevention through homoeopathic treatment is achieved by the means of: *Genus epidemicus* is applicable for prevention as well as cure of epidemic diseases. Homoeopathic constitutional treatment prevents miasmatic disease conditions in latent state from flaring up and when given to patients with various diseases still in their functional state, they can prevent pathological complications from developing.

4.1.5 Tertiary Prevention

It signifies intervention in the late pathogenesis phase. “All measures available to reduce or limit impairments and disabilities, minimise suffering and to promote the patient’s adjustment to irremediable conditions”. If treatment is undertaken late in the natural history of the disease, it can prevent the sequelae and limit disability. When defect and disability are more or less stabilized, rehabilitation may play a preventing role.

4.1.6 Excerpts of Hahnemann towards preventive health

In the Organon of Medicine under different sections (aphorisms) role and responsibility of physician has been described, which every physician should follow for management and treatment of patients. The excerpts of some aphorisms are given below to recapitulate in the light of above modern social and preventive medicine.

Aphorism	Excerpt
§3	To perceive what is to be cured in diseases, knowledge of medicines indicated, dose of the medicine, the obstacles to recovery in each case and is aware how to remove them as to be a true practitioner of the healing art.
§4	If he knows the things that derange health and cause disease, and how to remove them from persons in health, he is preserver of health.
§5	In order to assist a physician to cure in a patient, it is important to ascertain the most probable exciting cause of the acute disease fundamental cause, which is generally due to a chronic miasm. Other factors such as physical constitution of the patient (especially when the disease is chronic), his moral and intellectual character, his occupation, mode of living and habits, his social and domestic relations, his age, sexual function are to be considered too.

Aphorism	Excerpt
§ 7	The aphorism states about the removal of the exciting or maintaining cause (<i>causa occasionalis</i>) and chalking out the totality of symptoms. The totality of the symptoms must be the principal, indeed the only thing the physician has to take note of in every case of disease and to remove by means of his art, in order that it shall be cured and transformed into health.
Foot Note 1 to § 7	An intelligent physician will also focus on removal of the indisposition, such as: Strong-smelling substances, which have a tendency to cause syncope and hysterical sufferings, are needed to be removed from the room. Extract from the cornea the foreign body that excites inflammation of the eye.
§ 77	<ul style="list-style-type: none"> • Diseases are inappropriately named chronic which persons incur who expose themselves continually to avoidable noxious influences, the habit of indulging in injurious liquors or aliments. • Dissipation of many kinds which undermine the health undergo prolonged abstinence from things that are necessary for the support of life reside in unhealthy localities, especially marshy districts, who are housed in cellars or other confined dwellings. Are deprived of exercise or of open air ruin their health by over-exertion of body or mind, live in a constant state of worry etc. • These states of ill-health, which persons bring upon themselves, disappear spontaneously, provided no chronic miasm lurks in the body, under an improved mode of living, and they cannot be called chronic diseases.
§ 94	While inquiring into the state of chronic disease, the particular circumstances of the patient with regard to his ordinary occupations, his usual mode of living and diet, his domestic situation, and so forth, must be well considered and scrutinized, to ascertain what there is in them that may tend to produce or to maintain disease, in order that by their removal the recovery may be prompted.
§ 208	<ul style="list-style-type: none"> • The age of the patient, his mode of living and diet, his occupation, his domestic position, his social relation and so forth, must next be taken into consideration, in order to ascertain whether these things have tended to increase his malady, or in how far they may favor or hinder the treatment. • In like manner the state of his disposition and mind must be attended to, to learn whether that presents any obstacles to the treatment or requires to be directed encouraged or modified.
Foot Note to § 260	<ul style="list-style-type: none"> • The examples of the obstacles to recovery in form of the noxious influences and other disease-causing errors in the diet and regimen are as under: • Coffee; fine herbal teas; beer prepared with medicinal vegetable substances unsuitable for the patient's state. • Dishes of herbs, roots and stalks of plants possessing medicinal qualities. • Old cheese, and meats that are in a state of decomposition, or that possess medicinal properties. • Use of sugar and salt, as also spirituous drinks, undiluted with water. • Heated rooms, woollen clothing next the skin. • Sedentary life in close apartments, or the frequent indulgence in mere passive exercise (such as riding, driving or swinging). • Prolonged suckling, taking a long siesta in a recumbent posture in bed, sitting up long at night. • Uncleanliness, unnatural debauchery, enervation by reading obscene books, reading while lying down, Onanism or imperfect or suppressed intercourse in order to prevent conception, subjects of anger, grief, or vexation. • A passion for play, over-exertion of mind or body, especially after meals, dwelling in marshy districts, damp rooms, penurious living, etc.
§ 261	The most appropriate regimen during the employment of medicine in chronic diseases consists in the removal of such obstacles to recovery, and in supplying where necessary the reverse: innocent moral and intellectual recreation, active exercise in the open air in almost all kinds of weather (daily walks, slight manual labor), suitable, nutritious, unmedicinal food and drink, etc.

4.2 Section 2: Homoeopathy, Diet and Regimen

4.2.1 Introduction

In Homoeopathy, significant importance is given to diet and regimen in maintenance of health and over all well being of a person. The homoeopathic physician advises a purely nutritious, simple and balanced diet to the patient which includes green vegetables, fruits, salad, herbs etc. depending upon age, gender, lifestyle and the diseased condition. Master Hahnemann also advised about the disease-causing errors in the diet and regimen after careful observation of the case along with dietary restrictions during homeopathic treatment of chronic diseases.

“In Homoeopathic literature diet has hitherto been considered solely as among the causes of disease and as presenting antidotes to medicine”.

On the other side the master also said that if the constitution becomes used to many things over a long period of time and if they are not maintaining the disease or antidoting the remedies then there was no reason to remove them at all.

It is recommended that good health can be maintained and can also be restored by careful adoption of diet and regimen. There are certain diseases that arise due to poorly/ incorrectly cooked food, poor quality of food, food poor in nutrition and adulteration. The digestibility of food and its subsequent assimilation depend, as we know, as much upon the mode of its preparation as upon the condition of the person who eats it. Some of the yes and no regarding diet is as follows:

Yes's	No's
<ul style="list-style-type: none">• Drink plenty of water• Take regular nutritious meal• Well cooked food• Fresh fruits, seasonal fruits be consumed more• Green vegetables to be consumed more	<ul style="list-style-type: none">• Smoking, Chewing tobacco• Alcohol, drugs including narcotics• High-fat foods, fried or greasy food, highly seasoned or spiced food• Beverages containing caffeine• High sodium/ salt• High sugar/ chemical sugar /refined sugar substitutes• Processed food items

4.2.2 Disease specific diet

Homoeopathic physician along with prescribing the indicated medicine also guides about the dietary recommendations and prohibitions based on the type of disease and individual constitution. Homoeopathy offers what the modern dieticians are focusing on such as nutritional genomics.

An improper diet hinders, obstructs, and even stops action of selected remedy. Dr. Kent opines that there cannot be a common list of food restrictions for all patients under constitutional treatment. He advised that patients need to be cautioned about certain food items which are known to disagree with the constitutional medicine which has been prescribed.

- In acute diseases it is advised that the patient's diet and surroundings may be arranged according to the patient's desires as they usually crave for things that usually have a

palliative effect on the body, and usually have an aversion to things that are harmful to the vitality and the body during the course of the acute disease.

- In chronic Diseases, regarding mode of living or regimen - odorous water, perfumes, strong scented flowers, tooth powders, heated rooms, sedentary life in closed apartments, sitting up long at night, reading while lying down, living in marshy districts and damp areas should be controlled. Restrictions of the mind - anger, grief, vexation, emotional stress, overexertion of mind and body after meal should be avoided. Hahnemann states that the appropriate regimen in treatment of chronic disease should include innocent moral & intellectual recreations, active exercise in the open air, nutritious unmedicinal food & drinks.

Although, the Organon of Medicine, in aphorisms 259-263, includes instructions on different types of recommended and forbidden food items in diet with respect to acute and chronic diseases, it is the homeopathic physician's discretion to incorporate them in their practice as per the individual patients need and disease state.

4.2.3 Common nutritional problems

Energy Malnutrition (PEM), micronutrient deficiencies such as vitamin and mineral deficiencies including vitamin A deficiency (VAD), Iron Deficiency Anemia (IDA), Iodine Deficiency Disorders (IDD) and vitamin B-complex deficiencies are common nutritional problems frequently encountered, particularly among the rural poor and urban slum communities.

Dietary guidelines as recommended by the National Institute of Nutrition (<https://www.nin.res.in/NICE.html>):

- Eat variety of foods to ensure a balanced diet.
- Ensure provision of extra food and healthcare to pregnant and lactating women.
- Promote exclusive breast feeding for newborn till six months of age and encourage breastfeeding till two years or as long as one can.
- Feed home based semi solid foods to the infant after six months.
- Ensure adequate and appropriate diets for children and adolescents, both in health and sickness.
- Eat plenty of vegetables and fruits.
- Ensure moderate use of edible oils and animal foods and minimal use of ghee/ butter/ vanaspati.
- Avoid overeating to prevent overweight and obesity.
- Exercise regularly and be physically active to maintain ideal body weight.
- Restrict salt intake to minimum.
- Ensure use of safe and clean foods.
- Adopt right pre-cooking processes and appropriate cooking methods.
- Drink plenty of water and take beverages in moderation.



Image source: Dietary Guidelines for Indians- A Manual. National Institute of Nutrition

- Minimize the use of processed foods rich in salt, sugar and fats.
- Include micronutrient-rich foods in the diets of elderly people to enable them to be fit and active.

Homoeopathic philosophy advocates removal of maintaining causes of disease by correction of unhealthy dietary habits and intake of nutritious diet. It is believed that if, functional disease states and nutritional deficiencies exist even after removal of the maintaining causes then, the underlying miasmatic dyscrasia must be corrected through homoeopathic treatment. Homoeopathic materia medica includes several medicines that are indicated in conditions arising due to improper diet and regimen. Depending on the presenting sign and symptoms these can be prescribed by the homoeopathic physician.

Intervention at HWC

Clinical Condition due to nutrient deficiency or cause of nutrient deficiency	Specific dietary advice	Commonly indicated homoeopathic medicine	
		Medicines	Indications
Anaemia <ul style="list-style-type: none"> • Due to presence of co-morbidities (chronic infections), • Inadequate diet (poor intake of iron rich diet, monotonous cereal based diet which is low in iron and containing high levels of absorption inhibitors), • Gastro intestinal malabsorption (celiac disease, Crohn disease, Giardiasis etc.) 	<ul style="list-style-type: none"> • Eat diet rich in green leafy vegetables, legumes and dry fruits, meat, fish and poultry products. • Eat Vitamin C - rich fruits like gooseberries (<i>Amla</i>), guava and citrus to improve iron absorption from plant foods. • Beverages like tea should be avoided before during or soon after a meal as it binds dietary iron and make it unavailable. • Cook in iron pots and pan. 	Calcarea phosphorica	<ul style="list-style-type: none"> • Anaemic children who are peevish, flabby, have cold extremities and feeble digestion.
		Ferrum phosphoricum	<ul style="list-style-type: none"> • Pale anaemic patient with violent local congestion. • Night sweats due to anemia. • Easy flushing of face and marked prostration; pulse quick, soft and full; drowsiness and restless.
		Ferrum metallicum	<ul style="list-style-type: none"> • Best adapted to young weakly persons, anaemic and chlorotic, with pseudo-plethora, who flush easily. • Pallor of skin, mucous membranes, face, alternating with flushes. • Vomiting immediately after eating; after midnight. • Palpitation; worse, movement. Anaemic murmur. Pulse full, but soft and yielding; also, small and weak. • Any rapid motion aggravates the complaints. • Irritability; slightest noise like crackling of paper drive him to despair.
		Cinchona officinalis	<ul style="list-style-type: none"> • Gradually progressive anaemia. • Face pale, hippocratic; eyes sunken and surrounded by blue margins. • Weakness. Pulsating headache with throbbing of carotids and flushing of face; worse from slightest jar, motion; better by tight bandage.
		Natrum muriaticum	<ul style="list-style-type: none"> • Anaemic headache, from sunrise to sunset with pale face, nausea and vomiting. • Dyspnea while ascending stairs or from physical exertion. • Maximum weakness is felt in the morning, in bed. Tachycardia; Palpitation.

Clinical Condition due to nutrient deficiency or cause of nutrient deficiency	Specific dietary advice	Commonly indicated homoeopathic medicine	
		Medicines	Indications
Dyspepsia/ Indigestion	<ul style="list-style-type: none"> • Consume your last meal at least two hours before sleeping • Eat more fruits and vegetables. • Eat small, regular meals. • Chew food thoroughly. • Avoid fried, fatty Spicy and packaged food. • Regular exercise and meditation. • Restrict sugary items. 	Antimonium crudum	<ul style="list-style-type: none"> • Indigestion from overeating, taking bread, sour things especially vinegar. Constant belching with the taste of food eaten. Associated with thick white coated tongue.
		Carbo vegetabilis	<ul style="list-style-type: none"> • Gastric upset with heartburn, flatulence, distension of upper abdomen better by belching, no relief by passing flatus which is offensive.
		Cinchona officinalis	<ul style="list-style-type: none"> • Indigestion from taking fruits, vegetables. Whole abdomen distended, not relieved from belching and passing flatus.
		Nux vomica	<ul style="list-style-type: none"> • Indigestion from overeating, highly spicy food, or irregular dietary habit. • Nausea after eating, in morning, better from induced vomiting; constipation with frequent desire for stool but passing small quantity of stool at a time; unsatisfactory feeling after each stool.
		Pulsatilla nigricans	<ul style="list-style-type: none"> • Especially useful in cases who suffer after taking fatty, oily foods. • Complete loss of appetite and thirstless, with dry tongue and bitter taste in mouth.

Clinical Condition due to nutrient deficiency or cause of nutrient deficiency	Specific dietary advice	Commonly indicated homoeopathic medicine	
		Medicines	Indications
<p>Diarrhoea</p> <p>Due to</p> <ul style="list-style-type: none"> • Dentition troubles • Lactose intolerance • Food poisoning due to contaminated food and water • Celiac disease or Crohn's disease 	<ul style="list-style-type: none"> • Give soup, rice water, fresh fruit juices, and coconut water. • Give boiled and filtered water. • Wash your hands thoroughly with soap and warm water after going to the toilet and before eating or preparing food. • Give oral rehydration salts (ORS) mixed with the proper amount of filtered and boiled water. • Avoid solid spicy fatty food. • Symptoms of dehydration must be observed 	Aloe socotrina	<ul style="list-style-type: none"> • Sense of insecurity in rectum, when passing flatus; uncertain whether gas or stool will come; stool passes without effort, almost unnoticed. • Lumpy, watery jelly like stool. • A lot of mucus is passed after stool with pain.
		Arsenicum album	<ul style="list-style-type: none"> • Diarrhoea from taking spoiled meat; after eating and drinking; stool scanty and offensive. • Increased thirst for small quantity of water frequently. Associated with profound weakness.
		Cinchona officinalis	<ul style="list-style-type: none"> • Night diarrhoea containing undigested food particles with great weakness. • Diarrhoea from fruits.
		Calcareo phosphorica	<ul style="list-style-type: none"> • Complaints during teething. • Diarrhoea from juicy fruits or cider; during dentition. • Green, slimy, hot, sputtering, undigested, with foetid flatus.
		Natrum phosphoricum	<ul style="list-style-type: none"> • Sour eructations, sour vomiting, greenish diarrhoea. • Spits mouthful of food. • Ailments with excess of acidity.
		Podophyllum peltatum	<ul style="list-style-type: none"> • Diarrhoea in hot weather after acid fruits; during teething. • Stool offensive, painless, profuse, gushing, sometimes with prolapse of rectum, worse in morning.

Clinical Condition due to nutrient deficiency or cause of nutrient deficiency	Specific dietary advice	Commonly indicated homoeopathic medicine	
		Medicines	Indications
General Debility Due to <ul style="list-style-type: none"> • Deficiency disorders like Anaemia, • Eating disorders like Anorexia nervosa, • Chronic diseases • Infections (Bacterial, viral, parasitic) 	<ul style="list-style-type: none"> • Eat variety of foods to ensure a balanced diet. • Eat diet rich in cereals, millets, pulses, Milk, Oils, nuts, eggs, flesh foods, fish, vegetables and fruits. 	Avena sativa	<ul style="list-style-type: none"> • Works as tonic for debility after exhausting diseases.
		Ferrum phosphoricum	<ul style="list-style-type: none"> • Great physical and mental lassitude; patient is indisposed to physical exertion. • Poor appetite, with attacks of sickness. • Emaciation with aversion to meat and milk. • Patient is sensitive to touch and every jar.
		Natrum muriaticum	<ul style="list-style-type: none"> • Emaciation, weakness, nervous prostration, and nervous irritability. • Great debility with most weakness felt in the morning in bed. • For the bad effects: of anger (caused by offence); acid food, bread, quinine, excessive use of salt; to grief, fright, vexation, mortification or reserved displeasure.
		Phosphoricum acidum	<ul style="list-style-type: none"> • Best suited to persons of originally strong constitutions, who have become debilitated by loss of vital fluids, sexual excesses, violent acute diseases; chagrin, or a long succession of moral emotions, as grief, care, disappointed affection. • Debility is very marked in this remedy, producing a nervous exhaustion. • Mental debility first; later physical.

Clinical Condition due to nutrient deficiency or cause of nutrient deficiency	Specific dietary advice	Commonly indicated homoeopathic medicine	
		Medicines	Indications
<p>Marasmus</p> <p>Due to</p> <ul style="list-style-type: none"> • Protein-energy malnutrition (PEM) • Insufficient food intake, often associated with infectious or parasitic diseases or due to other conditions that interfere with the absorption or assimilation of nutrients 	<ul style="list-style-type: none"> • Eat Animal foods like milk, meat, fish and eggs and plant foods such as pulses and legumes. • Eat cereals, millets. • Also include Oils, nuts, vegetables, fruits to the diet. 	Abrotanum	<ul style="list-style-type: none"> • Wasting of lower extremities. Abrotanum has an intense indigestion and morbid appetite. • Indigestion, with vomiting of large quantities of offensive fluid. • Distended abdomen. Food passes undigested.
		Aceticum acidum	<ul style="list-style-type: none"> • It is suited for marasmus and other wasting diseases of children. • There are frequent watery stools, worse in morning.
		Natrum muriaticum	<ul style="list-style-type: none"> • Great emaciation; losing flesh while living well; throat and neck of child emaciate rapidly during summer complaint. • Children slow in learning to walk. • Skin looks dry, withered, shrunken. Infant looks like a little old man.
		Silicea terra	<ul style="list-style-type: none"> • Rachitic children • Constitutions which suffer from deficient nutrition, not because food is lacking in quality or in quantity, but from imperfect assimilation. • Oversensitive, physically and mentally. Scrofulous, rachitic children with large heads; open fontanelles and sutures; much sweating about the head. • Distended abdomen; weak ankles; slow in learning to walk. • Great weariness and Nervous debility; wants to lie down. • Chilly patient, tendency to suppuration.
		Tuberculinum	<ul style="list-style-type: none"> • Strong family history of tuberculosis, ever changing symptoms, takes cold easily without knowing how or where. • Emaciation rapid and pronounced. • Losing flesh while eating well, sudden diarrhoea.
		Iodium	<ul style="list-style-type: none"> • Scrofulous diathesis • With profound debility and great emaciation. • Eats freely yet loses flesh, all the time.

Clinical Condition due to nutrient deficiency or cause of nutrient deficiency	Specific dietary advice	Commonly indicated homoeopathic medicine	
		Medicines	Indications
Undernutrition <ul style="list-style-type: none"> • Failure to grow (Stunting, wasting, underweight) • Delayed development milestones • Cognitive delays and impairment in children 	<ul style="list-style-type: none"> • Balanced diet • Diet consisting of foods from several food group such as cereals, millets, pulses, Milk, Oils, nuts, eggs, flesh foods, fish, vegetables and fruits. 	Alfa alfa	<ul style="list-style-type: none"> • Influences nutrition, toning up the appetite and digestion resulting in greatly improved mental and physical vigor, with gain in weight. • Disorders characterized by malnutrition are mainly within its therapeutic range, • Impaired appetite, resulting to bulimia.
		Calcarea phosphorica	<ul style="list-style-type: none"> • Defective nutrition, whether of childhood, puberty, or of old age.

PRECONCEPTIONAL, ANTENATAL AND POST NATAL CARE

Section 1 Pre-conceptual Care

Section 2 Ante-natal Care

Section 3 Post -natal Care

Mother and child, constituting a major proportion of the population are a vulnerable group. Improving their health status requires long term planning and regular intervention. Presently the AYUSH HWCs do not have facilities for delivery and therefore the pregnant women should immediately be referred to concerned facility for anti-natal care and delivery. Concurrency homoeopathic medicines may be provided if required.

Dr. Samuel Hahnemann in his book on “Chronic Diseases” clearly says *“Pregnancy in all its stages offers so little obstruction to the anti-psoric treatment, that this treatment is often necessary and useful in that condition. In this state of woman, which is quite a natural one, the symptoms of the Internal Psora are often manifested most plainly on account of the increased sensitiveness of the female body and spirit while in this state; the anti-psoric medicine, therefore, acts more definitely and perceptibly during pregnancy, which gives the hint to the physician to make the doses in these cases in small and in as highly potentized attenuations as possible, and to make his selections in the most Homoeopathic manner”*.

5.1 Section 1: Pre-conceptual care

Preconception care is aimed at identifying and modifying biomedical, behavioural and social risks through preventional and management interventions for women and couples before conception. Its ultimate aim is to improve maternal and child health, both at short term and for long term. Pre-conceptual care is advocated for the couples willing to have a child. Preconceptional care includes the assessment of a couple to be declared as eligible to have a child. The following assessments are necessary:

5.1.1 Health assessment of the couple

- Before planning of conception, detailed history of the willing couple including general, personal, occupational history, menstrual history, coital and contraceptive history, obstetric, previous medical history as well as family history should be taken.
- Assessing the possible risk factors through past illnesses, treatment history and current medications, any addictions like smoking, alcohol intake, and narcotics is necessary.
- Couple are examined in detail thereafter to identify any pathology.

- During screening if any of the couple gives history of chronic systemic illness like Diabetes mellitus, Hypertension, Renal disease, Coagulopathy, Hepatic disorders, Endocrinal disorders (hyper and hypothyroidism), Sexually Transmitted Infections (STIs), in either partner or a history of multiple abortions, previous children with birth defects, etc., the couple should be referred to specialists for pre-conceptions and post conceptional care.

5.1.2 Counselling of Eligible Couple

- The overall history of the couple including general, personal, occupational, menstrual, coital, contraceptive to be taken and appropriate measures to be suggested.
- Creating awareness in the couple regarding fertility, infertility issues and their preventable and unpreventable causes.
- If the woman experienced previous miscarriages, then the family history and that of the parents is to be taken in detail and as per homoeopathic principles, a judicious anti-psoric treatment can be given before pregnancy to prevent miscarriages.
- Dietary advice to be given with due consideration to the socio-economic condition, food habits and taste of the individual.
- Educating the couple about the substance misuse and their harmful effects on pregnancy and the childbirth.
- Educating the couple on the common and safe family planning procedures as safe sex practices and efficient birth control measures.
- Preparing the couple for parenthood responsibilities by counselling considering their psycho-social environments.
- Minimizing stress and anxiety through practice of yogasana, pranayama, meditation, social service, music, etc. are desirable.
- Special wholesome diet, especially for woman with the nutritional care needs to be taken into consideration. Excessive physical and mental stress may be avoided or reduced during this period.
- Comfortable and pleasant environment, positive emotions during coitus will result into successful conception.

5.1.3 Homoeopathic intervention in reproductive health care

- For the improvement of general health and vitality, indicated homoeopathic medications may be required (selection basing on their indication by the directions). Outlined below are the different levels of reproductive care and conditions with suggestive homoeopathic medicine and their indications which the physician can prescribe as per the homoeopathic principles.

Few homoeopathic medicines in specific diseases related to reproductive health care are suggested below and can be prescribed on symptomatic indications:

- o **Poly Cystic Ovarian Syndrome (PCOS)**- Pulsatilla nigricans, Natrum muriaticum, Calcarea carbonica
- o **Recurrent Abortion**- Sabina, Arnica, Secale cornutum, Viburnum opulus, Sepia officinalis, Cimicifuga racemosa, Caulophyllum, Belladonna.
- o **Anemia**- Ferrum phosphoricum, Pulsatilla, Cinchona officinalis, Acetic acid, Calcarea carbonica, Natrum muriaticum, Vanadium metallicum

- o **Uterine fibroid-** Calcarea carbonica, Pulsatilla nigricans, Phosphorus, Lycopodium clavatum, Kali carbonica, Thuja occidentalis
- o **Male infertility-** Argentum metallicum, Causticum, Ferrum metallicum, Damiana, Sulphur, Lycopodium clavatum, Syphilinum.
- o **Female infertility-** Phosphorus, Pulsatilla nigricans, Sepia officinalis, Natrum carbonicum, Natrum muriaticum, Platina, Medorrhinum, Tuberculinum, Aurum metallicum, Mercurius solubilis, Syphilinum, Thyroidinum
- o **Impotency-** Agnus castus, Calcarea carbonica, Camphora, Capsicum annum, Conium maculatum, Dioscorea villosa, Lycopodium clavatum, Medorrhinum, Nux vomica, Phosphorus, Phosphoric acid, Selenium, Sulphur.

5.2 Section 2: Antenatal care

The World Health Organization (WHO) envisions a world where every pregnant woman and newborn receives quality care throughout the pregnancy, child birth and the postnatal period. The objectives of antenatal care are to promote, protect and maintain the health of the mother during pregnancy, to detect “high risk” cases and give them special attention, to foresee complications and prevent them, to remove anxiety and dread associated with delivery to reduce maternal and infant mortality and morbidity. Rationally planned ante-natal regimen by integrating traditional and modern methods will support the pregnant women all through the pre-natal, intra-natal and postnatal period.

As soon as the pregnancy is suspected, the woman should be linked to ASHA in her residential area for standard care under RCH care, concurrently the Homoeopathic interventions may be advised as per her requirement. However, the Homoeopathic physician needs to be reoriented about the following aspects of pregnancy.

5.2.1 Diagnosis of Pregnancy

In women of reproductive age having normal marital relations and with previously regular menstrual cycle, amenorrhoea is an important symptom suggestive of pregnancy. However, it may be confirmed with history, urine test and other diagnostic tools (if available) and physical examination.

5.2.2 Schedule of Examination

Examination of pregnant woman is done with two objectives firstly to know physical and psychological health status of woman and secondly to assess the growth and development of the foetus. Minimum four Ante-natal care visits are done as per following schedule:

- 1st visit: Within 12 weeks, preferably as soon as pregnancy is detected for registration of pregnancy and first ante-natal check-up
- 2nd visit: Between 14 and 26 weeks
- 3rd visit: Between 28 and 34 weeks
- 4th visit: Between 36 weeks and term

5.2.3 Detailed History at First Visit

Personal data, last menstrual period (LMP), complaints with duration, past history of medical illness/surgery, family history, personal history, addiction, drug allergy, immunization status, marital status, menstrual history, contraception, detailed obstetric history.

5.2.4 General Examination

Physical examination covers pallor, cyanosis, jaundice, oedema, clubbing, blood pressure, temperature, respiration rate, Pulse rate, rhythm, volume, Lymph nodes, neck veins, assessment of nutritional status and weight of the woman. Total weight gain during the course of pregnancy for a healthy woman on an average is 11 kgs.

5.2.5 Systemic Examination

Examination of respiratory, cardiovascular, renal, GIT, musculoskeletal and genitourinary systems is important to assess the condition of maternal health and growth and development of the foetus.

5.2.6 Local Examination

Special attention should be given for Local examination to know about the changes that occur in the genital tract and breasts. During pregnancy abdominal examination for girth, fundal height, presentation of the foetus and foetal movements is a must.

- **Auscultation:** Foetal heart sound (FHS) should be checked for regularity in rhythm. Normal range is 110-150 beats per minute.
- **Per vaginal Examination:** wherever there is facility and expertise.

5.2.7 Investigations

After confirmation of pregnancy, following investigations may to be done after proper counseling*:

1. Complete blood count (CBC) to be done and Haemoglobin (Hb) to be repeated at 20th week, 28th week, 36th week and just before delivery (if anemia is present then the test is repeated as and when required)
2. Blood group with Rh factor, if not known
3. Glucose Tolerance Test -75 gms (24 - 28 weeks), if required.
4. HbA1c - first visit
5. TSH - First visit, 14 weeks, 28 weeks
6. HIV/ Hepatitis- B-1st st vist
7. VDRL - 1st visit
8. Urine Analysis - routine and microscopic examination and culture (every 3 months)
9. USG abdomen (First visit, 12 weeks, 20 weeks, 37 weeks)

*Special investigations may be performed as per need at the facility from where she is getting her routine ante-natal care.

5.2.8 Immunization for Tetanus:

As per immunization schedule during pregnancy, it is essentially required to get two injections of Tetanus Toxoid (T.T.) 4 to 6 weeks apart. The first dose should be given at the first visit.

5.2.9 General Advice to Pregnant Woman

- Regularly practice yoga under the guidance and observation of an expert.
- Intake of too much pungent food, excess exertion & coitus, fasting, trauma, jerky travel, insufficient night sleep, too much day sleep, suppression of natural urges, indigestion, prolonged stay in hot sun or near fire, anger, grief, fear, terror, squatting, looking or listening to unpleasant things are said to cause harm to the pregnancy.
- Should not eat very hot, very cold and stale food items.
- Should not have too much spicy, pungent, sour, salty, sweet food stuffs.
- Should not over-eat.
- Should not take too much tea or coffee, tobacco in any form, alcohol and intoxicating drugs.
- Should not remain on fasting for long time.
- Avoid lying down immediately after eating food.
- Husband and other family members should be advised for supportive and pleasant behavior with the pregnant woman. Exposure of tobacco smoke or other smoke to the pregnant mother should be avoided. It is important that the expectant mother is helped to remain in a pleasant state of mind and avoiding thoughts that breed anger, fear, jealousy or hatred.
- Perform normal routine work in a normal pregnancy.
- Sleep well and take appropriate rest.
- Take bath regularly and maintain good hygiene.
- Wear clean soft comfortable loose clothes.
- Should not take any medicine without advice of the doctor as it may be harmful to the foetus.

5.2.10 Additional Advice

- Should be advised to attend regular ante-natal checkups. (Monitoring of B.P., Weight in each visit and routine investigations of blood and urine). Regular intake of supplements as advised.
- Should take-Tetanus Toxoid vaccination as per the schedule.
- While visiting health center, women should bring their ante-natal registration card.
- Report immediately, if any of the following conditions occur:
 - Bleeding per vagina
 - Loss of or exaggerated foetal movement
 - Pain in abdomen
 - Escape of fluid from the vagina
 - Breathlessness and palpitation
 - Excessive tiredness
 - Oedema or puffiness of face or tightening of bangles or rings
 - Dysuria
 - Headache
 - Visual disturbance, blurring of vision or appearance of bright objects before eyes

- High fever specially with rigor
- Insomnia, emotional disturbances, mental confusion or drowsiness
- Appearance of skin rash
- Fever
- Hyperemesis gravidarum

5.2.11 Referral

All high-risk pregnancies should be identified by CHO for referral to specialists for further check-up and management.

- Hb% less than 7 gm/dl.
- History of bleeding per vagina at any time during this pregnancy.
- H/o repeated abortions/premature births/congenital anomalies/still-births or marked low birth weight in previous pregnancies.
- Woman who conceived after long spell of infertility or with assisted fertilization.
- Suffering from severe gastro-intestinal disturbances i.e. severe vomiting, diarrhoea etc.
- Suffering from cardiac disorders, UTI, especially recurrent renal infection, haemolytic disorders etc., diabetes mellitus or other metabolic disorders.
- Suffering from pre-existing or pregnancy induced hypertension or toxemia of pregnancy
- Raised blood sugar levels, abnormal thyroid profile.
- Suffering from cervix cancer or big cervical/vaginal warts.
- Intra Uterine Growth Retardation (IUGR) in the foetus.
- Having pelvic or uterine growths with pregnancy.
- Having undergone last delivery by cesarean section within the past 2 years.
- Breech/abnormal/unstable presentation.

Following category of woman should be referred after initial homoeopathy management:

- No improvement in Hb% within one month and fall of Hb% beyond physiological limits.
- Appearance of other complications like pregnancy induced hypertension (PIH).
- Diagnosed for oligoamnios, hydramnious, IUGR, macrosomia, persistent breech presentation, transverse lie or unstable lie.

5.2.12 Minor ailments during Pregnancy

Throughout the pregnancy, a lady may suffer from different symptoms related to it. The diet of a pregnant woman should be nutritious, healthy, preferably as per her liking, preference, appropriate to region & tradition in proper time and quantity. Appropriate advice regarding diet and regimen according to the presenting complaint may be given. Homoeopathic Interventions can be given for common symptoms during pregnancy as below:

5.2.12.1 Morning sickness (nausea and vomiting of pregnancy)

Symptoms

- Mild to moderate nausea and/ or vomiting usually limited to 1st trimester.
- Commonly on first rising in morning or can occur at any time of day.
- Increased salivation, and increased sensitivity or aversion to certain tastes and odors.

General Management

- Effective psychological support in the form of reassurance to the pregnant women that the symptoms will disappear.
- Changes in the diet and lifestyle might help feel better.
- Changing the types of foods eaten that triggers nausea.
- Try to drink throughout the day, not just when thirsty. Aim to take 8 to 12 cups of water a day as not drinking fluids can lead to dehydration, which can make nausea worse. Sucking candies made of ginger, lemon, cardamom or fennel can help.
- Consume more small meals per day and try to avoid being hungry.
- Early morning, many women find that eating plain biscuits about 20 minutes before getting up is helpful.
- Should not over-eat, avoid spices, rich food, taking tea, coffee in empty stomach.

Intervention at HWC

Medicines	Indications
Sepia officinalis	Nausea at smell or sight of food. Everything tastes too salty. Worse lying on side, morning before eating, after milk especially when boiled. Disposition to vomit after eating. Longing for vinegar, acids, and pickles.
Colchicum autumnale	The smell of food causes nausea even to fainting, especially fish. Profuse salivary secretion. Vomiting of mucus, bile and food; worse, any motion; great coldness in stomach. Craving for various things, but is averse to them when smelling them, seized them with nausea.
Arsenicum album	Cannot bear the sight or smell of food. Great thirst; drinks much, but little at a time. Nausea, retching, vomiting, after eating or drinking. Anxiety in pit of stomach.
Ipecacuanha	Constant nausea and vomiting, Tongue usually clean. Mouth, moist; much saliva.
Symphoricarpus racemosa	Persistent vomiting of pregnancy. Nausea, worse any motion. Averse to all food. Better, lying on back.
Lacticum acidum	Copious salivation and water-brash. Nausea; morning sickness, especially in pale anemic women. Hot, acrid eructation. Nausea; better, eating.
Nux vomica	Nausea in the morning, after eating. Weight and pain in stomach; worse, eating, sometime after. Sour, bitter eructations. Nausea and vomiting, with much retching. With sleeplessness at night

Referral

- Signs of dehydration, starvation, feeble pulse, low BP, dry tongue
- Excessive vomiting without relief

5.2.12.2 Anxiety and Fears

High levels of anxiety, during pregnancy, have adverse effect on mother and baby. Anxiety, in early pregnancy, results in loss of fetus and in the second and the third trimester leads to a decrease in birth weight and increased activity of the Hypothalamus – Hypophysis–Adrenal axis. Anxiety during pregnancy is accompanied by emotional problems, hyperactivity disorder,

decentralization and disturbance in cognitive development of children. Mother's anxiety, during pregnancy, is also associated with poor maternal- child interaction.

Symptoms

- Panic attacks
- Shortness of breath or rapid breathing
- Irregular breathing
- Excessive sweating
- Nausea
- Overall feeling of dread
- Incoherent speech or thought
- Feeling of being unwell
- Difficulty to concentrate
- Apprehensions regarding miscarriage, coping with pain of labour, health of baby etc.

General management

- Counselling for underlying cause of anxiety
- Exercise, adequate sleep, and social support may improve well-being and reduce anxiety during pregnancy.
- Yoga practices

Intervention at HWC

Medicines	Indications
Aconitum napellus	Great fear and anxiety of mind, with great nervous excitability; afraid to go out, to go into a crowd where there is any excitement or many people; to cross the street. The countenance is expressive of fear; the life is rendered miserable by fear; is sure his disease will prove fatal; predicts the day he will die. Music is unbearable, makes her sad.
Arsenicum album	Anxious, fearful, restless with irritable nature. Mentally restless, but physically too weak to move. Anxious fear of death. Thinks disease is incurable and useless to take medicines. Dread of death when alone, or, going to bed.
Ignatia amara	Mood swing, easily offended, silent grief; Contradiction aggravation. Bad effect of anger, grief or disappointed love. Broods in solitude over imaginary trouble. Anguish, esp. in the morning on waking, or at night, sometimes with palpitation of the heart. Anxious to do now this, now that, impatience.

Referral

- Increased symptoms, panic attacks, sleeplessness
- Unmanageable with medication and counselling

5.2.12.3 Anaemia

Symptoms

- Fatigue
- Lassitude, feeling of exhaustion and weakness
- Anorexia and indigestion

- Palpitation
- Breathlessness
- Giddiness
- Dyspnea
- Signs include pallor, edema, soft systolic murmur etc.
- The mother may be predisposed to intercurrent infections, preterm labor, congestive cardiac failure.
- The fetus may be predisposed to IUGR, stillbirth, neonatal anemia, fetal malformation.

Investigations

- Hemoglobin test. It measures the amount of hemoglobin -- an iron-rich protein in red blood cells that carries oxygen from the lungs to tissues in the body.
- Hematocrit test. It measures the percentage of red blood cells in a sample of blood.

Management

- Eat well-balanced meals and add more foods that are high in iron to your diet.
- Aim for at least three servings a day of iron-rich foods, such as: lean red meat, poultry, eggs, and fish.
- Leafy, dark green vegetables (such as spinach), iron-enriched cereals and grains, beans, lentils, nuts and seeds.
- Foods that are high in vitamin C can help your body absorb more iron. These includes citrus fruits and juices, strawberries, kiwis, tomatoes, bell peppers.
- Try eating those foods at the same time that you eat iron-rich foods. For example, you could drink a glass of orange juice and eat an iron-fortified cereal for breakfast.
- Iron and folate as recommended by the doctor.

Intervention at HWC

Medicines	Indications
Ferrum phosphoricum	Nervous, sensitive women who often feel weak or tired, with easy flushing of the face and a tendency toward anemia.
Ferrum metallicum	Young weakly persons, anemic and chlorotic, with pseudo-plethora, who flush easily; cold extremities; oversensitiveness; worse after any active effort.
Vanadium metallicum	Iron deficiency anemia with low Hb. Anorexia and symptoms of gastro-intestinal irritation.

5.2.12.4 PICA

Pica is repetitive consumption of non- edible items, despite efforts to restrict it, for a period of 1 month and longer. Symptoms usually occur in 1st and 2nd trimester of pregnancy. Effect of pica on baby: eating non-food items can prevent the body from absorbing proper minerals and nutrients from healthy food substances and can cause further deficiencies. Pica may be a sign of iron deficiency or anaemia, which must be looked for and corrected.

General management

- Test the haemoglobin for iron deficiency anaemia
- Potential substitute to pica may be advised.

Intervention at HWC

Medicines	Indications
Antimonium crudum	There is craving for raw food and vegetables, pickles, acids, bread. Inability to bear heat of sun, worse from over exertion in the sun and over-eating. Thick milky white coated tongue is the leading symptom of this remedy. Thirstlessness and tendency to grow fat.
Calcarea carbonica	Fat, fair, flabby persons, fearful, shy, timid, slow and sluggish. They have craving for chalk, charcoal, coal and pencils. Sweats profusely while sleeping. They are chilly and take cold easily. They have desire for eggs and aversion to meat and milk.
Natrum muriaticum	Patients have craving for salt. They have oily greasy face, poorly nourished and hot patient. They take long time for food to digest. Aversion to bread and fatty things.
Silicea terra	Extremely chilly, all symptoms are worse by cold except stomach complaints which are better by cold. Craving for lime, sand and raw foods. All discharges are profuse and offensive. They are nervous, apprehensive, over sensitive, irritable and fearful.
Nux vomica	Patients have craving for charcoal, pepper, chalk. Craves fats and spicy food. They are chilly and thin. Oversensitive to noise, odours, light and music. They are irritable, zealous, active and quick.
Nitricum acidum	Patients have craving for lime, slate, pencil, papers and charcoal. They are thin, sickly, chilly, and takes cold easily. Desires fat and salt. They have cracks in muco - cutaneous junction especially fissures in rectum and corners of the mouth. Patients are irritable, fearful, headstrong, vindictive, sensitive to noise and light.

5.2.12.5 Toothache

- As your baby develops in the womb, your hormone levels increase, which can lead to tooth pain and other concerning dental symptoms.
- Mild toothache, like cold or heat sensitivity.
- Severe pain, such as constant throbbing tooth pain.

Intervention at HWC

Medicines	Indications
Magnesia carbonica	Worse at night; worse, cold and quiet. Teeth feel too long.
Ratanhia peruviana	Terrible toothache during early months of pregnancy; tooth feels elongated; worse lying, compelling to rise and walk about.
Staphysagria	Toothache of sound as well as decayed teeth; painful to touch of food or drink; but not from biting or chewing; worse drawing cold air into mouth, from cold drinks and after eating.
Pulsatilla nigricans	Toothache: relieved by holding cold water in the mouth; worse from warm things and heat of room.
Chamomilla	Toothache if anything warm is taken into the mouth; on entering a warm room; in bed; from coffee

Referral

- Pain not subsiding with medication
- Sleeplessness and disturbances in eating

5.2.12.6 Gingivitis

Symptoms

- Swollen gums
- Bleeding from gums during brushing or flossing.
- Epulis, which typically occurs in 2nd or 3rd trimester, on the front part of maxilla. It is usually symptomless but may cause bleeding and discomfort.

General management

- Pregnant ladies should be advised for good oral health practice i.e. brush your teeth twice each day.
- To each healthy diet.
- Gargling with saline warm water.
- To visit a dentist if required.

Intervention at HWC

Medicines	Indications
Mercurius solubilis	Sweetish metallic taste. Salivary secretions greatly increased. Gums spongy, recede, bleed easily. Sore pain on touch and from chewing.
Kreosotum	Spongy, bleeding gums from decayed tooth; teeth dark and crumbly. Putrid odor and bitter taste.
Phosphorus	Swelled and easily bleeding gums, ulcerated. Tongue dry, smooth, red or white, not thickly coated. Thirst for very cold water.
Calcarea carbonica	Persistent sour taste. Mouth fills with sour water. Dryness of tongue at night. Bleeding of gum

Referral

- Increasing in the swelling and inflammation of gums.
- Bleeding from gums.
- Pain interrupts eating and sleep.

5.2.12.7 Headache

Headache is one of the most common discomforts and complaints. Mostly occurs during first and third trimester.

General Management

- In case of migraines and tension headaches, cold pack and heating pad or hot compress can be applied respectively.
- Pressure on the scalp should be eased, like a tight ponytail or headbands etc, should be removed.
- Avoiding bright lights and artificial lights can help reduce the intensity of the headaches.
- Relaxation should be practiced, like, yoga, meditation, stretching and progressive muscle relaxation.

Intervention at HWC

Medicines	Indications
Belladonna	Severe throbbing headache. Pain; fullness, especially in the forehead, occiput and temples. Pain worse light, noise, jar, lying down and in the afternoon; better by pressure and in a semi-erect posture.
Bryonia alba	Bursting, splitting headache, as if everything would be pressed out; as if hit by a hammer from within; worse from motion, stopping, opening the eyes.
Rhus toxicodendron	Vertigo on rising. Heavy head. Scalp sensitive; worse on side lain on. Pain in the forehead proceeds backwards.
Pulsatilla nigricans	Neuralgic pain, commencing in the right temporal region (migraine), with scalding lachrymation from the affected side. Headache from overwork.
Chamomilla	Throbbing headache in one half of the brain (migraine). Inclined to bend head backward. Hot, clammy sweat on the forehead and scalp.
Cimicifuga racemosa	Shooting and throbbing pain in the head after mental worry, over study or as a reflex of uterine disease. Waving sensation or sensation of opening and shutting in the brain. Pain pressing outwards (meningitis).
Gelsemium sempervirens	Vertigo, spreading from the occiput. Heaviness of the head; band like sensation around the head and occipital headache. Dull headache with heaviness of the eyelids. Pain in the temples, extending to the ear, alae of nose and chin.
Spigelia anthelmia	Pain beneath the frontal eminence and temples, extending to the eyes. Semi lateral, involving the left eye (migraine); pain violent, throbbing; worse, making a false step.
Sulphur	Constant heat on top of the head. Heaviness and fullness, pressure in the temples. Scalp dry, falling of hair; worse, washing. Itching; scratching causes burning.

Referral

- Headache not relieved
- Sleeplessness

5.3.12.8 Heartburn

Symptoms

- Burning and retro-sternal discomfort moving up and down the chest starting from the stomach.
- Feeling of warm and sour fluid regurgitating up the throat with eructations.
- The pain sometimes radiates to the sides of the chest, neck or angle of the jaw and may mimic angina.
- Symptoms aggravate by bending forward, straining or lying down.
- Regurgitation of gastric acid and water-brash maybe present.

General management

- Eat several small meals each day instead of three large ones
- Eat slowly
- Avoid fried, spicy, or rich (fatty) foods or any foods that seem to cause relaxation of the lower esophageal sphincter and increase the risk of heartburn.
- Don't smoke tobacco or drink alcohol, which can make heartburn symptoms worse.
- Don't lie down directly after eating.

- Wear loose-fitting clothing. Tight-fitting clothes can increase the pressure on your stomach and abdomen.
- Try to avoid constipation.

Intervention at HWC

Medicines	Indications
Arsenicum album	Nausea, retching, vomiting after eating or drinking. Heartburn; gulping up of acid and bitter substances which seem to excoriate the throat. Long lasting eructations. Dyspepsia from vinegar, acids, ice-water, tobacco. Ill effects of a vegetable diet, melons and watery fruits generally.
Anacardium orientale	Weak digestion, with fullness and distention. Empty feeling in the stomach. Eructation, nausea, vomiting. Eating relieves the dyspepsia.
Capsicum annum	Atonia dyspepsia. Much flatulence, especially in debilitated subjects. Marked thirst; but drinking causes shuddering.
Nux vomica	Sour taste and nausea in the morning, after eating. Weight and pain in the stomach, worse eating, sometime after. Sour bitter eructations. Nausea and vomiting, with much retching. Epigastrium bloated, with pressure as of a stone, several hours after eating.
Pulsatilla nigricans	Aversion to fatty food, warm food and drink. Eructations; taste of food remains a long time; after ices, fruits, pastry. Bitter taste, diminished taste of all food. Flatulence. Vomiting of food eaten long before.
Magnesia carbonica	Eructations sour and vomiting of bitter water. Rumbling, gurgling.
Natrum phosphoricum	Sour eructations, sour vomiting, greenish diarrhoea. Spits mouthful of food.
Robinia pseudacacia	Gastric symptoms with the most pronounced acidity are well authenticated. Nausea; sour eructations; profuse vomiting of an intensely sour fluid.
Sepia officinalis	Tobacco dyspepsia. Nausea in the morning before eating. Disposition to vomit after eating. Burning in the pit of the stomach. Worse, after milk, especially when boiled. Acid dyspepsia with a bloated abdomen, sour eructations. Indifferent to everything.
Sulphuricum acidum	Heartburn; sour eructations; sets teeth on edge. Craving for alcohol. Water causes coldness of the stomach; Must be mixed with liquors. Sour vomiting.

Referral

If any serious underlying cause is suspected such as peptic ulcer, hunger pain, tenderness in epigastric area, haematemesis, dark coloured stool etc.

5.2.12.9 Constipation and piles

Symptoms

- Difficult or delayed defecation causing significant discomfort.
- Infrequent passage of hard and painful stool.
- Prolonged constipation may lead to hemorrhoids or piles, which are dilated veins of the anal canal.
- Piles may be either external or internal to the anal orifice and are usually associated with increased intraabdominal pressure, e.g. obesity, constipation or pregnancy.
- Piles may cause bleeding and are usually painless, unless complicated with another condition.

General Management

- Eat high-fibre foods like, whole grain breads and cereals, fruits and vegetables, and beans.
- Drink plenty of water.
- Don't stand or sit for a long time, as it puts pressure on the veins in your lower body.
- Soothe irritation by a warm bath.
- Apply ice pack or cold compress for 10 minutes up to 4 times a day to bring down swelling.
- Motivate to do kegel exercises to strengthen pelvic floor muscles to ease haemorrhoids.

Intervention at HWC

Medicines	Indications
Aesculus hippocastanum	Torpor and congestion of the liver and portal systems, with constipation. Dry, aching rectum. Feels full of small sticks. Hemorrhoids, with sharp shooting pains up the back; blind and bleeding; worse during climacteric. Large, hard, dry stools.
Ammonium muriaticum	Itching and hemorrhoids, soreness with pustules. Hard, crumbly stool, or covered with glairy mucus. Mucoid stools alternate with constipation. During and after stool, burning and smarting in the rectum. Haemorrhoids after suppressed leucorrhoea.
Collinsonia canadensis	Sensation of sharp sticks in the rectum. Sense of constriction. Dry faeces. Very obstinate constipation with protruding hemorrhoids. Constipation during pregnancy; with membranous dysmenorrhoea, following labor. Painful bleeding piles. Alternate constipation and diarrhoea and great flatulence.
Alumina	Hard, dry knotty stools; no desire. Rectum sore dry inflamed, bleeding. Even a soft stool is passed with great difficulty. Great straining. Evacuation preceded by painful urging long before stool, and then straining at stool.
Natrum muriaticum	Burning pains and stitching after stool. Anus contracted, torn, bleeding. Constipation; stool dry, crumbling.
Nux vomica	Constipation with frequent ineffectual urging, incomplete and unsatisfactory passage of stool; feeling as if a part remained unexpelled. Itching, blind hemorrhoids, with ineffectual urging to stool very painful; after drastic drugs.
Aloe socotrina	A lot of mucus, with pain in rectum after stool. Haemorrhoids protrude like grapes; very sore and tender; better cold water application. Burning in anus and rectum. Constipation, with heavy pressure in lower part of abdomen.
Bryonia alba	Constipation; stools hard, dry, as if burnt; seems too large. Stools brown, thick, bloody; worse in the morning, from moving, in hot weather, after being heated, from cold drinks, every spell of hot weather.
Hydrastis canadensis	Constipation, with sinking feeling in stomach, and dull headache. During stool, smarting pain in rectum. After stool, long-lasting pain. Haemorrhoids; even a light flow exhaust.
Lycopodium clavatum	Inactive intestinal canal. Ineffectual urging. Stool hard, difficult, small, incomplete. Hemorrhoids; very painful to touch, aching.
Muriaticum acidum	Haemorrhoids most sensitive to all touch; even sheet of toilet paper is painful. Anal itching and prolapsus ani while urinating. Haemorrhoids during pregnancy; bluish, hot with violent stitches.
Opium	Obstinate constipation; no desire to go to stool. Round, hard, black balls. Faeces protrude and recede. Spasmodic retention of faeces in small intestines. Stools involuntary, black, offensive, frothy. Violent pain in rectum, as if pressed asunder.
Plumbum metallicum	Constipation; stools hard, lumpy, black with urging and spasm of anus. Obstructed evacuation from impaction of faeces. Neuralgia of rectum. Anus drawn up with constriction.

Medicines	Indications
Platina	Retarded; faeces scanty; evacuated with difficulty. Adheres to rectum, like soft clay. Sticky stool. Stool as if burnt.
Sepia officinalis	Bleeding at stool and fullness of rectum. Constipation; large, hard stools; feeling of a ball in rectum, cannot strain; with great tenesmus and pains shooting upward. Dark-brown, round balls glued together with mucus. Soft stool, difficult. Almost constant oozing from anus. Pains shoot up in rectum and vagina.
Sulphur	Itching and burning of anus; piles dependent upon abdominal plethora. Frequent, unsuccessful desire; hard, knotty, insufficient. Redness around the anus, with itching. Haemorrhoids, oozing and belching.

Referral

Severe pain while passing stool, bleeding per anum not controlled by medication.

5.2.12.10 Cough

Cough of pregnancy is usually short, frequent, irritating and maybe dry or accompanied with some expectoration.

General Management

- Immunity boosting diet should be taken to prevent cough, like citrus fruits, honey, garlic etc.
- Proper hygiene should be maintained, and body should be sufficiently hydrated.

Intervention at HWC

Medicines	Indications
Phosphorus	Cough from tickling in throat; worse, cold air, reading, laughing, talking, from going from warm room into cold air. Sweetish taste while coughing. Hard, dry, tight, racking cough. Nervous coughs provoked by strong odors, entrance of a stranger; worse in the presence of strangers; worse lying upon left side; in cold room.
Sepia officinalis	Dry, fatiguing cough, apparently coming from stomach. Oppression of chest morning and evening. Cough excited by tickling in larynx or chest.
Causticum	Cough, with raw soreness of chest. Expectoration scanty; must be swallowed. Cough with pain in hip, especially left worse in evening; better, drinking cold water; worse, warmth of bed.
Conium maculatum	Dry cough, almost continuous, hacking; worse, evening and at night; caused by dry spot in larynx with itching in chest and throat, when lying down, talking or laughing, and during pregnancy.
Nux moschata	Loss of voice from walking against the wind. Cough when getting warm in bed.
Kali bromatum	Reflex cough during pregnancy. Dry, fatiguing, hacking cough at night.

Referral

If the symptoms are persisting or worsening of cough and duration of cough increases, any suspect of chronic disease.

5.2.12.11 Backache

It is one of the most common discomforts of pregnancy and is present in almost 50% of pregnant women.

General Management

- Bend your knees and keep your back straight when you lift or pick something up from the floor.
- Avoid lifting heavy objects.
- Move your feet when you turn to avoid twisting your spine.
- Wear flat shoes to evenly distribute your weight.
- Try to balance the weight between 2 bags when carrying shopping.
- Keep your back straight and well supported when sitting at work and at home – look for maternity support pillows.
- Get enough rest, particularly later in pregnancy.
- A massage or warm bath may help.

Intervention at HWC

Medicines	Indications
Aesculus hippocastanum	Lameness in neck; aching between shoulder blades; region of spine feels weak; back and legs give out. Backache affecting sacrum and hips; worse walking or stooping.
Arnica montana	Everything on which he lies seems too hard. Cannot walk erect, on account of bruised pain in pelvic region. Sore, lame, bruised feeling
Rhus toxicodendron	Pain between shoulders on swallowing. Pain and stiffness in small of back; better, motion, or lying on something hard; worse, while sitting.
Kali carbonicum	Small of back feels weak. Stiffness and paralytic feeling in back. Burning in spine. Severe backache during pregnancy, and after miscarriage. Pain in nates and thighs and hip joint.
Ledum palustre	There is a general lack of animal heat, and yet heat of bed is intolerable. Gouty pains shoot all through the foot and limb, and in joints, but especially small joints
Sarasaparilla officinalis	Colic and backache at same time. Paralytic, tearing pains

Referral

If the symptoms are persisting or worsening or making the women confine to bed, localized tenderness, on spine, numbness, tingling in arms and legs.

5.2.12.12 Urinary tract infections

Symptoms

It can be of two types, cystitis and acute pyelonephritis.

- It can be either asymptomatic or can present with symptoms like- High grade fever, burning micturition, increased frequency and urgency of urination with abdominal pain.

General management

- Emptying your bladder frequently, especially before and after sex.
- Wearing only cotton underwear.
- Avoiding douches, perfumes, or sprays.
- Drinking plenty of water to stay hydrated.

Intervention at HWC

Medicines	Indications
Apis mellifica	Burning and soreness when urinating. Suppressed, loaded with casts; frequent and involuntary; stinging pain and strangury; scanty, high colored. Incontinence. Last drops burn and smart.
Equisetum hyemale	Severe, dull pain and feeling of fullness in bladder, not relieved by urinating. Frequent urging with severe pain at the close of urination. Urine flows only drop by drop. Sharp, burning, cutting pain in urethra while urinating.
Kreosotum	Offensive. Violent itching of vulva and vagina, worse when urinating. Can urinate only when lying; cannot get out of bed quick enough during first sleep. Must hurry when desire comes to urinate.
Pulsatilla nigricans	Increased desire; worse when lying down. Burning in orifice of urethra during and after micturition. Involuntary micturition at night, while coughing or passing flatus.
Nux vomica	Irritable bladder; from spasmodic sphincter. Frequent calls; little and often. Haematuria. While urinating, itching in urethra and pain in neck of bladder.
Cantharis vesicatoria	Intolerable tenesmus; cutting before, during, and after urine. Urine scalds him and is passed drop by drop. Constant desire to urinate. Membranous scales looking like bran in water. Urine jelly-like, shreddy.
Thuja occidentalis	Urethra swollen inflamed. Severe cutting after. Frequent micturition accompanying pains. Desire sudden and urgent but cannot be controlled.

Referral

When there is fever, increased pain in lower abdomen, blood in urine, weakness

5.2.12.13 Varicose veins

Symptoms

- Heavy and dull aching pain in the legs.
- After prolonged standing, feeling of heaviness, dullness and aching in the legs.
- Itching, throbbing and burning pain of skin over the affected area maybe present.
- Discoloration of skin over the affected area into bluish gray colour.
- Swelling of feet and ankle maybe present.

General Management

Elevation: To increase blood flow and decrease pressure in the veins, elevate legs above waist several times throughout the day.

Elastic stocking: Supportive stockings or socks compress the veins and reduce discomfort. The compression stops the veins from stretching and helps blood flow.

Intervention at HWC

Medicines	Indications
Ferrum metallicum	The blood vessels are distended, the veins appear varicose . On this account bleeding takes place easily; capillary oozing; Anemic patients.
Pulsatilla nigricans	Feet red, swollen, inflamed. Varices of legs. Legs feel heavy and weary. Varicose veins suffering worse from letting the affected limb hang down.

Medicines	Indications
Bellis perennis	Venous congestion due to mechanical causes. Varicose veins with bruised, sore feeling. Exudation and swellings.
Hamamelis virginiana	Venous congestion, haemorrhages, varicose veins and haemorrhoids, with bruised soreness of the affected parts seems to be the special sphere of this remedy. Acts upon the coats of the veins causing relaxation with consequent engorgement. Varicose veins and ulcers.
Lycopodium clavatum	Varicose veins, Naevi, erectile tumours. A very low state of the arteries and veins, poor tone and poor circulation. Pains worse during 4 to 8 p.m.
Zincum metallicum	Varicose veins, especially of lower extremities. Formication of feet and legs as from bugs crawling over the skin, preventing sleep. Constant feeling of fatigue.
Carbo vegetabilis	Blue, cold ecchymosed. Marbled with venous over distension. Varicose ulcers, Carbuncles. Old people with venous congestion. Blood seems to stagnate in the capillaries. Longing for fresh air for oxygen.
Vipera berus	Indicated in inflammation of veins with great swelling; bursting sensation. Patient is obliged to keep the extremities elevated. When they are allowed to hang down, it seems as if they would burst, and the pain is unbearable. Varicose veins and acute phlebitis. Veins swollen, sensitive, bursting pain. Severe cramps in lower extremities.
Arnica montana	Affects the venous system inducing stasis. Ecchymosis and haemorrhages. Relaxed blood vessels, Black, and blue spots. Pain in the back of limbs as if beaten.
Apis mellifica	Varicose veins with burning sensation. Cold legs. Thirstlessness.

Referral

Worsening of symptoms, development of ulcer.

5.2.12.14 Pedal edema

Symptoms

- Mild edema and swelling is common during pregnancy and almost always goes away after delivery.
- Swelling is usually present in the day when the pregnant woman walks around and disappears or reduces on rest.
- Severe pedal edema or sudden increase in edema can be a sign of developing pre-eclampsia, so the blood pressure should be monitored regularly.
- Pre-eclampsia may present with headache, gradual increasing swelling of face and hands, and sudden weight gain.
- Severe and alarming symptoms of pre-eclampsia are disturbed sleep, epigastric pain, diminished urine output, nausea and vomiting, vision changes and rise in blood pressure.

General management

- Regular monitoring of Blood Pressure.
- Movement: Moving and using the muscles of legs, may help pump the excess fluid back toward heart. Do exercises to reduce swelling. Do not sit or stand for long periods of time without moving.
- Elevation: Put a pillow under legs when lying down or sitting for prolonged periods. Keep legs elevated above the level of heart.

- Wear support stockings, which put pressure on legs and keep fluids from collecting in legs and ankles.
- Limiting of salt intake, salt can increase fluid retention and worsen edema.
- Protection: Keep affected area clean, moisturized and free from injury.

Intervention at HWC

Medicines	Indications
Apis mellifica	Edema of skin and mucous membranes. Swelling or puffing of parts, edema, red rosy hue, stinging pains, soreness, intolerance of heat and slightest touch, and in the afternoon.
Apocynum cannabinum	It increases secretions of mucous and serous membranes; acts on cellular tissues, producing edema and dropsy. This is one of most efficient remedy in dropsy. Dropsy is characterized by great thirst and gastric irritability.
Aceticum acidum	This drug produces a condition of profound anaemia, with dropsy, great debility, frequent fainting, dyspnoea, weak heart, vomiting, profuse micturition and sweat. Dropsy with thirst. Edema of feet and legs.
Colchicum autumnale	Edematous swelling and coldness of legs and feet. Affects the muscular tissue, periosteum and synovial membranes of joints markedly.
Ferrum metallicum	Dropsy after loss of vital fluids. Best adopted to young weak people, anaemic and chlorotic. With pseudo plethora, who flush easily; cold extremities; over sensitiveness; worse after any active effort.
Digitalis purpurea	Swelling of feet. Coldness of hands and feet. Shining, white swelling of joints. Heart is primarily involved, where the pulse is weak, irregular, intermittent, abnormally slow and dropsy of external and internal parts.
Rauwolfia serpentina	High blood pressure with edema of lower limbs.

Referral

Should be referred if associated with high blood pressure i.e. more than 140/90 mm of Hg.

5.2.12.15 Threatened Abortion

Symptoms

- Bleeding per vagina followed or accompanied by dull or sharp pain in lower abdomen and back.
- They may also pass tissue with clot like material from the vagina.

General management

Bed rest or limited activity; may be needed for heavy bleeding.

Indicated homoeopathic medicine may be prescribed as first aid and the patient may be referred to higher care for treatment.

Intervention at HWC

Medicines	Indications
Belladonna	Offensive smelling haemorrhages, hot gushes of blood. Very offensive and hot. Cutting pain from hip to hip. Dragging pain around loin.
Chamomilla	Uterine haemorrhages. Profuse discharge of clotted, dark blood with labor like pains. Patient intolerant of pain.

Medicines	Indications
Crocus sativus	Threatened abortion, especially when haemorrhage is dark and stringy. Surging of blood to genitals. Uterine haemorrhage; clots with long stings; worse from least movement.
Ipecacuanha	Uterine haemorrhage, profuse, bright, gushing, with nausea. Pain from the navel to the uterus.
Kali carbonicum	Uterine haemorrhage; constant oozing after copious flow, with violent backache, relieved by sitting and pressure. Pain from the back passes down, through the gluteal muscles, with cutting in the abdomen. Pain in left labium, extending through the abdomen to the chest.
Sabina	Haemorrhages, where blood is fluid and clots together. Tendency to miscarriage, especially at third month. Pain from sacrum to pubis, and from below upwards, shooting up the vagina. Uterine pain extending to the thigh. Menorrhagia in women who abort readily. Haemorrhage; partly clotted; worse from least motion.
Secale cornutum	Threatened abortion around third month. Haemorrhages continuous oozing, thin, fetid, watery black blood. Passive Haemorrhage in feeble, cachectic women.
Viburnum opulus	Frequent and very early miscarriage, seeming like sterility. Pain from the back to the loins and womb, worse early morning. Cramping type of pains, cramps extend down to thighs. Aching in sacrum and pubes, with pain in anterior muscles of thigh. Often prevents miscarriage. Spasmodic and congestive affections of ovarian and uterine origin.
Sepia officinalis	Tendency to abortion. Pelvic organs relaxed. Bearing down sensation as if everything would escape through the vulva must cross limbs to prevent protrusion or press against vulva. Violent stitches upward in the vagina, lancinating pains from the uterus to the umbilicus. Pains extend from other parts to the back.

5.2.13 Labour and childbirth

Labour can be a very frightening experience for women, especially first births. In addition, women will experience physical sensations ranging from discomfort to severe pain. Helping the woman to be as relaxed as possible and aware of her situation can help minimize the physical pain and emotional distress of labour and birth. Women can be helped with this by receiving adequate care, timely information, comfort, support and reassurance during labour and birth. Homoeopathic medicines can help enormously in the run-up to the birth of a baby and in avoiding or reducing some of the problems associated with labour., post natal symptoms etc.

None of the AYUSH HWCs are proposed as delivery points and therefore every woman receiving ante-natal care should be referred to a delivery point, guided by her ASHA. Homoeopathic medicines as per the indications and elisted below like Cimicifuga, when given during last month of pregnancy shortens labor if symptoms correspond. Taking Caulophyllum in the last week of the pregnancy and Arnica before delivery will minimise much of the bruising and bleeding.

Intervention at HWC

Medicines	Indications
Aconitum napellus	The patient has intense fear that something bad will happen. When the labour pains are frequent but irregular and ineffectual; thirsty; restless, anxious and frightened and convinced (anxiety) of dying during labour.
Caulophyllum thalictroides	Spasmodic rigid os, delays labor, labor pains short, irregular, no progress made. Produces efficient pain if symptom agrees. The patient is exhausted, chilly, trembling, shivering, and filled with nervous excitement.
Arsenicum album	Irritable, restless, anxious with fear of death. It is indicated in labor where there is a sense of exhaustion after every effort, however small.
Chamomilla	Labour pains are spasmodic distressing, wants to get away from them; tearing down the legs pressing upwards. The woman may be over-excited and angry, and resent being examined. Intolerance of pain; uncivil behaviour during labour.
Cimicifuga racemosa	During labour shivers in the first stage, convulsions from nervous excitement, rigid os, pains severe spasmodic tedious, worse least noise, touch, motion, cold air and better from rest. It causes the pains to become rhythmic and softens the rigid os. It promotes normal involution and hastens recovery.
Pulsatilla nigricans	The contractions are sluggish and irregular. The first stage is prolonged. The patient wants many people to attend the birth. In any pregnancy with breech or transverse presentation when no clear cut indication for another medicine is present.
Kali carbonicum	Early labour pains in back. Labor pains insufficient, violent backache, wants the back pressed.
Secale cornutum	Labor pain irregular, too weak, feeble or ceasing, everything seems loose and open but no expulsive action.
Nux vomica	Labor pain violent, spasmodic, cause urging to stool or urinate worse in back, prefers a warm room.

5.3 Section 3: Postnatal care

None of the AYUSH HWC's is proposed as delivery points and therefore every woman receiving antenatal care should be referred to a certified delivery point, guided by her ASHA. But a situation may arise for CHO to handle the post natal and infant and therefore, basic information is made available in this chapter.

The postnatal period essentially extends from birth of the baby to the first six weeks of life and includes the care given to both mother and the newborn baby. The postnatal period is a critical phase in lives of mothers and newborn babies, as major changes occur during this period, which determine long-term well-being of both. Lack of quality services, at this time, could result in long lasting ill-effects on health of both mother and the child or even lead to maternal or neonatal mortality.

As The homoeopathic management of the postnatal period may include, prevention of infections in both mother and newborn baby, general health recovery after delivery in the mother, improvement and enhancement in milk for breastfeeding. The postnatal care can be divided into care for the mother and care for the newborn.

5.3.1 Care of mother

- Have empathetic approach, talk to the women and her family members about her needs.
- Examine pulse, temperature, BP, post partum haemorrhage, contracted uterus.
- Subsequent checkups include history about delivery, micturition, motion, sleep, establishment of lactation, lochia.
- Emotional well-being should be assessed and counselling should be given in case of non-resolution of transitory postpartum depression, changes in mood, emotional state and behaviour that are outside of the woman's normal pattern and advice about merits of breast feeding.

Advise to Nursing Mother

- Breast feeding to be initiated within an hour of birth or earlier.
- Breast milk is a complete source of nutrition to the baby for first 6 months. Counsel the mother for exclusive breast feeding for first 6 months.
- Helps in developing bonding between mother and baby.
- Helps in delaying pregnancy through suppression of ovulation.
- Protects baby against infection.
- Easily digested by infant.

Advantages of initiation of early breastfeeding

- The sucking and rooting reflexes in the newborn are the strongest immediately after delivery, making breastfeeding easier.
- Sucking helps in the release of Oxytocin which helps in contraction of uterus and thus helps in preventing PPH.
- The newborn's sucking helps to produce more breast milk.
- The baby receives colostrum, which is very rich in vitamin A and protective antibodies. This protects the baby from infections such as diarrhoea, tetanus and respiratory tract infections.
- Mothers have less bleeding after birth if they breastfeed immediately.
- Early breastfeeding helps the mother and baby to develop a close bond.

Do's

- Advice the mother to urinate in the first two to three hours after childbirth.
- Mother should be encouraged to eat soon, within the first few hours, and to drink often.
- After delivery, women's routine food intake should be increased to compensate for the energy lost during breastfeeding and to recover to her normal health and energy.
- Using of iodised salt in cooking is recommended in the postnatal period, to prevent Iodine deficiency.
- Advice the mother to take food rich in vitamin A, which is not only important for preventing blindness in both mother and newborn baby, but also is important in producing nourishing breast milk.
- Advice the mother to eat a greater amount of variety of healthy foods.
- Maintain cleanliness and hygiene, by regularly washing and cleaning of the genital area and breasts.
- Ensure that the mother and child are not isolated from other family members for any reasons. Its necessary for the mother to have necessary social support and that family members are visiting her regularly.

- Encourage care seeking behaviour in the mother, her partner and other family members, in case they ever notice any danger symptoms.
- Sexual abstinence should be observed for upto 6 weeks.

Don't's

- Avoid holding urine for long, when bladder is full.
- Avoid foods and drinks with artificial preservatives or chemicals.
- Avoid heavy lifting or other strenuous work immediately succeeding the delivery for upto 6 weeks.
- Any kind of stress, either physical or mental should be avoided.

5.3.2 Common ailments in mother during postnatal period

5.3.2.1 After pains treatment and sequelae of labour

Medicines	Indications
Arnica montana	The patient feels bruised and sore or has violent after pains and doesnot want to be touched. The pains worse motion and better lying own or with head low.
Belladonna	After pains with a headache, flushed face, nervousness, restlessness
Bellis perennis	Soreness felt all through the pelvis, making walking and standing painful.
Chamomilla	Severe pain causing great irritability
Coffea cruda	Extreme pain causing sleeplessness
Cuprum metallicum	After pains accompanied by cramping pain in the legs.
Sepia officinalis	Pain radiates upwards. A sensation of a weight in the lower bowel. Pelvic organs feel as though they are about to drop out.
Causticum	Retention of urine, especially after a long labour
Staphysagria	To aid healing if there has been catheterization or an episiotomy, relieves pain after episiotomy and C-Section
Secale cornutum	After pains are too long, too painful, hourglass contraction.
Sabina	Retained placenta from uterine atony but intense after pains; inflammation of the ovaries after premature labour.
Calendula officinalis	For rapid wound healing and preventing infections in clean cut incisions or lacerations and tears in the birth passage occurring in the course of delivery.
Hypericum perforatum	When there are lacerations, to preserve the vitality of the affected tissue and intolerable pain after episiotomy or after anaesthetic injections.

5.3.2.2 Failure of Lactation (Agalactia)

Symptoms

- The baby seems hungry and continues to cry even after taking feed.
- Baby spends less time at the breast during feeding.
- Baby is either losing weight or not gaining sufficient weight.

General Management

- Maintain breast hygiene especially in later months of pregnancy.
- Encouraging mothers to increase fluid intake and nutritious diet.
- Lactate the baby frequently, upto 8 feedings or more in 24hrs.
- Avoid mental stress or anxiety during the lactating period.

Intervention at HWC

Medicines	Indications
Lac defloratum	Remedy for diseases with faulty nutrition. Used in cases of deficient milk in young mothers, to restore the flow
Agnus castus	Agalactia with sadness
Urtica urens	Remedy for agalactia (diminished secretion of milk, associated with lithiasis
Asafoetida	Deficient milk with oversensitiveness.
Secale cornutum	Suppression of milk, breasts do not fill properly.
Calcarea carbonica	Hot swelling of breasts. Milk too abundant, disagreeable to the child. Deficient lactation, with distended breasts in lymphatic women.
Thyroidinum	Agalactea with fibroid tumours of breast .

5.3.2.3 Breast Engorgement

Symptoms

- Swollen, firm and painful breasts.
- Mild redness may be present on the skin, overlying the blocked duct in the breast.
- Malaise, fatigue and heaviness in the breast.
- Hard and painful areola.
- Nipples may get flattened.
- Tenderness in the axillary lymph nodes.

General Management

- Breast feeding should be initiated as early as possible after childbirth.
- Baby should be put to both breasts regularly and at frequent intervals.
- When breasts feel hard and overfilled, express some milk to soften the nipples.
- Massaging the breast after feed in case the engorgement persists.
- Hot fomentation may be done.

Intervention at HWC

Medicines	Indications
Conium maculatum	Mammae lax and shrunken, hard , painful to touch (mastitis). Stitches in the nipples. Want to press the breast hard with the hand.
Belladonna	Mastitis pain throbbing redness streaks radiate from the nipple. Breast feel heavy, are hard and red.
Bryonia alba	Milk fever. Breasts hot, painful and hard (mastitis). Abscess of mammae, worse motion
Lac caninum	Mastitis worse least jar. Breast swollen painful before and better on appearance of menses. Helps to dry up milk . Breasts inflamed painful worse towards evening, must hold them firmly when going up and down stairs
Phytolacca decandra	Mastitis, mammae hard and very sensitive. When child nurses pain radiates from nipple to all over the body.
Pulsatilla nigricans	Weeps every time the child is put to breast. Swelling of breast after weaning.

Referral

Breast abscess, discharge of pus, fever

5.3.2.4 Mastitis

Symptoms

- It may be infective or non- infective.
- Severe pain and tender swelling in one quadrant of breast is present.
- Malaise, fatigue and feeling of being ill.
- High grade fever may be present with chills.
- Painful or burning sensation continuously or while breast feeding.
- Overlying skin of breast may be red, hot, tender, flushed and tense.
- Abscess may be caused if mastitis is left untreated.

General Management

- Proper rest, continuing breast feeding and drinking extra fluids help in overcoming infection early.
- Not to feed the baby from affected breast.
- Express milk from affected breast and discard.
- Support the breast adequately.
- To prevent engorgement of breasts and mastitis, ensure the baby takes all the milk. at each feeding. Empty the breast manually if they feel heavy after feeding.

Intervention at HWC

Medicines	Indications
Belladonna	Mastitis, pain, throbbing, redness, streaks radiate from nipple. Breasts feel heavy; are hard and red.
Bryonia alba	Breasts Hot, Painful And Hard, worse motion, better pressure, lying on painful side
Phytolacca decandra	Mammae very hard and sensitive. When child nurses, pain goes from nipple all over body.
Conium maculatum	Mammae lax and shrunken, hard painful to touch. Stitches in nipples. Wants to press breasts hard with hand.
Silicea terra	There is pain from the nipple to the uterus on nursing, with indurated lumps in the breast signifying abscesses, galactocoeles.

Referral

Breast abscess, discharge of pus, fever

5.3.2.5 Cracked and Sore nipples:

Symptoms

- Painful only when infant sucks in milder form.
- Deep cracks and fissures may even occur in severe form.
- Secondary infection may occur in case of deep cracks and fissures, leading to mastitis.

General Management:

- Maintain local hygiene of the breasts during pregnancy and during puerperium, before and after each feeding to prevent crust formation.
- Lactating mother should be advised to apply a little of expressed hind milk to sore nipples after each feed.

- In case of severe cracked and sore nipples, it is advisable to extract the milk manually and feed the baby. This helps the nipples to heal.

Intervention at HWC:

Medicines	Indications
Phytolacca decandra	Pain goes from nipple all over the body. Cracks and small ulcers around nipples.
Ratahnia peruviana	Cracked nipples with fissure ani.
Calendula officinalis	Nipples sore and cracked promote healing without suppuration.
Sulphur	Nipples cracked smart and burn, unhealthy skin, desires sweets, hot patient.
Graphites	Nipples sore, cracked and blistered; constipated; obese.
Silicea terra	Nipples very sore; easily ulcerated and drawn in. There is pain from the nipple to the uterus on nurshing.
Sepia officinalis	Cracked nipples with aggravation of complaints in cold air better by warm applications.

Referral

Discharge of pus from nipples, fever

5.3.2.6 Retention of urine

Symptoms

- On examination, upward displacement of contracted uterine body and a painful cystic swelling in lower abdomen may be present.
- Distension and discomfort in lower abdomen.
- Painful and difficult micturition may be present.

General Management

- Catheterization may be required in patients, but repeated catheterization should be avoided.
- Careful supervision of the urine production during labour and immediately postpartum should be done.
- Conservative measures should be taken, like walking to the toilet or trying to urinate in sitting or standing position, running tap water while trying to pass urine.

Intervention at HWC

Medicines	Indications
Arnica montana	Indicated after traumatic injuries. Any injury however remote, seems to cause present trouble. A muscular tonic. Retained from over exertion. Vesical tenesmus with painful micturition.
Causticum	Indicated mainly in paralytic affections. Progressive loss of muscle strength. Local paralysis of bladder. Retention after surgical operations. Urine expelled very slowly. Loss of sensibility on passing urine.
Aconitum napellus	Indicated when retention, with screaming and restlessness. Fright is the most characteristic indication. Scanty, Red, hot painful Urination. Serous and muscular tissues affected markedly. Physical and mental restlessness.
Staphysagria	Indicated in ill effects of anger and insults. Nervous affections with marked irritability. Ineffectual urging to urinate in newly married couple. Pain after Lithotomy. Pressure upon bladder, feels as if it did not empty. Sensation as if a drop of urine rolling continuously along the channel.

Medicines	Indications
Cantharis vesicatoria	Intolerable and constant urging to urinate is the most characteristic to indicate. The inflammation cantharis produces are usually associated with bladder irritation. Intolerable tenesmus; cutting before, during and after urine. Urine scalds him and passes drop by drop.
Hyosyamus niger	Indicated in involuntary micturition. Has no will to urinate. Symptoms point to weakness and nervous agitation.

Referral

Deterioration in health, fever, suspect of infection, obstruction.

5.3.2.7 Prolonged Lochia

Symptoms

- Puerpural vaginal discharge persistent for more than 3 weeks.
- Foul odor or recurrent clots present in the lochia.
- Abdominal or vaginal tenderness may be present in case of sepsis.
- Fever
- Prolonged lochial flow, profuse vaginal bleeding with large, flabby uterus indicates sub involution.

General Management

- Physical examination must be done to check for signs of infection.
- Examine the abdomen to see if the uterus is well contracted to rule out the presence of any uterine tenderness.
- Examine the vulva and the perineum for the presence of any tear, swelling or pus discharge.
- Examine the pad for bleeding and lochia. Assess if it is profuse and whether it is foul smelling.

Intervention at HWC

Medicines	Indications
Secale cornutum	Debility, anxiety, emaciation, though appetite and thirst may be excessive. passive haemorrhages in feeble cachetic women. Brownish, offensive leucorrhoea. Continuous oozing of watery blood until next period. Dark offensive lochia.
Kreosotum	Indicated when excoriating, burning and offensive discharges. Lochia offensive; intermits. Corrosive itching within vulva, burning and swelling of labia; violent itching between labia and thighs. During menses, difficult hearing
Carbolicum acidum	It is a languid, foul, painless destructive remedy. Puerperal fever, with offensive discharge. Erosions of cervix; fetid, acrid discharge. Agonizing backache across loins with dragging down thighs.
Carbo animalis	Indicated in Weakness of nursing women, mainly after debilitating diseases. All discharges are offensive. Lochia offensive followed by great exhaustion, so weak can hardly speak.
Pyrogenium	Septic states like puerperal fevers. Septicaemia following abortion. Septic puerperal infection.

Referral

Development of fever, weakness, dehydration

5.3.2.8 Postpartum psychological complaints

Symptoms

- Postpartum psychological disorders include- Postpartum blues, Postpartum depression and Postpartum psychosis.
- In postpartum blues, there are signs of mild mood disturbances, marked emotional instability, crying, insomnia and anxiety.
- Postpartum depression is a more protracted and depressive mood disorder, which develops insidiously over the first 6 postpartum months. The mother may also feel change in appetite, anxiety, suicidal thoughts, loss of libido etc.
- Mothers suffering from postpartum psychosis usually have history of any other psychiatric disorder. Signs and symptoms include confusion, hallucinations, fears and anxiety, mania etc.

General management

- Have as much rest as possible.
- Include physical activity in the daily routine.
- Advise the partner of the mother and family to provide emotional support to the mother.
- Advise the husband to participate in the care of the baby.
- Sharing of feelings and expectations among the mother and father should be encouraged.
- Avoid isolation.

Intervention at HWC

Medicines	Indications
Ignatia amara	Changeable mood; introspective; silently brooding. Melancholic, sad, tearful. Not communicative. Sighing and sobbing. Mentally, the emotional element is uppermost, and co-ordination of function is interfered with. Hence, it is one of the chief remedies for hysteria
Natrum muriaticum	Consolation aggravates. Irritable; gets into a passion about trifles. Awkward, hasty. Wants to be alone to cry. Tears with laughter.
Cimicifuga racemosa	Sensation of a cloud enveloping her. Great depression, with dream of impending evil. Fears riding in a closed carriage, of being obliged to jump out. Incessant talking. Visions of rats, mice, etc.
Kali bromatum	Profound, melancholic delusion; feeling of moral deficiency; religious depression; delusions of conspiracies against her. Loss of memory. Must do something-move about; gets fidgety. Fear of being poisoned. Night terrors. Horrid illusions. Active delirium.
Kali carbonicum	Despondent. Alternating moods. Very irritable. Full of fear and imaginations. Anxiety felt in stomach. Sensation as if bed were sinking. Never wants to be left alone. Never quiet or contented. Obstinate and hypersensitive to pain, noise, touch
Sepia officinalis	Indifferent to those loved best. Averse to occupation, to family. Irritable; easily offended. Dreads to be alone. Very sad. Weeps when telling symptoms. Miserly. Anxious toward evening; indolent.
Pulsatilla nigricans	Weeps easily. Timid, irresolute. Fears in evening to be alone, dark, ghost. Likes sympathy. Easily discouraged. Morbid dread of the opposite sex. Highly emotional. Mentally, an April day

Referral

Severe delusion and hallucination, violent behaviour with harm to others

5.3.2.9 Post partum Haemorrhage

Sign and symptoms

- Fever: Mild fever of less than 101° F lasting for less than 3 days may be managed at community level.
- Fever may be of following different causes:
 - o Urinary tract infection: Frequency, dysuria, hematuria, chills and rigors.
 - o Genital tract infection: Tender bulky uterus, prolonged bleeding/ pink or discoloured lochia, painful inflamed perineum.
 - o Mastitis: Flu- like symptoms, painful, hard, red breast with possible abscess, nipple trauma and cellulitis.
 - o Postoperative infection following caesarean section: Painful, red suture line, deep tenderness on palpation, lochia pink coloured.
 - o Deep venous thrombosis: Painful, swollen calf.
 - o Other infections: Pyrexia in a recently delivered mother may also be due to causes common to all, such as viral infection or chest infection.

General Management

Diet and regimen according to instructions given above for acute diseases.

Intervention at HWC

Medicines	Indications
Ammonium muriaticum	Haemorrhage with uterine inertia, Fever with chills during the evenings after lying down and on awakening, without thirst.
Arnica montana	Haemorrhage with low grade fever. Sore, lame, bruished feeling.
Arsenicum album	Haemorrhage with pain as if red hot wires; worse least exertion; causes great fatigue; better in a worm room. Endometritis.
Belladonna	Offensive smelling haemorrhage, hot gushes of blood. Diminished lochia. Lochia very offensive and hot. Mastitis, pain, throbbing, redness, streaks radiate from the nipple.
Caulophyllum thalictroides	Haemorrhage with uterine inertia. Lochia protracted; great atony.
Chamomilla	Uterine haemorrhage, profuse discharge of clotted, dark blood with labor like pains. Patient intolerant of pain. Nipples inflamed; tender to touch.
Cinchona officinalis	Post operative gas pains, no relief from passing it. Debility from exhausting discharges, from loss of vital fluids, together with a nervous erethism calls for this remedy.
Ferrum phosphoricum	In the early stages of febrile condition. Haemorrhage-bright red. Vagina dry and hot.
Geranium maculatum	Post partum hemorrhage. Sore nipples.
Hamamelis virginiana	Passive haemorrhage, Uterine haemorrhage, bearing down pain in the back.
Ipecacuahana	Haemorrhages bright red and profuse, gushing with nausea. Pain from navel to uterus. Tongue is usually clean with nausea and vomiting. Worse lying down.
Kali carbonicum	Complaints after parturition. Uterine haemorrhage, constant oozing after copious flow, violent backache, relieved by sitting and pressure. Worse morning, after coffee. Intolerance to cold weather. Sweat, Backache and Weakness.

Medicines	Indications
Millefolium	Haemorrhages of uterus bright red, fluid. Continued high temperature.
Nitricum acidum	Uterine haemorrhages, metrorrhagia after parturition. Pains appear and disappear quickly. All discharges are offensive. Acts best on dark complexioned and past middle life. Marked improvement of all symptoms while riding in a carriage. Pain as from splinters.
Pulsatilla nigricans	Female remedy. Dark clotted, thick haemorrhages. Chilliness, nausea, downward pressure, painful, flow intermits. Worse evening, better open air, motion, cold application. Symptoms ever changing. Thirstless, peevish, chilly.
Sabina	Haemorrhages, where blood is fluid and clots together. Violent pulsations; wants windows open. Pain from sacrum to pubes. Haemorrhage partly clotted, worse from least motion. Sexual desire increased.
Secale cornutum	Haemorrhages; continued oozing; thin, fetid, watery black blood. Debility, anxiety, emaciation, though appetite and thirst may be excessive. Passive haemorrhages in feeble, cachetic women. Burning pain in uterus. Puerperal fever, putrid discharges, tympanitis, coldness, suppressed urine. Worse heat, warm covering. Better cold.
Trillium pendulum	Haemorrhages, with great faintness and dizziness. Relaxation of pelvic region. Uterine haemorrhages, with sensation as though hips and back were falling to pieces; better tight bandages. Gushing of bright blood on least movement.
Ustilago maydis	Flabby condition of uterus. Haemorrhage. Oozing of dark blood, clotted, forming long strings. Postpartum haemorrhage. Haemorrhage bright red and clotted from slightest provocation.

Referral

- Presence of any of the postpartum danger signs in the woman like, increased vaginal bleeding, fits, offensive vaginal discharge, severe depression or suicidal behaviour, difficulty breathing etc.
- Signs of postpartum psychosis like hallucinations, rapid weight loss and refusal to eat, insomnia etc.
- Any other signs or symptoms which vary largely compared to their normal emotional and physical state.

5.3.3 Care of the newborn child

- The baby should be kept warm, and the head should preferably be covered, if cold.
- Care of the umbilical cord should be taken to avoid infections.
- Clean the eyes immediately after birth for prevention of ophthalmia neonatorum.
- Bathing of the newborn should be delayed until 24hrs after birth.
- It is not necessary to wash the baby every day, but baby should be kept clean, especially around all the orifices' regions.
- Exclusive breast-feeding for upto 6 months.
- Proper immunization schedule should be followed as per National Immunization Programme.
- Keep the baby away from smoke.
- The mother and baby should not be separated and should be kept in the same room always.
- Take appropriate care in case of neonatal jaundice, do not ignore.
- Good sleep is essential for baby's health. Place the baby on his or her back or in right lateral position to sleep to reduce the risk of sudden infant death syndrome.

5.3.4 Care at the referral site

- Care for low-birth weight new-borns.
- Treatment of asphyxia and neonatal sepsis.
- Treatment of severe respiratory tract infections and Diarrhoea / dehydration cases.
- Treatment of cases with convulsions.
- Immunization and Vitamin supplementation as per schedule.
- Management of all emergency and complications.

5.3.5 Ailments of neonates/infants after birth

If the infant is asphyxiated, conventional medical measures are necessary, though homeopathic medicine can improve survival and reduce sequale. Correctly prescribed medicine tends to work immediately, which, considering the circumstances, is necessary for the baby's survival. The neonates can be given homoeopathic medicines as per the indications before referring to other higher centres for care.

- *Asphyxia neonatarum*: Antimonium tartaricum, Carbo vegetabilis, Camphora, Laurocerus, Opium, Arnica montana
- *Neonatal Jaundice (Physiological)*: Aconite napellus, Natrum sulphuricum, Cheledonium majus, Bronia alba, Mercurius solubilis
- *Wind and colic*: Chamomilla, Pulsatilla nigricans, Nux vomica
- *Constipation*: Alumina, Cuprum metallicum, Magnesia phosphorica, Magnesia muriatica, Psorinum.

CHILD AND ADOLESCENT CARE

To grow up healthy and strong is the right of every child. The world has made tremendous progress in improving child and adolescent health and well-being over the past two decades, but the challenge still persists. Child and adolescent care are aimed to ensure proper growth and development, immunity and behaviour so as to reach potential functioning and adaptation.

6 Child Health Care

6.1 Care of child upto 1 year

- The preventive care, breast feeding, bathing, massaging should continue as mentioned in previous chapter.
- Immunization should be done as per the schedule.
- Detail history on feeding habits, physical and mental activity, micturition, bowel, sleep, cry, any other complaints or abnormalities.
- Examination of weight, height, pulse, respiratory system, cardiovascular system, abdominal examination, genitals, fontanelles, ears, nostrils, oral cavity, throat, to identify anaemia, malnutrition or other conditions early.

6.2 Weaning

- As the baby grows, the nutritional requirement increases and breast milk alone will not be sufficient, hence advise the mother to start weaning after 6 months of age. Seasonal fruits, vegetables may be started in the form of juice/soup at first and slowly changing to smashed fruits or semi-solid vegetables (boiled or slightly cooked or baked) and introduce solid foods in a gradual manner.
- Further by observing tolerance and digestive capacity of the child, different types of solid foods are gradually introduced. By one year of age baby should be made accustomed to family food.
- Avoid canned, frozen or packaged foods.
- Always prepare meals as fresh as possible. It is healthy and tasty.
- Children should regularly drink warm water between meals. Food should be palatable, and as per the liking of child.
- Breastfeeding should not be stopped all of a sudden, gradual withdrawal from breast milk and subsequent introduction of weaning foods is to be done.

6.3 General advice

- Children consider parents as role models and therefore how they behave has a strong influence on children.
- Love and affection for the baby, a happy state of mind is essential.

- Care givers should make efforts to inculcate a healthy lifestyle, eating habits, social behaviour in children by example rather than by force as mentioned in previous chapters.
- Encourage children to play and engage in creative activities within available resources.
- Avoid giving excessive candy, chips, biscuits, refined flour foods, tea/coffee to the child.
- Avoid use of harsh words, threaten or assault the child physically.
- Inculcate early toilet habits by making the child pass urine and stool in the toilet from an early age.
- Ensure cleanliness by regular bathing, washing, hand washing, oral cavity cleaning practices.
- Ensure child is supervised and is away from danger, sharp objects, instruments, heights, etc.

6.4 Care of child of 1 year and above

- By the time the child is one year of age, he/she should be accustomed to almost all family foods by gradual introduction of solid foods. All homemade foods are advised, Khichdi with rice and cereals would be the ideal, vegetables, nuts etc. may be added to increase its nutrition value and taste.
- Avoid canned, frozen or packaged foods, candies, sweets, chips, foods high in refined flour, sodium or sugar content as much as possible.
- Encourage the child for 'eat by self' as early as possible.
- Avoid bottle feeding, instead, start to feed with spoon and slowly shift to glass or cups.
- Toilet training, hygienic practices such as brushing, bathing, washing hands before eating should be encouraged.
- Supervise the child, Don't keep or leave the child alone at lonely places, don't frighten or beat the child.
- Keep the child happy and comfortable.

6.5 Common health problems

Children are very vulnerable and therefore the health of a child should be very carefully assessed to take an appropriate decision on management and referrals for expert's opinion, further investigation and intensive medical care. Following are some commonly encountered health problems and their simple management. The frequency and dosage of the remedies should be judiciously decided depending on the severity of the symptoms and age and weight of the child.

6.5.1 Difficult or Delayed dentition

The primary dentition is comprised of 20 teeth. Often these teeth are referred to as deciduous teeth. A healthy dentition and mouth are important to both quality of life and nutrition; oral disease may affect systemic health. Tooth eruption may be associated with irritability, disturbed sleep, cheek flushing, drooling, elevated body temperature, or a circumoral rash, but it does not cause diarrhea or bronchitis (although these conditions may occur coincidentally). The average age of first tooth to appear is 6 months.

General management

- Massaging the child's gums with a clean finger may help.

- Small objects should be kept away from the reach of babies.
- Unclean objects should not be given to the babies.
- Baby's face should be wiped often with a soft cloth to clean the saliva to prevent rashes.
- Teeth eruption is taken as a base for the introduction of solid food to a child, which usually starts at 6 -8 months of age, and gradual introduction of solid foods is advised for easy and appropriate adaptation.

Intervention at HWC

Medicines	Indications
Calcarea phosphorica	Delayed dentition in weak children; diarrhoea during dentition with green noisy hot stool. In case of delayed dentition Calcarea phos 6X can be given regularly along with the indicated remedy.
Calcarea carbonica	Difficult and delayed dentition. Offensive smell from mouth. Profuse perspiration from head during sleep. Large head and abdomen, fontanelles and sutures open.
Silicea terra	Gums sensitive to cold air. Boils on gums. Large heads, distended abdomen, weak ankles.
Chamomilla	Greenish stools during dentition, child is irritable and angry.
Podophyllum peltatum	Profuse yellowish stool during dentition.

6.5.2 Distension of abdomen and colic

General management

- Keep the baby in a prone position to facilitate easy passing of abdominal flatulence.
- Spicy & sour food should be avoided.
- Give emotional support & reassurance to the child and keep the child comfortable.
- Lactose intolerance may be taken care of.

Intervention at HWC

Medicines	Indications
Cinchona officinalis	Excessive flatulence of stomach and bowels; fermentation, borborygmus, belching gives no relief; worse after eating fruit.
Nux vomica	Flatulent distension, with spasmodic colic. Stomach: pressure an hour or two after eating as from a stone; pyrosis, tightness, must loosen clothing; cannot use the mind for two or three hours after a meal.
Carbo vegetabilis	Weak digestion: simplest food disagrees; excessive accumulation of gas in stomach and intestines worse lying down; after eating or drinking, effects of a debauch, late suppers, rich food (by mother). Eructation gives temporary relief; sensitiveness around the waist and abdomen.
Lycopodium clavatum	Gastric affections from gas producing substances like cabbage, beans; excessive accumulation of flatulence; constant sensation of satiety; good appetite, but a few mouthfuls fill up to the throat, and feels bloated; fermentation in the abdomen, with loud grumbling, croaking, especially lower abdomen; fullness not relieved by belching worse evening. Child cries through the day and is quiet at night.

6.5.3 Colic

General management

- Holding the child in an upright position is one of the most effective measures.
- A mildly warm towel or mildly warm water bottle on the abdomen on the abdomen may help.

Intervention at HWC

Medicines	Indications
Colocynthis	Colic in children due to the mother's anger and indignation. Agonizing cutting pain in the abdomen causing the patient to bend double, better by hard pressure.
Magnesium phosphoricum	Colic; flatulent, forcing the patient to bend double; better by heat, rubbing and hard pressure.
Chamomilla	Complaints during dentition, irritable & oversensitive to pain, quiet only when carried. Gripping pain in the region of the navel. Flatulent colic, after anger with red cheeks and hot perspiration & excessive thirst.
Dioscorea villosa	Infant with feeble digestive power; complaints due to excess or delayed feeding or changing the feeding pattern. Pains suddenly shift to different parts; appear in remote localities, as fingers and toes. Colic worse from bending forward better from holding erect.
Plumbum metallicum	Abdominal pain associated with constipation & blue discolouration on the margin of gums. Excessive colic, radiating to all parts of the body. The abdominal wall feels drawn by a string to the spine. Colic alternates with delirium.
Nux vomica	Flatulent distension, with spasmodic colic. Colic from uncovering. Colic, with upward pressure, causing short breath, and desire for stool.
Magnesium carbonicum	Spasmodic affections of the stomach and intestines with increased secretion of mucous membranes, irritable, sour smelling child with inordinate craving for meat, intolerance to milk.
Stannum metallicum	Colic better by hard pressure, keeping abdomen across knee or shoulder; lumbrici, passes worms.
Cina maritima	Twisting pain about the navel, worm infestation, boring the nose, irritable whining child, carrying gives no relief, will not be touched or examined, craves sugar, canine hunger.

6.5.4 Constipation

General management

- Take enough fibre in the diet by including salads, green vegetables, fruits & whole grain cereals.
- Avoid processed, refined flour and low fibre food items.
- Drink plenty of fluids to help pass the stool.
- Child should be encouraged to be physically active to have regular bowel movements.
- Enemas or laxatives should be reserved for severe cases only. These methods should be used only if fibre, fluids & dietary changes do not provide enough relief.
- Behaviour modification should focus on establishing regular toilet habits. It is important to make the child understand the significance of timely bowel evacuation. Don't ignore the urge to have a bowel movement. Longer the delay, more the water is absorbed from stool & the harder it becomes.

Intervention at HWC

Medicines	Indications
Alumina	Constipation of nursing children, from artificial food; bottle-fed babies; from the inactive rectum. No desire for and no ability to pass stool until there is a large accumulation; great straining, must grasp the seat of closet tightly; of soft, clayey, adhering to parts. Craving for starch, chalk charcoal, cloves, coffee or tea grounds, acids and indigestible things.
Opium	Obstinate constipation: no desire to go to stool. Round, hard, black balls. Faeces protrude and recede. Spasmodic retention of faeces in small intestines. Stools involuntary, black, offensive, frothy.
Nux vomica	Constipation; with frequent unsuccessful desire; sensation as if not finished. Frequent desire for stool; anxious, ineffectual, better for a time after stool; in the morning after rising; after mental exertion. Alternate constipation and diarrhoea.
Bryonia alba	Constipation: inactive, no inclination; stool large, hard, dark, dry, as if burnt; on going to sea. Great thirst for large quantities at long intervals. Excessive dryness of mucous membranes of the entire body.
Silicea terra	Chilly patient takes cold from exposure of feet. Sweat of hands, toes, feet and axillae; offensive. Constipation: always before and during menses; difficult, as from inactivity of rectum; with great straining, as if rectum was paralyzed; when partly expelled, recedes again.
Natrum muriaticum	Burning pains and stitching after stool. Anus contracted, torn, bleeding. Constipation; stool dry, crumbling.
Psorinum	Obstinate constipation, general offensiveness, scanty perspiration, child is irritable cries day and night or only at night, is very well a few days before any illness.
Sulphur	Stool is large, hard as if burnt, very painful, child cries during passage, pain may be so severe that child may desist on first effort. Scrofulous children prone to worm infestation, dirty looking, hot, pot bellied with very red lips.

Referral

When a child does not respond to these simple remedial procedures and becomes restless, excessive crying, is not able to pass abdominal gas and stool or passes mucoid jelly like or bloodstained stool, or becomes lethargic and has stupor, refer the child to a higher centre for further management.

6.5.5 Diarrhoea

General management

- In case of breast-feeding infants, mothers continue to breastfeed, more often than usual, if needed.
- Soup, rice water, coconut water, clean water from a safe source.
- Oral rehydration salts (ORS) mixed with a proper amount of clean water. Oral rehydration solution can also be made at home by adding 5gm.(1tsf.) of table salt & 20 gm.(4tsf.) of sugar in one litre of drinking water.
- Homemade ORS and diet-based fluids should not be given in infants under 6 months of age who are exclusively breastfed.

Intervention at HWC

Medicines	Indications
Podophyllum peltatum	Diarrhoea during teething; after eating; while being bathed or washed; of dirty water soaking napkin through, with gagging. Stool: green, watery, fetid, profuse, gushing out chalk-like, jelly-like, undigested, yellow meal-like sediment. Worse: early in the morning, continues through forenoon, followed by natural stool in the evening.
Croton tiglium	Diarrhoea as if by spasmodic jerks, “coming out like a shot”, as soon as patient eats, drinks; yellow watery stool.
Veratrum album	Diarrhoea with vomiting/ with nausea and great prostration: Diarrhoea: frequent, greenish, watery, gushing mixed with flakes: cutting colic, with cramps commencing in hands and feet and spreading all over; prostrating, after fright; worse by drinking, by least motion; great weakness, cold sweat on the forehead during and prostration after.
Aloe socotrina	Diarrhoea immediately after eating and drinking with want of confidence in sphincter ani, driving out of bed early in the morning. When passing flatus, sensation as if stool would pass with it.
Cuprum metallicum	Diarrhoea with cramps in abdomen and calves of legs. Stool -black, painful, bloody, with tenesmus and weakness.
Cinchona officinalis	Diarrhoea from eating fruits and in hot weather, bloating of abdomen, extreme weakness.
Chamomilla	Diarrhoea during dentition, green like chopped eggs and spinach, hot acrid offensive like rotten eggs, great irritability.
Cina maritima	Loose stool with white thick mucus like popped corn, preceded by pinching around navel, worm infestation.
Dulcamara	Diarrhoea in cold damp weather, after suppressed or repelled eruptions, watery, green slimy stool.
Arsenicum album	Diarrhoea after, cold food and drinks, cold fruits, strong cheese, decayed food or animal matter, inhaling poisonous gas, stool scanty, dark, offensive, acrid, after eating or drinking, followed by great prostration even after small stools, restlessness, anxiety, thirst for small quantities of cold water frequently.
Thuja occidentalis	Diarrhoea after onions, coffee, fat food, vaccination, breakfast, stools watery, profuse gushing out forcibly with much flatus.
Magnesium carbonicum	Stool preceded by griping, colicky pain. Green, watery, frothy, like a frog-pond’s scum. Bloody mucous stools. Milk passes undigested in nursing children. Sour, with tenesmus.

Referral

- When a child does not respond to these simple remedial procedures and becomes restless, incessant crying, passes watery stools, develops signs of dehydration such as dry mouth, loose skin, sunken eyes, depressed anterior fontanelle, anuria/oliguria, feeble pulse, lethargy, sunken eyes, skin pinch goes back very slowly.
- Children with severe malnutrition presenting with diarrhoea should be promptly referred.

6.5.6 Loss of Appetite

Intervention at HWC

Medicines	Indications
Cinchona officinalis	Slow digestion. Sense of weight after eating. Hungry without appetite. Milk disagrees. Hungry longing for food, which lies undigested. Flatulence: belching of bitter fluid or regurgitation of food gives no relief; worse eating fruit.
Carduus marianus	Tongue furred, taste bitter. Aversion to salt meat. Appetite small; nausea; retching; vomiting of green, acid fluid. Constipation: stool hard, difficult, knotty alternates with diarrhoea.
Nux vomica	Sour taste and nausea in the morning, after eating. Epigastrium bloated, with pressure as of a stone, several hours after eating. Weight and pain in stomach; worse, sometime after eating, Desire for stimulants. Loves fats and tolerates them well. Wants to vomit but cannot.
Alumina	No desire to eat. Abnormal appetite; craving for starch, chalk, charcoal, cloves, coffee or tea grounds, acids and indigestible things; potatoes disagree. Chronic eructations for years; worse in evening.

6.5.7 Common cold and Cough

General management

- Drink plenty of warm fluids. Liquids help thin the mucus in throat & make easier to cough it up.
- Use a vapourizer or inhale steam, both these things increase the moisture in the air & can help soothe a dry throat.
- Gargle with warm salt water may be suggested to the adolescents.
- Keep the child warm.

Intervention at HWC

Medicines	Indications
Aconite napellus	Complaints caused by exposure to dry cold air, dry north or west winds, or exposure to draughts of cold air while in a perspiration, bad effects of checked perspiration. Coryza with much sneezing; throbbing in nostrils. Mucous membrane dry, nose stopped up; dry or with but scanty watery coryza.
Belladonna	Great liability to take cold; sensitive to drafts of air, especially when uncovering the head; from having the hair cut; tonsils become inflamed after riding in a cold wind. Bleeding of nose with red face. Coryza; mucus mixed with blood.
Allium cepa	Nasal discharge is watery, copious, and extremely acrid & excoriates the upper lip with bland lachrymation. Eyes burning as from smoke, must rub them. Constant sneezing on entering the warm room. Canine hunger, salivation-increased
Euphrasia officinalis	Catarrhal affections of mucus membranes especially of the nose & eyes; worse in evening, warmth better open air. Profuse acrid lachrymation with profuse bland coryza. Margins of eyelids: red, swollen & burning.
Arsenicum album	Thin, watery & irritating discharge from nose, stuffed nose with frequent sneezing worse open air; Anxiety, anguish, fear of death & restlessness. Thirsty. Worse cold, cold food and drink, better heat in general

Medicines	Indications
Pulsatilla nigricans	Marked changeability, thirstlessness, desire for open air, mild, gentle & yielding disposition, weeps easily & desires company. Nasal discharges are thick, mucopurulent, yellowish or yellowish green. Stoppage of nose in evening, nasal discharges are bland & never irritating. Worse evening better open air
Ammonium carbonicum	Chilly patient, child dislikes to be washed, cannot sleep because he cannot breathe. Watery discharge from nose. Stoppage of nose at night with long continued coryza. Snuffles of children, epistaxis nose bleeds when washing the face in morning & after eating
Arsenicum iodatum	Persistently thin, watery, irritating, profuse & corrosive discharge; marked itching & burning. Irritation & tingling in nose with constant desire to sneeze which aggravates. Hot Patient, burning, profound prostration, recurring fever & drenching night sweat.
Hepar sulphuris calcareum	Cough excited when any part of body gets cold or being uncovered or from eating anything cold. Loose rattling cough worse in morning, dry, cold air; better by warmth in general.
Spongia tosta	Dry barking cough with worse in winters, sweets, cold drink, talking, swallowing, before mid night and better by warm drinks.
Justicia adhathoda	Dry cough from sternal region all over chest. Hoarseness, larynx painful. Paroxysmal cough, with suffocative obstruction of respiration. Cough with sneezing. cannot endure a close, warm room. loss of smell and taste; coryza with cough.
Drosera rotundifolia	Spasmodic, dry, irritative cough like whooping cough, the paroxysms following each other very rapidly: can scarcely breathe. Cough very deep & hoarse worse after midnight, lying down. Yellow expectoration with bleeding from nose & mouth.
Rhus toxicodendron	Sneezing; coryza from getting wet. Tip of nose red, sore, ulcerated. Swelling of nose.
Ipecacuanha	Coryza, with stoppage of nose and nausea; thirstlessness ; tongue usually clean.
Nux vomica	Stuffy colds, snuffles, after exposure to dry, cold atmosphere; worse, in warm room. Coryza: fluent in daytime; stuffed up at night and outdoors; or alternates between nostrils.
Antimonium tartaricum	Great rattling of mucus, but very little is expectorated. Rapid, short, difficult breathing; seems as if he would suffocate; must sit up. Cough excited by eating, with pain in chest and larynx. Cough better lying on right side; Coated, pasty, thick white, with red edges; Thirst for cold water, little and often, and desire for apples, fruits, and acids generally.
Dulcamara	Dry coryza. Complete stoppage of nose. Stuffs up when there is a cold rain. Thick, yellow mucus, bloody crusts. Profuse coryza. Wants nose kept warm, least cold air stops the nose. Coryza of the new born.

Referral

- When a child does not respond to these simple remedial procedures and develops high fever, wheezing, breathing difficulty, restlessness/ drowsy.
- Stopped eating /not feeding well.
- Central cyanosis.
- Apnoea or convulsion.
- Severe malnutrition.
- No response to treatment/ deterioration.

6.5.8 Fever

General management

- Take complete rest.
- Have simple diet.
- Have plenty of fluids to meet the water loss due to fever.
- Give tepid water sponging if temperature goes beyond 102.0 F.

Intervention at HWC

Medicines	Indications
Aconitum napellus	Sudden onset of fever after exposure to dry cold wind especially in winter. Skin dry and hot; face red; increased thirst for large quantities of water at short intervals. Anxiety with fear and restlessness.
Arsenicum album	Any fever accompanied with diarrhoea/vomiting or both. Fever with disproportionate weakness. Mid day - midnight aggravation. Great restlessness with sipping of small quantities of water. Fever at smaller interval.
Belladonna	Sudden onset of fever with high temperature on exposure of heat to heat or cold. With features of congestion to head and neck. Dry heat, burning and thirstlessness accompanied with fever.
Gelsemium sempervirens	Dullness, dizziness, drowsiness with fever without thirst. During fever desire to be quiet, to be let alone; does not wish to speak or have any one near her. Cannot open the eyes.
Bryonia alba	Fever, with bitter taste, dry tongue. Thirst for large quantities of water at long interval. Wants to lie down quietly. All complaints worse from motion.
Rhus toxicodendron	After drenching in rain with myalgia, chilliness, restlessness better by motion.
Ferrum phosphoricum	All catarrhal and inflammatory fevers; first stage. First stage of colds in the head.

Referral

Child with high fever lasting for more than 3 days, with respiratory problems, vomiting, severe diarrhoea, urinary problems, skin eruptions, convulsions, loss of consciousness etc, should be referred to higher centre immediately.

6.5.9 Nocturnal Enuresis

Enuresis is the medical term for involuntary passing of urine. The most common form of enuresis which occurs at night, is referred to as bedwetting. Bed wetting is considered to be abnormal if it continues to be present in the children even after 5-6 years of age. The condition is more common in boys.

General Management

- Don't be angry with the child or punish them if they wet their bed. Children don't wet the bed on purpose, it is mostly involuntary.
- Make sure that the child doesn't drink very much during the two hours before going to bed.
- Ensure the child goes to the toilet before getting into the bed.
- Try using a bed wetting alarm which makes a ringing or buzzing sound or vibrates if the child wets the bed. The alarm is very effective because it wakes the child up as soon as the first drop of urine heats the underwear or the sheet.

- Evaluate a child for psychological reasons like anxiety, fear, stress. Sometimes parents give undue stress for qualifying an interview to get admission in certain schools.
- Despite best efforts, if you are unable to manage the case, rule out the organic conditions such as, small under-developed bladder, recurrent urinary tract infection. Attention Deficit Hyperactivity Disorder children are frequently found to be having long lasting bed wetting.

Intervention at HWC

Medicines	Indications
Kreosotum	Enuresis in the first part of night. Can urinate only when lying; cannot get out of bed quick enough during first sleep. Dreams of urinating
Sepia officinalis	Urine: so offensive must be removed from the room, bed is wet almost as soon as the child goes to sleep; always during the first sleep.
Causticum	Urine involuntary: when coughing, sneezing, blowing the nose. Constipation in children with nocturnal enuresis.
Equisetum hyemale	Enuresis diurna et nocturna: where habit is the only ascertainable cause. Constant desire to urinate; Incontinence in children, with dreams or nightmares when passing urine.
Cina maritima	Worm affection in children. Urine; turbid when passed, turns milky and semi-solid after standing; white and turbid; involuntary.
Belladonna	Nocturnal enuresis, child cannot be woken from sleep.
Medorrhinum	Passes profuse, ammoniacal, high coloured urine at night in bed daily, < over work or play, extremes of heat or cold, history of sycosis.

Referral

When a child does not respond to these simple remedial procedures and develops urinary tract infection with high fever, other neurological complaints.

6.5.10 Convulsions

A condition of the brain which causes seizures which may be focal or generalised. Convulsions must always be investigated to identify underlying cause and treated accordingly.

General management

- Give them space, move other people away.
- Clear away sharp objects from their vicinity to prevent injuries.
- Cushion their head and turn it to a side if it is not moving.
- Loosen the clothing around their neck.
- After the convulsion turn them to their side to help clear the airways.
- Advise the child never to remain alone if the child has frequent seizures.
- Do not stop anti epileptics if already being given.

Intervention at HWC

Medicines	Indications
Bufo rana	Feeble minded children; convulsive seizures occur during sleep at night. More or less connected with derangements of the sexual sphere; disposition to handle sex organs.
Cuprum metallicum	Bad effects of re-percussed eruptions resulting in brain affections, spasms, convulsions, vomiting; of suppressed foot-sweat. Convulsions, with blue face and clenched thumbs. Epilepsy: aura begins in knees and ascends; worse at night during sleep; about new moon, at regular intervals; from a fall or blow upon the head; from getting wet.

Medicines	Indications
Cicuta virosa	Spasms of teething children, or from worms. Convulsions: violent, with frightful distortions of limbs and whole body; with loss of consciousness; renewed from slightest touch, noise or jar.
Belladonna	Convulsions during teething, with fever; come on suddenly, head hot, feet cold. Rush of blood to head and face. Convulsions without consciousness.
Hyoscyamus	Epileptic attacks ending in deep sleep; Child sobs and cries without waking Spasms: without consciousness, very restless; every muscle in the body twitches, from the eyes to the toes.
Nux vomica	Convulsions, with consciousness; worse, touch, moving. Oversensitive to all external impression noise, odour, light, music.
Kali bromatum	Epilepsy: Hands and fingers in constant motion; fidgety hands. Twitching of fingers. Somnambulism. From fright, anger, emotion, during dentition, at new moon with impaired memory.
Aethusa cynapium	Epileptic spasms with clenched thumbs, red face, eyes turned downwards, pupils fixed and dilated, foam at the mouth, lock jaw, pulse small hard quick, drowsiness after. Intolerance to milk and idiocy.
Artemesia vulgaris	Epilepsy after fright or violent emotions, in children or girls at puberty. Petit mal, epilepsy without aura.
Stramonium	Sight of water or anything glittering brings on a convulsion, convulsion of upper extremities or isolated group of muscles, risus sardonicus, convulsions with consciousness. Convulsions alternating with mental excitement or rage.
Silicea terra	Epilepsy after vaccination. Somnambulism.

Referral

- When a child does not respond to these simple remedial procedures and develops impaction of food or saliva into the lungs during a seizure, which can cause aspiration pneumonia.
- Injury to head or any major injury due to fall/blow during seizure.

6.6 Adolescent Health Care

The adolescence stage is the period when a child develops into becoming an adult and it takes place between the age of 10 and 19 years of age. Physically, adolescents start seeing changes in their bodies, a process referred to as puberty. Often, when these changes start setting in, adolescents become extremely sensitive and start experiencing mood swings and fluctuations in their confidence levels. Adolescents need proper guidance with open communication channels to understand their concerns and guidance accordingly and may be referred to appropriate facility.

Every child responds differently to life changes. Some of the events that may impact a child or teen's mental health include:

- The birth of a sibling
- The death of a loved one, such as a family member or a pet
- Physical or sexual abuse
- Poverty or homelessness
- Natural disaster
- Domestic violence
- Moving to a new place or attending a new school

- Being bullied
- Taking on more responsibility than is appropriate for age
- Parental divorce or separation
- Sexual inquisitiveness, experimentation and sexual abuse, assault, molestation, rape, sexual offenses, sexually transmitted diseases

Adolescent girls have additional issues such as

- Menstrual problems
- Discrimination
- Pregnancy

Adolescent counselling

Most common problems of the adolescents are associated with physical inactivity, faulty diet, substance abuse, mobile addiction etc.

Some basic rules for parents

- Encourage for Yoga and physical activities regularly.
- Set a good example.
- Be a patient listener.
- Spend good time and also provide them free space.
- Do not compensate for lack of time with material items such as mobile phones.
- Be watchful without letting them know.
- While involving children in household conversation and listening to their opinions on family matters, do not bother children with troubles that bother you.
- Avoid constant criticism, however much their behaviour or appearance annoys you.
- Ignore insignificant incidents. Look for opportunities to pay honest compliments.
- Take interest in what they do.
- Don't preach and don't nag.
- Be alert for early signs of deviant behaviour.

Common health problems of child and adolescents

6.6.1 Acne

Acne affect immediate appearance, can be painful and may leave behind scars. Acne has a psychological effect on appearance and self esteem. Some of the general reasons for acne development include:

- Oily skin
- Foods high in fats, sweet and sodium content
- Dead skin cells
- Clogged pore
- Bacterial Infection
- Acne can also be associated with PCOS in girls.

General management

- Wash the site of acne once or twice daily with soap and water to remove excess oil from the skin.
- Avoid scrubbing too hard because this can irritate the skin & cause acne to worsen.

- Avoid exposure to dust especially of the area that is infected.
- Healthy food choices, plenty of water.

Intervention at HWC

Medicines	Indications
Berberis aquifolium	Commonly used remedy for treatment of acne. Dry rough, skin with persistent acne. Blotches.
Kali bromatum	Acne in young fleshy persons of gross habits; bluish-red, pustular, on face, chest, shoulders; leaves ugly scars.
Bovista lycoperdon	Acne worse in summer. Acne due to use of cosmetics. Pimples and miliary eruption, with burning itching
Arsenicum bromatum	Acne in young people. Acne rosacea with violet papules on nose. Acne worse in the spring.
Psorinum	Acne, all forms, simplex, rosacea; worse during menses, from coffee, fats, sugar, meat, when the best selected remedy fails or palliates.
Calcarea sulphurica	Pimples and pustules on the face. Discharges are yellow, thick and lumpy.
Natrum muriaticum	Oily, shiny, as if greased. Earthy complexion. Oversensitive to all sorts of influences. Craving for salt. Aversion to bread, to anything slimy, like oysters, fats; -Psychic causes of disease; ill effects of grief, fright, anger.
Sulphur	Intellectually active patients with strong self esteem who are sensitive to heat. History of skin problems; untidy habits.

Referral

When patient does not respond to these simple remedial procedures and develops complications such as abscess/ nodules/ cyst that requires surgical intervention.

6.6.2 Eating problems

Most common eating disorders are anorexia nervosa, bulimia nervosa and binge-eating disorder. Some indications of eating disorder include:

- Skipping meals, making excuses for not eating or eating in secret.
- Excessive focus on food.
- Persistent worry or complaining about being fat.
- Frequent checking in the mirror for perceived flaws.
- Misusing laxatives, diuretics or enemas after eating.
- Excessive exercise
- Regularly going to the bathroom right after eating or during meals.
- Eating much more food in a meal or snack than is considered normal.
- Expressing depression, disgust, shame or guilt about eating habits.
- PICA

General Management

- Prevention begins with open communication; so, encourage to discuss the issue in detail.
- Encourage healthy-eating habits. Talk to the adolescent about how diet can affect his or her health, appearance and energy level. Encourage to eat when hungry. Make a habit of eating together as a family.

- Discuss media messages. Television programs, movies, websites and other media might give wrong messages.
- Promote a healthy body image. Offer reassurance that healthy body shapes vary. Don't allow nicknames or jokes based on a person's physical characteristics. Avoid making comments about another person based on his or her weight or body shape.
- Foster self-esteem.
- Share the dangers of dieting and emotional eating.
- If there is no improvement the adolescent should be referred for further specialist care.

Intervention at HWC

Medicines	Indications
Abies canadensis	Great appetite, craving for meat, pickles, radishes, turnips, artichokes, coarse food. Tendency to eat far beyond capacity for digestion. Burning and distention of stomach and abdomen with palpitation.
Abies nigra	Pain in stomach always comes on after eating. Sensation of a lump that hurts, as if a hard-boiled egg had lodged in cardiac end of stomach; continual distressing constriction just above the pit of the stomach, as if everything were knotted up. Total loss of appetite in morning, but great craving for food at noon and night.
Arsenicum album	Cannot bear the sight or smell of food. Great thirst; drinks much, but little at a time. Nausea, retching, vomiting, after eating or drinking. Anxiety in pit of stomach. Everything swallowed seems to lodge in the esophagus, which seems as if closed and nothing would pass. Ill effects of vegetable diet, melons, and watery fruits generally.
Colchicum autumnale	The smell of food causes nausea even to fainting, especially fish. Profuse salivary secretion. Vomiting of mucus, bile and food; worse, any motion; great coldness in stomach. Craving for various things, but is averse to them when smelling them, seized them with nausea.
Cinchona officinalis	Vomiting of undigested food. Slow digestion. Weight after eating. Ill effects of tea. Hungry without appetite. Flat taste. Hungry longing for food, which lies undigested. Flatulence; belching of bitter fluid or regurgitation of food gives no relief; worse eating fruit. Hiccough.
Iodium	Throbbing at pit of stomach. Ravenous hunger and much thirst. Empty eructations, as if every particle of food were turned into gas. Anxious and worried if he does not eat. Loss flesh, yet hungry and eating well.
Lycopodium	Great weakness of digestion. Bulimia, with much bloating. After eating, pressure in stomach, with bitter taste in mouth. Eating ever so little creates fullness Hiccough. Incomplete burning eructations rise only to pharynx there burn for hours.
Sulphur	Complete loss of, or excessive appetite. Putrid eructation. Burning, painful, weight-like pressure. Very weak and faint about 11 am; must have something to eat.

6.6.3 Obesity

Globally, 1 in 5 adolescents are estimated to be obese. Prevalence of inactivity is high across all WHO regions, and higher in female adolescents as compared to male adolescents. Regular physical activity provides fundamental health benefits for adolescents, including improved cardiorespiratory and muscular fitness, bone health, maintenance of a healthy body weight, and psychosocial benefits.

Management

- WHO recommends at least 60 minutes of moderate to vigorous intensity physical activity daily, which may include play, games, sports, and activity for transportation (such as cycling and walking), or physical education.
- Motivation for undertaking physical activity regularly.
- Practice yoga
- To have balanced diet
- Avoid foods high in sugars, sodium and fats.

Intervention at HWC

Medicines	Indications
Calcarea carbonica	Leucophlegmatic, blond hair, light complexion, blue eyes, fair skin; tendency to obesity in youth. Pale, weak, timid, easily tired when walking. Children with red face, flabby muscles, who sweat easily and take cold readily in consequence. Head sweats profusely while sleeping, wetting pillow far around. Sweat: of single parts. Constipated.
Capsicum annuum	Easily exhausted; indolent, dreads any kind of exercise; dread open air; always chilly; refractory, clumsy, fat, dirty, and disinclined to work or think. Desires to be let alone; wants to lie down and sleep.
Ferrum metallicum	Persons of sanguine temperament; pettish, quarrelsome, disputative, easily excited, least contradiction angers. Irritability: slight noises like crackling of paper drive him to despair. Red parts become white, face, lips, tongue and mucous membrane of mouth.
Kali bichromicum	Fat, light-haired persons who suffer from catarrhal, syphilitic or psoric affections. Fat, chubby, short-necked children disposed to croup and croupy affections. Liability to take cold in open air.
Baryta carbonica	Especially adapted to complaints of first and second childhood. Threatened idiocy. Children both physically and mentally weak. Great sensitiveness to cold.
Antimonium crudum	For children and young people inclined to grow fat with gastric complaints from over-eating; stomach weak, digestion easily disturbed; a thick milky-white coating on the tongue.
Fucus vesiculosus	A remedy for obesity and non-toxic goitre. Thyroid enlargement in obese subjects. Obstinate constipation.
Phytolacca berry	Regulate the hunger patterns and fat metabolism. Has a powerful effect on fibrous tissues thereby decreasing weight.

Referral

When patient does not respond to these simple remedial procedures and develops cardiac complications, fracture due to excess weight bearing, uncontrolled diabetes may be required to be referred.

6.6.4 Mental Health

Mental health is an important part of overall health of children and adolescents. For many adults who have mental disorders, symptoms were present but often not recognized or addressed in childhood and adolescence. The children with following signs and symptoms need counselling and expert consultation.

6.6.4.1 Young children

- Have frequent tantrums or are intensely irritable much of the time.

- Often talk about fears or worries.
- Complain about frequent stomach-aches or headaches with no known medical cause.
- Are in constant motion and cannot sit quietly (except when they are watching videos or playing videogames).
- Sleep too much or too little, have frequent nightmares, or seem sleepy during the day.
- Are not interested in playing with other children or have difficulty making friends.
- Struggle academically or have experienced a recent decline in grades.
- Repeat actions or check things many times out of fear that something bad may happen.

6.6.4.2 Older children and adolescents

- Have lost interest in things that they used to enjoy.
- Have low energy.
- Sleep too much or too little or seem sleepy throughout the day.
- Are spending more and more time alone and avoid social activities with friends or family.
- Fear gaining weight, or diet or exercise excessively.
- Engage in self-harm behaviours (e.g. cutting or burning their skin).
- Smoke, drink alcohol or use drugs.
- Engage in risky or destructive behaviour alone or with friends.
- Have thoughts of suicide.
- Have periods of highly elevated energy and activity and require much less sleep than usual.
- Say that they think someone is trying to control their mind or that they hear things that other people cannot hear.

6.6.5 Cigarettes, Alcohol and Drugs (Including Prescription Drugs) Abuse

Children and adolescents who abuse drugs may have a greater risk of developing an addiction when they are adults. It is important to know the difference between drug abuse and addiction. Many people experiment with drugs but are not addicted. Adolescent drug abuse can have long-term cognitive and behavioral effects since the teenage brain is still developing. Recognition and prevention of drug use can end an emerging problem before it starts. Setting a good example and having talks about drug use are strong tools for teenage substance abuse prevention.

Half of all new drug users are under the age of 18 years. Experimentation plays the biggest role in teenage years drug use. However, experimentation is a fact of life and just because a teen has tried drugs or alcohol does not mean they will become an addict. It is more important to understand why some teens are tempted to experiment. Common reasons teens abuse drugs include:

- Curiosity
- Peer pressure
- Stress
- Emotional struggles
- A desire to escape

Signs of Drug Abuse

- Bad grades
- Bloodshot eyes
- Laughing for no reason

- Loss of interest in activities
- Poor hygiene
- Diminished personal appearance
- Avoiding eye contact
- Frequent hunger or “munchies”
- Smell of smoke on breath or clothes
- Secretive behavior
- Unusual tiredness
- Repeated asking for increasing amount of money
- Petty thefts and/or missing costly items and money from house may alert parents regularly.

General management

- The best way to get a teen to communicate about their drug use is by asking compassionate and understanding questions.
- It is up to parents to initiate a conversation with their children if they suspect drug use.
- Parents can ask straightforward questions when said in the right tone. Simply asking, “Have you been using drugs or alcohol?” or “Has anyone offered you drugs recently?” can be enough to get the conversation started.
- Responding to a teen’s admittance or denial of drug use in the right way is just as important as asking the right questions.

Intervention at HWC (Chapter on mental health may also be referred)

Medicines	Indications
Arsenicum album	Ailments from alcoholism, chewing tobacco such as nausea, vomiting, restless, anxiety accompany all ailments.
Tabacum	Incessant nausea worse from smell of tobacco smoke. Potentised dose of tabacum (200/1M) relieves terrible craving when discontinuing use of tobacco.
Veratrum album	Bad effects of opium eating, tobacco chewing. Often removes bad effects of excessive use of alcohol & tobacco.
Ipecacuanha	For excessive nausea and vomiting, tongue-clean or slightly coated with thirstlessness.
Nux vomica	For the gastric symptoms next morning after smoking, taking alcohol.
Phosphorus	Palpitation, tobacco heart and sexual weakness.
Ignatia amara	For annoying hiccough from tobacco chewing.
Plantago major	For tobacco toothache
Lycopodium clavatum	For impotence, spasms, cold sweat from excessive smoking.
Gelsemium sempervirens	Occipital headache and vertigo from excessive use, specially smoking.

Referral

When patient does not respond to these simple remedial procedures or develops malignancies, overdose complications, suicidal attempts, pregnancy complications due to substance abuse etc.

Note: Important mental disorders are dealt in the chapter on Mental health. Similarly ailments related to reproductive health is dealt in the concerned chapter on Reproductive health. Kindly refer these chapters for further information.

REPRODUCTIVE HEALTH IN WOMEN

Reproductive health refers to the diseases and conditions that affect the functioning of the male and female reproductive systems during all stages of life. Reproductive care not only includes health problems but also encompasses sexual health, family planning, nutritional issues, tobacco, drugs & alcohol, unwanted pregnancy & unsafe abortion, infertility, maternal and infant health, social evils, violence against women.

Reproductive health services are needed for women, most acutely during their childbearing years. However, in developing nations like India and some developed nations, access to health care for women is poor. Several social and gender related constraints interfere with women's ability to access reproductive health services in our country. Women are often not free to take decisions about their reproductive health and do not have freedom to travel to health facilities or resources to pay for needed services.

This chapter deals with commonly encountered female reproductive health problems which can be managed by Homoeopathy.

7.1 Dysmenorrhea

Menstruation associated with pain is a common problem in females of reproductive age. It is cyclic pain or discomfort in the pelvic region during menstrual period often accompanied by other symptoms like nausea, diarrhoea or constipation, dizziness, fatigue and headache.

Preventive measures

- Regular practice of yoga and pranayama for management of stress (relaxation therapy).
- Physical activities such as walking, sports (aerobic exercise).
- Avoid all food causing bloating.
- Meal skipping is not advisable.

Home Remedies

- Hot fomentation on lower abdomen and back.
- Massage therapy for about 20 minutes can help reduce menstrual pain.
- Avoidance of salty foods, alcohol, carbonated beverages, caffeine, fatty foods.
- Soothing (caffeine-free) ginger or mint teas or hot water flavored with lemon.
- Increased consumption of fruits and vegetables as the sources of many vitamins and minerals, fish and milk, and dairy can have a positive association with less menstrual pain.
- Avoid strong medication for mild abdominal pain, body ache, etc. Rather use simple home remedies, like powder of jeera, 1 tsp. with warm milk or water or use hot water bag/bottle on the site of pain.

Intervention at HWC

Medicines	Indications
Magnesium phosphoricum	Radiating cramps made better by warmth, for muscle relaxation; worse by motion, touch and better by bending double, heat, warmth, pressure
Colocyntis	Cramps with a piercing or puncturing sensation relieved by pressure or bending double
Cimicifuga racemosa	Pain immediately before menses in ovarian region, cramps radiating into the thighs improved by lying down; worse during menses, more profuse the flow the greater the suffering
Pulsatilla nigricans	Diarrhoea during or after menses; pain in back, tired feeling; worse lying on left side or on painless side better in open air, cold application. Derangements during puberty. Too late, scanty, painful with intense pain and evening chilliness.
Collinsonia canadensis	Membranous dysmenorrhoea, with constipation, cold feeling in thighs after menstruation.
Viburnum opulus	Spasmodic and membranous dysmenorrhoea. Late, scanty, offensive, with cramps extends down thigh.

Referral

- Patients with acute pain abdomen with severe nausea and vomiting and profuse vaginal bleeding not responding to Homoeopathic medication.
- Patient under shock (low blood Pressure, rapid and feeble pulse and mentally confused or unconscious).
- Severely anaemic and malnourished patient.
- Acute pelvic infection (acute salpingo-oophritis, parametritis).
- Cervical stenosis such as pin hole cervix, narrow cervical canal.
- Evidence of peritonitis.
- Serious mental illness.
- Orthopaedic backache (prolapsed disc) worsening during menses.
- Any serious systemic illness.
- Worsening of condition in spite of treatment

7.2 Menorrhagia (Heavy menstrual bleeding)

Dysfunctional Uterine Bleeding (DUB) is excessive or prolonged bleeding during menstrual period. In addition, it also includes menstruation with short inter-menstrual period, for which no demonstrable cause is found. Though no active reproductive age is exempt, the disease is mostly met with during early puberty and/or late reproductive life (premenopausal period).

Do's

- Staying hydrated can support overall health and energy levels. Lots of liquids, light, easily digestible and nutritious diet like lot of vegetables, fruits, milk, butter milk, whole grain in daily diet. Take diet rich in iron.
- Wear clean clothes and use clean sanitary pads/ cotton /clean cloth for pads during menstruation.
- Use clean water and strictly observe personal hygiene.
- Do light exercise and domestic work.

- Take enough rest.
- Practice Yoga and Pranayam under guidance of expert during intermenstual period.

Don'ts

- Avoid anger, physical strife, quarrel, worry and coitus during menstruation.
- Avoid over tiring physical and mental work.
- Avoid too pungent, salty, sour, very hot & cold, heavy, oily and stale food items.

Investigations

- Haemoglobin level
- Bleeding time
- Clotting time
- USG

Intervention at HWC

Medicines	Indications
Jonosia ashoka	Delayed and irregular menses; menstrual colic, pain in ovaries before flow, menorrhagia, irritable bladder.
Belladonna	Menses increased, bright red, too early, too profuse. Hæmorrhage hot. Cutting pain from hip to hip. Menses and lochia very offensive and hot.
Sabina	Menorrhagia in women who aborted readily. Pain from sacrum to pubis, and from below upwards shooting up the vagina. Hæmorrhage; partly clotted; worse from least motion. Menses <i>profuse</i> , bright. Uterine pains extend into thighs.
Cimicifuga racemosa	Pain immediately before menses. Menses profuse, dark, coagulated, offensive with backache, nervousness; always irregular. Ovarian neuralgia. Pain across pelvis, from hip to hip.
Vinca minor	Excessive menstruation with great weakness. Passive uterine hæmorrhages. Menorrhagia; continuous flow.

Referral

- Patients not responding to treatment/deterioration after the treatment.
- Development of any other serious disease.
- Blood dyscrasias.
- Cancer of cervix and or uterus.
- Hb% less than 7 gm.

7.3 Premenstrual Syndrome (PMS)

Symptoms like cramps, bloating, and various other physical and psychological symptoms that women commonly experience immediately prior to menstrual flow.

Do's and Don'ts:

- Eat smaller, more-frequent meals to reduce bloating and the sensation of fullness.
- Limit salt and salty foods to reduce bloating and fluid retention.
- Foods high in complex carbohydrates, such as fruits, vegetables and whole grains can be chosen. Foods rich in calcium are to be taken. If one can't tolerate dairy products or aren't getting adequate calcium in diet, a daily calcium supplement may help. Avoid Caffeine and alcohol.

- Exercise, Yoga and Pranayam incorporated in regular routine.
- Reduce stress. Adequate sleep. Practice progressive muscle relaxation or deep-breathing exercises to help reduce headaches, anxiety or trouble sleeping (insomnia).
- Yoga or massage to relax and relieve stress.

Intervention at HWC

Medicines	Indications
Pulsatilla nigricans	Cramps experienced by women who are gentle, yielding, and easily weepy, and who experience a changeable menstrual flow from month to month, are without thirst, are occasionally nauseous, prefer open air.
Belladonna	Intense bearing down pains or cramps that come on and go away suddenly, and aggravation from motion or any type of jarring or draft, sometimes with a headache
Magnesium phosphoricum	Cramps that are relieved by bending over, by firm abdominal massage while bending forward, or by warmth and warm application, and that are aggravated by cold, cold air, or uncovering
Colocynthis	Woman is considerably more irritable and restless. Bearing-down cramps, causing her to bend double. Must draw up double, with great restlessness. Round, small cystic tumors in ovaries or broad ligaments. Wants abdomen supported by pressure.
Sepia	Constipation, lethargy, general weakness felt in internal organs, irritable personality, snappishness, sadness.
Lachesis mutus	Aggravation of symptoms during sleep and upon waking, symptoms worse on left side, pains relieved by the flow
Viburnum opulus	Relieves irritability, pain and pressure.

Referral

- Severe pain
- Severe nausea, vomiting
- Severe depression

7.4 Leucorrhoea

An increase in normal vaginal secretions develops physiologically at puberty, during pregnancy, at ovulation and in some women during pre-menstrual phase of the menstrual cycle. The discharge from the vulva can be cervical or vaginal. Detailed history and examination of the patient will ascertain the cause of the vulval discharge. If facility for per vaginal examination is available, local changes like inflammation, ulceration, discharge may be looked into. The cause of the discharge needs to be identified and the clinical condition needs to be treated accordingly. Sexually transmitted diseases if diagnosed need to be treated accordingly.

Do's

- In case of sexually active females, identified with infective conditions or sexually transmitted conditions, the partner should also be treated simultaneously.
- need to be emphasized upon both partners.
- Personal hygiene should be maintained, especially during menstruation.
- Use cotton undergarments.

Don'ts

- Use of detergents, soaps, synthetic under garments, if allergic, should be avoided.

Investigation

- CBC, ESR
- USG

Intervention at HWC

Medicines	Indications
Borax	Thick vaginal discharge. Leucorrhoea like white of eggs, with sensation as if warm water was flowing.
Thuja occidentalis	Profuse leucorrhoea; thick, greenish.
Kreosotum	Leucorrhoea yellow, acrid; odor of green corn; worse between periods.
Calcarea carbonica	Leucorrhoea milky. Before menses, headache, colic, chilliness and leucorrhoea.

Referral

- H/o Any episode of post coital pain or bleeding requires proper evaluation and advice.
- Bloody discharge from vulva.
- Patient not responding to treatment/deterioration of the condition.

7.5 Interstitial cystitis (Bladder Infection)

Interstitial cystitis (IC) is a chronic bladder condition resulting in recurring discomfort or pain in the bladder or surrounding pelvic region.

Do's & Dont's:

- Drink more water.
- Pass urine frequently. Do not hold urine for long duration. Frequent urination helps eliminate infection. Holding the urine for long or not going to the bathroom when you need to, allows time for bacteria to continue multiplying in the bladder.
- Heating pad may be used to soothe dull pain.
- Bacteria thrive in warm and moist environments. For women, tight or synthetic underclothing and other tight clothes can trap moisture in delicate areas.
- Sharing of underclothes should be stringly discouraged.
- Menstrual hygiene must be maintained.

Intervention at HWC

Medicines	Indications
Cantharis vesicatoria	Burning, cutting pain before, during, and after urination, each drop passing as though it were scalding water, frequent urges to urinate.
Sarsaparilla	Severe pain at end of urination, burning pain and constant urging; a characteristic but not common symptom is that urine can be passed only while standing.
Staphysagria	Cystocele (locally and internally). Cystitis in lying-in patients. Ineffectual urging to urinate in newly married women.
Berberis vulgaris	Pain in the thighs and loins during urination, pain extending from the bladder and/or over the abdomen to the urethra.
Pulsatilla nigricans	Pain during and after urination as well as when lying down, dry mouth but no thirst.
Apis mellifica	Stinging pains with an aggravation of symptoms by warmth of any sort.
Belladonna	Acute pain aggravated by any motion or simple jarring, a sensation of something moving inside the bladder, restlessness at night with wild dreams.

Medicines	Indications
Nux vomica	Constant urge to urinate, short relief when passing small quantities and from warm applications or warm bathing.
Causticum	Cystitis after surgery, involuntary urination when coughing or sneezing.

Referral

- Worsening of symptoms
- High fever or rigors
- Haematuria

7.6 Fibroids

Most women with uterine fibroids may have no symptoms. However, abnormal uterine bleeding is the most common symptom of a fibroid which is seen as:

- Bleeding between periods
- Heavy bleeding during the period, sometimes with blood clots
- Periods that may last longer than normal

Fibroids may increase in size during pregnancy and with use of oral contraceptives.

Fibroids can also cause a number of symptoms depending on their size, location within the uterus, and how close they are to adjacent pelvic organs. Large fibroids can cause:

- Pelvic cramping or pain with periods
- Feeling of fullness or pressure in lower abdomen
- Pain during intercourse
- Pressure on the rectum with painful or difficult defecation
- Frequency and later retention of urine
- Ureteric obstruction
- Backache or leg pain

Intervention at HWC

Homeopathic treatment for these conditions generally requires professional constitutional care. Homeopathic treatment of fibroids tends to be more effective when they are not too extensive.

Medicines	Indications
Pulsatilla nigricans	Menses irregular; flow changeable; tardy, or premature, of too short or too long duration, or entirely suppressed. History of menses delayed at puberty, marked dysmenorrhea at beginning of puberty. Uterine troubles with heavy pressive pain in abdomen and small of back; as from a stone; limbs go to sleep; ineffectual urging to stool. Hot patient; marked changeability of symptoms; aversion to fatty foods, warm foods and drinks, dislikes butter; thirstless with great dryness of mouth; tongue coated yellow or whitish; discharges thick, bland, and yellowish-green; pains appear suddenly, leave gradually; worse towards evening and in the warm room; better in open air, by slow, gentle motion and cold applications; desire for company, mild, gentle, affectionate, yielding, weeping disposition.

Medicines	Indications
Sepia officinalis	Irregular menses of nearly every form, early, late, scanty, profuse, amenorrhoea or menorrhagia. Violent stitches upward in the vagina; pains from the uterus to the umbilicus. Associated symptoms include weakness of the female sexual organs and prolapse of uterus with sensation of pressure and bearing down as if everything would protrude from pelvis; must cross limbs tightly to "sit close." Chilly patient; tall, thin built with yellow saddle across; upper part of cheeks and nose, big belly; dry flabby skin; Predisposed to take cold at change of weather; Desire for sour food which aggravates. Cheerful, active when well but indifferent and quarrelsome when sick; self-absorbed, sad, weeping and indolent.
Calcarea carbonica	Menses too early, too profuse, too long lasting, pre-menstrual syndrome with anxiety, headache, vertigo, colic, leucorrhoea and sore breast, cutting pains in uterus during menstruation, the least excitement causes return of menstrual flow. Burning and itching of parts before and after menstruation. Chilly patient; takes cold easily; fat, fair, flabby children with large head, distended abdomen with red face; weak, easily tired; head sweats profusely while sleeping; tendency to lymphatic glandular enlargement; sour smelling discharges; longing for fresh air; desire foreggs and indigestible things, aversion to meat and milk; fearful, shy, timid, slow and sluggish.
Natrum muriaticum	Difficulty in appearance of first menses; menses irregular, usually profuse; headache before, during and after menses. Before menses, moroseness and irritability; at commencement of menses, sadness; during menses, cramps in abdomen. Spitting blood at menstrual nususHot patient; poorly nourished, great emaciation (marked on neck); losing flesh while living well; craving for salt; aversion to bread and fatty things; constipated, increased thirst; mapped tongue with red insular patches; melancholic; sad, plays alone; Irritable, cross, cries when spoken to; awkward, hasty, drops things from nervous weakness; disposition to weep without cause, consolation aggravates.
Phosphorus	Menses too early and scanty-not profuse, but last too long. Weeps before menses. Slight hæmorrhage from uterus between periods. Leucorrhœa profuse, smarting, corrosive, instead of menses. Amenorrhœa, with vicarious menstruation Chilly patient; tall fast-growing child with tendency to stoop; hemorrhagic tendency; craving for salt, cold food and drink; oversensitive to external impressions; nervous and affectionate, anxious especially during thunderstorm.
Vinca minor	Excessive menstruation with great weakness. Passive uterine hæmorrhages. Menorrhagia; continuous flow, particularly at climacteric.

Referral

When a patient does not respond to these simple remedial procedures and develops severe pain or very heavy bleeding that needs emergency surgery, twisting of the fibroid or anaemia due to heavy bleeding (Hb- less than 8).

7.7 Menopausal Syndrome

Menopause is strictly defined as 1 year without menses without any underlying cause. Menopause is a normal consequence of the ageing process and is a natural female hormone deficient state that occurs at the age of 45-55 years. Menopausal syndrome includes symptoms associated with the physiological changes that take place in a woman's body as period of fertility ends. Some women experience mild problems or none at all, but some women have severe symptoms in this period.

Symptoms

- Irregular periods with scanty or excessive bleeding
- Hot flushes
- Night sweats
- Vaginal dryness and itching
- Mood swings
- Joint pain
- Sleeplessness
- Lassitude
- Excessive hair fall
- Anaemia
- Weakness
- Irritability
- Weeping mood

Investigations/ Examination (As per availability at HWC)

- Haemogram
- PAP smear
- Serum FSH levels
- Serum estradiol levels
- Serum L.H. level
- Ultrasound abdomen
- Thyroid levels
- Vitamin D, calcium levels

Management

- Management of menopause includes health promotion, prevention of co-morbid disease and disability postponement as there are several risk factors for other diseases associated with menopause.
- Multifactorial approach is required for leading a healthy life.
- For physical fitness a post-menopausal woman must consume fat free milk, green vegetables, fruits for Vitamin E; dark green leafy vegetables for beta carotene; yellow and orange coloured vegetables for Vitamin A; amla, citrus fruits for Vitamin C; ragi, fish, legumes and soya beans for omega 3 fatty acids. These food contain micronutrients and antioxidants which help to maintain overall including bone health.
- Participation in regular physical activity (both aerobic and strength exercises) from adolescence life itself brings a number offavorable responses that contribute to healthy aging and healthy menopause.

Intervention at HWC

Medicines	Indications
Sepia officinalis	Flushes with perspiration worse at night; dyspareunia from dryness of vagina and bleeding; decreased sexual desire, Aversion to sex, to being touched sexually, Prolapsus uteri, with congestion, with yellow leucorrhœa. Low back pain, better lying on hard floor, pressure. Chilly patient; thin built with yellow saddle across the upper part of the cheeks and nose; big belly; dry flabby skin; predisposed to take cold at the change of weather; desire for sour food which aggravates; cheerful, active when well but become indifferent and quarrelsome when sick, self-absorbed, sad weeping and indolent.

Medicines	Indications
Lachesis mutus	Climacteric troubles, flushes of heat, haemorrhage, vertex headache, fainting spells, worse pressure of clothes; Coccyx and sacrum pain, especially on rising from sitting posture; Ill effects of suppressed discharges, better after discharges. Hot patient; thin and emaciated; hemorrhagic diathesis; great sensitiveness to touch; hot flushes and perspiration; all complaints worse after sleep; loquacious, jumps from one idea to another, jealous, suspicious, indolent.
Graphites	Hot flushes especially in the face; with red and flushed face; Other symptoms: menses late, irregular, scanty, pale mixed with small clots and of short duration, thickening and induration of skin Large, knotty, difficult, stringy, slimy coated stools. Chilly patient, takes cold easily; fatty; pale; tendency to skin affections and constipation; lumpy, thick, hard; history of delayed menstruation; skin and glands; dislikes sweets; cautious, indecisive and lazy.
Sulphur	Flushes of heat to the face and head at climacteric period. The flushes begin somewhere in the heart region, in the chest and feels as if a glow of heat is rising to the face. Irregularity in the menstrual flow, suppressed from the slightest disturbances. Hot patient; kicks off the cloth at night; dirty, filthy, does not want to be washed; lean, thin, stoop-shouldered, who walk and sit stooping; red orifices; desire sweets; when the best selected remedy fails to improve.
Argentum nitricum	Metrorrhagia at climaxes; menses irregular, too soon or too late or last for a day only, Menses scanty with dyspnea. Coition painful, followed by bleeding from the vagina. Nervous erythrim at change of life; Colic, with much flatulent distention. Hot patient; acute or chronic diseases from unusual or long-continued mental exertion; withered, dried-up, old-looking patients; great desire for sweets, aggravation after eating it; inco-ordination, loss of control and want of balance everywhere, mentally and physically; time passes slowly; impulsive, fearful and anxious; Gastrointestinal conditions accompanied by nervousness & anxiety. Wants to do things in a hurry; Worse from warmth in any form.
Calcarea carbonica	Metrorrhagia in climacteric period. Menstrual flow is provoked by over-exertion or by emotion. Voluptuous sensation in the genital parts with flow of blood at a time different from catamenia. Chilly patient; takes cold easily; fat, fair, flabby with large head, distended abdomen with red face; pale, weak, easily tired; head sweats profusely while sleeping; sour smelling discharges; longing for fresh air; slow development of milestones; tendency for lymphatic glandular enlargement; desire for eggs and indigestible things; aversion to meat & milk; fearful, timid, shy, slow and sluggish.
Sanguinaria canadensis	Climacteric disorders especially with flushes of heat and foetid, acrid leucorrhoea. Complaints at menopause; metrorrhagia; painful enlargement of breasts. Burning of palms and soles at menopause compelling her to throw off her clothes. Right sided complaints; increased thirst, aversion to butter and fat food; desires highly seasoned food; worse from sweets, heat of sun; grumbling child, indolent, disinclined to mental effort.
Phosphorus	Menorrhagia at climacteric period; vicarious menses; copious hemorrhages from uterus; menses too early, flow bright red. Flushes of heat beginning in back or stomach; violent palpitation. Chilly patient; tall, fast growing child with tendency to stoop; haemorrhagic tendency; craving for salt, cold foods and drinks; oversensitive to external impressions; nervous and affectionate; anxious especially during thunderstorm.

Referral

When a patient does not respond to these simple remedial procedures and develops fractures, osteoporosis or degenerative eye diseases requiring surgical intervention such as cataract.

MANAGEMENT OF COMMUNICABLE DISEASES

Communicable diseases are those that spread by an infectious agent, such as bacteria, viruses, fungi or parasites. Homoeopathic treatment concentrates on providing individualised treatment to the patients based on symptom similarity which helps the individual to overcome the illness through stimulated immune system. In epidemic situations the selected genus epidemicus, identified on the basis of common symptoms as well as uncommon or peculiar symptoms presented by a significant number of patients during an epidemic, can be curative and also preventive.

Mode of spread

- i. Physical contact with an infected person such as through touch, sexual intercourse, faecal transmission, oral droplets or fomites.
- ii. Contact with contaminated surface or objects, food, blood, or water.
- iii. Bites from insects or animals capable of transmitting the diseases.

8.1 Influenza like illness

The common cold is generally a viral infectious disease of the upper respiratory tract that primarily affects nose, throat, sinuses and larynx. The symptoms include runny nose, cough, sore throat, difficult breathing, ear pain, ear discharge, and/or fever.

General management

- Should confine themselves at home and avoid mixing with public and high-risk members in the family (older age, suffering from heart disease, lung disease any other systemic illnesses).
- Maintenance of good hygiene, light and nutritious food.
- Gargling with warm saline water.
- Doing Yoga/ Pranayama.

Intervention at HWC

Medicines	Indications
Aconitum napellus	After exposure to dry, cold weather, draught of cold air, checked perspiration. Anxiety and restlessness of mind, thirst for large quantities of cold water. Indicated in beginning of acute diseases in young plethoric persons.
Rhus toxicodendron	After getting wet, too much summer bathing. Great restlessness, feels better from change of position. Triangular red tipped tongue. Better by change of position, dry weather, warmth worse during rest, cold wet rainy weather.
Mercurius solubilis	All symptoms worse at night, from warmth of bed, from damp cold rainy weather, during perspiration. Tongue large flabby with imprint of teeth, profuse salivation, intense thirst with moist mouth. Sneezing in sunshine.

Medicines	Indications
Belladonna	Great remedy for children. Mostly associated with hot, red skin, flushed face, glaring eyes, throbbing carotids, excited mental state, irritability though child is amiable when well. Dryness of throat and mouth with aversion to water. Tickling short dry cough worse night.
Hepar sulphuris calcareum	Aphonia and cough when exposed to dry, cold wind. Dry hoarse cough and sneezing whenever any part of body gets uncovered. Choking croupy, strangling cough worse before midnight or towards morning, cold air, cold drinks. Profuseness of discharges which smell like old cheese. Very chilly.
Arsenicum album	Great prostration, restlessness, fear and nightly aggravation. Burning pains relieved by heat. Thirsty, drinks often but little at a time. Acrid coryza worse open air, wet weather, cold drinks, and food; better indoors, heat, warm drinks, head elevated.
Allium cepa	Coryza with acrid nasal discharge and laryngeal symptoms bland Lachrymation or discharge from eyes. Copious, watery, extremely acrid nasal discharge, dripping from nose corroding nose and upper lip. Catarrhal laryngitis with sensation as if cough would tear it. Worse warm room and evening; better open air.
Euphrasia officinalis	Catarrhal affections of mucus membranes especially eyes and nose. Profuse acrid lachrymation and bland coryza worse evening better open air.
Pulsatilla nigricans	Mild, gentle, yielding disposition, weeps when talking. Feels better in open air. Discharges are thick, bland and yellowish green. Symptoms always changing. Thirstless, peevish and chilly. Worse evening, warm room; better open air, cold food and drinks.

Referral

- Not responding to treatment.
- Difficulty in breathing.
- Patient with comorbidities not responding to treatment.
- Infants deemed to be clinically dehydrated.
- Restlessness, high-grade fever, toxemia, pallor, cyanosis or stupor.
- All cases of severe, persistent cough for more than 3 weeks.

8.2 Measles

It is clinically characterised by fever and catarrhal symptoms of upper respiratory tract followed by typical rash in children. Prodromal stage is characterised by fever, coryza with sneezing and nasal discharge, cough, redness of eyes lachrymation and often photophobia. 1-2 days before appearance of rash, koplik's spots appear on buccal mucosa opposite the first and second upper molars. Eruptive phase comprise of dusky red maculo-papular rash which begin behind the ears and spreads rapidly over face, neck, body and lower extremities.

- Diagnosis is based on typical rash and koplik's spots seen in oral mucosa.
- Transmission occurs from droplet infection and droplet nuclei.

General management

- Should confine themselves at home and avoid mixing with public and high-risk members in the family (older age, suffering from heart disease, lung disease any other systemic illnesses).
- Bed rest
- Drink plenty of water, fruit juice and herbal tea to replace fluids lost by fever and sweating.
- Use a humidifier to relieve a cough and sore throat.

Intervention at HWC

Medicines	Indications
Aconitum napellus	Sudden onset of fever. Thirst for large quantities of cold water and restlessness always present. Chilly if uncovered or touched. Sweat relieving all the symptoms.
Arsenicum album	Fever, high temperature. Marked periodicity. Restless, prostration and fear. Worse midday & midnight. Burning pains relieved by heat. Thirst small quantities of water at small intervals.
Bryonia alba	Mucous membranes are all dry. Lips and tongue dry, parched, cracked; stool, dry as if burnt; cough, dry, hard, racking, with scanty expectoration; urine, dark and scanty; great thirst. Stitching pain in chest on cough or motion.
Euphrasia officinale	First stage of measles; eye symptoms marked. Catarrhal affections of mucous membranes especially of eyes and nose. Profuse acrid lachrymation and bland coryza; worse, evening. Hawking up of offensive mucus. Catarrhal headache, eyes water all the time.
Gelsemium sempervirens	Measles, catarrhal symptoms; aids in bringing out eruption. Hot, dry, itching, eruption. Dullness, dizziness and drowsiness with thirstlessness and trembling are the guiding symptoms.
Pulsatilla nigricans	During fever, chilly with pain in spots, chills worse evening. Patient seeks open air; always feels better there, even though chilly. Dry tongue with thirstlessness.

Referral

- Not able to drink or breastfeed.
- Convulsions
- Lethargic or unconscious
- Deep or extensive mouth ulcers.
- Chest in-drawing and rapid breathing.
- Stridor in a calm child
- Corneal clouding or ulcers, or vision affected.
- Mastoiditis - pain and swelling of the bone behind the ear.
- Severe malnourished child.
- Severe diarrhoea and dehydration.

8.3 Chickenpox

It is a highly infectious disease caused by varicella zoster virus. Clinical course consists of sudden onset with brief stage of mild to moderate fever, pain in back, shivering and malaise. In adults, the condition is usually more severe. It is followed by appearance of rashes beginning from trunk then on face, arms and legs with predominance on flexor surfaces. Palms and soles are seldom affected. Rashes are superficial, unilocular, itchy, surrounded by area of inflammation, may be seen in all stages simultaneously (macules, papules, pustules and scab). Fever shows exacerbations with each fresh crop of eruptions.

- Transmitted by droplet infection and droplet nuclei.
- Lab diagnosis rarely required as clinical signs are usually clear cut.

Intervention at HWC

Medicines	Indications
Antimonium tartaricum	Adapted to torpid, phlegmatic persons; hydrogenoid constitution. Pustular eruptions, leaving a bluish red mark. Fever with intense heat and copious perspiration. Tongue coated, pasty, thick white, with red edges.
Mercurius solubilis	Vesicular and pustular eruptions with profuse perspiration; perspiration does not relieve but may increase the suffering. All complaints worse at night, from warmth of bed, from damp, cold weather, rainy weather.
Rhus toxicodendron	Vesicles with intense itching that are worse at night during rest and relieved by warm applications. Fever with great restlessness. Extreme restlessness with continued change of position. Great apprehension at night, cannot remain in bed.
Sulphur	Eruptions with itching and burning worse in warmth of bed, evening, damp weather scratching and washing. Fever with violent ebullitions of heat throughout entire body. Night sweat on nape and occiput. Perspiration of single parts. Drawing and tearing pain in arms and hands. Hot sweaty hands.

Referral

- Persistent high-grade fever (>38°C).
- Respiratory signs and symptoms, such as increased respiratory rate and crepitations on auscultation.
- Hemorrhagic rash, Bleeding or petechiae.
- Neurological signs and symptoms, for example seizures, abnormal gait, loss of power.

8.4 Herpes Zoster

Chickenpox and herpes zoster are regarded as different host response to same aetiological agent. When immunity due to any reason wanes, virus reactivates causing herpes zoster also known as shingles. The symptoms are prodromal pain in the dermatome commonly described as burning, shooting, stabbing, or throbbing or sometimes primarily pruritis where skin lesions subsequently appear followed by appearance of characteristic rash clinically characterised by painful, vesicular, pustular eruption. If the pain caused by shingles continues after the bout of shingles is over, it is known as post-herpetic neuralgia (PHN).

General management

- Should confine themselves at home and avoid mixing with public and high-risk members in the family (older age, suffering from heart disease, lung disease any other systemic illnesses)
- Bed rest
- Drink plenty of water, fruit juice and herbal tea to replace fluids lost by fever and sweating.

Intervention at HWC

Treatment can be given during active lesions or for patients presenting post-herpetic neuralgia due to previous herpes zoster lesions.

Medicines	Indications
Arsenicum album	Debility, exhaustion, and restlessness, with nightly aggravation. Burning pains; the affected parts burn like fire, as if hot coals were applied to parts better by heat, hot drinks, hot applications; great thirst for cold water; drinks often, but little at a time.

Medicines	Indications
Rhus toxicodendron	Vesicles, herpes; vesicular suppurative forms. Red, swollen; itching intense; from left to right; vesicular, yellow vesicles; much swelling, inflammation; burning, itching, stinging.
Ranunculus bulbosus	Shingles: preceded or followed by intercostal neuralgia; vesicles may have a bluish appearance. Pains: stitches, sharp, shooting, neuralgic, in walls of chest, coming in paroxysms; excited or brought on by atmospheric changes
Thuja occidentalis	Left-sided and chilly medicine. Variola, aborts the pustule and prevents the suppurating fever. Ill effects of vaccination. Zona; herpetic eruptions.
Mezereum	Patient is very sensitive to cold air. Ulcers itch and burn, surrounded by vesicles and shining, fiery-red areola. Zona, with burning pain. Pain worse night, touch, damp weather. Eruptions ulcerate and form thick scabs under purulent matter exudes.

Referral

- All patients with zoster ophthalmicus should be referred to an ophthalmologist to exclude eye involvement.
- Those with the Ramsay Hunt syndrome should be seen by an ear, nose and throat specialist.
- Rare neurological complications such as meningitis or myelitis usually require admission to hospital.
- Rapid referral should be considered for patients who have a poor response to initial pain management or those with poorly responding post herpetic neuralgia.

8.5 Dengue

A mosquito borne tropical disease caused by dengue virus. Symptoms starts after three to 14 days after infection. Classical dengue fever starts with sudden chills, high fever, intense headache, muscle & joint pains, retro orbital pain, photophobia with anorexia, constipation, abdominal pain, sore throat. Rashes may be in form of diffuse flushing, mottling, pinpoint eruptions or maculopapular/ scarlatiniform. Diagnosis is supported by leucopenia (< 5000/cumm), thrombocytopenia (<1,50,000/cumm), rising haematocrit (5-10%), positive IgM antibody test etc.

Dengue Haemorrhagic Fever

Dengue haemorrhagic fever is characterised by haemorrhagic manifestations after 4-5 days of fever in form of petechiae, ecchymoses or purpura, bleeding from mucosa, gastrointestinal tract, or other locations. Platelet count falls below 1,00,000/ cumm, rising haematocrit (>20%) or evidence of plasma leakage in form of pleural effusion, ascites etc.

Dengue Shock Syndrome

All the above criteria of DHF plus evidence of circulatory failure manifested by rapid, weak pulse and narrow pulse pressure (≤ 20 mm Hg) or hypotension for age, cold and clammy skin and restlessness.

Investigations

- CBC
- In epidemic situation, for every patient reporting with fever, these tests are recommended, unless some other cause is identified.
- NS1 ELISA test to be done on patients reporting during the first five days of fever.

- Serology to be done on or after day 5 by MAC ELISA (in an outbreak all suspected patients of dengue need not undergo serology for purpose of clinical management).

General Management

- Maintain adequate fluid intake to prevent dehydration. Adequate oral fluid intake may be able to reduce the number of hospitalizations.
- Encourage oral intake of oral rehydration solution (ORS), water, fruit juice, lime water, coconut water and other fluids containing electrolytes and sugar to replace losses from fever and vomiting. [Caution: Fluids containing sugar/ glucose exacerbate hyperglycaemia of physiological stress from dengue and diabetes mellitus.]
- Advise patients to take adequate bed rest and continue on normal regular diet.
- In case of high fever advise for continuous cold sponging, till the patient recovers.

Intervention at HWC

Medicines	Indications
Eupatorium perfoliatum	Perspiration relieves all symptoms except headache. Chill between 7 and 9 am, preceded by thirst with great soreness and aching of bones. Nausea, vomiting of bile at close of chill or hot stage; throbbing headache. Knows chill is coming on because he cannot drink enough.
Gelsemium sempervirens	Dullness, dizziness, drowsiness with fever without thirst. During fever desire to be quiet, to be let alone; does not wish to speak or have any one near her. Cannot open the eyes
Ferrum phosphoricum	Chill daily at 1 pm. All catarrhal and inflammatory fevers; first stage.
Phosphorus	Chilly every evening. Cold knees at night; lack of thirst, but unnatural hunger. Hectic, with small, quick pulse; viscid night-sweats. Stupid delirium. Profuse perspiration.

Note: For Dengue Haemorrhagic Fever and Dengue Shock Syndrome: Homoeopathic medicines can be given only as an add on supportive therapy. The group of medicines usually indicated includes Carbo vegetabilis, China officinalis, Crotalus horridus, Ferrum metallicum, Hamamelis, Ipecac., Lachesis, Millefolium, Phosphorus, Secale cornutum and Sulphuric acidum.

Referral

- Persistent high-grade fever (40 degree celsius and above).
- Any warning signs, persistent vomiting, severe abdominal pain, lethargy, sudden behavioural change, signs of dehydration bleeding from any site, pale, cold and clammy hands and feet, less or no urine output for 4-6 hours.
- Rising haemocrit and fall of platelet count.

8.6 Chikungunya

It is an acute febrile illness transmitted by Aedes mosquitoes. Clinical features include sudden onset with fever, chills, severe bodyache, joint pains, headache, anorexia, lumbago and conjunctivitis. Adenopathy is also common. 60-80% patient have morbilliform rashes occasionally with purpura on trunk and limbs. Its prominent symptom is arthropathy manifested by pain, swelling and stiffness especially of metacarpophalangeal, wrist, elbow, shoulder, knee, ankle and metatarsal joints.

General management

- Should confine themselves at home and avoid mixing with public and high-risk members in the family (older age, suffering from heart disease, lung disease any other systemic illnesses)
- Bed rest
- Drink plenty of water, fruit juice and herbal tea to replace fluids lost by fever and sweating.

Investigations

- Detection of IgM antibodies, RT- PCR/ nested PCR

Intervention at HWC

Medicines	Indications
Bryonia alba	Gradual onset of symptoms. Very irritable, inclined to be angry. Indicated in complaints with dryness of mucous membranes; sluggishness, stitching pains, aggravated by any motion and relieved by complete rest. Dry mouth with tongue coated white in the middle. Great thirst for large quantities of cold water at long intervals.
Eupatorium perfoliatum	Perspiration relieves all symptoms except headache. Chill between 7 and 9 am, preceded by thirst with great soreness and aching of bones. Nausea, vomiting of bile at close of chill or hot stage; throbbing headache. Knows chill is coming on because he cannot drink enough.
Rhus toxicodendron	Arthralgia, myalgia, fever, thirsty, restlessness. Limbs stiff. The cold fresh air is not tolerated; it makes the skin painful. Numbness and formication, after overwork and exposure.

Referral

- High grade fever.
- If the person has hemodynamic instability (frequent syncopal attacks, hypotension with a systolic BP less than 100 mmHg or a pulse pressure less than 30 mmHg).
- Oliguria (urine output less than 500 ml in 24 hours).
- Altered sensorium
- It may be advisable to refer persons above sixty years, with comorbid conditions such as diabetes, CVD/CAD, pregnancy, and infants.
- Severe incapacitating arthritis not responding to treatment.
- Persistent vomiting / diarrhoea
- Suspected co-infection with tuberculosis, pneumonia, malaria, dengue, typhoid.

8.7 Acute encephalitis

Acute encephalitis is a clinical syndrome with several common features but caused by various infectious agents mostly viruses many of which are vector-transmitted (arthropod-borne) arboviruses. In India, Japanese encephalitis (JE) virus is a predominant aetiology.

The clinical picture usually consists of a prodromal phase (one to three days) with fever, malaise and headache and an encephalitic phase with continued fever, decreasing level of consciousness, seizures, abnormal movements or paralysis. Signs of meningeal inflammation are absent or minimal. Many children may succumb, but others recover through a post-encephalitic phase, some ones more or less completely, but usually with sequelae of cognitive deficiencies, muscle paralysis, abnormal movements, etc.

Investigation

- IgM ELISA is the method of choice provided samples are collected 3-5 days after the infection.
- CSF analysis reveals lymphocytosis and elevated protein.
- Blood analysis reveals neutrophilia and hyponatremia.

General management

- Should confine themselves at home and avoid mixing with public and high-risk members in the family (older age, suffering from heart disease, lung disease any other systemic illnesses).
- Bed rest
- Drink plenty of water, fruit juice and herbal tea to replace fluids lost by fever and sweating.

Intervention at HWC

Medicines	Indications
Belladonna	Suddenness of onset. Hot, red skin, flushed face, glaring eyes, throbbing carotids, an excited mental state, hyperesthesia of all senses, delirium, restless sleep, dryness of mouth and throat with aversion to water and pains that come and go suddenly.
Calcarea carbonica	Headache, with cold hands and feet. Headache, from overlifting, mental exertion, with nausea. Icy coldness in, and on the head, especially right side. Cold, damp feet, feels as if damp stocking were worn.
Zincum metallicum	Impending brain paralysis and spinal affections. Hydrocephalus. Occipital headache, with weight on the vertex. Automatic motion of head and hands. Forehead cool; base of brain hot. Frequent febrile shiverings down the back. Cold extremities.

Referral

- Fever with Lethargy, unconsciousness
- Convulsions
- Shock/ Hypotension/ LowBP/ Feeble Thready pulse/ Hypoglycemia
- Central cyanosis
- Need of Ventilator- Poor respiratory efforts, cyanosis.

8.8 Typhoid

Systemic infection by *Salmonella typhi* with an insidious onset. During prodromal stage, there is malaise, headache, cough and sore throat, often with abdominal pain and constipation. The fever may show a step ladder pattern of rise over a period of days. After 7-10 days fever reaches a plateau and patient looks toxic, appearing exhausted and often prostrated. There may be marked constipation, especially in early stage or 'pea soup' diarrhoea. There is marked abdominal distension. At later stage splenomegaly, abdominal distension and tenderness, relative bradycardia, dicrotic pulse and occasionally meningismus appear. Rose spots appear during the second week principally on trunk. Transmission of the infection is via fecal oral route.

Investigations

- CBC
- Widal test, Typhidot,

Intervention at HWC

Medicines	Indications
Arnica montana	Febrile symptoms closely related to Typhoid. Shivering over whole body. Heat and redness of head with coldness of rest of body. Internal heat, feet and hands cold. Nightly sour sweats. Pain in back and limbs as if bruised or beaten. Everything on which he lies seems too hard. In stuporous condition says nothing is the matter with him, answers correctly and relapses into a stupor.
Arsenicum album	High fever, periodicity marked with adynamia. In typhoid not to be given too early; often indicated after Rhus tox. Complete exhaustion, great prostration with rapid sinking of vital forces with fainting. The greater the suffering the greater the anguish, restlessness and fear of death. Worse mid day and mid night
Baptisia tinctoria	Face flushed, dusky, dark red, with a stupid, besotted drunken expression. All exhalations and discharges foetid especially in typhoid; breath, stool, urine, perspiration, ulcers. Great prostration with disposition to decomposition of fluids. Parts lain on feel bruised. Can swallow only liquids. In stuporous condition on questioning relapses into a stupor in the middle of his answer. Searches about for body parts on bed in delirious condition.
Bryonia alba	Typhoid fever marked by gastro-hepatic complications. Complaints apt to develop slowly. Exceedingly irritable everything puts him out of humour. Delirium wants to go home, talks of business. Vertigo, nausea faintness on rising with confusion. Dryness of mouth, tongue, and throat with excessive thirst.
Carbo vegetabilis	Patient is sluggish, fat and lazy and has a tendency to chronicity in his complaints. States of collapse in typhoid. The patient may be almost lifeless, but the head is hot, coldness, breath cool, pulse imperceptible; oppressed and quickened respiration and must have air, must be fanned hard, must have all the windows open. Great distention of abdomen with loud eructations.
Gelsemium sempervirens	Fever with slow pulse, full soft, compressible. Wants to be held because he shakes so. Heat and sweat stages long and exhausting. Muscular soreness, great prostration and violent headache. Stupor, faintness, dizziness, drowsiness, dullness, trembling and thirstless.
Hyoscyamus niger	Fever with sensorium clouded, staring eyes, picking bed clothes, teeth covered with sordes, tongue dry and unwieldy, involuntary stool and urine, subsultus tendinum. Delirium with restlessness, jumps out of bed, tries to escape.
Kali phosphoricum	Especially adapted to the young. Anxiety, nervous dread, lethargy. Breath offensive, foetid. Tongue coated brownish like mustard. Excessively dry in the morning.
Lachesis mutus	Fever with chilly sensation in back, feet icy cold, hot flushes and hot perspiration. Tongue swollen burns, trembles, red, dry and cracked at tip, catches on teeth. Stupor or muttering delirium, sunken countenance, falling of lower jaw, conjunctiva yellow or orange colour, perspiration cold, stains yellow, bloody.
Muriaticum acidum	Typhoid or typhus, deep stupid sleep, unconscious while awake, loud moaning or muttering, tongue coated at edges, shrunken, dry, leather like, paralyzed, involuntary foetid stools while passing urine; sliding down in bed, pulse intermits every third beat.
Phosphoric acidum	Mental debility first later physical. Pale sickly complexion eyes sunken and surrounded by blue margins. Cerebral typhoid or typhus, complete apathy and stupor, takes no notice lies like a log, utterly regardless of surrounding, intestinal haemorrhage, blood dark. All discharges are exhausting except when the patient has diarrhoea, desires refreshing cold drinks.

Medicines	Indications
Rhus toxicodendron	Extreme restlessness with continued change of position. Sensorium becomes cloudy. Great apprehension at night, cannot remain in bed. Delirium with fear of being poisoned. Corners of mouth ulcerated. Fever blisters around mouth and chin. Great thirst with dry mouth and throat. Tongue dry and brown or red triangular tip of the tongue.

Referral

- Abdominal discomfort, the symptoms and signs of intestinal perforation and peritonitis.
- Altered mental status with delirium progressing towards coma.
- Sign and symptoms of other rarely reported complications like typhoid meningitis, encephalomyelitis, Guillain-Barre syndrome, cranial or peripheral neuritis, and psychotic symptoms.
- Other serious complications documented with typhoid fever including haemorrhages (causing rapid death in some patients), hepatitis, myocarditis, pneumonia, disseminated intravascular coagulation, thrombocytopenia and haemolytic uremic syndrome.

8.9 Cholera

It is an acute diarrhoeal disease caused by *Vibrio cholerae*. Mode of transmission is through faecal contaminated water or contaminated food and drinks. It begins with stage of evacuation characterised by profuse, painless, watery diarrhoea followed by vomiting. Stools may have 'rice water' appearance. It is followed by stage of collapse due to dehydration. Classical signs are sunken eyes, hollow cheeks, scaphoid abdomen, subnormal temperature, sodden hands and feet, low/absent pulse, unrecordable blood pressure, loss of skin elasticity, shallow and quick respiration. Output of urine decreases or may cease. Patient becomes restless and complaints of intense thirst and cramps in legs and abdomen. Death may occur due to dehydration and acidosis. If patient survives this stage, stage of recovery begins with signs of clinical improvement. Blood pressure begins to rise, temperature returns to normal and urine secretion is re-established.

Investigation

Stool culture examination.

General Management

- Should confine themselves at home and avoid mixing with public and high-risk members in the family (older age, suffering from heart disease, lung disease any other systemic illnesses).
- Bed rest
- Replacement of the fluid and salts lost through diarrhea.
- Patients needs to be given oral rehydration solution (ORS), a prepackaged mixture of sugar and salts to be mixed with 1 liter of water and drunk in large amounts.

Intervention at HWC

Medicines	Indications
Camphora	In first stage of cholera morbus and Asiatic cholera; severe, long lasting chill, with cramps in the calves. Icy coldness of the whole body; sudden sinking of strength; pulse small and weak. Patient will not be covered. May manifest as cholera sicca.

Medicines	Indications
Veratrum album	Adapted to diseases with rapid sinking of vital forces; complete prostration; collapse. A perfect picture of collapse with extreme coldness, cold sweat on forehead; blueness, and weakness. Craves fruits, juicy and cold things, ice, salt. Violent vomiting profuse diarrhoea which worsens with least motion.
Cuprum metallicum	Cholera morbus or Asiatic cholera, with cramps in abdomen and calves of legs. Spasmodic affections, cramps beginning in the fingers and toes, and spreading over entire body. Hiccough preceding the spasms. Nausea, vomiting relieved by drinking cold water.

Referral

Absent pulse, decreased or absent urine flow, sunken eyes, increased or gasping respirations, wrinkled skin of the fingers and altered mental status (e.g. stupor or coma), or having severe muscle cramps.

8.10 Hepatitis A and E

Transmission of Hepatitis A & E infection is usually faeco-oral. Hepatitis E is water borne disease. Hepatitis A onset is often preceded by gastrointestinal symptoms such as nausea, vomiting, anorexia and mild fever. Jaundice may appear within few days of the prodromal period, but anicteric hepatitis is more common. Other symptoms are fatigue, abdominal pain, loss of appetite, diarrhoea & dark urine etc.

Investigations

- CBC
- LFT

Intervention at HWC

Medicines	Indications
Chelidonium majus	Hepatic diseases; jaundice, pain in right shoulder. Constant pain under the lower and inner angle of right scapula. Great general lethargy and an indisposition to make any effort. Tongue coated thickly yellow, with red edges, showing imprint of teeth. Face, forehead, nose, cheeks remarkably yellow.
Podophyllum peltatum	Liver region painful, better rubbing the part. Sensation of weakness and sinking in abdomen. Can lie comfortably only on stomach. Tongue broad, large, moist. Hot, sour belching; nausea and vomiting. Thirst for large quantities of cold water.
Lycopodium clavatum	Eating ever so little creates fullness. Likes to take hot food and drinks hot. Stool hard difficult small incomplete. Greyish yellow colour of face with blue circles around eyes. Withered shrivelled and emaciated. Dryness of mouth and tongue without thirst. Pain shooting across lower abdomen from right to left.
Bryonia alba	Liver region swollen sore tense. Burning pain in abdomen with stitches worse pressure, coughing, breathing. Nausea and faintness when rising up. Vomiting of bile and water immediately after eating. Worse warm drinks which are vomited.
Mercurius solubilis	Liver enlarged sore to touch indurated with jaundice. Stool greenish bloody slimy worse at night with pain and tenesmus. Never get done feeling. Weak digestion with continuous hunger. Intense thirst for cold drinks. Sweetish metallic taste in mouth.
Myrica sebifera	Marked action on liver. Persistent sleeplessness. Jaundice. Despondent, irritable. Gloomy. Dull heavy aching in temples and forehead on waking up in morning. Tongue furred with a bad taste in mouth and nausea. Tenacious, thick, nauseous secretion.

Medicines	Indications
Nux vomica	Liver engorged with stitches and soreness. Colic with upward pressure causing short breath and desire for stool. Sour taste and nausea in the morning after eating. Ravenous hunger especially about a day before an attack of dyspepsia. Constipation with frequent ineffectual urging incomplete and unsatisfactory feeling as if a part remained unexpelled. First half of tongue clean, posterior covered with deep fur white yellow cracked edges. Chilliness on being uncovered yet he does not allow being covered.
Carduus marianus	Abuse of alcoholic beverages, especially beer. Action centred on liver and portal system causing soreness, pain and jaundice. Dropsical conditions due to hepatic diseases. Taste bitter. Aversion to salt meat.
Sulphur	Pain and soreness over liver. Colic after drinking. Burning painful weight like pressure in stomach. Very weak and faint about 11 am. Drinks much eats little. Tongue white with red tip and borders. Fever with frequent flashes of heat. Violent ebullitions of heat throughout the entire body. Dry skin and great thirst.
Taraxacum officinale	For gastric and bilious attacks, especially gastric headaches. Jaundice with enlargement and induration of liver. Hysterical tympanitis. Mapped tongue; covered with white film with sensation of rawness.

Referral

- Cases progressing towards fulminant hepatitis characterized by persistent nausea, vomiting, and bruising, with rapid deterioration in the level of consciousness and in liver function.
- Pregnant women
- Patients with pre-existing chronic liver disease, alcoholics, diabetes, systemic illness.

8.11 Mumps

An acute infectious disease caused by RNA virus classified as genus Rubulavirus which has predilection for glandular and nervous tissues. Mode of transmission is mainly by droplet infection and after direct contact. Symptoms include pain and swelling in either one or both the parotid glands but may also involve sublingual and sub mandibular glands. Child complains of earache on affected side prior to appearance of swelling. Pain and stiffness on opening the mouth before swelling of gland is evident. In severe cases there may be fever, headache and other constitutional symptoms also. It may also affect testes, pancreas, CNS, ovaries, prostate etc.

Investigations

- CBC

Intervention at HWC

Medicines	Indications
Belladonna	Suddenness of onset. Always associated with hot, red skin, flushed face, glaring eyes, throbbing carotids, an excited mental state, hyperesthesia of all senses, delirium, restless sleep, dryness of mouth and throat with aversion to water and pains that come and go suddenly.
Mercurius solubilis	Glandular swellings with or without suppuration, but especially if suppuration be too profuse. Profuse perspiration attends nearly every complaint, but does not relieve; may even increase the suffering. Great weakness and trembling from least exertion.

Medicines	Indications
Pulsatilla nigricans	Parotiditis accompanied with pain in ear, thirstless, pains shifting rapidly; letting up with a snap. Better open air worsens in closed room.
Rhus toxicodendron	Swollen face, erysipelas. Cheek bones sensitive to touch. Parotitis. Facial neuralgia, with chilliness; worse, evening. Pain in maxillary joint. Sore, with swollen glands. Sticking pain on swallowing. Parotitis; left side.

Referral

Patient who experiences high grade fever, testicular pain, abdominal pain, vomiting, nuchal rigidity, neck pain, photophobia, hearing loss, facial paralysis, or any symptoms that deviates from the typical mumps presentation.

8.12 Lymphatic filariasis

Lymphatic filariasis covers infection with *Wuchereria bancrofti*, which is responsible for 90% of the cases, *Brugia malayi*, which causes most of the remainder of the cases, *Brugia timori*, which also causes the disease. Transmitted by bite of infected vector mosquitoes.

Clinical manifestations can be divided into two clinical types:

- Lymphatic filariasis caused by the parasite in lymphatic system,
- Occult filariasis caused by an immune hyper- responsiveness.

The stages are (i) Asymptomatic amicrofilaraemia- *Microfilaria* (Mf) in blood or clinical manifestations are not present inspite of having exposure. (ii) Asymptomatic microfilaraemia- Asymptomatic but blood positive for Mf. (iii) stage of acute manifestations- Filarial fever, lymphangitis, lymphadenitis, lymphoedema of various part of body. (iv) Stage of chronic obstructive lesion- In Bancroftian filariasis, hydrocele, elephantiasis (leg, scrotum, arms, penis, vulva and breast) and chyluria. In Brugian filariasis, similar to Bancroftian filariasis but genitalia rarely involved.

Occult filariasis: Classical clinical manifestations and Mf in blood not present. Believed to result from hypersensitivity reaction to filarial antigens derived from Mf e.g. Tropical pulmonary eosinophilia.

Intervention at HWC

Medicines	Indications
Apis mellifica	Extreme sensitiveness to touch and general soreness is marked. Constricted sensations. Sensation of stiffness as if something is torn off from inside the body. Awkward; drop things readily. Tearful. Craving for milk. Worse right side. Thirstless in anasarca; ascitis. Oedema; bag like puffy swelling under the eyes; of hands and feet, dropsy, without thirst.
Rhus toxicodendron	Great apprehension at night; cannot remain in bed. Intermittent fever; dry teasing cough before and during chill. Chilly, as if cold water was poured over him followed by heat and an inclination to stretch the limbs. Tongue dry, sore, red, cracked; triangular red tip; takes imprint of teeth.

Medicines	Indications
Pulsatilla nigricans	During fever, chilly with pain in spots, chills around 4 p.m. Intolerable burning heat at night, with distended veins; heat in parts of the body, coldness in other parts. One sided sweat; pain during sweat. External heat is intolerable, veins are distended. During apyrexia, headache, diarrhoea, loss of appetite, nausea. Pain in limbs, shifting rapidly; letting up with a snap.
Arsenicum album	Great prostration, restlessness, fear and nightly aggravation. Fear, fright and worry. Burning pains relieved by heat. Thirsty, drinks often but little at a time. < Wet weather, after midnight, from cold, cold drinks or food > heat, warm drinks, head elevated.
Bryonia alba	During fever, pulse full, hard, tense and quick. Chills with external coldness. Internal heat. Easy profuse perspiration. <warmth, motion, morning > lying on painful side, pressure, rest, cold things.
Hepar sulphuris calcareum	During fever, chilliness from slightest draught. Dry heat at night. Profuse sweat; sour, sticky, offensive.
Silicea terra	During fever, chilliness; very sensitive to cold air. Sweat at night, worse towards morning. Much sweating about the head, this must be kept warm by external covering. Sweat of hands, toes, feet and axillae; offensive.

Referral

- Lymphoedema with complications like non healing ulcers, maggots,
- Patients with uncontrolled diabetes, kidney, renal disease and other systemic diseases.
- Chyluria
- Lymphoedema with high fever
- Surgery for hydrocele

8.13 Malaria

It is a protozoal disease caused by infection with parasites of genus Plasmodium. Transmitted by bite of infected female anopheles mosquitoes. Typical attack comprise of cold stage, hot stage and sweating stage followed by afebrile period. Cold stage begins with lassitude, headache, nausea and chilly sensation followed by rigors. Headache is often severe and commonly there is vomiting. In early part of this stage skin feels cold; later it becomes hot. During hot stage patient feels burning hot and dry to touch. Headache is intense but nausea diminishes. Pulse is full and respiration rapid. During sweating stage, fever comes down with profuse sweating. Temperature drops rapidly to normal and skin is cool and moist. Pulse rate becomes slower and patient feels relieved. Febrile paroxysms occur with definite intermittent periodicity. The classical 3 stages may not always be observed. Disease has a tendency to relapse and is characterised by enlargement of spleen and secondary anaemia.

Investigation

Malaria is usually confirmed by the microscopic examination of blood films or by antigen-based rapid diagnostic tests (RDT).

Intervention at HWC

Medicines	Indications
Chininum sulphuricum	Indicated whenever there is marked periodicity and spinal sensitiveness. Chills daily at 3 p.m. Painful swelling of various veins during chill. Shivering even in warm room. Anguish. Subnormal temperature.
Malaria officinalis	Chills all over, ascending from the legs. Face feels warm, as if flushed or feverish, spreads all over the body. Intermittent quotidian and tertiary fever. Weak and drowsy between attacks. High fever at night and in morning. Chills begin at noon; icy cold from hips down. Profuse perspiration.
Rhus toxicodendron	Intermittent fever; dry teasing cough before and during chill. Chilly, as if cold water was poured over him followed by heat and an inclination to stretch the limbs. Tongue dry, sore, red, cracked; triangular red tip; takes imprint of teeth. Great restlessness, anxiety, apprehension
Arsenicum album	High fever, periodicity marked with adynamia. In typhoid not to be given too early; often indicated after Rhus tox. Complete exhaustion, great prostration with rapid sinking of vital forces with fainting. The greater the suffering the greater the anguish, restlessness and fear of death, worse mid day and mid night
Cinchona officinalis	Intermittent, paroxysms anticipate; return every week. Periodicity is most marked. All stages well marked. Chill generally in forenoon, commencing in breast; thirst before chill, and little and often. Debilitating night-sweats. Free perspiration caused by every little exertion, especially on single parts. Worse: draught of air; every other day; at night. Better: open air; warmth.
Natrum muriaticum	Chill between 9 and 11 am. Heat; violent thirst, increases with fever. Fever-blisters. Coldness of the body, and continued chilliness very marked. Sweats on every exertion.

Referral

- Impaired consciousness or unarousable coma
- Failure to feed
- Multiple convulsions
- Deep breathing, respiratory distress (acidotic breathing)
- Circulatory collapse or shock, systolic blood pressure < 70 mm Hg in adults and < 50 mm Hg in children
- Clinical jaundice with evidence of other vital organ dysfunction
- Haemoglobinuria
- Abnormal spontaneous bleeding
- Pulmonary oedema (radiological)

8.14 Helminthiasis

Major soil-transmitted helminths are *Ascaris lumbricoides*, *Trichuris trichiura*, *Ancylostoma duodenale* and *Necator americanus* (hookworms). Transmitted through faeco-oral route and are associated with poverty, poor living conditions, inadequate sanitation and water supplies, poor personal and environmental hygiene etc. Hookworms cause blood loss and are one of the major contributors to iron deficiency anaemia. Ascariasis may be manifested clinically by vague symptoms of nausea, abdominal pain and cough. Live worms are passed in stools. Occasionally may produce intestinal obstruction. Soil-transmitted helminth infections cause malnutrition, anaemia and growth retardation as well as higher susceptibility to other infections. Infections

reduce work capacity and impede concentration. In children, infection reduces cognitive development.

Intervention at HWC

Medicines	Indications
Teucrium marum varum	Itching in the anus and constant irritation in the evening in bed. Ascarides with nocturnal restlessness. Crawling sensation in the rectum after stool.
Cina maritima	Children's remedy, big, fat, rosy, scrufulous. Face pale; sickly, with dark rings under the eyes; one cheek red, the other pale. An irritability of temper, variable appetite, grinding of teeth. Gets hungry soon after a meal. Craving for sweets and different things; refuses mother's milk. Ill humoured.
Spigelia	A remedy for symptoms due to the presence of worms. Adapted to scrofulous children afflicted with ascarides and lumbrici. Afraid of sharp, pointed things, pins needles etc. Stammering, repeats first syllable three or four times; with abdominal ailments; with helminthiasis.
Santoninum	Worm diseases, gastrointestinal irritation, itching in the nose, restless sleep, twitching of muscles.
Sulphur	Child cannot bear to be washed or bathed; emaciated, big bellied; restless, hot, kick off the clothes at night; have worms.
Vernonia anthelmintica	Thread worm infection, nocturnal enuresis, grinding of teeth at night.

Referral

- Cases of ascariasis with pneumonia commonly accompanied by wheezing, dyspnoea, a non-productive cough, and fever, with blood-tinged sputum.
- Cases with sign and symptoms of intestinal obstruction including intussusceptions & volvulus, bowel infarction, intestinal perforation & peritonitis.
- In tricuriasis cases with chronic abdominal pain and diarrhoea, chronic dysentery and rectal prolapse.
- In hookworm infestations cases with hypoproteinaemia and anasarca, severe iron-deficiency anaemia during pregnancy etc.

8.15 Scabies

Scabies is an intensely itchy dermatosis caused by the mite *Sarcoptes scabiei*. Scabies presents within two to six weeks of initial infestation, but reinfestation can provoke symptoms within 48 hours. Scabies is transmitted by close personal contacts. Infants and children are therefore particularly liable to infection from close physical contact with other children and adults at home and at school. Pruritus is the hallmark of scabies regardless of age develops 6-8 weeks after the exposure. Severe itching (pruritus), especially at night, is the earliest and most common symptom of scabies. A pimple-like (papular) itchy (pruritic) "scabies rash" is also common. The most common presenting lesions are papules, vesicles, pustules, and nodules. The pathognomonic sign is the burrow; a short, wavy, scaly, grey line on the skin surface. These burrows appear as tiny raised and crooked (serpiginous) grayish-white or skin-colored lines on the skin surface. A history of itching in several family members over the same period is almost pathognomonic.

Investigations

- Skin scrapings
- Burrow ink test

General management

- Patients with scabies and their close physical contacts, even without symptoms, should receive treatment at the same time. Prescriptions must be provided for all household members and sexual partners.
- Do not let the child scratch the skin hard as that can lead to the secondary skin infections.
- Avoid wearing damp clothes as the mites can thrive and multiply if favorable conditions are provided.
- Bedding or clothing worn or used next to the skin anytime during the three days before treatment should be machine washed and dried using hot water.
- After completion of treatment, patients should use fresh, clean bedding and clothing. If possible, potentially contaminated clothes and bedding should be washed at high temperature (>50°C) or kept in a plastic bag for up to 72 hours, because mites that are separated from the human host will die within this time period.

Intervention at HWC

Medicines	Indications
Croton tiglium	Has elective affinity for the skin of face and external genitals. Feels tight all over. Intense itching of skin but so tender is unable to scratch better gentle rubbing. Intense itching of genitals of both sexes.
Hepar sulphuris calcareum	Skin very sensitive to contact, cannot bear even cloths to touch affected parts, pain often cause fainting. Constant offensive exhalations from body.
Psorinum	Intolerable itching. Abnormal tendency to receive skin diseases; eruptions easily suppurate; dry inactive, rarely sweats; dirty look, as if never washed; coarse greasy, as if bathed in oil.
Sepia officinalis	Itching of skin; of various parts; of external genitalia; is not > by scratching and is apt to change to burning; worse in bends of elbows and knees.
Sulphur	Skin, scaly, unhealthy; every little injury suppurates. Freckles, Itching, burning; worse scratching and washing. Pimply eruption, pustules, rhagades, hangnails. Excoriation, especially in folds. Pruritis, especially from warmth, in the evening, often recurs in springtime, in damp weather.
Mezereum	Eruptions ulcerate and form thick scabs under purulent matter exudes. Worse, cold air; night, evening until midnight, touch. Better, open air.

Referral

If secondary bacterial infections in lesions such as impetigo, pyoderma progressed to serious secondary complications like poststreptococcal glomerulonephritis and cardiac disease.

NON -COMMUNICABLE DISEASES

9.1 Introduction

Non-communicable diseases (NCDs), usually chronic in nature, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behavioural factors. They are a leading cause of preventable deaths and disability in India. The four main types of NCDs are cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes. These are causally linked with four leading behavioural risk factors: tobacco use, harmful use of alcohol, physical inactivity and unhealthy diet. In turn, these unhealthy behaviours lead to four key metabolic/physiological changes: raised blood pressure, overweight/obesity, raised blood glucose, and raised blood lipids. Reducing the major risk factors for NCDs – tobacco use, physical inactivity, unhealthy diet and the harmful use of alcohol is the main focus to prevent morbidity and mortality deaths from NCDs.

Homoeopathy gives importance to the individual constitution. There can be personalities, who are inherently lethargic, avoid exercise, prone to addictions, obesity etc. If their constitutional traits are identified early and given constitutional remedies, to a great extent these people can escape from the burden of serious illness. Some NCDs like diabetes, cancers have traits of family inheritance. Homoeopathy can be of great benefit to the children of parents with such diseases provided remedies for the constitutional corrections are taken and moderation in lifestyle is adopted. Homoeopathy is among the commonly used alternative approaches in Cancer. Given as add on also improves quality of life, survival time and presenting complaints.

9.2 Overweight, Obesity & Dyslipidemia

Overweight and obesity may be defined as an abnormal growth of adipose tissue due to an enlargement of fat cell size or an increase in fat cell number or a combination of both. Obesity is often expressed in terms of body mass index (BMI) is a simple index for height for weight that is commonly used to classify overweight and obesity.

Dyslipidemia is a disorder of lipoprotein metabolism, including lipoprotein overproduction or deficiency. Dyslipidemias may be manifested by elevation of Total cholesterol, Low Density Lipoproteins (LDL) and Triglyceride concentrations, and a decrease in the High Density Lipoproteins (HDL) concentration in the blood. It is a pathological condition in which lipid levels are deranged. It is a major contributor to cardiovascular morbidity and mortality. Although, it is more common among males, but it affects both the genders. Usually it starts in the middle age and the incidence increases as age advances. Several risk factors associated with dyslipidemia are obesity, hypertension, diabetes mellitus, sedentary life style, high fat diets, hypothyroidism, alcoholism and smoking. If dyslipidemia is not treated and managed in time, it may lead to

symptoms like dyspnoea, lethargy, tiredness, weight gain, loss of appetite and co-morbidities like hypertension, atherosclerosis, coronary artery disease, diabetes, stroke and cardiovascular death.

Risk factors

There are many risk factors for overweight, obesity and dyslipidemia. Some risk factors are modifiable, such as unhealthy lifestyle habits and environments. Other risk factors, such as age, family history and genetics, race and ethnicity, and sex, are non-modifiable.

Modifiable risk factors	Non modifiable risk factors
<ul style="list-style-type: none"> • Lack of physical activity, • Unhealthy diet patterns • Not enough sleep, and • High amounts of stress 	<ul style="list-style-type: none"> • Age, • Family history • Genetics • Race and ethnicity • Gender

9.2.1 Obesity

Overweight and obesity in adults is classified through BMI, a simple index of weight-for-height. It is defined as the weight in kilograms divided by the square of height in meters (kg/m²). A waist circumference of more than 94 cm in men and 80 cm in women increases risk of metabolic complications. With a waist-hip ratio of more than 0.90 cm in men and more than 0.85 cm in women, the risk of metabolic complications increases substantially.

Classification	BMI (Kg/m ²)	Risk of comorbidities
Underweight	<18.5	Low
Normal range	18.5 to 24.9	Average
Over-weight (pre obese)	25.0 to 29.9	Mildly increased
Obese	≥30	
Obesity Class I	30.0 to 34.9	Moderate
Obesity Class II	35.0 to 39.9	severe
Obesity Class III	≥40	very severe

Symptoms

- Breathlessness even on little exertion / physical activity
- Lack of interest in doing work
- Profuse sweating with foul body odour
- Excessive hunger/ eating disorders
- Feeling of tiredness
- Excessive sleep
- Knee and hip osteoarthritis
- Varicose veins
- Psychological issues associated with poor body image

9.2.2 Dyslipidemia

There are no specific symptoms of elevated lipids, but the symptoms may appear due to accelerated atherosclerosis expresses itself in a number of cardiovascular and other diseases (Angina pectoris, Coronary artery disease, Myocardial infarction, Transient ischemic attacks (TIAs), Cerebrovascular accidents/ strokes, Peripheral artery disease.

Risk factors

Apart from the factors mentioned under obesity, the other causes are as follows:

Primary	Secondary
Genetic	Diabetes mellitus type II Nephrotic syndrome Hypothyroidism Drug- induced Hypertension Alcoholism Obesity Smoking

Classification

Classification of Blood Lipid Levels for Therapeutic Interpretation	
Blood lipids	Serum level (mg/dl)
Total Cholesterol	
Desirable	<200
Borderline high	200-239
High	>240
LDL cholesterol	
Optimal	<100
Near optimal	100-129
Borderline high	130-159
High	160-189
Very high	≥ 190
Serum triglycerides	
Normal/desirable	<150
Borderline high	150-199
High	200-499
very high	≥500
Serum HDL cholesterol	
Low	<40
High	>40

LDL: Low density lipoprotein, HDL: High Density lipoprotein

Screening for hyperlipidemia can be conducted in

- Men older than 35
- Women older than 45
- Presence of diabetes
- Tobacco use

- Family history of cardiac disease
- Personal history of heart disease or peripheral vascular disease
- Obesity (BMI > 30)
- Hypertension

Investigations

- Fasting lipid profile
- Blood sugar- FBS, PPBS
- Kidney function tests (KFTs).
- Liver function tests (LFTs).

General Management

Life style management

Preferred Diet

- Take low-fat, low-calorie and high fiber food.
- Include choosing smaller portion sizes, eating more fruits and vegetables, consuming more whole-grain cereals, selecting leaner cuts of meat and skimmed dairy products, reducing fried foods and other added fats and oils, and drinking water instead of caloric beverages.
- Avoid packaged foods high in sodium content and foods with added salt such as chips, namkeens
- Use warm water for drinking
- Include fresh and raw vegetables in daily meal.
- Prefer Steamed, boiled or baked vegetables rather than fried
- Foods with low-energy density like soups, fruits, vegetables, oatmeal, and lean meats are to be encouraged. High-fat foods such as cheese, egg yolks, potato chips, energy bars, red meat, junk food etc. should be avoided. Diets containing low-energy dense foods have been shown to control hunger and result in decreased caloric intake and weight loss.

Physical activity therapy

- Focusing on simple ways to add physical activity into the normal daily routine through leisure activities, travel, and domestic work should be suggested. Examples include walking, using the stairs, doing home and yard work, and engaging in sport activities.
- Adults could engage in 150 minutes a week of moderate-intensity or 75 minutes a week of vigorous-intensity aerobic physical activity performed in episodes of at least 10 minutes, preferably spread throughout the week.
- Regular Practice of yoga as per the yoga protocol (Suryanamaskar, Paschimottasan, Janusirshasana, Kapalbhathi, Agnisar Kunjal, Tadasana, Katichakrasana, Konasana, Pavanmuktasana)

Behavioral therapy

- Counselling and self motivation is used to help change and reinforce new dietary and physical activity behaviors. It includes:
 - Self-monitoring techniques: e.g., journaling, weighing, and measuring food and activity.

- Stress management.
- Stimulus control: e.g., using smaller plates, not eating in front of the television or in the car.
- Social support; problem solving; and cognitive restructuring to help patients develop more positive and realistic thoughts about themselves.
- When recommending any behavioral lifestyle change, have the patient identify what, when, where, and how the behavioral change will be performed.

Intervention at HWC

For obesity

Medicines	Indications
Ammonium muriaticum	It is especially adapted to those who are fat and sluggish; or body large and fat, but legs too thin. Excessive fatty deposit around abdomen.
Antimonium crudum	Tendency to grow fat. Obesity in young people. Thickly white coated tongue.
Calcarea carbonica	Inclined to those children who grow fat. Large bellied with a large head, chalky look. Calcarea patient is fat, fair and flabby with excessive sweat over the head, so much so that the pillow becomes wet.
Capsicum annum	Suited to light hair people; tendency to get fat. Laxness of the muscles. Persons are fatty, indolent, opposed to physical exertion. Children are refractory, clumsy, fat, dirty, and disinclined to work or think.
Graphites	Suited to persons who have a tendency to put on unhealthy fat. Especially adapted to person inclined to obesity, particularly females with delayed menstruation.
Kali bromatum	It is more particularly adapted to person inclined to obesity; to children; to nervous women. Removes pathological deposit of fatty matter.

For Dyslipidemia

Medicines	Indications
Allium sativum	Adapted to fleshy subjects. The patients in whom high cholesterol is the result of excessive eating of meat can be benefited.
Arsenicum iodatum	Senile heart, fatty degeneration and arteriosclerosis.
Aurum metallicum	Arteriosclerosis with high blood pressure. Deterioration of body fluids.
Baryta carbonica	Useful in general degenerative changes, especially in coats of arteries. Acts on the muscular coats of heart and vessels. Arterial fibrosis. Blood vessels soften and degenerate.
Baryta muriatica	Medicine for high cholesterol levels where the arteries have become rigid with loss of normal elasticity.
Carduus marianus	Has specific action on vascular system. Abuse of alcoholic beverages, especially beer. It corrects the fat metabolism in the liver.
Crataegus oxyacantha	Arteriosclerosis. Said to have solvent power upon crustaceous and calcareous deposits in arteries.
Plumbum metallicum	A drug for general sclerotic conditions. Hypertension and arteriosclerosis.
Tabacum	Helpful in high tension and arteriosclerosis of the coronary arteries. Palpitation due to tobacco, tightness of the chest better by inspiration.

Referral

Obesity/Dyslipidaemia requires continuous monitoring of blood pressure, lipid profile

and blood sugar at regular interval and patient self-management education to prevent acute complications and to reduce the risk of long-term complications. However, patients may be referred to the higher center for following conditions-

- Uncontrolled Hypertension
- Uncontrolled diabetes
- Total cholesterol ≥ 240 mg/dl, Triglycerides ≥ 500 mg/dl
- Morbid obesity with respiratory distress/ sleep apnoea not responding to treatment
- Any other systematic uncontrolled co-morbidities

9.3 Hypertension

Hypertension, also known as high or raised blood pressure, is a condition in which the blood vessels have persistently raised pressure. Blood is carried from the heart to all parts of the body in the vessels. Each time the heart beats, it pumps blood into the vessels. Blood pressure is created by the force of blood pushing against the walls of blood vessels (arteries) as it is pumped by the heart. The higher the pressure the harder the heart has to pump. Based on the etiology, high blood pressure is of two types.

Essential Hypertension / (Primary or idiopathic hypertension): 80 - 95 % of hypertensive patients are diagnosed with Essential Hypertension in which no obvious medical cause is identified. It is likely to be the consequences of an interaction between environmental and genetic factors which increases with age.

Secondary Hypertension: 5-20% of the hypertensive patients come under this category. A specific underlying disorder causing elevation of blood pressure can be identified. The various causes for secondary hypertension may be from renal, endocrinal, neurogenic, drug induced, and pregnancy induced hypertension.

According to API (Association of Physicians of India) blood pressure is classified as:

Category	Systolic BP (mm of Hg)	Diastolic BP (mm of Hg)
Optimal	<120	<80
Normal	120 to 129	80-84
High Normal	130-139	85-89
Stage 1 hypertension	140-159	90-99
Stage 2 hypertension	160-179	100-109
Stage 3 hypertension	>180	>110
Isolated systolic hypertension Grade 1	140-159	<90
Isolated systolic hypertension Grade 2	>160	<90
Hypertensive urgency: Severe asymptomatic hypertension	> 180	>120
Hypertensive emergency:	Severe hypertension accompanied by cardiac (e.g. acute left ventricular failure), neurological (e.g. hypertensive encephalopathy), or renal dysfunction.	

Risk factors of primary hypertension

Non- modifiable	Modifiable
<ul style="list-style-type: none"> • Age • Positive family history 	<ul style="list-style-type: none"> • Obesity • Increase intake of saturated fat • Low level of physical activity • High salt intake • Tobacco consumption, Smoking • Psychological stress • Alcohol consumption • Drug abuse

Symptoms

Most people with hypertension have no symptoms at all, this is why it is known as the “silent killer”. However, the patient need to be assessed for a clinical history, signs & symptoms, measurement of BP reading, physical examination, basic investigations to confirm the diagnosis, other cardiovascular disease risk factors and secondary causes of hypertension or involvement of target organs. The common symptoms and signs include:

- Headache
- Dizziness
- Insomnia/ sleep disturbances
- Lack of concentration/ Irritability
- Loss of memory
- Palpitation
- Nosebleed
- Easy fatigability
- Impotence

The physicians should also focus on clinical History such as:

- Duration of hypertension
- Previous therapy: its response & side effects
- Family history of hypertension & cardiovascular disease
- Dietary & psychosocial history
- Daily routine and life-style
- Other risk factors: weight change, dyslipidemia, smoking, diabetes, physical inactivity etc.
- Evidence of secondary hypertension: like history of renal disease, symptoms of hypo or hyperthyroidism, change in appearance, muscle weakness, snoring, sweating, palpitation, tremor, use of agents that increase blood pressure.
- Evidence of target organs damage: history of transient ischemic attack, stroke, transient blindness, angina, myocardial infarction.

Physical examination

- Weight, height
- Measurement of blood pressure
- Pulse rate, rhythm & character
- Jugular venous pulse

- Evidence of cardiac enlargement (displaced apex, extra heart sound) or evidence of decompensation (crackle or wheeze on lung auscultation, peripheral oedema)
- Evidence of arterial disease (carotid, renal or abdominal bruit, radio femoral delay, abdominal aortic aneurysm)
- Evidence of kidney disease
- Evidence of abnormality of endocrine system (enlargement of thyroid gland)
- Optic examination of fundi

Investigations

- Kidney Function tests (KFTs)
- Blood sugar
- Lipid profile
- 12 Lead ECG

Complications

- Chest pain or angina
- Cardiac failure
- Cerebrovascular accident / stroke
- End organ damage such as retinopathy, nephropathy, damage to cardiovascular system etc.
- Malignant Hypertension

General Management

Prevention

To prevent hypertension the person should increase consumption of DASH (Dietary Approaches to Stop *Hypertension*) diet:

- Intake of fruits and fibre rich diet
- Intake of foods rich in anti-oxidants like citrus fruits, papaya, tomatoes, grains, cereals, potatoes, green leafy vegetables
- Exercise and yoga: Cardiac coherence exercises (breathing exercises)

The person should reduce:

- High fat intake
- Weight
- Salt intake
- Stress

The person should avoid:

- Alcohol
- Smoking/ tobacco in any form
- Fried foods, chutneys, pickles, papads, salted nuts, chips etc.

Intervention at HWC

Medicines	Indications
Aurum metallicum	Hypertension due to valvular lesions and arteriosclerosis; pulse small, feeble, rapid and irregular with visible beating of carotid and temporal arteries; Violent palpitation with congestion of blood in head & chest after exertion which compels the patient to stop walking or motion. Hot patient; ailments from grief, disappointed love, business reversals and humiliation; egotism, haughty and arrogant, spiritual inclination and desire for prayer or meditation, many complaints come on only in winter; from sunset to sunrise, cold bathing; depressive, hopeless, constant desire to commit suicide Worse: from emotions, mental exertion, cold weather, sunset to sunrise. Better: open air.
Baryta muriatica	Hypertension due to vascular degeneration when systolic pressure is high with comparatively low diastolic pressure attended by cerebral & cardiac symptoms. Headache, but without acute crisis, occurring in old people; heaviness rather than pain. Lesions of the aged who are physically and mentally dwarfish; Arteriosclerosis and cerebral affections due to this condition; maniac states, especially when sexual behavior becomes prominent.
Natrum muriaticum	Tachycardia; Heart and chest feel constricted; sensation of coldness in the heart. Fluttering, palpitating; intermittent pulse. Heart's pulsations shake body. Intermits on lying down. Hot patient; poorly nourished, great emaciation (marked on neck); losing flesh while living well; craving for salt; aversion to bread and fatty things; constipated, increased thirst; mapped tongue with red insular patches; melancholic; sad, plays alone; Irritable, cross, cries when spoken to; awkward, hasty, drops things from nervous weakness; disposition to weep without cause, consolation aggravates.
Glonoinum	Indicated in high blood pressure which may occur from the bad effects of mental excitement, fear, fright & sunstroke. Face flushed with congested & throbbing headache. Head feel heavy cannot lay on pillow & cannot bear any heat about head. The chest feels congested or hot, with a pounding or irregular heartbeat. Pulse accelerated; rises and falls alternately. Hypertension with extreme weakness, irritability and confusion. General worse from sun; symptoms come and go with sun.
Gelsemium sempervirens	Complaint occur from bad effect of emotional excitement, fear, fright, exciting news etc. A feeling as if it were necessary to keep in motion, or else heart's action would cease; Slow pulse.
Rauwolfia serpentina	High blood pressure without marked atheromatous changes in the vessels. Irritative condition of central nervous system; insanity; violent maniacal symptoms .
Veratrum album	Palpitation with anxiety and rapid audible respiration; pulse irregular, feeble. Intermittent action of heart in feeble persons with some hepatic obstruction. Cold perspiration on the forehead; with nearly all complaints. Chilly patient; coldness, weakness and cyanosis is the trio of the remedy; thin, anaemic; great prostration with vertigo, pale face and clean tongue; collapse; craves fruits, juicy and cold things, ice and salt; aversion to warm food; frenzy, shrieks, curses, desire to cut and tear things, howling all night.
Crataegus oxyacantha	Produces giddiness, lowered pulse, and air hunger and reduction in blood-pressure. Acts on muscle of heart and is a heart tonic.
Calcarea carbonica	Palpitation with feeling of coldness, with restless oppression of chest; after suppressed eruption.

Medicines	Indications
Lachesis mutus	Pressure and burning on vertex. Waves of pain; worse after moving. With headache, flickerings, dim vision. Vertigo. Palpitation, with fainting spells.
Plumbum metallicum	Hypertension and arteriosclerosis. Cardiac weakness. Pulse soft and small, dichrotic. Wiry pulse, camp-like constriction of peripheral arteries.
Lycopus virginicus	Lowers blood pressure, reduces heart rate, epistaxis due to high blood pressure.
Veratrum viride	Induces fall of both systolic and diastolic blood pressure. Beating of pulses throughout body, especially in right thigh.

Referral

- Hypertension requires continuing monitoring of the blood pressure at regular interval and patient self- management education to prevent acute complications and to reduce the risk of long-term complications. However, patients may be referred to higher center for following conditions -
 - o The patients of Hypertensive crisis (BP \geq 180/110mmHg)
 - o If Hypertension is associated with heart disease, stroke or peripheral vascular disease.
 - o Evidence of Left Ventricular Hypertrophy (LVH)
 - o Presence of urinary proteinuria
 - o Serum creatinine $>$ 1.6mg/dl
 - o Persistent Hypertension (BP \geq 140/90 mmHg) despite 3 months of treatment

9.4 Diabetes mellitus

Diabetes mellitus is described as a metabolic disorder of multiple aetiology characterized by chronic hyperglycaemia, with disturbance of carbohydrate, fat and protein metabolism, resulting from defects in insulin secretion, insulin action, or both. Effects of diabetes mellitus include long-term damage, dysfunction and failure of various organs. Diabetes mellitus may present with characteristic symptoms such as thirst (polydipsia), polyuria, blurring of vision, and weight loss.

It can be type 1 DM (earlier known as insulin-dependent or childhood-onset diabetes) is characterized by a lack of insulin production. Type 2 DM (earlier known as non-insulin-dependent or adult-onset diabetes) is caused by the body's ineffective use of insulin. It often results from excess body weight and physical inactivity.

The World Health Organization has defined prediabetes as a state of intermediate hyperglycaemia using two specific parameters, impaired fasting glucose (IFG) defined as fasting plasma glucose of 6.1-6.9 mmol/l (110 to 125 mg/dl) and impaired glucose tolerance (IGT) defined as 2 hours plasma glucose of 7.8-11.0 mmol/l (140-200 mg/dl) after ingestion of 75 g of oral glucose load or a combination of the two based on a 2 hours oral glucose tolerance test.

Long-term effects of diabetes mellitus include progressive development of the specific complications of retinopathy with potential blindness, nephropathy that may lead to renal failure, and/or neuropathy with risk of foot ulcers, amputation, Charcot joints, and features of autonomic dysfunction, including sexual dysfunction. People with diabetes are at increased risk of cardiovascular, peripheral vascular and cerebrovascular diseases.

Risk Factors for Pre-diabetes and Type 2 Diabetes mellitus

Genetic factors	Host factors	Environmental Factors
<ul style="list-style-type: none"> Genetic defects of B-cell of pancreas Genetic defects in insulin action Diseases of the exocrine pancreas Endocrinopathies Drug or chemical induced diabetes Infections 	<ul style="list-style-type: none"> Family history of diabetes Impaired glucose tolerance (IGT) History of gestational diabetes Poor nutrition during pregnancy 	<ul style="list-style-type: none"> Physical inactivity Stress Excess alcohol Excess smoking Drug abuse High blood pressure obesity

Classification of diabetes:

- Type 1 Diabetes (T1D/ T1DM/ Juvenile onset diabetes)** :T1DM can occur any time in childhood and is more likely below 15 years of age. The onset is usually acute and severe and insulin is required for survival. In addition, urine of T1DM patients with uncontrolled hyperglycemia is positive for ketone bodies.
- Type 2 Diabetes (T2D/T2 DM/ Non-insulin dependent diabetes or adult-onset diabetes):** It usually occurs in adult age group. T2D was previously known as non-insulin dependent diabetes mellitus. The onset is usually insidious and may be mild to severe. Family history is usually positive and strong. Obesity, metabolic syndrome and acanthosis nigricans are usually seen in these patients while there is no evidence of autoimmunity.
- GD (Gestational diabetes):** This type of DM is recognized during pregnancy. It is due to insulin resistance related to the metabolic changes.
- MODY (Maturity Onset of Diabetes of the Young):** It is a sub type of DM characterized by autosomal dominant inheritance, early onset of hyperglycemia and impairment in insulin secretion.

Diagnosis and Laboratory investigations

Criteria for diagnosis of T2DM using venous blood samples-

Category	Fasting Glucose (mg/dl)	2 Hour Post-Glucose Load (mg/dl)	Random blood sugar (mg/dl)	HbA1c*
Normal	Less than 110mg/dl	Less than 140	Less than 140 (even after eating a large meal)	Less than 5.7%
Prediabetes	≥110 to <126	140-199	140-200	5.7% to 6.4%
Diabetes Mellitus	≥126 or	≥200	≥200	6.5% or more

***Glycosylated haemoglobin (HbA1C):** A fraction of hemoglobin in the RBCs is found to be in a glycosylated form i.e., glucose attached to it. The HbA1c level is proportional to average blood glucose concentration over the previous 2 to 3 months and is an excellent indicator of how well the patient has managed diabetes over the last four weeks to three months. > 6.5 % is considered as Diabetic.

Clinical features of DM with difference in T1DM and T2DM

	T1DM	T2DM
Age	Bimodal peak i. 5-7 yrs. ii. 14 yrs.	4th decade
Onset	Explosive	Less explosive often incidental detection

	T1DM	T2DM
Phenotype	Lean	Obese
Signs of Insulin resistance i. Acanthosis nigrica ii. Skin tags	Absent	Usually present
Diabetic ketoacidosis	Common	Rare
Auto-immune disorder	Commonly associated	Not associated
Insulin and C-peptide	Low	Normal to low
Drugs	Insulin	Oral drugs and Insulin if required
Clinical features	<ul style="list-style-type: none"> • Increase thirst, • Increased micturation, • Weight loss in spite of Increased/normal appetite, • Fatigueness, • Signs and symptoms of dehydration may be found • Nausea, • Vomiting 	<ul style="list-style-type: none"> • Fatigue • Slow healing infections, injuries • Increased appetite, • Increased thirst, • Increased frequency of micturation, • Blurred vision, • Progressive weight loss or weight gain

Complications

The complications of DM are categorized into two main groups.

Acute (due to metabolic disturbances)	Chronic	Others
DKA (Diabetic Ketoacidosis) Nonketotic Hyperosmolar state	Microvascular complications: a. Ophthalmic Disorders (Retinopathy, Macular edema, Cataract, Glaucoma), b. Neuropathy (Peripheral neuropathy, Sensory and Motor polyneuropathy), and c. Nephropathy. Macrovascular complications: Coronary artery diseases Peripheral vascular disorders, Cerebrovascular diseases.	Sexual dysfunction. Dermatologic complications: Eczema, cellulites, and gangrene of distal part of limbs (Diabetic foot). Recurrent Urinary complaints, constipation or alternate diarrhoea and constipation, Gustatory sweating.

General management

Preventive measures:

Preferred diet:

- Carbohydrates from foods high in fibre e.g. whole grains (unpolished cereals and millets), legumes, peas, beans, oats, barley and some fruits with low glycemic index and glycemic load are consumed. All patients with diabetes should be encouraged to take 6 small meals a day. Food exchange system can be followed to give more variety and individualization to the diet plan.
- Traditional Indian diets that include whole grains along with whole pulses like grams, soya, green leafy vegetables and some fruits are the recommendations. Fruits like papaya, guava, apples, pears, oranges, mosambi can be taken in moderation.

- Proteins from vegetable sources like pulses, soya, grams, peas, low fat milk, low fat curds, fish and lean meats are recommended.
- Supplementation of foods like cereal and pulse (4:1 ratio) can improve the protein quality and also gives satiety. For e.g; Idli, dosa, Missi roti, Khichdi, Dhokla, Khandvi etc
- Use of MUFA rich oils like mustard, rice bran, peanut (groundnut) and gingelly are good options. Oils rich in N6 PUFA like safflower, sunflower, cotton seed, should be mixed with oils rich in N3 like soy and mustard to maintain N6:N3 ratio between 5-10. Use of mixed oils or alternating of oils is recommended.
- In the event of fever or other illness, the diabetic diet should be modified by changing the consistency and texture of foods to maintain adequate calorie intake. Semi solid foods and fluids or items like thin soups, milk, buttermilk, or fresh lime juice should be encouraged.

Restricted Diet:

- Avoid refined sugars as in soft drinks, or adding sugar to their beverages. All fruit juices and aerated beverages are best avoided.
- For persons with hypertension and diabetes, the intake of salt should be reduced to less than 3 g/ day.
- All preserved and processed foods such as pickles, chutneys, packaged namkeens/ savouries, sauces should be restricted.
- It is best to avoid alcohol, however if used, should be taken in moderation.
- If alcohol is consumed, it should not be counted as part of the meal plan.

Life style management:

- Smoking and tobacco chewing, drug abuse is totally prohibited.
- Stress management is essential which could take the form of meditation, yoga, a long outdoor walk, exercise and trying out hobbies like reading, gardening, painting etc. Practice of yoga is our traditional Indian system, which has therapeutic value in controlling our physical and mental health. It should be done under the guidance of an expert.
- Regular, simple exercise e.g. 30 minutes brisk walking at least 3 days a week in ambulant patients. (All advice on exercise must be given considering patient's age, presence of complications and other medical conditions).
- Regular Yoga exercises as per yoga protocol (Vakrasana, Mandukasana, Ardha Matsyendrasana, Suryanamaskara, Paschimottanasana, Kapalbhatikriya).

Intervention at HWC

Medicines	Indications
Arsenicum album	Chilly patient; rapid disproportionate prostration; burning pains better by heat (except headache); cadaveric odour of discharges and body; anxiety, anguish, fear for death and restlessness. Paleness of skin; disposition to gangrene and skin affections.
Natrum muriaticum	Hot patient; poorly nourished; great emaciation (marked on neck), losing flesh while eating well; craving for salt; aversion to bread and fatty things; constipated; increased thirst mapped tongue with red insular patches; melancholic, sad, plays alone, irritable, cross, cries when spoken to, awkward, hasty, drops things from nervous weakness; disposition to weep without cause, consolation- aggravates.

Medicines	Indications
Lycopodium clavatum	Patient is intellectually keen but physically weak; upper part of body emaciated, lower part semi dropsical; complexion pale, dirty, sallow with deep furrows; looks prematurely old; recurrent respiratory and gastro-intestinal affections; worse from 4 to 8pm; right sided complaints or symptoms shift from right to left; desires warm foods and drinks, sweets; tendency for flatulent dyspepsia; dominating, cranky, lack of self-confidence, precocious; Numbness, drawing and tearing in limbs especially at night.
Phosphorus	Tall, fast growing child with tendency to stoop; haemorrhagic tendency; Chilly patient; Craving for salt, cold foods and drinks; Oversensitive to external impressions; nervous and affectionate, anxious esp. during thunderstorm. Glycosuria; urine pale, watery or turbid, whitish like curdled milk.
Calcarea carbonica	Chilly patient; takes cold easily; Fat, fair, flabby with large head, distended abdomen with red face; pale, weak, easily tired, slow development of milestones; tendency for lymphatic glandular enlargement; Head sweats profusely while sleeping; Sour smelling discharges; ongoing for fresh air; Desire for eggs and indigestible things; Aversion to meat & milk; Fearful, timid, shy, slow and sluggish.
Mercurius solubilis	Sensitive to changes of temperature; Profuse offensive perspiration; Tongue flabby with imprint of teeth; Increased salivation Increased thirst for large quantity of water Worse at night, in wet damp weather
Sulphur	Dirty, filthy, lean, thin, stoop shouldered children who walk and sit stooping; Hot patient; Red lips, warm and moist palms; Desires sweet; Nervous, quick tempered. Burning all over the body. Dry, filthy, dirty suppurating skin; with profuse acrid discharges excoriating the parts.
Uranium nitricum	For glycosuria and polyuria; for nephritis, diabetes mellitus and insipidus, hypertension and dropsy. Suppression of menses with diabetes. Flatulence and ravenous hunger.
Sulphuricum acidum	Debility common to acids shows itself here; tendency to gangrene
Syzygium jambolanum	Glycosuria, diabetes with prickly heat on upper part of the body. Great thirst, weakness, emaciation.
Secale cornatum	Numbness, petechiae, gangrene; debility, anxiety, emaciation, though appetite and thirst may be excessive
Phosphoricum acidum	Acid debility is very marked in this remedy, produces nervous exhaustion; frequent, profuse, watery clear urine at night which turns milky on standing, milky with red jelly like deposits, Diabetes.
Gymnema slyvestre	Diabetes mellitus; after passage of urine patient feels very weak.
Cephalandra indica	Diabetes mellitus and insipidus; sugar in urine; weakness and debility after micturition.

Referral

- Patients may need to be referred to higher centers in the following conditions.
- Serious metabolic derangement or diabetes complications.
- Newly diagnosed Type 1 DM with or without urinary ketones.
- Decompensate Type 1 or Type 2 DM with strongly positive urinary ketones present, dehydration or vomiting.
- Foot ulcer with infection.
- Type 1 or Type 2 DM with suboptimal diabetes control after providing treatment (HbA1c 7.0%).
- Marked or symptomatic hyperglycemia not responding to current therapy.

9.5 Chronic Respiratory Diseases

Chronic respiratory diseases (CRDs) are diseases of the airways and other structures of the lung. Some of the most common are chronic obstructive pulmonary disease (COPD), asthma, occupational lung diseases and pulmonary hypertension. CRDs are not curable, however, various forms of treatment that help dilate major air passages and improve shortness of breath can help control symptoms and increase the quality of life for people with the disease. Most common are Asthma and chronic obstructive pulmonary disease (COPD) which are dealt here. WHO Chronic Respiratory Diseases Programme is to support in their efforts to reduce the toll of morbidity, disability and premature mortality related to chronic respiratory diseases.

Risk factors

- Tobacco smoking, including secondhand smoke, vaping.
- Indoor air pollution
- Outdoor air pollution
- Allergens
- Occupational risks and vulnerability
- Climatic variation
- Pollens, fungal spores
- Gastroesophageal reflux disease (G.E.R.D.)

Differential characteristics of Asthma and COPD

Characteristic	Asthma	COPD
Age at onset	usually < 40 years	Usually > 40 yrs
Smoking history	Notcausal, but worsens control	Usually >10 pack-years
Sputum production	Infrequent	common
Allergies	Common	infrequent
Clinical symptoms	intermittent and variable	persistent and progressive
Course of disease	Stable (with exacerbations)	progressive worsening (with exacerbations)
Importance of non respiratory comorbid illness	not usually important	often important
Spirometry results	often normalize over time	may improve but do not normalize over time
WBC predominance	Eosinophilic	neutrophilic

Diagnosis

Bronchial asthma	COPD
Clinical presentation	
<ul style="list-style-type: none"> • Breathlessness –episodic, variable, nocturnal, induced by triggers • Wheeze • Cough (usually dry but sometimes with small amounts of sticky sputum) • Chest tightness especially nights or early morning 	<ul style="list-style-type: none"> • Dyspnea, • Chronic cough, and • Sputum production and • Most common early symptom is exertional dyspnea. • Wheezing and chest tightness are less common

Bronchial asthma	COPD
Physical examination	
<ul style="list-style-type: none"> Examine for wheezing on auscultation Examine upper respiratory tract and skin for other signs of atopic condition Chest examination and spirometry results are normal during asymptomatic phase unless chronic complications have set in. 	<ul style="list-style-type: none"> Early in the disease, physical examination may be normal, or may show only prolonged expiration or wheezes on forced exhalation. Yellow stains on the fingers due to nicotine and tar from burning tobacco are a clue to ongoing and heavy cigarette smoking. Chest examination and spirometry invariably reveals chronic lung pathology.
Investigations	
<ul style="list-style-type: none"> Broncho provocation testing (increasing doses of a triggering substance are inhaled and FEV1 is measured. The dose at which FEV1 falls by 20% is called provoking dose 20% (Pd20%).) Skiagram chest (usually normal in asthmatic subjects) Eosinophil count (Markedly elevated eosinophil count (>15percent or >1500 eosinophils /micro L)) Total IgE (The levels are increased more than 1000) Blood tests for allergen- specific IgE (The test is done for allergens suspected to be the probable triggers of asthma in an individual patient) Allergy skin prick test (involves testing a number of indoor and outdoor allergens by skin prick test) 	<ul style="list-style-type: none"> Broncho provocation testing not required. Hyperinflated lungs on x-ray chest. “Barrel-shaped” chest on skiagram, rapidly tapering vascular shadows, increased radiolucency of the lung, a flat diaphragm, and a long, narrow heart shadow on a frontal radiograph. Normal eosinophil count Normal IgE IgE normal Allergic skin prick test not required
Spirometry	
Reduced during exacerbation	<p>Mild Stage I COPD: Mild airflow limitation (FEV1/FVC < 70%; FEV1 > 80% predicted)</p> <p>Stage II: Moderate COPD: worsening of (FEV1/FVC < 70%; 50% < FEV1 < 80% predicted)</p> <p>Stage III: Severe COPD: further worsening of airflow limitation (FEV1/FVC < 70%; 30% < FEV1 < 50% predicted)</p> <p>Stage IV: Very Severe COPD: Severe airflow limitation (FEV1/FVC < 70%; FEV1 < 30% predicted) or FEV1 < 50% predicted plus chronic respiratory failure.</p>

Complications

- Pneumonia which may prove fatal.
- Smoking respiratory syndrome
- Respiratory failure
- Atelectasis
- Cystic degeneration

General Management

An effective CRD management includes:

- Patient education and self-management
- Lifestyle modifications

- Allergen and risk factor avoidance
- Assess, treat and monitor asthma/ CRD
- Effectively manage asthma exacerbation

Preventive measures

- Smoking damages lungs and increases risk for a number of diseases including lung cancer and COPD.
- Avoid second- and third-hand smoke too.
- Air fresheners, mould, pet dander, and construction materials all pose a potential problem. Poor ventilation, closed-in working areas and heat increase are also disease-causing culprits. Turn on the exhaust fan or keep the room ventilated while cooking.
- Wearing a mask can reduce exposure to an excessive amount of dust, fumes, smoke, gases, vapors or mists in the workplace. Wear protective masks when working with chemicals and report unsafe working conditions.
- Avoid breathing in toxic fumes from chemical, solvents and paints.

Diet

- Avoid diet which cause mucous production, cold food, ice cream.
- Take warm water/ drinks.

Life-style management

- Be physically active for 30 minutes each day to lighten the load on your lungs and increase the efficiency of oxygen transportation and metabolism.
- Yoga as per the yoga protocol (Pranayama, Bharastika , shavashana)

Intervention at HWC

Medicines	Indications
Ipecacuanha	Hot patient excessive salivation with clean tongue; Asthmatic cough in children Rattling cough worse in warm moist weather, severe cough with retching, vomiting stiffness and cyanosis, Chest full of phlegm but no expectoration. Nausea is an important concomitant.
Arsenicum album	Chilly patient, prostration, burning pains better heat (except headache), increased thirst, Anxiety and restlessness; asthma worse 12am to 2 am. Asthma better sitting upright; cough worse drinking cold drinks.
Antimonium tartaricum	Hot patient, drowsy debilitated and sweats profusely, craving for apple, tongue coated thick white, usually thirsty. A/F vaccination, warm damp cold, sour things and milk; cough with drowsiness and sleepiness, Cough with loud rattling but scanty expectoration, worse winter, wet weather; dyspnoea better eructation, lying on right side.
Natrum sulphuricum	Hot patient, desire for fat, worse in damp, cold weather, tendency for early morning diarrhoea; A/F living in damp basements getting wet, eating watery citrus fruits, exposure to seaside; asthma of damp rainy cold weather with early morning diarrhoea; worse 4-5 am better dry weather.
Kali carbonica	Chilly patient, puffiness, weakness, backache and perspiration, worse morning 2-4 am, excessive flatulence as if it will burst; Spasmodic cough with gagging or vomiting; Paroxysmal cough loosens viscid mucus which must be swallowed. Asthma worse 2-4 am better sitting up, resting with elbow on knees.

Medicines	Indications
Lobelia inflata	Nausea with constant salivation, cold sweat and prostration, anxiety about health, worse from cold, change of temperature, fears death from respiratory disease; Psychogenic dyspnoea, patient panics but lung sounds normal. Dyspnoea from constriction of chest better rapid walking; asthmatic attacks with weakness felt in stomach pricking all over body.
Ammonium carbonicum	Stout fleshy women who are always tired and weary take cold easily, cholera like symptoms before menses, lead sedentary life, disposed to frequently use of smelling salts; ailments from exposure to cold, stormy, wet weather; Chest feels oppressed during breathing worse warm room.
Psorinum	Extremely chilly patient, wants to cover even in hottest summer, delicate sickly scanty perspiration, offensive discharges, wakes at night hungry, child is good all day and cries all night; asthma worse in open air, sitting up, better lying with arms stretched wide apart; Cough returns every winter worse open air, cold drinks.
Aralia racemosa	Asthma on lying down at night with spasmodic cough; worse after first sleep, with tickling in throat. Constriction of chest; feels as if a foreign body were in throat.
Blatta orientalis	Asthma with or after bronchitis, pthisis especially when associated with bronchitis. Stout and corpulent patients. Much pus-like mucus.
Coca	Want of breath or shortness of breath especially useful for aged sports men and alcoholics. Asthma aggravated at high altitudes and hills.
Antimonium arsenicosum	There is excessive dyspnea and cough with much mucus secretion, worse on eating or lying down.

Referrals

- Status asthmaticus
- Dangerous symptoms like flaring of nostrils worsening of symptoms despite medication, bracing pulse(tachycardia), sucking in of chest or stomach with each breath, blue-grey colour of lips and tongue(cyanosis).
- High fever, oliguria/anuria
- Respiratory failure

9.6 Cancer

Cancer is the second leading cause of death globally and is responsible for an estimated 9.6 million deaths in 2018. Globally, about 1 in 6 deaths is due to cancer. Approximately 70% of deaths from cancer occur in low- and middle-income countries.

Non modifiable factors

- Some chronic infections are risk factors for cancer and have major relevance in low- and middle-income countries. Carcinogenic infections include Helicobacter pylori, Human papillomavirus (HPV), Hepatitis B virus, Hepatitis C virus, and Epstein-Barr virus.
- Hepatitis B and C virus and some types of HPV increase the risk for liver and cervical cancer, respectively. Infection with HIV substantially increases risk of cancers such as cervical cancer.

Modify and avoidable risk factors

- Tobacco use including cigarettes and smokeless tobacco.
- Being overweight or obese.
- Unhealthy diet with low fruit and vegetable intake

- Lack of physical activity
- Alcohol use
- Drug abuse
- Sexually transmitted HPV-infection
- Infection by hepatitis or other carcinogenic infections
- Ionizing and ultraviolet radiation
- Urban air pollution
- Indoor smoke from household use of solid fuels.

Prevention strategies

- Increase avoidance of the risk factors listed above.
- Control occupational hazards.
- Reduce exposure to ultraviolet radiation.
- Reduce exposure to ionizing radiation (occupational or medical diagnostic imaging).

Early detection of cancers

- Create awareness about the early warning signs of cancer.
- Encourage breast cancer awareness and early screening for the same.
- Encourage oral self-examination.
- Create awareness about symptoms of cervical cancer and motivate females for Visual Inspection with Acetic Acid (VIA) screening.
- Examine, as a routine, the oral cavity of patients with the history of tobacco use.
- Refer the women for screening of breast and cervical cancer.

9.6.1 Oral cancer

Risk factors

- Tobacco chewing
- Betel nut chewing
- Chronic trauma to oral mucosa by sharp tooth or ill-fitting dentures.

Presentation

- Leukoplakia-This is defined as a white patch that cannot be characterized as any other disease clinically or pathologically.
- Erythroplakia-This is a bright, velvety area sometimes surrounded by faint plaques which cannot be characterized as any other lesion clinically or pathologically.
- Non-healing mouth ulcer-Look for unhealed mouth ulcer of more than 2 weeks and refer him/her to nearest PHC.
- Difficulty chewing or swallowing
- A sore or lesion within the mouth that does not heal within two weeks
- Trouble moving the tongue or jaw
- Numbness in or around the mouth or jaw
- Chronic hoarseness
- Change in how dentures fit.

Examination

- Examine, as a routine, the oral cavity of patients with the history of tobacco use.

- Palpate the lymph nodes in the neck and under the mandible.
- Visually inspect and palpate the cheeks and lips, the gingival tissues.
- Pull the tongue forward to evaluate the posterior dorsal and ventral surfaces.
- Visually inspect and palpate the palate, floor of the mouth, inspect the tonsillar and oropharyngeal areas.

Referral

Examine whether the person is able to open the mouth (four finger test), if not then refer him to nearest CHC.

9.6.2 Cervical cancer

Risk factors

- Multiple sexual partners
- Poor personal hygiene
- High use of oral contraceptives
- Low socioeconomic status
- Genetic factors viral factors

Presentation

- Irregular, intermenstrual (between periods), abnormal vaginal bleeding after sexual intercourse, pelvic examination, douching or bleeding after menopause.
- Increased odorous vaginal discharge.
- Pain during sexual intercourse.

Screening

All women above 30 years of age should be encouraged to be screened for cervical cancer by Pap smear or visualization with acetic acid test.

Visualisation with acetic acid (VIA): Visual inspection of the cervix with acetic acid (VIA) is an effective, inexpensive screening test that can be combined with simple treatment procedures for early cervical lesions, provided by trained health workers. After insertion of a sterile Cusco's self-retaining vaginal speculum, the ANM performs VIA test by applying freshly prepared 4% acetic acid to the cervix. The results are recorded after 1 minute using a halogen lamp to provide good illumination. The test results are scored as positive when a well-defined, dense acetowhite area with regular margins appears attached to the squamo columnar junction. The test is reported as either positive if an acetowhite area is seen in the transformation zone or negative if no change is observed or suspicious for invasive cancer, i. e., if a growth or ulcerative lesion is observed.

9.6.3 Breast cancer

Prompt diagnosis of breast cancer in the early stage is very important. This is possible by increasing the level of awareness among women.

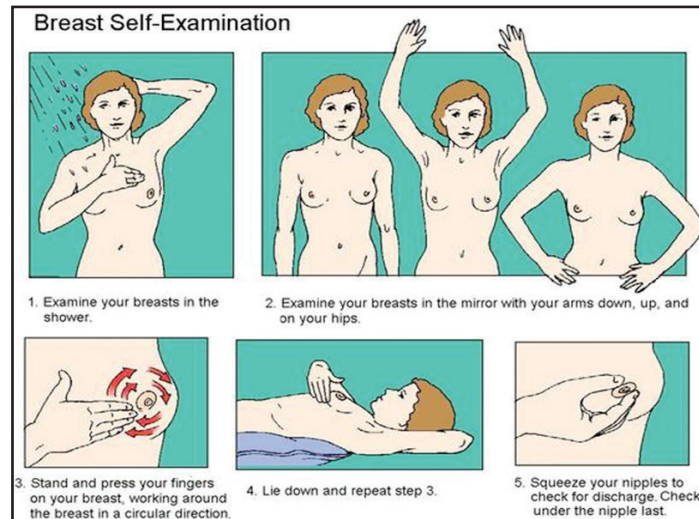
Risk factors

- Breast cancer increases with age
- Genetic mutations. Inherited changes (mutations) to certain genes
- Reproductive history. Early menstrual periods before age 12 and starting menopause after age 55 expose women to hormones longer, raising their risk of getting breast cancer.

- Personal history of breast cancer or certain non-cancerous breast diseases.
- Family history of breast cancer.
- Previous treatment using radiation therapy.
- Women who took the drug diethylstilboestrol (DES), which was given to some pregnant women prevent miscarriage, have a higher risk.
- Overweight or obese after menopause.
- Some forms of hormone replacement therapy (those that include both oestrogen and progesterone) taken during menopause can raise risk for breast cancer when taken for more than five years. Certain oral contraceptives (birth control pills) also have been found to raise breast cancer risk.
- Reproductive history. Having the first pregnancy after age 30, not breastfeeding, and never having a full-term pregnancy can raise breast cancer risk.
- Drinking alcohol.

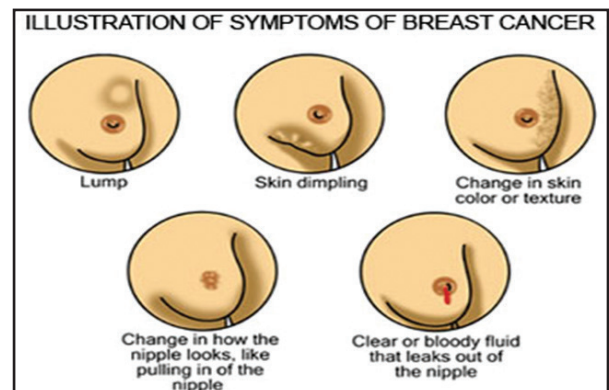
Presentation

Check for any of the following changes during self-examination of breast for nodules, lymphnode enlargement, unhealthy skin, discharge.



Screening

- Clinical Breast Examination (CBE): All women above 30 years of age should be advised regular breast cancer screening.
- Mammography: Mammographic screening program of asymptomatic women is neither feasible in India nor it may be as useful due to lower breast cancer incidence and population structure in India. Opportunistic screening may be considered for some high risk and concerned women. However, women aged 40 above for general population or age 25 to 30 for BRCA1 carriers and untested relatives of BRCA carriers, mammography may be done every six to 12 months.



Intervention at HWC

Determining the goals of treatment and palliative care is an important first step, and health services should be integrated and people-centred with focus also on quality of life. The primary goal is generally to cure cancer or to considerably prolong good quality life. This can be achieved by supportive or palliative care and psychosocial support. Homoeopathy can be successfully incorporated within a supportive care integrative oncology service. Physician should inform the patient about the scope and limitations of the treatment (conventional and homoeopathic system) and disease prognosis. The treatment can be used along with conventional treatment as integrative care.

Medicines	Indications
Arsenicum album	Epithelioma of face, cancer of stomach and uterine cancer. ¹⁸ In general, the patients has debility, exhaustion and restlessness, with nightly aggravation. Burning pains relieved by cold. Unquenchable thirst. Fear, fright and worry. Maintains the system under the stress of malignancy regardless of location.
Bromium	Scirrhus mammae, stitches from mammae to axilla, cannot bear pressure. Hard uneven tumour in right mammae, firmly adhering to its surroundings, with lancinating pains. Tendency to infiltrate glands, become hard, but seldom suppurates. Profuse sweats and great weakness.
Carbo animalis	Cancer of breast with burning, drawing pains through breast. Cancer of uterus, burning pains down the thigh. Glandular diseases of the schirrhous nature, with fetid discharges, accompanied by great prostration and debility. Benign suppurations change into ichorousor malignant conditions.
Carcinosinum	Carcinoma of the mammary glands with great pain and induration of glands; of uterus, the offensive discharge, haemorrhage and pain are greatly relieved.
Conium maculatum	Cancerous diathesis. Acts on glandular system, engorging and indurating it, altering its structures like scrofulous and cancerous conditions. Glands indurated and enlarged. Tumours; piercing pains; worse, at night. Sweat as soon as he sleeps. Cancer of lip from pressure of pipe, cancer of stomach, cancer of mammae- hard as cartilage and painful to touch. Concealed cancer of bones; effects of contusions and bruises.
Nitricum acidum	Pain and swelling of sub maxillary gland, with induration, ultimately becoming Scirrhus. In uterine cancer sympathetic affection of inguinal glands as if abdomen would burst with constant eructations. Sticking pains, as from splinters. Cachexia, due to syphilis, scrofula with anemia. Offensive urine. Craves fat and salt.
Phosphorus	Vomiting: water is thrown up as soon as it gets warm in stomach. Vomiting of sour, foul smelling, looking like a mixture of water, ink and coffee grounds. Cancer of womb with frequent and profuse bleeding, pouring out freely and then ceasing for a short time. Cancer of breast when the ulcer bleeds easily. Tall, slender persons of sanguine temperament, fair skin, delicate lashes. Longs for cold food and drinks; ice-cream reduces gastric pains.
Phytolacca decandra	Tumours of the breasts with enlarged axillary glands. Cancer of breast. Breast is hard, painful and of purple hue. When child nurses, pain goes from nipple all over the body. Breast; shows an early tendency to cake; is full, stony hard and painful, especially when suppuration is inevitable. Tumified breast neither heals nor suppurates, is of a purple hue and "hard as old cheese".
Thuja occidentalis	Epithelioma, indurations and hypertrophy followed by softening. Sycosis, cauliflower excrescences; medullary and fungoid cancers. Rapid exhaustion and emaciation. Ill effects of vaccinations.

Medicines	Indications
Hydrastis canadensis	Epithelioma, cancer of stomach and cancer of rectum; vomits everything except water with milk mixed Cachectic individuals with great debility. Cancer and cancerous states, before ulceration, when pain is the principal symptom.
Kali cyanatum	Ulcer of tongue with indurated edges. Speech difficult. Power of speech lost but intelligence intact. Cancer of tongue and agonizing neuralgia have been benefitted.
Lapis alba	Uterine carcinoma- Fibroid tumours with intense burning pains through the part with profuse haemorrhage. Pre- ulcerative stage of carcinoma.
Ornithogalum umbellatum	Cancer of intestinal tract, especially of stomach and caecum. Pains increased when food passes pyloric outlet. Vomiting of coffee- ground- looking matter.
Scrophularia nodosa	Hodgkin's disease. Powerful medicine whenever enlarged glands are present. Very useful in dissipation of breast tumours.

Acute pain remedies

Remedies which can be used in final stages of the diseases, as stand alone or in addition with conventional treatment, in order to alleviate the pain and other sufferings.

Medicines	Indications
Carbo vegetabilis	Persons who have never fully recovered from the effects of some previous illness. Patient has to be fanned hard. In last stages of disease, with copious cold sweat, cold breath, cold tongue, voice lost.
Carbolic acid	Profound prostration, collapse; surface pale and bathed in cold sweat. When burns tend to ulceration and ichorous discharge. Pains are terrible; come and go suddenly.
Coffea cruda	Great nervous agitation and restlessness. Pains seem insupportable, driving to despair. Sleepless from excessive mental and physical excitement. All pains are intolerable and accompanied with fear of death.
Euphorbium	Pains of cancer. Terrible burning pains. Burning pain in bones
Radium bromatum	Severe aching pains all over, with restlessness, better moving about. Ulcers due to radium burns, take a long time to heal; great weakness.
Tarentula cubensis	Various forms of malignant suppurations. Purplish hue and burning, stinging pains. A keynote symptom is "atrocious pains".

MENTAL HEALTH

10.1 Introduction

Dr. Samuel Hahnemann, Father of Homoeopathy was one of the first physicians to see the mentally ill patients as “sick individuals” requiring empathy and proper medical care. Various overt and covert psychiatric conditions can be managed effectively with individualized homoeopathic approach.

10.2 Mental symptoms in Homoeopathy

The handling of mental symptoms is absolutely necessary in Homoeopathy, demands furthermore a well-integrated concept of the miasms. The mind and body are not two separate entities, and they form an indivisible inseparable whole. In natural diseases the physical disturbances are often found associated with their mental counterparts. When the mental symptoms and the characteristic general symptoms come forth through the knowledge of the individual nature of the psyche, certainty of the similimum is complete.

The treatment of persons with mental illnesses should be conducted with a view of the absolute avoidance of corporeal punishment or torture. Physicians should always treat such patients as if they regarded them as rational beings with empathy and patient hearing. Proper hygiene and psychical regimen of the mind must be strictly enforced by the physician and attendants.

The physician should try to get the full picture of disease comprising of physical and mental symptoms as also past and family history. Dr. Hahnemann has classified mental illnesses in the Organon of Medicine in aphorism 210 to 230. The classification of mental diseases in present context and by Hahnemann is given below:

Classification of mental disorders today	Classification in Homoeopathy
ICD-10 classification:- F00-F09 Organic, including symptomatic, mental disorders F10-F19 Mental and behavioural disorders due to psychoactive substance use (F20-F29 Schizophrenia, schizotypal and delusional disorders F30-F39 Mood (affective) disorders F40-F48 Neurotic, stress-related and somatoform disorders F50-F59 Behavioural syndromes associated with physiological disturbances and physical factors F60-F69 Disorders of adult personality and behaviour F70-F79 Mental retardation F80-F89 Disorders of psychological development F90-F98 Behavioural and emotional disorders with onset usually occurring in childhood and adolescence (F99) Unspecified mental disorder	<i>Somato-psychic:</i> where the mental and emotional disease begins as a corporeal disease. In due course of time the bodily symptoms disappear, and the mental symptoms dominate. For eg. Suppuration of lungs leads to insanity; Insanity from injury to head. <i>Acute flare up of psora:</i> an insanity or agitation /anger which suddenly breaks out as an acute disease in the patients usually in quiet state occasioned by fright, vexation, drinking alcohol etc. For eg. Acute exacerbation of insanity, depression.

Classification of mental disorders today	Classification in Homoeopathy
	<p><i>Mental and emotional diseases of doubtful origin:</i> If the mental disease is not yet fully developed and if there is still some doubt as to whether it arose from somatic suffering or whether it stemmed from faulty upbringing, bad habits, perverted morality, neglect of spirit, superstitions or ignorance.</p> <p><i>Psychological origin:</i> They are maintained by psychical factors. For eg. Continued anxiety, worry, vexation frequent occurrences of great fear and fright.</p>

10.3 Management of Mental Diseases

Dr. Hahnemann for the treatment of mental diseases has given the following instructions *“The instructions I have to give relative to the cure of mental diseases may be confined to a very few remarks, as they are to be cured in the same way as all other diseases, namely, by a remedy which shows, by the symptoms it causes in the body and mind of a healthy individual, a power of producing a morbid state as similar as possible to the case of disease before us, and in no other way can they be cured.”* The suggestions by him are as follows:

- Mental and emotional diseases that arise from somatic diseases can be cured by homoeopathic medicine that is directed against the internal miasm, in conjunction with carefully adapted living habits.
- Physician and Patient’s relations should observe a psychologically fitting approach towards the patient.
- In all diseases being treated, the psychic condition of the patient should be written down among the totality of symptoms as one of the most important, if one desires to have a faithful picture of the disease from which to make a successful homoeopathic cure.
- In cases of mental or emotional disease, if the selected remedy for a particular case is entirely appropriate for the truly sketched image of the disease state, then the smallest possible doses are often sufficient to produce the most striking improvement, which is often quite rapid.
- Mental & emotional diseases resulting from corporeal maladies can only be cured by the antipsoric medicine with carefully regulated mode of life & by imposing auxiliary mental regimen like -
 1. To oppose with calm intrepidity & cool firm resolution in case of furious mania
 2. To doleful, querulous lamentations, a mute display of commiseration in looks & gestures.
 3. To senseless chattering, a silence not wholly inattentive.
 4. To disgusting & abominable conduct & to conversation of similar character, total inattention.

5. To prevent destruction & injury of surrounding objects it must be removed without reproaching the patient for his acts.
6. No corporeal punishment & tortures should be allowed.

Mental disease categories	Treatment approach
Somato-psychic	<ul style="list-style-type: none"> • The investigation of the whole complex of symptoms and signs is to be undertaken with care. • The somatic or physical symptoms are to be carefully investigated; and prevailing, mental and emotional state is noted. • In order to homoeopathically cure the malady (if the mental disease has already lasted for some time) a medicine is selected among the anti-psorics medications.
Acute flare up of psora	<ul style="list-style-type: none"> • These cases are treated at first with medicines such as <i>Belladonna, Aconite, Stramonium, Hyoscyamus, Mercury</i> etc.) with highly potentized, subtle homoeopathic doses in order to subdue the acute flare up so that the psora returns to previous latent state whereupon the patient appears to recover and should not be regarded as cured. • On the contrary, once the acute outbreak has passed, the patient is given as soon as possible, a continued anti-psoric (and possible anti syphilitic) treatment in order to make him entirely free from the chronic miasm
Mental and emotional diseases of doubtful origin	<ul style="list-style-type: none"> • If the mental disease arises from faulty upbringing, bad habits then the mental disease will subside and improve with understanding, well intentioned exhortations, consolation or with earnest and rational expostulations. • If the mental disease is based upon physical origin, it will rapidly worsen with such treatment. The treatment in that case will be same as that of somato-psychic diseases.
Pure psychological origin	<ul style="list-style-type: none"> • These illnesses are amiable to friendly advice or changes in diet and regimen. They can revert to normal with these measures but still require an anti-psoric (deep acting) remedy to prevent a relapse as they are invariably of psoric origin.

Mini Mental State Examination

The Mini-Mental State Exam (MMSE) is a widely used test of cognitive function among the elderly; it includes tests of orientation, attention, memory, language and visual-spatial skills.

Orientation

1. Orientation of time: Can you tell me what year it is? Season? Date? Day? Month?: score 1 for each =5
2. Orientation to space: Can you tell where we are? What town or village? what street or hospital? What house or ward? What state? Which Country?: 1 score for each=5

Registration

I would like you to remember three things for me. The three things are (name three objects, taking 1 second for each). Then ask the patient all the three, after you have said them give one point for each correct answer -score -3.

Attention and calculation

Subtract 7 from 100, then repeat from result. Continue 5 times: 100 93 86 79 65. Alternative: spell "WORLD" backwards - dlrow. Score -5

Recall

Ask for names of 3 objects learned earlier. Give one point for each correct answer-score 3

Language

- Point to a pencil and a watch; say 'can you tell me what that is called? Score -2.
- Ask the patient to repeat "No ifs and or buts" -score 1
- Ask the patient to follow three staged command; please take this piece of paper in your right hand, fold it half, and put it on the floor-score 3
- Ask the patient to read and follow the written command (close your eyes)-score 1
- Ask the patient to write sentence of his or her choice (to score correct, the sentence must contain a subject and verb.) -score 1
- Draw the design below and ask the patient to copy it. (Draw it with side of 1.5 cm at least to score correct, each pentagon must have 5 sides and the intersecting sides must form a quadrangle-score 1

Total score :30

Common psychiatric /psychosomatic disorders:

10.4 Insomnia

Insomnia is defined as a persistent difficulty initiating and/or maintaining sleep. Insomnia can be a primary syndrome or a secondary symptom to underlying environmental, medical or psychiatric disorders. Chronic insomnia can lead to severe fatigue, anxiety, depression and lack of concentration. Insomnia is a common symptom of other mental disorders such as affective, neurotic, organic and eating disorders, substance use and schizophrenia and of other sleep disorders such as nightmares. Insomnia may also be associated with physical disorders in which there is pain and discomfort or undertaking some medications.

Essential clinical features

- The complaint is either of difficulty falling asleep or maintaining sleep, or poor quality of sleep.
- The sleep disturbance has occurred at least three times per week for at least 1 month.
- There is preoccupation with the sleeplessness and excessive concern over its consequences at night and during the day,
- The unsatisfactory quantity and / or quality of sleep either causes marked distress or interferes with ordinary activities in daily living.

Types

Insomnia can be classified as transient, acute, or chronic.

- **Transient insomnia** lasts for less than a week. It can be caused by another disorder, by changes in the sleep environment, by the timing of sleep, severe depression, or by stress.
- **Acute insomnia** is the inability to consistently sleep well for a period of less than a month. Insomnia is present when there is difficulty initiating or maintaining sleep or when the sleep that is obtained is non-refreshing or of poor quality. Acute insomnia is also known as short term insomnia or stress related insomnia.

- **Chronic insomnia** lasts for longer than a month. It can be caused by another disorder, or it can be a primary disorder.

Etiology

Insomnia is occasionally a symptom of an underlying medical or psychological condition but it may be caused by stress or life style changes. Some conditions or situations that commonly lead to insomnia include:

- Substance abuse; such as smoking, excessive consumption of caffeine, alcohol and recreational drugs or may be associated with sudden cessation of tobacco, alcohol or recreational drugs in those previously addicted.
- Disruption of circadian rhythms; such as shift work, change in work schedule.
- Uncomfortable and unusual sleeping environment.
- Psychiatric and neurological conditions; such as depression, manic depressive disorder, restless leg syndrome (RLS), post traumatic stress disorders.
- Biological factors - Due to advancement in age, the internal biological 'clock' that regulate sleep creeps slightly forward, compelling most senior citizens sleep earlier and wake up early. Reduction of physical and social activities and degenerative changes in all aspects of health may cause insomnia in advance age.
- Sleep disordered breathing - sleep apnea.
- Chronic illness - such as congestive heart failure, chronic obstructive pulmonary disease, heart burn, prostatic problems, menopause, diabetes, arthritis and hyper-thyroidism.
- Use of certain medicines - long term use of decongestants, bronchodilators, beta blockers and sleep producing medication.
- Excessive computer work or watching television or mobile phone.

Clinical presentation

- Not feeling refreshed
- Inability to sleep despite being tired
- Day time drowsiness, irritability, difficulty in concentrating, daytime sleepiness (sometimes, patients falls asleep even while working or driving)
- Impaired ability to perform normal activities
- Body-ache or fatigue

Assessment of sleep disturbances

SCREENING QUESTIONS

- Do you sleep well enough and long enough?
- Are you very sleepy during the day?
- Is your sleep disturbed at night?

SLEEP HISTORY

- Detailed history of the sleep complaint and typical sleep-wake cycle.
- Factors that improve or worsen sleep
- Effect on mood and functioning
- Past and present treatment
- History from bed partner
- Sleep Diary (Systematic 2 week or longer record)

Investigations (Available in HWC)

- Investigations for underlying physical previously undiagnosed disorders like sleep apnea, GERD, benign Prostatic Hypertrophy, depression, anxiety, etc.
- Sleep study (Polysomnography) (at referral centre).

General Management

- Maintain sleep timings, bed routine and sleep hygiene.
- Avoid Sleep restriction.
- Stimulus control: Goes to bed when sleepy and if not asleep within 20 minutes, one should get up and engage in a relaxing technique before returning to bed.
- Relaxation therapy
- Physical and mental active life.
- Avoid stimulants like coffee, tea, alcohol, watching mobile, smoking.
- Avoid heavy meal at night.

Principles of Sleep education (Sleep hygiene)

1. Sleep environment
 - a. Familiar and comfortable
 - b. Dark
 - a. Quiet
2. Encourage
 - a) Bedtime routines
 - b) Consistent time for going to bed and waking up
 - c) Going to bed only when tired.
 - d) Not to think about problems before going to bed.
 - e) Regular exercise.
3. Avoid
 - a. Late evening exercise
 - b. Caffeine containing drinks late in the day.
 - c. Using mobile devices or watching TV in Bed
 - d. Excessive alcohol and smoking
 - e. Excessive daytime sleep.
 - f. Large late meals
 - g. Too much time in bed lying awake.

Intervention at HWC

Medicines	Indications
Passiflora incarnata	Sleeplessness from nervous exhaustion, as from severe acute diseases, from mental overwork with headache.
Avena sativa	Bad effects of morphine habit
Coffea cruda	Sleeplessness caused from over excitement of mind and body, from joy or agreeable surprise, from long watching, from excessive use of coffee, all the senses are more acute, Persistent insomnia of children, without cause. Sleeplessness after midnight, after labor.

Medicines	Indications
Nux vomica	Sleeplessness caused by excessive study late at night and no exercise in daytime, dyspeptic insomnia, awakes tired and unrefreshed after a short morning sleep with headache, bitter taste, coated tongue, etc. Always worse after a disturbed sleep. Insomnia from a recent drunk or a late and rich supper, causing flatulence and constipation, functional palpitations; gastric and abdominal ailments; loud breathing during sleep. Wakes 3 am and lies awake for hours, falls asleep when it is time to rise and feels heavy and unrefreshed.
Opium	Very sleepy but cannot go to sleep; distant noises, cocks crowing, etc., keep him awake.
Pulsatilla nigricans	Wide awake in the evening; first sleep restless. Irresistible sleepiness in afternoon.
Sulphur	Cannot sleep between 2 and 5 a.m. Wakes frequently, and becomes wide awake suddenly.

Referral

1. Not responding to medication.
2. Insomnia associated with complications.

10.5 Depression

Depression is a common mental disorder that presents with a low or depressed mood, loss of interest or pleasure, decreased energy, feelings of guilt or low self-worth, disturbed sleep or appetite, and poor concentration. Depression often comes with symptoms of anxiety.

About 350 million people are affected worldwide. In South East Asia around 40.8 million populations suffer from unipolar depression & 7.2 million suffer from bipolar depression. Women are 50% more affected than men. The World Health Organization estimates that nearly 1 million people worldwide commit suicide every year, including 170,000 in India and 140,000 in high-income countries due to depression.

Aetiology & risk factors

- History of depression in close relatives
- History of abuse (any sexual , physical , emotional)/trauma
- Marital or relationship problems
- Major events; death or loss of loved one, losing a job, getting divorced, retiring etc.
- Loneliness
- Chronic anxiety
- Persistent anger & irritability
- High stress levels
- Substance abuse –alcohol, tobacco, drug abuse
- Multiple somatic complaints
- Postpartum/ during pregnancy/during menopause
- Geriatric age group especially with loneliness and chronic debilitating illnesses
- Certain medications- drugs, such as Accutane (used to treat acne), the antiviral drug interferon-alpha, and corticosteroids can increase risk of depression.
- Chronic & serious illnesses-like Cancer, Parkinson’s disease, heart disease, diabetes and its complications, etc.
- Other psychiatric disorders- like Schizophrenia, anxiety disorder etc.
- Personalities with fastidious, perfectionist, self-critical traits; melancholic outlook or general pessimistic tendencies.

Diagnosis

Screening & assessment

The patients who present with symptom of depression should be screened using two quick questions as follows:

In the past 2 weeks

1. Have you lost interest or pleasure which usually you like to do?
2. Have you felt sad, low, down, depressed or hopeless?

If “yes” on either question, then further assessment should be done using scales developed for assessing it, for example, PHQ-9 score.

ICD-10 criteria for diagnosis

- a) First set of symptoms which include:
 - Depressed mood
 - Loss of interest
 - Reduced energy leading to increased fatigability and diminished activity
- b) Second set of common symptoms which include:
 - Reduced self- esteem and self -confidence
 - Reduced concentration and attention
 - Ideas of guilt and worthlessness
 - Bleak & pessimistic views of future
 - Disturbed sleep
 - Diminished appetite
 - Ideas or acts of self- harm or suicide
 - o At least two of the symptoms of first set and two from the second set for a 2 week period would make a mild depressive episode.
 - o At least two of the symptom of first set and three from the second set for a 2 week period would make a Moderate depressive episode.
 - o All three symptoms of first set and at least four from the second set for a 2week period would make a severe depressive episode.
 - o All three symptoms of first set and at least four from the second set including delusions, hallucinations and depressive stupor for a 2 weeks’ period would make a severe depressive episode with psychotic symptoms.
 - o Depressive symptoms of mild and moderate levels persisting for a very long duration constitute the criteria for Dysthymic disorder.

Investigations (Whichever Available at HWC)

- Neurological examination
- Mini mental status test
- Depression scale
- Haemogram
- Blood sugar
- Blood urea and nitrogen

- Serum creatinine
- Liver Function Test
- Serum Vitamin B12
- o Serum T3, T4, TSH

Management

Preventive measures

- Life Skills Programmes addressing concerns of children and adolescents to enhance cognitive, problem solving and social coping skills.
- School-based awareness programmes for prevention of child abuse and substance abuse.
- Interventions for parents of children with behavioural problems may reduce parental depressive symptoms and improve outcomes for their children.
- Exercise programmes/ Community meets for the elderly are also effective in prevention of depression.
- Advice for regular exercise and physical activity.
- Avoid alcohol, tobacco & illicit drugs.
- Healthy diet should be taken.
- Healthy sleep pattern should be maintained.
- Engage in positive activities.
- Stress management, Yoga, meditation, Breathing exercise need to be emphasized upon.
- Social support should be given by family.

Counselling

- Spending time with loved ones.
- Take green vegetables and yellow fruits and vegetables in sufficient quantity. If required vitamin B complex may be recommended.
- Take less food which are difficult to digest like high fat diet.
- Practice yoga, meditation and exercise regularly.
- Be active and happy.
- Participation in harmonious community, social, literary or religious activities as per the preference of the patient.
- Avoidance of driving all alone.

Intervention at HWC

Medicines	Indications
Aurum metallicum	Hot patient; ailments from grief, disappointed love, business reversals and humiliation; craving for and better from open air; egotism, haughty and arrogant, Spiritual inclination and desire for prayer or meditation, many complaints come on only in winter; from sunset to sunrise, cold bathing; depressive, hopeless, constant desire to commit suicide
Ignatia amara	Nervous temperament; women of a sensitive, easily excited nature; dark hair and skin but mild disposition, quick to perceive, rapid in execution. Remedy of great contradictions persons mentally and physically exhausted by long concentrated grief; moody; Desires to be alone; reserved displeasure; cannot bear tobacco; smoking or being in tobacco smoke.

Medicines	Indications
Kali phosphoricum	Suited to anxious, nervous & irritable person; indicated in extreme lassitude and depression; Slightest labor seems a heavy task for them.; exhaustion after moderate mental effort; person is indifferent and captious; loss of memory; easy perspiration, sensitivity to cold, anemia, insomnia, and indigestion are often seen.
Natrum muriaticum	Melancholic, sad, irritable, cross, cries when spoken to; bad effect of grief, disappointment, anger, fright, vexation & suppression of inner feelings; Becomes angry if someone tries to console them; wants to be alone to cry; anxiety, brooding about past grievances; awkward, hasty, drops things from nervous weakness; disposition to weep without cause; consolation aggravates; Hot patient ; poorly nourished, great emaciation (marked on neck); losing flesh while living well ; Craving for salt; aversion to bread and fatty things; constipated; increased thirst; mapped tongue with red insular patches; Migraines, back pain, and insomnia can also be experienced when the person is depressed.
Sepia officinalis	Depression occurring during & after pregnancy; weary, irritable & indifferent to loved ones or family members; Persons worn out by the demands of everyday life, easily offended, very sad; weeping disposition; dreads to be alone; anxious toward evening; cheerful, active when well but indifferent and quarrelsome when sick; self-absorbed; chilly patient sensitive to cold air; tall, thin built with yellow saddle across; upper part of cheeks and nose, big belly; dry flabby skin; predisposed to take cold at change of weather ; desire for sour food which aggravates; menstrual problems, bearing feeling in internal organs, sluggish digestion, and improvement from vigorous exercise are other indications are other indications of this medicine.
Acidum phosphoricum	Depression caused from care, chagrin, grief, sorrow, homesickness; persons of originally strong constitutions, who have become debilitated by chagrin, or a long succession of moral emotions, as grief, care, disappointed affection; Mental debility first; later physical; mental weakness after grief; amelioration from sleep. Craving for fruits juices, refreshing things, diarrhoea after grief are other indications of this medicine.
Conium maculatum	Bad effect from suppression of sexual desire. Excitement causes mental depression. Depressed, timid, averse to society, and afraid of being alone. No inclination for business or study; takes no interest in anything. Memory weak; unable to sustain any mental effort; No inclination for business or study; takes no interest in anything; afraid of being alone yet avoids society; Debility, vertigo, cancerous tendencies are other indicators of this medicine.
Staphysagria	Ailments from grief; pride, envy or chagrin; for the mental effects of onanism and sexual excesses; very sensitive to slight mental impressions; least action or harmless words offends. Great indignation about things done by others or by himself; grieves about consequences; apathetic, indifferent, low-spirited, weak memory from sexual abuses; headaches, toothache and stomachache are other pointers to the use of this medicine.

Referral

- Suicidal tendency
- Depression associated with mania / bipolar disorders not responding to treatment
- Non-responsive to medication

10.6 Substance abuse disorders (Alcohol use disorders)

Substance abuse refers to the harmful or hazardous use of psychoactive substances, including alcohol and illicit drugs. Psychoactive substance use can lead to dependence syndrome - a cluster of behavioural, cognitive, and physiological phenomena that develop after repeated substance use and that typically include a strong desire to take the drug, difficulties in controlling its use,

persisting in its use despite harmful consequences, a higher priority given to drug use than to other activities and obligations, increased tolerance, and sometimes a physical withdrawal state. These problems must occur recurrently during the same 12-month period.

The commonly abused substances are: Alcohol, Tobacco, Marijuana, Narcotics, Nicotine, Cocaine, Opium, Hallucinogens and Prescription drugs including Depressants, Tranquilizers, opioids, Steroids.

Alcohol is a commonly abused substance throughout the world and is associated with significant morbidity and mortality. Alcohol dependence is a disorder characterized by a pathological pattern of alcohol use that causes a serious impairment in social or occupational functioning. In this condition, the person craves drinks that contain alcohol and is unable to control his or her drinking. He also needs to drink greater amounts to get the same effect and has withdrawal symptoms after stopping alcohol use.

Aetiology and Risk factor

Family relationship and structure:

- Parental discipline style
- Lack of a warm and emotionally rich environment at home
- Lack of supervision by parents.
- Parental alcohol use
- Copying parents
- Disrupted/disintegrated family structure

Peer pressure: It is the main factor in experimenting drug abuse, and especially turning to heavier drugs.

Individual characteristics: Include genotype, sex, age, age at first use, preexisting addictive disorder, or other mental illness

Symptoms associated with Drug Abuse

Drugs	Symptoms
Marijuana	Euphoria with drowsiness and disorientation. Motor in-coordination Stimulation of appetite. Tachycardia, palpitation, hypotension Conjunctival congestion. Nausea, anxiety, confusion, delusions and hallucinations. Apathy, poor concentration, social withdrawal, and lack of motivation to study or work.
Alcohol	Slurred speech, ataxia, drowsiness, constricted pupil, confusion and excitement.
Cocaine	Anorexia, emaciation, mydriasis, agitation and restlessness. Hallucinations, especially tactile (Magnan's sign). Perceptual disturbances or pseudo-hallucinations Tremor. Recurrent chest pain. Cardiomyopathy. Depression, psychosis, panic disorders, attention deficit disorders, and eating disorders. Decreased libido, impotence, gynaecomastia, galactorrhoea, amenorrhoea, and sexual dysfunction. Crack hands.
Opioids	Unusual mood swings, Periods of depression and euphoria. Withdrawal from family, friends and social activities. Pinpoint pupil. Weight loss. Chronic constipation. Hypotension and hypothermia.
Nicotine	Hypertension, tachycardia, muscle cramps, fasciculation, weakness and paralysis.

Drugs	Symptoms
Hallucinogens	Mydriasis, tachycardia, tremor, ataxia. Hallucinations. Panic attacks, psychotic reactions, flashback phenomena, mania. Convulsions, focal cerebral deficits, coma.
Steroids	Paranoid (extreme, unreasonable) jealousy. Extreme irritability and aggression (“roid rage”). Delusions. Cardiomyopathy, high blood pressure, and changes in blood cholesterol. Baldness. Growth of facial hair or excess body hair in women Decreased breast size. Stunted growth in teens (when high hormone levels from steroids signal to the body to stop bone growth too early).

Signs and symptoms of alcohol withdrawal syndrome	
Signs	Symptoms
Elevated blood pressure	Anxiety
Tachycardia	Insomnia
Elevated body temperature	Illusions
Sweating	Hallucinations
Tremulousness of body/increased hand tremor	Paranoid ideas
Dilated pupils	Nausea
Disorientation	Irritability
Hyper arousal	
Grand mal seizure	

Signs of chronic alcoholism

- Gynecomastia
- Spider angiomas
- Dupuytren contractures (also may be congenital, manual workers, hand injury etc)
- Testicular atrophy
- Enlarged or shrunken liver
- Enlarged spleen

Alcohol Related Disabilities

Physical Damage

- Liver damage including cirrhosis and acute and chronic pancreatitis
- Gastritis, peptic ulcer, oesophageal varices and carcinoma
- Malnutrition
- Increased susceptibility to infection
- o Brain damage, peripheral neuropathy, cerebellar degeneration

Psychiatric Disorders

- Intoxication phenomena – aggression occurring within minutes of taking alcohol.
- Memory black-outs – short term amnesia
- Withdrawal Phenomena – Delirium tremens
- Associated psychiatric disorders like personality deterioration, affective disorder, suicidal behavior, impaired psychosexual function.

Complications of alcoholism

Seizures: Withdrawal seizures usually consist of generalized convulsions alternating with spasmodic muscular contractions (i.e., tonic-clonic seizures).

Delirium Tremens: Delirium tremens is a serious manifestation of alcohol dependence that develops 1 to 4 days after the onset of acute alcohol withdrawal in persons who have been drinking excessively for years. Signs of Delirium tremens include extreme hyperactivity of the autonomic nervous system, along with hallucinations.

Wernicke-Korsakoff Syndrome: The combination of Wernicke's and Korsakoff's syndromes is not a complication of Acute Withdrawal (AW) but rather of a nutritional deficiency. The syndrome is characterized by severe cognitive impairment and delirium, abnormal gait (i.e., ataxia), and paralysis of certain eye muscles.

Disturbances of Mood, Thought, and Perception: Withdrawing alcoholics exhibit psychiatric difficulties that may be related to the process of withdrawal itself or to co-occurring conditions.

Screening Questionnaires for Substance use disorder/ alcohol abuse

- NIDA Drug Use Screening Tool: Quick Screen
- Drug Abuse Screening Test-20 (DAST-20): Adolescent version
- Drug Abuse Screen Test (DAST-10)
- Alcohol Use Disorders Identification Test (AUDIT)

Investigations

- LFT
- Gamma glutamyl transpeptidase
- Carbohydrate deficient transferrin
- Breath alcohol concentration.

Prevention of alcohol misuse and dependence.

- Consumption within the population might be reduced by four methods.
- The pricing of alcohol beverages: putting up the price of alcohol would probably reduce consumption within the population.
- Controls on advertising of alcoholic drinks might prevent drinking.
- Controls on sales of alcohol by limiting hours or banning sales in supermarkets.
- Health education: interventions focussing on the family, designed to improve preventing skills and child parent relationships may be more beneficial.

Management

The psycho-somatic clinical pattern, time duration of subsiding and severity of the withdrawal manifestation varies from drugs to drugs along with its severity of addiction. In cases which are not responding to medication at HWC or in cases of unmanageable side effects and withdrawal effects, it is advisable to refer the cases to higher specialised centres or centres for de-addiction and adopt an integrative approach.

De-addiction and withdrawal of Marijuana, Narcotics, Nicotine, Cocaine, Opium, Hallucinogens and Prescription drugs including Depressants, Tranquilizers, opioids, Steroids and multiple drugs abuse should ideally be undertaken in drug de-addiction centres under organized medical, psychological social and community support.

Intervention at HWC

Medicines	Indications
Ranunculus bulbosus	Bad effects from the abuse of alcoholic beverages; at the beginning of delirium tremens, with talkative mania. Hiccups after much drinking.
Avena sativa	Sleeplessness, especially in alcoholics. Nervous exhaustion, sexual debility, and morphine habit call for this remedy. Bad effects of morphine habit.
Opium	Delirium tremens with awful anxiety, vomiting, congestive headache, contracted pupils. Violent headache after drinking, exhaustion, not able to get out of bed; delirium.
Coca	Longing for alcoholic liquors and tobacco. Want of breath, short breath especially in alcoholics. Haemoptysis. Can find no rest in any place but sleepy
Tabacum	Diarrhea from excessive smoking. Tabacum potentized to relieve terrible craving when discontinuing use
Nux vomica	Chilly patient; thin, dark complexion; spare, quick, active; prone to indigestion and hemorrhoids; sedentary lifestyle; tongue coated yellowish in the posterior part; desire for stimulants; nervous disposition; oversensitive to external impressions, to noise, odors, light or music etc.; zealous and irritable, impatient, spiteful with violent action; ardent nature.
Arsenicum album	Morning vomiting of habitual drunkards; chronic gastric irritability; heartburn, as if epigastrium and stomach were being made raw by an acrid corroding substance; fruitless retching, or retching and vomiting; indescribable nausea, loathing and weakness, satiety of life and still fear of death, will not be alone; fear of ghosts, thieves, with desire to hide one's self, trembling of limbs. Cravings for acids and coffee, which relieve. In delirium, cursing, raving, attempts to escape and thirst, drinks often and little at a time.
Lycopodium	Patients with chronic alcoholism suffer from dropsy. Failing brain-power and constant fear of breaking down under stress. There is great weakness of digestion, eating ever so little creates fullness. These patients are intellectually keen but physically weak, their ailments gradually developing, functional power weakening, symptoms worse from 4-8pm, usually right sided complaints or symptoms go from right to left with desire warm food, drinks, and sweets.
Sulphuricum acidum	Sul. Acid 1 part with 3 parts of alcohol, 10 to 15 drops 3 times a day 3 to 4 weeks used to subdue craving for liquor

Referral

- Cardiovascular complications
- Trauma requiring surgical intervention
- Cases complicated with Sexually Transmitted Diseases such as HIV

10.7 Anxiety

Anxiety disorders include disorders that share features of excessive fear and anxiety and related behavioural disturbances. The key features of generalized anxiety disorder are persistent and excessive anxiety and worry about various domains, including work and school performance that the individual finds difficult to control. In addition, the individual experiences physical symptoms, including restlessness or feeling keyed up or on edge; being easily fatigued; difficulty concentrating or mind going blank; irritability; muscle tension; and sleep disturbance.

Aetiology & risk factors

- The causes of anxiety disorders are a combination of factors including genetic, environmental, psychological and developmental. Anxiety disorders can run in families, suggesting that a combination of genes and environmental stresses can produce the disorders. Specific factors include:
 - o Shyness, or behavioral inhibition.
 - o Females are more at risk than males.
 - o Having limited economic resources.
 - o Being divorced or widowed.
 - o Exposure to stressful life events in childhood and adulthood.
 - o Anxiety disorders in close biological relatives.
 - o Parental history of mental disorders.

Classification

According to DSM V anxiety disorders can be classified as follows:

- o Generalised anxiety disorder
- o Panic disorder
- o Separation anxiety disorder
- o Selective mutism
- o Specific phobia
- o Social anxiety disorder
- o Agoraphobia
- o Anxiety due to other medical conditions

Symptoms

- Psychological arousal
 - o Fearful anticipation
 - o Irritability
 - o Sensitive to noise
 - o Restlessness
 - o Poor concentration
 - o Worrying thoughts
 - Autonomic arousal
1. **Gastrointestinal**
 - o Dry mouth
 - o Difficulty in swallowing
 - o Epigastric discomfort
 - o Excessive wind
 - o Frequent or loose motions
 2. **Respiratory**
 - o Constriction in the chest
 - o Inhalation difficulty

3. Cardiovascular

- o Palpitations
- o Discomfort in the chest
- o Awareness of missed beats

4. Genitourinary

- o Frequent or urgent micturition
- o Failure of erection
- o Menstrual discomfort

5. Muscle tension

- o Tremors
- o Headache
- o Aching muscles

6. Hyperventilation

- o Dizziness
- o Tingling in the extremities
- o Feeling of breathlessness

7. Sleep disturbance

- o Insomnia/ sleep disturbances
- o Night terrors
- o Bad dreams

Evaluation

History and assessment scales (Hamilton anxiety rating scale, Generalized Anxiety Disorder 7).

Physical examination to rule out other pathologies mimicking Anxiety Disorders

1. Blood pressure (hypertension, hypovolemia)
2. Cardiovascular (angina, arrhythmia, congestive heart failure, valvular heart disease)
3. Respiratory (COPD, pulmonary embolism, pneumonia)
4. Neurologic (tumor, encephalopathy, vertigo)

Investigations

- Serum calcium (hypocalcaemia)
- Haematocrit (anaemia)
- TSH (Hyperthyroidism/ hypothyroidism)

Management

Prevention

- Practice of yoga and meditation.
- Seeking support for dealing stressful situations.
- Avoid excessive consumption of coffee, tea, soft drinks, hot spicy food, alcohol and smoking.
- Self-help and psychoeducation.
- Relaxation training.
- Cognitive behaviour therapy.

Intervention at HWC

Medicines	Symptoms
Aconitum napellus	Great fear and anxiety, with nervous excitability; agoraphobia, afraid to go outdoors, to cross the street, street, especially a narrow one, or to be in a crowd; anxiety and fear about recovery, predicts the day of death; afraid in the dark. Remote Effects of fright; fainting, turns deathly pale when sitting up; suffocation with violent pains in stomach and scrobiculum; threatened abortion; amenorrhoea.
Arsenicum album	Dread of death when alone or going to bed; excessive anxiety and restlessness, after midnight; great anxiety, jumps out of bed and hides himself; precordial anguish with constriction, cold sweat, trembling, prostration.
Kali carbonicum	Fear of being alone and that she will die; she starts with a loud cry at any imaginary object, as if a bird flew towards the window.
Nitricum acidum	Great anxiety about his disease, constantly thinking about his past troubles, morbid fear of disease, depressed and anxious in evening.

Referral

- Worsening of the condition.
- Suicidal tendency may be referred for counseling and behavioural therapy.

10.8 Cognitive impairment/Dementia

Normal aging and dementia are considered as two opposite ends of a continuum, and the area of transition between them has been recognized as “mild cognitive impairment”. The individuals falling under the category of mild cognitive impairment exhibit symptoms, that lie between normal age-related cognitive decline and dementia and have a very slight degree of functional impairment and minimal decline from their past level of functioning and therefore they do not meet criteria for dementia.

Intervention at HWC

Medicines	Indications
Kali phosphoricum	Loss of memory. Slightest labor seems a heavy task. Great despondency about business. Shyness; disinclined to converse.
Lycopodium clavatum	Weak memory, confused thoughts; spells or writes wrong words and syllables. Failing brainpower. Cannot bear to see anything new. Cannot read what he writes. Aversion to bread, etc. Desire for sweet things. Food tastes sour. Sour eructations. Great weakness of digestion. Bulimia, with much bloating. After eating, pressure in stomach, with bitter taste in mouth. Eating ever so little creates fullness.
Baryta carbonica	Loss of memory, mental weakness. Irresolute. Lost confidence in himself. Senile dementia. Confusion. Bashful. Aversion to strangers. Childish; grief over trifles.
Phosphorus	Great lowness of spirits. Easily vexed. Fearfulness, as if something were creeping out of every corner. Clairvoyant state. Great tendency to start. Over-sensitive to external impressions. Loss of memory. Brain feels tired. Insanity, with an exaggerated idea of one’s own importance. Excitable, produces heat all over. Restless, fidgety. Hypo-sensitive, indifferent.

Referral

No improvement in condition after considerable treatment along with non-pharmacological modalities.

10.9 Attention Deficit Hyperactivity Disorder

Attention Deficit Hyperactivity Disorder is characterized by inattention, poor concentration and hyperactivity or impulsivity that interferes with functioning at home, school and social relationships. It is usually first identified in children in the first five years of life. The symptoms of ADHD must be present most of the time and in at least 2 different settings, for example, at home and school. The child must have these symptoms for at least 6 months, and they must be more prominent than others of their age for a doctor to consider the diagnosis.

Aetiology/risk factors

The etiology is unknown. However following causes may play a role in development of the disorder.

- Genetic: certain genes and neurotransmitters are responsible for its occurrence and play a major role in the development of ADHD and may run in family.
- Environmental factors: substance use and abuse (cigarettes, alcohol etc.) during pregnancy, exposure to passive smoke, exposure to high levels of lead.
- Brain injuries in children, during pregnancy, delivery or immediately after birth
- Others: Premature delivery and low birth weight, consumption of certain food additives like artificial colors or preservatives, excess sugar, etc.

Clinical presentation

ADHD can be identified on the following symptoms:

- Easily distracted
- May not follow instructions or listen when spoken to
- Leaves tasks unfinished
- Makes careless mistakes
- Have trouble sitting still and run around at inappropriate times
- Tend to be clumsy and occasionally destructive

The diagnosis requires evaluation and identification of symptoms of hyperactivity or inattention or both.

Evaluation

- ADHD Rating Scale
- Vanderbilt ADHD Diagnostic Parent and Teacher Scales

Management

Primary preventive measures:

- Initiatives to reduce or avoid exposure to environmental toxins, such as lead and mercury.
- Promote maternal health during pregnancy, such as warnings against alcohol and cigarette use and exposure to passive smoke.
- Reduce or avoid exposure to head injury during pregnancy and in infants, toddlers and children.
- Consumption of certain food additives like artificial colors or preservatives, excess sugar can be avoided.

Secondary preventive measures:

- o Identify hyperactivity and impulsivity in children which are evident during the pre-school years as they go on to develop the disorder.
- o Engage children in challenging and cognitively stimulating games that are growth-promoting.

Tertiary preventive measures:

- o Manage or limit consequences after the disorder has manifested by advising behavior therapy and brain stimulating activities and learning.

Intervention at HWC

Medicines	Indications
Calcarea carbonica	Lazy to do his work, forgets easily especially what is read, slow and sluggish; Tendency for lymphatic glandular enlargement; desire for eggs and indigestible things; aversion to meat & milk; fearful, timid, shy.
Lycopodium clavatum	Problems of self-esteem and low confidence; bullying, domineering, arrogant behaviour to family and those with less authority, obedience to superiors, reverses letters and words while reading and speaking; stage fright. Desire for warm foods and drinks, sweets; dominating, cranky, lack of self-confidence, precocious, desires company, shy, fear to be alone.
Phosphorus	Startles easily, mentally distractible, unable to exert the mind, answers slowly, shamelessness, talks during sleep, fidgety, always want to do something with hands, Oversensitive to external impressions; nervous and affectionate, anxious esp. during thunderstorm.
Hyoscyamus niger	Makes mistakes while reading, aggressive, excessive sexual excitement, handles genitals, irritability, tendency to hurt self when irritated, Jealousy, loquacious, irritable, fear of being left alone; of running water even on hearing it; insects; snakes, of shinning objects, fire, glass, etc; aggravation at night.
Sulphur	Extroverted, mechanically inclined, bossy children, rRepeats the question before answering, low self-confidence; needs to be praised, irritable, very selfish in nature, easily forgets things, careless in handling objects; in dressing, desires sweets, sugar, and meat; when the best selected remedy fails to improve.
Stramonium	Restless, violent behaviour of any type: biting, striking, strangling, tears off his clothes, fear of dark, of being alone; clings to mother, water, animals, night terrors, loquacity; incessant & incoherent talking & laughing, hyperactive children, behavioural disorders, painlessness of complaints; chorea, mania and fever delirium; young plethoric children, furious, malicious, fearful, desires light and company, worse in the dark and solitude.
Tuberculinum	Intense restlessness; child moves & runs, cannot remain quiet; constant desire for movement, aversion to mental work, Strong desire for traveling / wandering, Mischievous, malicious behaviour, breaks things, breaks others valuables, Symptoms are ever changing; erraticism, children with violent character, become terribly angry on trifles, Obstinate and disobedient children; irritable, fretful, desire to use foul language, discontented, fear of dogs, thin, narrow- chested, active & precocious mentally but weak physically; emaciated with good appetite; family/ personal history of tuberculosis; changeability of symptoms.
Chamomilla	Constant complaining and irritability, Demanding, Marked restlessness, Confused, not knowing what he wants; child demands one thing and then wants something else, Fidgety and desire to be carried, The child becomes so hyperactive that he gets exhausted and begins to cry, Dullness of the senses with diminished power of comprehension, Nervous, excitable, uncivil, peevish, irritable, capricious and abnormally sensitive to pain, quiet only when carried, wants many things and become angry when refused, or rejects when offered.

Medicines	Indications
Carcinosinum	Ailments after vaccination, intellectual torpor; thinks with difficulty, sensitive to all external impressions, loves the excitement of thunderstorm, starts at loud noise, enjoys thunderstorms, fond of music and skilled at it, fear of crowded or closed places, history of excessive parental control in childhood; affectionate, loving, sensitive to others' sufferings, sympathetic to animals, fond of them, passionate, fastidious, fearful, sensitive to reprimands.
Natrum muriaticum	Ailments from sudden & abrupt separation from parents, History of grief, sadness, mental depression in mother during intrauterine period. History of maternal rejection towards the child before / during pregnancy, Speech delayed, Hurriedness, Oversensitive to music, startles from noise, violent temper tantrums, Irresistible laughing at unsuitable times, followed by tearfulness, great sadness, and joylessness, Increased thirst; mapped tongue with red insular patches; melancholic, sad, plays alone, irritable, cross, cries when spoken to; awkward, hasty, drops things from nervous weakness; disposition to weep without cause, consolation aggravates, Children late in learning to speak.
Nux vomica	Spare, quick, active, zealous, irritable, impatient and spiteful with violent behavior, Hyperactivity with impulsivity with desire to jump, Anger, violence, marked irritability, Defiance; resists all efforts of disciplining, Sensitive to noise, Tendency to break things from anger and frustration, Impatient - hates waiting in line or in traffic, Chilly patient; thin, prone to indigestion; tongue coated yellowish in the posterior part; oversensitive to all external impressions; noise ,odors, light or music nervous disposition.

Referral

- Increased risk for school failure and dropout in both high school and college.
- Social difficulties and family strife.
- Depression, anxiety and other mental health disorders not responding to treatment.
- Accidental injury, alcohol and drug abuse.

10.10 Autism Spectrum Disorder

Autism spectrum disorder also characterised by persistent deficit in social communication and social interaction across multiple contexts, including deficits in social reciprocity, non-verbal communicative behaviour used for social interaction, and skills in developing maintaining and understanding relationships. Within this broad spectrum, the disorder manifesting before the age of 3 years is called childhood autism.

Aetiology & risk factors

The definite cause of autism is still unknown. The interactions between susceptible genes and environmental factors have been proposed as the major mechanism of autism aetiology. The risks factors at different period of gestation and thereafter are as follows:

During the prenatal period	During perinatal period	During postnatal period
<ul style="list-style-type: none"> ○ Maternal and paternal age ≥ 35 years ○ Gestational hypertension ○ Gestational diabetes ○ Toxaemia and Preeclampsia ○ Threatened abortion and antepartum haemorrhage. ○ Smoking/ exposure to passive smoke ○ Maternal illness during pregnancy ○ Maternal mental health ○ Family history of mental illness ○ Gestational respiratory infections ○ Parental introversion ○ Foetal exposure to valproate etc (environmental). ○ A sibling with ASD or other genetic disorder genetic 	<ul style="list-style-type: none"> ○ Caesarian delivery ○ Gestational age ≤ 36 weeks ○ Parity ≥ 4 ○ Spontaneous labor ○ Induced labor, no labor ○ Breech presentation ○ Premature rupture of the fetal membrane ○ Fetal distress etc. 	<ul style="list-style-type: none"> ○ Low birth weight ○ Postpartum hemorrhage ○ Male gender ○ Brain anomaly ○ Neonatal jaundice ○ Delayed birth cry ○ Birth asphyxia ○ Low Apgar scores ○ Hyperbilirubinaemia ○ Birth defects ○ Birth weight less than 2500 gm ○ Admission to a neonatal intensive care unit

Clinical presentation

Each Autistic child shows wide range of expressions. Those expressions can be classified into group of behaviour, communication, emotion and sensory patterns/sensitivity. Each group or cluster shows various expressions, which helps us to identify the affected areas of the child.

Clusters	Expressions
Behaviour (Usually social and psychomotor)	<ul style="list-style-type: none"> ○ Has inexplicable tantrums ○ Has unusual interests or attachments ○ Has unusual motor movements such as flapping hands or spinning ○ Has extreme difficulty coping with change ○ Stop talking (if they had begun to say a few words) ○ Stop waving goodbye ○ Stop turning their heads when their names are called ○ Withdraw into a shell and seem more distant and less interested in their surroundings ○ Looks away when you speak to him/her ○ Does not return your smile ○ Lack of interest in other children ○ Often seems to be in his / her own world ○ Does not seek to share interests with others up ○ Prefers to play alone ○ Very limited social play ○ Play is limited to certain toys ○ Plays with objects in unusual ways such as repetitive spinning or lining ○ Child unresponsive to people ○ Child focusing intently on one item for long periods of time ○ Self-injury (e.g. by wrist-biting) especially when there is associated severe intellectual disability ○ Lack spontaneity, initiative, and creativity in the organization of their leisure time ○ Difficulty in applying conceptualizations in decision-making in work (even when the tasks themselves are well within their capacity) ○ Sleeping and eating disturbances

Clusters	Expressions
Emotions	<ul style="list-style-type: none"> ○ Unusual way of showing anger, distress or affection ○ Fear/phobias ○ Temper tantrums, and aggression
Communication	<ul style="list-style-type: none"> ○ Not responding to his/her name by 12 months ○ Not pointing or waving by 12 months ○ Loss of words previously used ○ Speech absent at 18 months ○ No spontaneous phrases by 24 months Selective hearing – responding to certain sounds but ignoring human voice ○ Unusual language patterns (e.g. repetitive speech) ○ Engaging and babbling toddler, suddenly becomes silent, withdrawn or indifferent social overtures ○ Child does not babble, point or make meaningful gestures by one year of age
Sensory patterns	<ul style="list-style-type: none"> ○ Afraid of some everyday sounds ○ Uses peripheral vision to look at objects ○ Fascination with moving objects ○ High tolerance of temperature and pain ○ Unusual sensory sensitivity either heightened or depressed

Evaluation

- Autism Behaviour Inventory (ABI)
- The Indian Scale for Assessment of Autism (ISAA)

Prevention

Pre-conceptual folic acid supplementation - Childhood Autism Risks from Genetics and Environment (CHARGE), suggested that maternal folate status during the peri-conceptual period was associated with a reduced risk of ASD.

Non- pharmacological

- Speech therapy produces gains in communication skills. It is more effective when the speech therapist collaborates with family, peers, teachers and special educators.
- Intervention during early childhood is important to promote the optimal development and well-being of people with autism. Monitoring of child development as part of routine maternal and child health care is recommended.
- Occupational therapy promotes self-care skills, organization, and attention and play skills.
- Behavioural treatment and skills training programmes for parents and other caregivers, can reduce difficulties in communication and social behaviour, with a positive impact on the person's wellbeing and quality of life.
- There are special and inclusive schools for autistic children.

Intervention at HWC

Medicines	Indications
Calcarea carbonica	Passive dependent type of child, anxious and fearful, Screams when looked at, touched or questioned; Tired mentally and physically from least mental work, cannot calculate; Making repetition of words and phrases, Shaking of body when excited, Fear of dogs, insects and spiders, Sluggish children, Delayed milestones, Sleeps on abdomen, head sweats profusely while sleeping; sour smelling discharges; longing for fresh air; desire for eggs and indigestible things, sweets aversion to meat and milk; fearful, shy, timid, slow and sluggish; feels better when constipated.

Medicines	Indications
Baryta carbonica	Autism associated with profound retardation, Involuntary laughter, Memory deficient, forgetful, Inattentive; child cannot be taught for he cannot remember, Child does not want to play but sit in the corner doing nothing. Hides behind the furniture and keeps hands over the face, peeping through the fingers. Mentally and physically dwarfish; timid, weary and lack self-confidence, avoid strangers and thinking of complaints makes them worse, better in open air.
Carcinosinum	Restlessness and hurriedness. There is marked hyperactivity. The child keeps running, jumping, climbing furniture, etc. Along with hyperactivity, there are a lot of repetitive body moments like spinning, stemming, hand flapping, rocking, etc. Child is very fearful. There can be unusual fears of the dark, being alone, heights, etc. Chronic nightmares or night terrors. Gets bored quickly and reacts badly when reprimanded. Arrested development with dwarfishness. History of excessive parental control in childhood; affectionate, loving, sensitive to others' sufferings, sympathetic to animals, fond of them, passionate, fastidious, fearful, sensitive to reprimands.
Kali bromatum	The child must do something move about; gets fidgety. Can pronounce any word told but cannot speak otherwise. Night terrors. Restless sleep. General failure of mental power. Loss of memory. Slow, hesitates, omits or mixes up words in talking or writing. Imagines he cannot pass a certain point. Stocky person with tendency to obesity; nervous, restless, cannot sit still, fidgety hands - hands and fingers in constant motion; stammering, forgetful.
Lycopodium clavatum	Averse to undertake new things. Cannot bear to see anything new. Weak memory, confused thoughts. Spells or writes wrong words and syllables. Cannot read what he / she writes. Sadness in the morning on waking. Reserve, envious, selfish, greedy children, very possessive to their things, over inflated ego, boaster, exaggerates everything. Loves to talk only about himself / herself. Restlessness, fright, tendency to bite and put everything in mouth, especially tends to bite nails and pillows. Desire for warm foods and drinks, sweet; dominating, cranky, lack of self-confidence, precocious.
Natrum muriaticum	Awkward, hasty, tears with laughter. Irritable; gets into passion about trifles. Hateful to persons who had offended him/her. Detests consolation or fuss. Weeps involuntarily without cause or cannot weep. Immoderate laughter with tears. Oversensitive to music, startles from noise. Children late in learning to speak. Hot patient; poorly nourished, great emaciation (marked on neck); losing flesh while living well; craving for salt; aversion to bread and fatty things; constipated; increased thirst; mapped tongue with red insular patches; melancholic, sad, plays alone, irritable, cross, cries when spoken to; awkward, hasty, drops things from nervous weakness; disposition to weep without cause, consolation aggravates.
Tuberculinum	Mentally deficient children with constantly changing of symptoms. Contradictory characteristics like melancholy and mania, insomnia and sopor. Loves to play with cars. Changeability of symptoms; Obstinate and disobedient children; irritable, fretful, desire to use foul language, discontented, fear of dogs.
Stramonium	Fear of being in dark, clings to mother. Hydrophobia. Frightful dreams. Violent; tear off clothes. Loquacity- incessant and incoherent laughing. Restless. Praying, beseeching, and swearing. Hallucinations which terrify the child. Stammering; has to exert himself a long time before he can utter a word. Child is hyperactive, restless, impulsive, and mischievous. Very shy in front of strangers, Desires for Company, cannot bear to be alone, worse in dark and solitude.

Referral

No improvement in condition after considerable treatment along with non-pharmacological modalities.

10.11 Learning disability

Many children may struggle in school with some topics or skills from time to time. When children try hard and still struggle with a specific set of skills over time, it could be a sign of a learning disorder. Having a learning disorder means that a child has difficulty in one or more areas of learning, even when overall intelligence or motivation is not affected. Dyslexia (difficulty with reading), dyscalculia (difficulty with mathematical calculations) and dysgraphia (difficulty with writing) are one of the common clinical presentations of learning disability.

Clinical presentation

Some of the symptoms of learning disorders are:

- o Difficulty telling right from left.
- o Reversing letters, words, or numbers, after first or second grade.
- o Difficulties recognizing patterns or sorting items by size or shape.
- o Difficulty understanding and following multiple instructions or staying organized.
- o Difficulty remembering what was just said or what was just read.
- o Lacking coordination when moving around.
- o Difficulty doing tasks with the hands, like writing, cutting, or drawing.
- o Difficulty understanding the concept of time.

In children where learning is seen to be affected, it is important to rule out the following before a diagnosis of learning disability is made:

- o Global developmental delay.
- o Primary sensory deficits (e.g., visual or hearing impairments) or other physical difficulties.
- o Environmental factors, such as deprivation, abuse, inadequate or inappropriate instruction, socio-economic status, or lack of motivation.
- o Any other co-existing condition such as Developmental Coordination Disorder, Attention Deficit Hyperactivity Disorder or anxiety.
- o Intellectual Disability
- o Visual Problems
- o Hearing problems
- o Neuro motor impairment

Management

Children with learning disorders often need extra help and teaching modes for learning that are specialized for them. Having a learning disorder can qualify a child for special education services in school. An evaluation by a healthcare professional is needed if there are other concerns about the child's behavior or emotions. Parents, healthcare providers, and the school can work together to find the right treatment.

Intervention at HWC

Medicines	Indications
Calcarea phosphoricum	Great depression; slow comprehension; cretinism. Children are peevish and fretful; difficulty in performing intellectual operations.
Natrum muriaticum	Difficulty of thinking; absence of mind. Weakness of memory and excessive forgetfulness. Heedlessness and distraction. Tendency to make mistakes in speaking and writing.

Medicines	Indications
Medorrhinum	Children mentally dull and weak, dwarfed and stunted growth, weakness of memory, even forgets his own name, starts at least sound. Makes mistakes in speaking the spellings.
Alumina	Inability to read.
Magnesium carbonicum	Children have inability to read.
Causticum	Inability to write.
Silicea terra	Having inability for learning to write.
Ammonium carbonicum	Indicated in children making mistakes in calculation.
Lycopodium clavatum	Makes mistakes in calculation and in writing, in confounding letters and making mistakes in speaking the spellings.
Hyoscyamus niger	Child makes mistakes while reading.

Referral

No improvement in condition after considerable treatment along with non-pharmacological modalities.

10.12 Schizophrenia

The schizophrenic disorders are characterized in general by fundamental and characteristic distortions of thinking and perception. The most important psychopathological phenomena include thought echo; thought insertion or withdrawal; thought broadcasting; delusions of control; hallucinatory voices; and thought disorders and negative symptoms.

Aetiological factors

The definite cause of schizophrenia is not known. The interactions between susceptible genes and environmental factors have been proposed as the major mechanism of schizophrenia aetiology:

- o Genetic
- o Early environment like maternal malnutrition, maternal infection, birth complications.
- o Social causes like migration, occupation and social class, catastrophic life events and difficulties, childhood trauma.
- o Early cannabis use.
- o Hypothesis like Neurodevelopmental, gene environment interactions, dopamine, glutamate, dysconnectivity and inflammatory.

First rank symptoms of schizophrenia

- o Hearing thoughts spoken aloud
- o Third person hallucinations
- o Auditory hallucination in the form of running commentary
- o Somatic hallucinations
- o Thought withdrawal or insertion
- o Thought broadcasting
- o Delusional perception
- o Feelings of actions experienced as made or influenced by external agents.

Diagnostic Criteria for Schizophrenia

Two (or more) of the following, each present for a significant portion of time during a 1 month period (or less if successfully treated). At least one of these must be delusions, hallucinations or disorganized speech:

- o Delusions
 - o Hallucinations
 - o Disorganized speech (e.g., frequent derailment or incoherence)
 - o Grossly disorganized or catatonic behavior
 - o Negative symptoms (i.e., diminished emotional expression or avolition)
- Continuous signs of the disturbance persist for at least 6 months. This 6-month period must include at least 1 month of symptoms (or less if successfully treated) that meet the above criteria (i.e., active phase symptoms) and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested only by negative symptoms or by two or more symptoms listed above present in an attenuated form.
- o For a significant portion of time since the onset of the disturbance, level of functioning in one or more major areas, such as work, interpersonal relations, or selfcare is markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, there is a failure to achieve expected level of interpersonal, academic, or occupational functioning).
 - o Schizoaffective disorder and depressive or bipolar disorder with psychotic features have been ruled out.
 - o The disturbance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition.
 - o If there is a history of autism spectrum disorder or a communication disorder of childhood onset, the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations, in addition to the other required symptoms of schizophrenia, are also present for at least 1 month (or less if successfully treated)

Intervention at HWC

Medicines	Indications
Sulphur	Philosophical, melancholic mood: dwelling on religious things; anxious to save his soul, Irritable, Megalomaniac, Aversion milk, Aversion to bath, filthy skin, Perspiration on palms soles. Itching of skin, Heat sensation, Thirst extreme Despondent; out of humour; weeps much, peevishness and fantastic illusions. The most ordinary objects awake extraordinary admiration, everything looks pretty which the patient takes a fancy to; even rags seem beautiful. Dresses up in rags and imagines that they are the finest silk, "A rugged philosopher," life having been a failure, A chronic, constitutional grumbler. Indolence, too lazy to rouse himself; too unhappy to live.
Lycopodium clavatum	Fear to be alone, Greedy, Irritable on contradiction, Complaints from fright Fear when alone.
Natrum muriaticum	Weeping easily, Ailments from grief. Eats well-yet loses flesh, Irritable on contradiction. Thinking about past unpleasant things, Weeps easily, Consolation aggravates, Reserved, Craves salt.
Pulsatilla nigricans	Mildness, Ailments since puberty, weeping easily, Mood changes, Tossing during sleep, Fear in the evening, Religious, Consolation amelioration, Aversion to fat Desires open air.

Medicines	Indications
Phosphorus	Fear of being alone, desires cold drinks, Fear of death, Indifferent, Desires salt, increased sexual desire, Irritability.

Referral

- Suicidal or homicidal tendencies.
- Not responsive to treatment.
- Aggression or violence with a possibility to harm self or others.

COMMON OPHTHALMIC, ENT AND ORAL HEALTH ISSUES

11.1 Section 1: Common Ophthalmic Issues

11.1.1 Conjunctivitis

Conjunctivitis is inflammation of the membrane lining the inner side of the eyelids and the white part of the eye (conjunctiva). It is the most common eye disease. Conjunctivitis can be due to an infection or allergic or due to chemical irritants or injury. Mode of transmission of infectious conjunctivitis is usually direct contact via fingers, towels, handkerchiefs, etc. It can spread through contaminated eye drops also.

Conjunctivitis is distinct from hyperaemia of conjunctiva which is congestion of blood vessels due to reflex response to foreign body, dusty, smoky environment, errors of refraction, reflex irritation from nose or in chronic conditions like gout.

Clinical presentation

The most common symptoms include:

- o Redness in one or both eyes.
- o Itchiness in one or both eyes.
- o A gritty feeling in one or both eyes.
- o A discharge in one or both eyes that forms a crust during the night that may prevent eye or eyes from opening in the morning.
- o Tearing pains
- o Pain worse while reading or when exposed to bright light (photophobia).
- o Mild edema of lids or swelling of eyelids may be seen.

Differential Diagnosis

Acute anterior uveitis, acute angle closure glaucoma, corneal trauma.

Prevention

- o Maintaining personal hygiene
- o Avoid rubbing eyes with contaminated hands
- o Regular hand wash
- o Avoid sharing towels, handkerchiefs, pillows, etc.
- o Avoid sending infected children to school
- o Avoid crowded places
- o Avoid exposure to dust and smoke

Intervention at HWC

Local use: Along with indicated medicines euphrasia eye drops may be used locally.

Medicines	Indications
Belladonna	Intense pain in eyes with redness in eyes and sensitivity to light (Photophobia)
Euphrasia officinalis	Catarrhal conjunctivitis; discharge of acrid matter. Eyes water all the time. Acrid lachrymation; bland coryza.
Pulsatilla nigricans	Eyelids are swollen and glued together. Thick yellowish green non irritating discharge from the eyes.
Mercurius solubilis	Intense redness of eyes with pain and profuse irritating discharge from eyes
Argentum nitricum	Great swelling of conjunctiva; discharge abundant and purulent. Chronic ulceration of margin of lids; sore, thick, swollen. Unable to keep eyes fixed steadily. worse in warm room. Aching, tired feeling in eyes, better closing or pressing upon them.

Referral

- Neonatal conjunctivitis
- If the conjunctivitis does not respond to the initial treatment (if there is no improvement in 7 to 10 days).
- If there are corneal changes associated with the conjunctivitis.
- Conjunctivitis with blurring of vision or pain as opposed to discomfort.
- Sicca (i.e. dry eye syndromes)

11.1.2 Refractive errors

A refractive error is a very common eye disorder. It occurs when the eye cannot clearly focus the images from the outside world. The result of refractive errors is blurred vision, which is sometimes so severe that it causes visual impairment.

Four most common refractive errors are:

- Myopia (nearsightedness): difficulty in seeing distant objects clearly
- Hypermetropia (farsightedness): difficulty in seeing close objects clearly
- Astigmatism: distorted vision resulting from an irregularly curved cornea
- Presbyopia: which leads to difficulty in reading or seeing at arm's length, it is linked to ageing and occurs almost universally with increasing age.

Symptoms and Signs

Myopia

1. Congenital (may be associated with convergent squint)
2. Simple or developmental (most common)
3. Pathological, degenerative or progressive (most rapidly progressing)

There is reduced visual acuity for distance but near objects can be seen clearly. Usually there is no headache. Person may squint his/her eyes to see at a distance. In pathological myopia person may complain of seeing black floaters in front of eyes.

Hypermetropia

1. Congenital (rare)
2. Simple or developmental (most common)
3. Acquired (commonly following lens extraction surgery)

There is initially not much complaint of distant vision as that can be corrected by exerting accommodation. But there is difficulty in doing close work and letters become blurred after some time of reading due to fatigue of accommodation. Headache is a usual symptom.

Astigmatism

There is diminished visual acuity and headache due to exertion of accommodation.

Presbyopia

Usually seen after the age of 40 years when least distance of distinct vision of 25 cm recedes and person complains of blurring of vision on reading or doing close work which improves if book/work is held further away from the eye. Appearance of symptoms may appear earlier in persons doing more of close work or in hypermetropes. It may not be there in myopes.

Examination of Refractive Errors

- Visual Acuity is determined, both unilaterally and binocularly. Distant Visual Acuity is measured by Snellen's test types. It consists of a series of black capital letters on a white board, arranged in lines, each progressively diminishing in size.
- Depending on the smallest line which the patient can read from a distance of 6 metres, his/her vision is recorded as 6/6, 6/9, 6/12, 6/18, 6/24, 6/36 and 6/60 respectively.
- If he/she cannot see the top line from 6 m, he/she is asked to slowly walk towards the chart till he/she can read the top line, his vision is recorded as 5/60, 4/60, 3/60, 2/60 and 1/60 respectively.
- If the patient is unable to read the top line even from 1 m, he/she is asked to count fingers (CF) of the examiner. His/her vision is recorded as CF-3, CF-2, CF-1 or CF close to face, depending upon the distance at which the patient is able to count fingers.
- When the patient fails to count fingers, the examiner moves his/her hand close to the patient's face. If he can appreciate the hand movements (HM), visual acuity is recorded as HM +ve.
- When the patient cannot distinguish the hand movements, the examiner notes whether the patient can perceive light (PL) or not. If yes, vision is recorded as PL +ve and if not, it is recorded as PL-ve.
- Near vision is tested by asking the patient to read the N series/Jaeger's near vision chart kept at a distance of 35 cm in good illumination with each eye separately.

Complications of High Myopia

- Retinal detachment
- Complicated cataract
- Macular hole
- Choroidal/Scleral thinning
- Myopic Choroidal neovascularization
- Glaucoma

Complications of Hypermetropia

Complications of hypermetropia are rare in adults. In children severe Hypermetropia can lead to - Strabismus (Crossed eyes) and Amblyopia (lazy eyes).

Preventing Refractive Errors

- The risk of Myopia and progression of myopia is lowered by exposure to daylight. Children should be encouraged to spend more time outdoors.
- Avoidable activities performed at short visual distances like using mobile phones, computers, etc. in young children should be discouraged.

Practicing Trataka Kriya

- Patient/Person is asked to sit on a in an easy sitting position – Sukhasana.
- Ask them to keep the waist, back, neck and the entire spinal column erect, keeping breathing normal. Avoid undue strain in neck, shoulders, back and face muscles.
- Place a piece of paper with a cross or a circle on the wall or identify and object in front at the level of eyes, at a distance of about 16 -20 inches from eyes.
- Now ask them to fix the gaze and concentrate only on the sign or image, till the eyes start feel the strain or start watering. Be careful not to squint or converge or diverge the eye balls while gaze fixing.
- Ask them to close their eyes and imagine that symbol to be in the centre of eyebrow and concentrate upon that imaginary sign without converging the eyeballs towards the eyebrows.
- The practice time should be gradually built. During the initial days it should be done only for about 10-15 seconds and slowly increasing the time, till comfort level is maintained.

Benefits

Tratak improves eyesight and relaxes muscles of eye by reducing eye strain.

Caution

This exercise is not suitable for people who have a tendency towards Schizophrenia or hallucinations.

Eye Exercises

- Palming- The technique of covering both the eyes gently with cups of palms is called palming. No pressure is put over the eyes. It helps in proper lubrication of the eyes and relieves eye strain.
- Swinging/ Swaying- Long swing is good to first practice with a stick. The stick is held with both hands directly in front, so that the tip of it is pointing straight up or a little away, and at eye level or slightly below. Then start moving the stick to the left and right with continuous gazing on the tip, or person can stand in front of window bars and look at the distance and sway the body from side to side.
- Figure of eight or circular eye movements- The person is asked to imagine large '8' figure in front, about 6 feet away, and trace its shape slowly first in the clockwise and then in anti-clockwise direction. This process must be repeated for three to five minutes.
- Convergence and zooming – Convergence exercises are to strengthen near vision muscles, and also to help delay presbyopia by exercising the muscles responsible for accommodation. Person is asked to focus on a pencil tip held at an arm's length followed by focusing on something far away to relax the eyes. Ask them to repeat this cycle for two minutes.
- Side to side movement- Moving the eyes conjugately, from side to side is said to relax and improve vision. Done in a comfortable sitting position, person is advised to shift the eyes to

the right and fix their gaze at least 6 to 8 feet away for a few seconds and then change the direction in same manner to left side.

- Sunning-Person is asked to face gentle morning/ evening sun with the eyes closed. Closing the eyes helps to relax them especially when there is sunlight sensitivity present. Then he/ she is asked to move the head slowly back, front and sideways. Sunning should always be followed by palming.

Intervention at HWC

Medicines	Indications
Phosphorus	Sensation as if everything were covered with a mist or veil, or dust, or something pulled tightly over eyes. Black points seem to float before the eyes. Patient sees better by shading eyes with hand. Fatigue of eyes and head even without much use of eyes.
Physostigma	Photophobia; Contraction of pupils; Twitching of ocular muscles. Flashes of light; partial blindness. Glaucoma; paresis of accommodation.
Phosphoricum acidum	Blue rings around. Lids inflamed and cold. Pupils dilated. Glassy appearance. Averse to sunlight; sees colors as if a rainbow. Feel too large. Amblyopia in masturbators. Optic nerves seem torpid. Pain as if eyeballs were forcibly pressed together and into head.
Ruta graveolens	Eyes-strain followed by headache. Eyes red, hot, and painful from sewing or reading fine print (Nat mur; Arg nit). Disturbances of accommodation. Weary pain in eyes while reading.
Argentum nitricum	Unable to keep eyes fixed steadily. Eyestrain from sewing; worse in warm room. Aching, tired feeling in eyes, better closing or pressing upon them. Useful in restoring power to the weakened ciliary muscles. Paretic condition of ciliary muscle.
Petroleum	Dim sight; far-sighted; cannot read fine print without glasses; blenorrhagia of lachrymal sac; marginal blepharitis. Canthi fissured. Skin around eyes dry and scurfy.
Gelsemium sempervirens	Ptosis; eyelids heavy; patient can hardly open them. Double vision. Disturbed muscular apparatus. Corrects blurring and discomfort in eyes even after accurately adjusted glasses. Vision blurred, smoky. Dim-sighted; pupils dilated and insensible to light.
Lilium tiglium	Hyperaesthesia of retina. Pain, extending back into head; lachrymation; and impaired vision. Myopic astigmia. Useful in restoring power to the weakened ciliary muscle.
Tuberculinum	Dullness and heaviness of eyes; darkness before eyes. Obscuration of vision with vertigo. Opens right eye (which had been closed)
Sepia officinalis	Muscular asthenopia; black spots in the field of vision; asthenic inflammations, and in connection with uterine trouble. Aggravation of eye troubles morning and evening.

Referral

- If the conjunctivitis does not respond to the initial treatment.
- Deteriorating vision even after regular treatment of the case.

11.1.3 Stye (Hordeolum)

Stye is an acute suppurative inflammation of follicle of eyelash including gland of Zeis. A stye and chalazion are often confused. A stye is an infection of a lash follicle, which causes a red, tender swelling at the lid margin. A chalazion is a chronic inflammatory granuloma of Meibomian gland presenting as a small cystic swelling a little distance away from the lid margin.

Aetiology

1. It is usually due to presence of staphylococci infection occurring in crops. It is often associated with boils, carbuncles and acne over face.

- It is common in young adults and persons with diabetes or debility.

Symptoms & signs

- A localised painful and hard swelling is seen on the lid margin.
- The lid margin is red, swollen and oedematous.
- A pus point may become visible at the base of the eye lash.
- Pain may subside after evacuation of pus.

Management

- Hot fomentation applied frequently in early stage is useful.
- Evacuation of the pus may need to be done by pulling the involved lash or incising the abscess.

Intervention at HWC

Medicines	Indications
Apis mellifica	Red swollen, oedema of upper or lower eye lids. Stinging and burning pain ameliorated by cold washing
Belladonna	Throbbing pain deep in the eyes on lying down. Eyes feel swollen, protruded, burning. Sensation as if eyes were half closed
Hepar sulphuris calcareum	Painful styes with great sensitivity to touch and pressure. Ameliorated by warm application
Pulsatilla nigricans	Styes in upper eye lid. Thick greenish discharge from eyes, worse in warm room and amelioration in open air.
Lycopodium clavatum	Styes on lids near internal canthus. Day-blindness.

Referral

- When the case of stye does not respond to the initial treatment.
- Cosmetic deformity
- Need for surgical removal

11.1.4 Chalazion (Tarsal or Meibomian Cyst)

Chalazion is a chronic granulomatous inflammation of the meibomian gland. These may occur single or multiple in young and young adults.

Aetiology

Due to low grade infection usually staphylococcal.

Symptoms & Signs

- A small cystic or hard non-tender hard swelling in the lid, slightly away from the lid margin is seen.
- Swelling is fixed to the tarsus with skin freely moving over it
- There are no signs of acute inflammation. There is no pain unless chalazion is secondarily infected.
- On everting the lid, the conjunctiva over the swelling is red or purple. It is grey in colour in later stages. It may be yellow when secondarily infected by pyogenic organisms.

Intervention at HWC

Medicines	Indications
<i>Staphysagria</i>	Chalazae (Platanus). Eyes sunken, with blue rings. Margin of lids itch.
<i>Pulsatilla nigricans</i>	Lids inflamed, agglutinated. Styes. Veins of fundus oculi greatly enlarged.
<i>Sepia officinalis</i>	Tarsal tumors. Ptosis, ciliary irritation. Aggravation of eye troubles morning and evening.
<i>Thuja occidentalis</i>	Tarsal tumours; chalazæ; thick and hard knots. Verrucae and tumours like condylomata.

Referral

- Chalazion becomes infected.
- A single episode of pre-septal cellulitis.
- Impact on vision affecting functionality due to, for example astigmatism or enlargement of the lid causing obstruction to the visual axis.
- Diagnostic confusion/ Primary care clinicians are suspicious of malignancy.

11.1.5 Senile Cataract

Cataract is opacity of lens of eye. Seen usually above the age of 50 years with gradual impairment of vision, it is the most common cause of blindness in old age. All persons above the age of 50 years must be screened for development of cataract at regular intervals. Cataract gradually progresses from an incipient stage to immature stage to a mature stage to a hypermature stage. An immature cataract may give a greyish appearance to the lens as compared to a mature cataract having a pearly white appearance of the lens.

Symptoms & signs

- Gradual impairment of vision.
- Person may complain of polyopia i.e. one object appears multiple.
- May see rainbow (multiple colours) haloes around light.
- In immature cataract finger counting may be present at a distance close to the eye, whereas in mature cataract vision is reduced to perception of hands movement only.

Complications of a hypermature cataract

- Lens capsule may burst and cortical matter coming out from anterior chamber may cause secondary glaucoma
- Acute congestive glaucoma may occur
- Lens may be dislocated in vitreous segment

The necessity for cataract surgery in mature stage is not only for improvement of vision but also for avoiding complications which arise in hypermature stage.

Investigations

- Ocular examination
- Density and morphology of cataract is noted and visibility of fundus on ophthalmoscopy.
- Refraction by retinoscopy under atropine is done in partial cataract.
- Associated ocular pathology, e.g. microphthalmos, congenital heart disease etc.
- Intraocular pressure
- Systemic investigations for Diabetes, Liver, Renal Conditions.

Preventive Measures

- Healthy diet,
- Stop smoking, tobacco use, alcohol use
- Control of blood sugar level in diabetics
- Avoid unnecessary use of steroids, avoid trauma
- Even if, no symptoms are there, an eye examination must be scheduled at regular intervals, especially after forty years of age.

Intervention at HWC

Medicines	Indications
Cineraria maritima	Cataract and corneal opacities. Is used externally, by instilling into the eye one drop four or five times a day. Traumatic cases.
Calcarea carbonica	Cataract. Dimness of vision, as if looking through a mist. Lachrymal fistula; scrofulous ophthalmia.
Calcarea fluorica	Flickering and sparks before the eyes, spots on the cornea; cataract.
Causticum	Confusion of sight, esp. in the morning, as if something were swimming on the cornea, mitigated for an instant by rubbing. Objects appear black when brought before the eyes.
Magnesium carbonicum	Dryness of eyes, or violent lachrymation. Opacity of cornea. Black spots before sight. Obscuration of crystalline lens (cataract).
Phosphorus	Cataract. Sensation as if everything were covered with a mist or veil, or dust, or something pulled tightly over eyes. Black points seem to float before the eyes. Patient sees better by shading eyes with hand.
Silicea terra	Cataract in office workers. After-effects of keratitis and ulcus cornæ, clearing the opacity.

Referral

- When the case of cataract is progressing and not responding with the medicine given.
- Regressing visual acuity / blindness

11.1.6 Ocular injury

An eye injury is an emergency and requires immediate medical or surgical treatment. The eye and periorbital region are subject to a range of injuries with a wide spectrum of severity and sequelae.

Types of Injury

1. Mechanical
 - i. Extraocular foreign body
 - ii. Penetrating and perforating injury
 - iii. Blunt injury (contusions)
2. Chemical injuries
3. Thermal Injuries
4. Electrical injuries
5. Radiational injuries

Symptoms & signs

An inciting factor may be identified:

1. Sudden discomfort in the eye.

2. Troublesome foreign body sensation
3. Reflex blinking
4. There is great irritation and gritty feeling in eye.
5. Lacrimation
6. Photophobia
7. Visible foreign body / injury Subconjunctival haemorrhage

Management

Dos

- Wash the eye with plenty of clean water (mechanical/ foreign body injuries).
- Use a moist sterile dressing to cover the eye (with a shield for additional protection).
- Prevent secondary injuries, particularly infections, through aseptic techniques.
- Assess both eyes, even if the injury is unilateral.
- Document all the findings and procedures.
- Monitor visual outcome.
- Plan for rehabilitation of the patient.

Don'ts

- Rub the eyes – It is very important as the foreign body may penetrate in the deeper tissues.
- Assume that a visual acuity of 6/6 excludes serious eye complications.
- Delay irrigation in chemical injuries.
- Delay referral.
- Manage eye injuries in a patient who is not stabilised: life-threatening conditions must be addressed first.
- Touch or otherwise manipulate an eye with rupture or perforating injury.
- Prescribe topical anaesthetic.
- Pull out a protruding foreign body.
- Use traditional eye medicines

Prevention measures

- Protective eye wear in occupational hazards

Intervention HWC

Medicines	Indications
Aconitum napellus	Profuse watering after exposure to dry, cold winds, reflection from snow, after extraction of cinders and other foreign bodies.
Arnica montana	Diplopia from traumatism, muscular paralysis, retinal haemorrhage. Bruised, sore feeling in eyes after close work.
Calendula officinalis	Injuries to eyes which tend to suppuration; after operations; Blennorrhagia of lachrymal sac.
Hypericum perforatum	Relieves pain after operations. Quite supersedes the use of Morphia after operations.
Silicea terra	Perforating or sloughing ulcer of cornea. Abscess in cornea after traumatic injury.
Ledum palustre	Aching in eyes. Extravasation of blood in lids, conjunctiva, aqueous or vitreous. Contused wounds.
Symphytum officinale	Pain in eye after a blow of an obtuse body. For traumatic injuries of the eyes.

Referral

- A visible foreign body in the cornea requiring surgical intervention.
- Blindness due to trauma.

11.1.7 Dry Eye Syndrome

It is a common condition of the tear film reported more frequently in women than in men. Dry eyes can occur when tear production and drainage is not in balance.

Diagnostic Criteria

Signs & Symptoms

- Stinging, pain or burning sensation in eyes
- Itching and Redness
- Stringy mucus in or around eyes
- Sensitivity to light (Photophobia)
- Grittiness (Foreign body sensation)
- Dryness sensation in eyes

HWC intervention

Local use: Along with indicated medicines euphrasia eye drops may be used locally.

Medicine	Indications
Euphrasia officinalis	Catarrhal conjunctivitis; discharge of acrid matter. The eyes water all the time. Acrid lachrymation; bland coryza.

Differential Diagnosis

- Vitamin A deficiency
- Trachoma stage IV
- Kerato-conjunctivitis sicca (associated with lack of secretion from salivary glands and polyarthritis)
- After a reported episode of Stevenson Johnson Syndrome

Referral

When patient does not respond to the initial treatment or develops complications like-

- Abrasion of the corneal surface
- Corneal ulcers
- Vision loss

11.1.8 Blepharitis

Blepharitis is inflammation of eyelid margin. Blepharitis usually involves the part of the eyelid where the eyelashes grow and affects both eyelids.

Etiology

1. Can be infective or due to local irritants or inflammation of neighbouring eye structures. It may follow chronic conjunctivitis due to Staphylococcus in debilitated children usually who are living in poor un-hygienic conditions.

- Parasites such as *Demodex folliculorum*, *Phthiriasis palpebrarum*, crab louse, head louse can also cause blepharitis.

Symptoms & Signs

- Discomfort in the eyes.
- Accumulation of white scale like dandruff on lid margin.
- On removing the scales, the margin appears hyperaemic.
- Falling of eyelashes.
- Thickening of lid margin. In prolonged cases sharp posterior border of eyelid tends to become rounded.
- Yellow crusts may form at root of eyelash. On removing the crust small ulcerations may appear at base of lashes which can bleed freely.

Sequelae

- Trichiasis* – This condition is due to misdirected eyelashes.
- Tylosis* – There is thickening or hypertrophy of the lid margin.
- Madarosis* – Absence of or scanty eyelashes as a result of destruction of the hair roots.
- Ectropion* – There is eversion of the lid margin due to the contraction of the scar tissue.
- Epiphora* – Constant watering of the eyes occurs as a result of ectropion which may lead to eczema of the skin.

Management

- Keep the lids clean – the crusts and coagulated lipid should be gently cleaned with a cotton wool bud dipped in warm water.
- Improvement of general health and personal hygiene should be done.
- Dandruff of the scalp is adequately treated.

Don'ts

Do not wear contact lenses while you have symptoms, do not use eye makeup, while you have symptoms.

Intervention at HWC

Medicines	Indications
Argentum nitricum	Inner canthi swollen and red. Chronic ulceration of margin of lids; sore, thick, swollen. Aching, tired feeling in eyes, better closing or pressing upon them. Purulent ophthalmia. Great swelling of conjunctiva; discharge abundant and purulent.
Borax	Lashes turn inward. Visions of bright waves. Eyelids inflamed, lids cut against eyeball. Entropium.
Graphites	Ophthalmia, with intolerance of artificial light. Eyelids red and swollen. Blepharitis. Dryness of the lids. Eczema of lids; fissured.
Silicea terra	Angles of eyes affected. Swelling of lachrymal duct. Aversion to light, especially daylight; it produces dazzling, sharp pain through eyes; eyes tender to touch; worse when closed. Styes. Iritis and irido-choroiditis, with pus in anterior chamber.
Pulsatilla nigricans	Thick, profuse, yellow, bland discharges. Itching and burning in eyes. Profuse lachrymation and secretion of mucus. Lids inflamed, agglutinated. Styes.
Sulphur	Burning ulceration of margin of lids. Heat and burning in eyes. Chronic ophthalmia, with much burning and itching.

Medicines	Indications
Mercurius solubilis	Lids red, thick, swollen. Profuse, burning, acrid discharge. After exposure to glare of fire; foundrymen.
Euphrasia	Burning and swelling of the lids. Frequent inclination to blink. Free discharge of acrid matter. The eyes water all the time. Acrid lachrymation; bland coryza. Discharge thick and excoriating.

Referral

- Thickening of eyelids
- Loss of eyelids
- Development of bleeding ulcers

11.2 Section 2: Ear, Nose and Throat

11.2.1 Acute Otitis Media

Acute otitis media (AOM) is infection of the middle ear. Most common organisms responsible for the disease in infants and young children are *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Moraxella catarrhalis*. Other organisms include *Streptococcus pyogenes*, *Staphylococcus aureus* and sometimes *Pseudomonas aeruginosa*.

Risk factors

- Frequent upper respiratory tract infection
- Prolonged bottle use in infants
- Nasal allergy
- Recurrent ear infection in siblings
- Genetic predisposition
- Cleft palate
- Exposure to smoking
- Improper way of breast-feeding in infants
- Highly deviated nasal septum
- Adenoids
- Nasal polyps
- Recurrent rhinitis and sinusitis
- Short, straight and wide eustachian tube increases risk of children to develop AOM.

Clinical presentation

- Ear pain (otalgia)
- Irritability/excessive crying
- Fever
- Sensation of fullness in the ear
- Cough
- Vomiting
- Loss of hearing
- Rubbing or holding of the ears with crying
- Other complaints: increased pulse rate, malaise, disturbed sleep, loss of appetite, cold symptoms, night waking; child becomes less playful or active.

Otoscopy findings depends on the stage of condition

- Opaque, bulging of ear drum,
- Inflammation /redness of tympanic membrane
- Reduced or absent mobility of tympanic membrane
- Loss of landmarks of tympanic membrane

Preventive measures

- Washing hands frequently is the single most important thing that can prevent AOM.
- Proper breast feeding.
- If the child is bottle-fed then he/she should be fed in upright position. As the child grows, bottle should be replaced by a cup/glass as early as possible.
- Avoiding exposure to tobacco smoke (active or passive smoking).
- Treatment of underlying conditions like adenoids, tonsillitis, nasal polyps, etc.

Complications

- Mastoiditis
- Chronic suppurative otitis media

Intervention at HWC

Medicines	Indications
Belladonna	Throbbing and tearing pain, deep in the ear. Tympanic membrane red and bulging. Pain causes delirium. Child cries out in sleep. <i>Worse:</i> From touch, motion, noise, night, after midnight; lying down. <i>Better.</i> - Rest; wrapping up, pressure, warm room.
Chamomilla	Complaints after anger (fever, pains). Earache with soreness, swelling & heat driving patient frantic. Stitching pain, ears feels stopped. Won't tolerate being examined or touched. Pain with numbness. <i>Worse:</i> night, touch, wind.
Pulsatilla nigricans	Prescribed in all stages of acute otitis media, In the IV stage (suppurative stage) of disease condition, discharges are thick, bland and have offensive odour. Catarrhal deafness; hearing difficult as if ears are stuffed. <i>Worse:</i> evening and night and involves whole side of head and face. <i>Better:</i> cold application. from open air, motion
Calcarea carbonica	Sensitive to cold about ear and neck. Throbbing ear pain, hardness of hearing and heat in the ears with or without enlarged cervical lymph nodes. Deafness from eustachian catarrhs. In the IVstage (suppurative stage) of disease condition, the discharge is muco-purulent, occasionally offensive.
Mercurius solubilis	Acute otitis media especially with swelling of parotid glands and offensive breath. Shooting pains in ears extending to face; ears feel stopped and swollen. In the IVthstage (suppurative stage) with middle ear affection, bloody otorrhoea, offensive discharge, with stabbing pain. <i>Worse:</i> becoming heated in bed, night, both heat and cold.
Hepar sulphuris calcareum	Darting and shooting pain in the ears. great soreness and sensitiveness to the slightest touch. Acute suppurative otitis media; discharge thick, creamy and somewhat offensive. <i>Worse:</i> dry, cold air. <i>Better:</i> rest and wrapping head.

Referral

- No change or progressing Otagia.
- Worsening of general condition.
- Evidence of complications like headache, vomiting, vertigo, mastoid abscess etc.

11.2.2 Chronic Suppurative Otitis Media (CSOM)

Chronic suppurative otitis media (CSOM) is a long-standing infection of a part or whole of the middle ear cleft characterized by ear discharge and a permanent perforation.

Risk factors

- Recurrent middle ear infections,
- recurrent adenoid and tonsillar infections,
- chronic rhinosinusitis, adenoid hypertrophy,
- impaired nasal respiration (septal deviation, allergy),
- cleftpalate, collagen diseases and
- ciliary paresis of tubal mucosa (Kartagener syndrome),
- severe traumatic perforations,
- Inadequate management of Otitis Media.

Symptoms

- Ear discharges (Otorrhea): It is non-offensive, mucoid or mucopurulent, constant or intermittent. The discharge appears mostly at time of upper respiratory tract infection or on accidental entry of water into the ear.
- Hearing loss: It is conductive type, sometimes patient reports of a paradoxical effect, i.e. hears better in the presence of discharge than when the ear is dry called "*round window shielding effect*".
- Central perforation: Middle ear mucosa. It is seen when the perforation is large. Normally, it is pale pink and moist; when inflamed it looks red, oedematous and swollen. Occasionally, a polyp may be seen if large by naked eye or with an otoscope

Complication

Complications of CSOM are classified into two main groups.

- **Intra temporal and extra cranial**
 - Mastoiditis
 - Petrositis
 - Facial paralysis
 - Labyrinthitis
 - Bezold abscess
 - Zygomatic abscess.
- **Intra cranial**
 - Extra dural abscess
 - Subdural abscess
 - Meningitis
 - Brain abscess
 - Lateral sinus thrombophlebitis
 - Otitic hydrocephalus

Management

- Conservative Therapy: Periodic cleaning of ear by local suction (Aural toilet).
- To keep the affected ear dry. (prevent water from getting into the ear)
- Dry mopping of the ear with a clean cotton wick

- Not to put oil or any other drops in the ear
- Do not to put any eardrops.

Intervention at HWC

Medicines	Indications
Calcarea carbonica	Scrofulous inflammation with mucopurulent otorrhea and enlarged glands. Perversion of hearing, hardness of hearing. Desire for eggs and indigestible things, sweets aversion to meat and milk; fearful, shy, timid, slow and sluggish; feels better when constipated.
Causticum	Ringling, roaring, pulsating noises with deafness; words and steps re-echo; chronic otitis media; Accumulation of ear wax. Chilly patient. Burning, rawness and soreness are characteristic. Intensely sympathetic. Paralysis of single part. Aversion to sweets. Better damp, wet, weather.
Capsicum annuum	Burning, stinging in ears, swelling and pain behind the ears; Inflammation of mastoid; tenderness over the petrous bone extremely sore and tender to touch (Caries); otorrhea and mastoid disease before suppuration. Burning and smarting sensation, as from cayenne pepper. General uncleanliness of the body. Marked thirst; but drinking causes shuddering. Worse open air, uncovering.
Hepar sulphuris calcareum	Discharges of fetid pus from the ears (Otorrhea); whizzing and throbbing in ears, with hardness of hearing (Tinnitus); mastoiditis. Extremely chilly patient; hypersensitive (to cold, pain), Faints easily; scrawny; Glandular constitution; Profuse sweat; Irritable; difficult to please, slow to act.
Kali bichromicum	Swollen, with tearing pains (Otitis); thick, yellow, stringy, fetid discharges (Otorrhea); perforation of the septum; sharp stitches in the left ear; aversion and intolerance to meat, desires sour things. Worse from cold, open air, hot weather Better from motion, pressure.
Lycopodium clavatum	Thick yellow offensive discharges, otorrhea and deafness with or without tinnitus; humming and roaring with hardness of hearing; Every noise causes a peculiar echo in the ear. Right sided complaints or symptoms shifts from right to left ; desire for warm foods and drinks , sweet; dominating, cranky, lack of self- confidence, precocious.
Mercurius solubilis	Thick, yellow discharges, fetid, bloody (otorrhea); otalgia, worse warmth of bed; at night. Sticking pain. Sensitive to changes of temperature Profuse offensive perspiration Tongue flabby with imprint of teeth. Increased salivation Increased thirst for large quantity of water. Worse at night, in wet damp weather.
Psorinum	Raw, red, oozing scabs around the ears; sore pain behind the ears; chronic otorrhea; Very fetid pus from ears, brownish, offensive. Extremely chilly patient, wants to cover even in hottest summer weather; pale, delicate, sickly; scanty perspiration; offensive discharges; wakes up at night. Feeling hungry; anxious, fearful, child is good all day while restless and troublesome at night.
Pulsatilla nigricans	Sensation as if something was being forced outward; hearing difficult, as if the ear were stuffed; otorrhea. Thick, bland discharge; offensive odor. Catarrhal Otitis. Otalgia, worse at night. Diminished acuteness of hearing. desire for company, mild, gentle, affectionate, yielding, weeping disposition.
Silicea terra	Fetid discharge (Otorrhea); caries in the mastoid; Loud-pistol-like retort. Sensitive to noise. Roaring in ears (tinnitus). Obstinate, head strong, cries when spoken kindly to, nervous, apprehensive, Oversensitive, irritable and fearful. Prone to upper respiratory tract infections. Highly chilly.
Sulphur	Buzzing in ears (tinnitus). Bed effects from the suppression of Otorrhea. Deafness, preceded by exceedingly sensitive hearing; Catarrhal deafness. Desires sweets, sugar, meat; when the best selected remedy fails to improve.

Medicines	Indications
Thuja occidentalis	Chronic otitis; discharge purulent (Otorrhea). Creaking when swallowing. Polypi. Complaints worse from cold, warm air & damp; damp humid atmosphere and chronic complaints better during a cold.
Tuberculinum	Persistent offensive otorrhea. Perforation of tympanum with ragged edges. Mentally deficient children. Very sensitive, mentally and physically. General exhaustion. Nervous weakness.

Referral

- Persistent severe headache
- Projectile vomiting
- Vertigo
- Facial nerve paralysis
- Marked Hearing impairment
- A listless child refusing to take feeds and easily going to sleep (Extra dural abscess).
- Fever, nausea and vomiting indicate Intra cranial infection.
- Irritability and neck rigidity suspects Meningitis.
- Diploia (Gradenigo syndrome) petrositis.
- If there is postauricular swelling or tenderness presents its suggesting Mastoiditis.

11.2.3 Impacted wax

Wax is the natural secretion of the ceruminous glands and sebaceous glands in the cartilaginous part of the external auditory canal. Under normal circumstances it occurs as fine flakes which fall off while chewing.

Predisposing factors:

Cerumin may accumulate in the ear due to variation in the chemical composition, defective shape of external auditory canal, improper self-cleaning, dust, etc.

Signs and symptoms

- Hearing impaired or reduced
- pain in the ear
- A ringing in the ear (tinnitus)
- Itching of the ear
- Ear wax build-up on otoscopy
- Vertigo
- Wax is seen as brownish black or yellowish mass filling the external auditory canal partially or totally.

Complications

- Infections
- Hearing impairment

Management

- Removal of impacted wax by syringing or instrumentation (softening)
- Medical treatment if necessary

Prevention

- Do not put or clean ear using hair pin, safety pin, pen, pencils; which people use often.
- Earwax blockage can often be prevented by avoiding the use of cotton-tipped swabs or Q-tips and other objects that push the wax deeper into the ear canal.
- Avoid overcleaning your ears, as this can lead to irritation in the ear canal, ear infection, and earwax build up.
- Seek medical attention if you are experiencing ear pain, ear fullness, or hearing loss and you are unsure whether these symptoms are caused by earwax buildup. Ear drainage or bleeding may signal other problems.

Intervention at HWC

Local: Mullein oil (locally, for earache and dry, scaly condition of meatus).

Medicines	Indications
Verbascum thapsus (mullein)	Otalgia, with a sense of obstruction. Deafness. Dry, scaly condition of meatus (use locally).
Pulsatilla nigricans	Hearing difficult, as if the ear were stuffed. Mucous membranes are all affected. Discharges thick, bland, and yellowish-green mild, gentle, yielding disposition. Sad, crying readily; weeps when talking; changeable, contradictory. The patient seeks the open air; always feels better there.
Graphites	Dryness of inner ear. Hears better in noise. Hardness of hearing. Hissing in the ears. Detonation in ear like report of a gun. Thin, white, scaly membrane covering membrane tympani, like exfoliated epithelium; fat, chilly, and costive, take cold easily. Children impudent, teasing, laugh at reprimands.

Referral

- Symptoms causing significant morbidity, including hearing loss and pain.
- Severe spinning sensation, loss of balance, or inability to walk.
- Persistent vomiting or high fever.

11.2.4 Rhinitis

Rhinitis is the inflammation of the mucous membrane lining of the nose, characterized by nasal congestion, rhinorrhea, sneezing, itching of the nose, and postnasal drainage. Sometimes, rhinitis can be a prodromal symptom of other diseases/infections like measles, coronavirus infection, influenza etc.

Causes

Acute rhitis is primarily viral followed by a secondary bacterial infection. Chronic rhitis can be infective or allergic.

- Infection
 - o Viral
 - o Bacterial
 - o Fungal
- Predisposing factors
 - o Allergy
 - o Polluting environment e.g. Dust, fumes

- o Overuse of nasal decongestants (Rhinitis medicamentosa)
- o Hormone imbalance: e.g. During pregnancy, puberty, Hormone Replacement Therapy (HRT), hormonal contraception.

Symptoms

- Runny or stuffy nose
- Congestion of nose
- Watery eyes
- Itchy or sore throat
- Slight body ache
- mild headache
- Low grade fever
- Sneezing
- Nasopharyngeal discomfort
- Sensation of nasal obstruction
- Allergic rhinitis presents with a triad of symptoms; sensation of nasal obstruction, sneezing and watery running
- Loss of smell

Complications

1. Otitis media
2. Sinusitis
3. Pharyngitis
4. Tonsillitis
5. laryngitis
6. Laryngotracheobronchitis
7. Bronchitis
8. Pneumonia

Prevention

- Always wash your hands; after nose wiping, after diapering or 'toileting, before eating and preparing food.
- Always use a tissue/handkerchief while sneezing and coughing to avoid spreading infection through droplet.
- Follow respiratory etiquettes.

Management

- Take adequate rest.
- Drink lots of fluids.
- Steam inhalation will help to reduce nasal congestion.
- Keep the body warm and avoid drafts of air.
- Avoid further exposure to cold weather or taking cold food.
- For allergic rhinitis avoiding exposure to pollen is the best way to decrease allergic symptoms.
- Other environmental irritants such as insect sprays, dust, tobacco, smoke, air pollution, and fresh tar or paint should be avoided.

Intervention at HWC

Medicines	Indications
Allium cepa	Cold begins from right side and travels to left. Nasal discharges watery, copious, acrid and excoriates upper lip with bland lachrymation. Constant sneezing on entering warm room. Burning sensation in eyes as from smoke, must rub them.
Euphrasia officinalis	Profuse acrid lachrymation but bland coryza. Margins of eyelids red, swollen and burning. Frequent inclination to blink.
Nux vomica	Coryza fluent in morning or day; stuffed up at night and outdoors or alternates between nostrils; crawling and tickling inside the nose which causes sneezing. Acrid discharge, but with stuffed up feeling.
Dulcamara	Every time the cold it settles in eyes; thick, yellow discharge; granular lids. Hay-fever; profuse, watery discharge, worse in open air. Dry coryza renewed by slightest exposure to cold, summer colds. Running of nose, sneezing and nasal obstruction, crawling and tickling inside the nose.
Pulsatilla nigricans	Stoppage of nose in the evening; thick discharge in the morning and thin discharge in the evening; Nasal discharges are bland and never irritating. Coryza with nasal discharge thick, mucopurulent, yellowish or yellowish-green; large green fetid scales in the nose; loss of taste and smell.
Hepar sulphuris calcareum	Soreness of nostrils, with catarrhal troubles. Sneezes every time he goes into a cold, dry wind, with running from nose, later, thick, offensive discharge. Nose stopped up every time he goes out into cold air. Smell like old cheese.
Mercurius solubilis	Coryza, with sneezing; sore, raw, smarting sensation; worse, damp weather; Sneezing in sunshine. Profuse, fluent acrid coryza; discharges are too thick to run down the lip worse warm rom Discharge watery yellowish, acrid, nasal blockage.
Kali bichromicum	Coryza with obstruction of nose. Violent sneezing worse in early morning .Profuse, watery nasal discharge. Purulent stringy discharge. Ripened cold.
Arsenicum album	An excellent remedy for 'winter colds'. Thin, watery and irritating discharge from nose. tuffed nose with frequent sneezing. Sneezing without relief. Worse in open air.
Sabadilla	Coryza, with severe frontal pains, redness of eyes and lachrymation. Copious, watery, nasal discharge. Spasmodic sneezing, with running nose.
Arsenicum iodatum	Ailments in dry and cold weather; worse from tobacco smoke; better in open air. Continuous profuse, irritating and corrosive discharges. Marked itching and burning in nose. Irritation and tingling in nose with constant desire to sneeze, which aggravates. Thin, watery, irritating and excoriating discharges from anterior and posterior nares.
Kali iodatum	Profuse, acrid, hot, watery, thin discharge. Sneezing. Nasal catarrh, involves frontal sinus. Aggravation during night, damp, warmth, warm room.

Referral

- Bloody, purulent discharge, pain and nasal blockage.
- Respiratory distress
- High grade fever

11.2.5 Epistaxis

It is a bleeding from the nose, either spontaneous or induced by nose picking or trauma. It commonly occurs when blood vessels inside the nostrils are ruptured either by a blow to the nose

or as a result of sneezing, picking or blowing the nose or due to high blood pressure. Infections like cold or flu makes the blood vessels in the nose more fragile causing bleeding sometimes.

Causes

- Local (trauma, inflammation, foreign bodies, tumours of the nose and rhinopharynx, Iatrogenic).
- Systemic (cardiovascular diseases, bleeding disorder, liver diseases, kidney diseases, febrile diseases).
- *Idiopathic* (unknown)

Signs and symptoms

- Blood coming from the nose or the rhinopharynx (bleeding occurring from one or both nostrils, usually from only one nostril. If the bleeding is heavy enough, the blood can fill up the nostril on the affected side, spilling into the other nostril to cause bleeding from both sides).
- Headache
- Dizziness
- Light headedness, confusion and fainting.
- If the patient has history of hypertension bleeding from other parts of the body, such as bleeding gums when brushing teeth blood in urine.

Investigations

- Full blood count
- Clotting profile
- Nasal endoscopy
- Other investigations requested based on general examination findings.

Complications

- Hypovolemic shock
- Anaemia

Management

- Clean blood clots from the nose.
- Application of cold compresses on the nose.
- Proper Anterior nasal packing.
- Combining posterior and anterior nasal packing.
- Try to breathe through mouth.
- Press the nose just below the bridge.
- Sit with head held well forward. Do not let the head tip back; blood may run down into the throat and induce vomiting.
- Do not try to speak, swallow, cough, spit, or sniff.
- Use a clean cloth or tissue to mop up dribble, or spit it into a bowl.
- Once the bleeding is under control, while still leaning forward, gently clean the area around the nose and mouth with lukewarm water.
- Rest quietly for a few hours and avoid exertion and, in particular do not blow nose as this may disturb clotting or dislodge a clot causing fresh bleeding.

Prevention

- Avoid picking the nose, or inserting foreign objects into the nose.
- Keep the inside of nose moist.
- Avoid exposure to smoke.
- Avoid unnecessary use of cold and allergy medications .

Intervention at HWC

Medicines	Indications
Arnica montana	Bleeding from nose following a injury.
Hamamelis virginiana	Bleeding from nose profuse; flow passive, non-coagulable, with tightness in bridge of nose. Bad odor from nose.
Millefolium	Nose bleed. Piercing pain from eyes to root of nose.
Ferrum phosphoricum	Recurrent epistaxis without any cause.
Bryonia alba	Bleeding from nose due to change of weather, dryness of nose with increased thirst.

Referral

- Persistent, acute epistaxis for 30-60+ minutes without slowing.
- Epistaxis associated with hypertension.
- Concern for large intra-nasal mass as source of bleeding, visible on nasal exam.
- Concerning accompanying symptoms: nasal obstruction, cranial nerve deficits, anosmia, and/or foul smell in the nose.
- Recurrent unilateral or bilateral epistaxis in adolescent males.
- Patients with known risk factors (poorly controlled HTN, anti-platelet therapy, nightly or continuous nasal canula or CPAP, renal or liver failure, leukemia.
- Epistaxis increasing in frequency and severity (multiple episodes a week, a day, etc., interfering with school/work).

11.2.6 Sinusitis

Sinusitis is inflammation of the paranasal sinuses due to viral, bacterial, or fungal infections or allergic origin. Paranasal sinuses are aerated cavities in bones of skull that develop as out pouches of nasal cavity and communicates with this cavity throughout life.

Causes

- Chronic recurrent rhinitis gives rise to chronic sinusitis
- Rhinitis (most common cause) / allergic rhinitis
- Trauma with open sinuses
- Abscess and tooth extraction
- Infections (bacterial, viral, fungal)
- Common predisposing factors include chemical irritants, nasal polyp, deviation of nasal septum, perfumes or paint fumes, and changes in the weather.

Time scale for sinusitis:

- Acute: <4 weeks, Sub acute: 4-12 weeks, Chronic: >12 weeks

Signs and symptoms

Acute

- Symptoms of common cold persist more than 10 days.
- Facial pain on pressure is felt depending on sinus involved, Maxillary sinus pain is often perceived as being located in cheek or upper teeth. Ethmoid sinus pain is perceived between the eyes or in retro orbital region. Frontal sinus pain is perceived above the eyebrow. Sphenoid sinus pain is felt in the upper half of the face or retro orbital radiating to occiput.
- Purulent nasal discharge or postnasal drainage.
- Coughing
- Sinus pain worsens when patient bends over or is supine
- Fever
- Bad breath.

Chronic

- Symptoms of respiratory infection persisting for more than 3 months.
- Constant sinus pressure and tenderness.
- Nasal congestion or obstruction.
- Difficulty in breathing through nose.
- Postnasal drainage, especially in morning.

Temperature of more than 38°C (100.5°F) is rare and may signify a superimposed acute bacterial infection with change in nasal discharge (to thick and green).

Complications

- Local: Osteomyelitis
- Orbital: Orbital cellulitis, orbital abscess
- Intra-Cranial: Meningitis, brain abscess, Thrombophlebitis of cavernous sinus
- Systemic: Septicemia

Investigations

- X-ray of sinuses (Water's view or Caldwell's view) – May show opacification of sinus with or without air-fluid level.
- CT Scan (If complications are suspected)
- Trans illumination of the sinuses: press a light source against the patient's upper cheek, close to the nose. Ask the patient to open his mouth widely and look at his palate to see red spot of light passing through in normal sinuses. No red dot or light would be seen if sinuses are blocked.

Management

Preventive measures

- Early treatment of upper respiratory tract infections.
- Maintain strict hand washing habits and avoid people who are suffering from a cold.
- Stress reduction and a diet rich in multivitamins especially fresh, dark-colored fruits and vegetables, may help strengthen the immune system.
- If a sinus infection is caused by seasonal or environmental allergies, avoiding allergens is very important.

- Avoid spending long periods outdoors during allergy season.
- Maintain good sinus hygiene by drinking plenty of fluids to keep nasal secretions thin.
- Inhaling steam from a bowl of boiling water or in a hot, steamy shower may also help.
- Avoid second hand smoke
- Stop smoking

Local

- Apply warm facial packs to relieve discomfort.
- Steam inhalation install a humidifier in the room to keep the air moist and clean,
- Drink plenty of fluids to help dilute nasal secretions, avoid bending over as it may increase facial pain.
- Sometimes, Antral Wash is also needed to dislodge sticky discharge.

Intervention at HWC

Medicines	Indications
Belladonna	Ailments from exposure to cold wind. Right-sided complaints. Throbbing frontal right-side headache with congestion of face characterized by sudden, violent effects, bright redness, burning heat, throbbing pains, appear and disappear suddenly. Coryza; mucus mixed with blood.
Pulsatilla nigricans	Maxillary, frontal and fronto-maxillary sinusitis. Thick, bland, yellowish green discharge; Bad smell as of old catarrh with anosmia. Wandering stitching pain around head, pain extends to face and teeth. Pressing pain at root of nose. Worse when lying down and in a warm room, relief open air. Hot patient; Marked changeability of symptoms; aversion to fatty foods, warm foods and drinks, dislikes butter; thirstless with great dryness of mouth.
Hepar sulphuris calcareum	Sinusitis of allergic origin; sensitive to cold. Acute sinusitis (frontal / fronto-maxillary) becoming chronic with the passage of time. Allergic rhinitis, sneezing culminating into sinusitis. Patient worse in dry, cold air, better in damp weather. Extremely chilly patient; hypersensitive (to cold, pain), faints easily; scrawny; glandular constitution; sweats easily; slow to act; irritable; difficult to please.
Natrum muriaticum	Left sided headache, as if bursting, with red face. Catarrhal headache better by pressure. Headache from sunrise to sunset, better by perspiration. Hot patient; poorly nourished, great emaciation (marked on neck); losing flesh while living well; craving for salt; aversion to bread and fatty things; constipated, increased thirst; mapped tongue with red insular patches; melancholic; sad, plays alone.
Kali bichromicum	Pain in forehead over eyebrows and at root of nose, aggravated from touch. Semi lateral headache in small spots from suppressed catarrh. Tough, ropy and greenish mucus nasal discharge or discharge of plugs and clinkers. Headache worse from cold, when walking, stooping and in morning better by applying pressure. Chilly patient; susceptible to cold; fat, chubby, short necked; intolerance to meat, desires sour things; indolent, indifferent to intolerance to meat, desires sour things; aversion to mental and physical labor.
Lachesis mutus	Left sided chronic maxillary sinusitis, nasal obstruction causing choking at night. Highly offensive muco-purulent nasal discharge from left nostril. Sometimes discharge is blood stained. Hot patient; thin and emaciated; hemorrhagic diathesis; great sensitiveness to touch; hot flushes and perspiration; all complaints worse after sleep; loquacious, jumps from one idea to another, jealous, suspicious, indolent.

Medicines	Indications
Mercurius solubilis	Nostrils raw, ulcerated due to acrid coryza; catarrhal headache with much heat in the head; Pressure in forehead and pain in bone beneath eyebrows, even to touch. Discharges yellow-green, foetid, pus-like discharges; worse at night, in wet damp weather; Sensitive to changes of temperature; lax musculature; profuse offensive perspiration; tongue flabby with imprint of teeth, increased salivation; weak memory, fearful, shy, hurried, violent, impulsive, nervous, irresolute.
Silicea terra	Chronic sinusitis, lasting several months after every cold. Headache: pain starts from nape of neck to vertex, settles over one eye, especially right; worse from draft of air, uncovering head, better from pressure, wrapping up warmly and profuse urination. Extremely chilly patient; all symptoms worse by cold except stomach complaints, which are ameliorated; Profuse, offensive discharges; sweats profusely especially on feet.
Spigelia	Left sided headache from morning until sunset. Copious offensive mucus from posterior nares, drops into throat, causing choking at night). Sharp, stabbing, sticking pains through eyeballs back into the head; from cold, damp, rainy weather.
Tuberculinum	Headache: chronic, pain intense, sharp, cutting, from above right eye to occiput; as of an iron hoop round the head; when the best selected remedy only palliates. Takes cold easily; light complexion; tall, slim, fat, narrow-chested; active and precocious mentally but weak physically.
Hydrastis canadensis	Coryza, often leads to sinusitis. Thick, ropy or stringy, yellow discharges. Post-nasal catarrh. Dull pressing frontal pain associated with constipation. Weak, debilitated children; prone to viscid, mucous discharges; aversion and intolerance to vegetables; desires egg.
Sticta pulmonaria	Dull headache with dull heavy pressure in forehead specifically at root of nose. Catarrhal headache before discharge appears, accompanied with burning and soreness of the eyeball. Sensation of fullness at the root of the nose. Dry scabs in nose especially in evening and at night. Dryness of all mucous membranes; Sensitive to sudden; changes of temperature.

Referral

- Nasal bleeding
- Diplopia or proptosis
- Maxillary paraesthesia
- Orbital swelling or erythema
- Suspicion of intracranial or intraorbital complications
- Immunocompromised patient
- Fever, mastoiditis

11.2.7 Tonsillitis

Tonsillitis refers to the inflammation of the palatine tonsils, which are lymph glands on either side located in the back of the throat and visible through the mouth. The tonsils are the part of the immune system, which protect and help body to fight against infections.

Causes

- Bacterial infection (Haemolytic streptococcus staphylococci, streptococcus pneumonia)
- Viral infection (adenovirus, Rhinovirus, Influenza virus, RSV, Epstein-Barr virus, Herpes simplex virus, Cytomegalovirus, and the measles virus.)
- Fungal infection

Clinical presentation

- Severe sore throat
- Pain in throat
- Red, swollen tonsils
- Difficulty in swallowing
- A white or yellow coating on the tonsils
- Swollen glands in the neck
- Malaise (myalgia, chill, fever)
- Fever
- Headache
- Coughing
- Bad breath
- Throat pain extending to ear
- Anorexia
- Bad taste in mouth
- Voice change

Examination

- Erythematous pharyngeal mucosa, swollen and red tonsils, with yellow spots, malodorous breath.
- In some cases tonsils touch each other in the midline (kissing tonsils).
- Enlargement of jugulodigastric lymph nodes is a reliable sign of chronic tonsillitis during acute attacks the nodes enlarge further and become tender.

Complications

- Middle ear infections
- Peritonsillar abscess (quinsy)
- Abscess of the pharynx
- Rheumatic fever
- Acute glomerulonephritis
- Septicemia
- Bronchitis or pneumonia
- Rheumatic heart disease
- Septic arthritis

Management

Prevention

- Wash hands often, especially before touching nose or mouth.
- Avoid sharing food, drink, or utensils with someone who is sick.
- Replace toothbrush regularly.
- Avoid prolonged contact with anyone who has throat infection.
- Avoid food colours and food preservatives, cold drinks and cold foods.

General

- Rest in a quiet, warm place.
- Ensure enough fluid intake.

- Give soft non-spicy diet.
- Warm liquids to soothe the throat.
- Gargles with salt in warm water.
- Avoid smoking and exposure to second-hand smoke, even vaping should be discouraged.
- Avoid gutkha and paan masala, alcohol intake.

Intervention at HWC

Medicines	Indications
Belladonna	Tonsils enlarged; throat feels constricted; difficult deglutition; worse, liquids. Sensation of a lump. Oesophagus dry; feels contracted. Spasms in throat. Continual inclination to swallow.
Mercurius solubilis	Constant desire to swallow. Pain worse right side, night. Ulcers and inflammation appearing at every change in weather. Sore, raw, smarting, burning throat. Tonsillitis with profuse offensive saliva; tongue large, flabby with imprint of teeth; mapped tongue
Hepar sulphuris calcareum	Stitches in throat extending to the ear when swallowing. Hawking up of mucus. Sensation of a splinter, fish bone or plug in the throat; quinsy, when suppuration threatens; chronic hyper trophy, with hardness of hearing; better warm water worse in the morning
Mercurius iodatus flavus	Throat affections, with greatly swollen glands and characteristic coating of tongue. Worse, right side.
Mercurius iodatus ruber	Fauces dark red; swallowing painful. Phlegm in nose and throat. Disposition to hawk, with sensation of a lump in throat.
Lac caninum	Sensitive to touch. Painful swallowing; pain extends to ears. Sore throat and cough with menstruation. Tonsillitis and diphtheria symptoms change repeatedly from side to side. Shining glazed appearance of deposit, pearly-white. Worse, morning of one day and in the evening of next. Better, cold, cold drinks

Referral

- High grade fever not responding to treatment.
- Suspected neoplasm - ulceration, or recurrent unilateral enlargement, particularly with associated cervical lymphadenopathy.
- Acute episode unable to tolerate fluids / non-resolution despite optimal medical management.
- Noisy breathing / breathing difficulty / voice change / severe odynophagia.
- Obstructive sleep apnoea.
- Peri tonsillar abscess.

11.2.8 Pharyngitis

Definition

It is inflammation of the mucous membrane lining the pharynx.

Causes

- Allergic pharyngitis
- Viral infection
- Bacterial infection
- Irritation due to Gastric reflux, very cold drinks etc

- Fungal infection
- Chronic rhino-sinusitis
- Smoker's pharyngitis

Symptoms

- Sore throat (is the main complaint)
- Fever and Chills
- Headache
- Joint pain and muscle aches
- Swollen and tender sub-mandibular lymph nodes
- Oedema of uvula
- Dysphagia, painful swallowing
- Otalgia
- Malaise
- Persistent pharyngeal cough
- Dry cough
- Hoarseness

Signs

Diffuse congestion of the pharyngeal mucosa and tonsils with enlarged tender cervical lymph nodes.

Complications

- Blockage of the airway (in severe cases)
- Middle ear infections
- Peritonsillar abscess (quinsy)
- Retropharyngeal and parapharyngeal abscesses
- Rheumatic fever
- Acute glomerulonephritis
- Septicemia
- Bronchitis or pneumonia
- Rheumatic heart disease
- Septic arthritis

Preventive measures

- Avoid sharing food, drinks, and eating utensils.
- Avoid meeting individuals who are unwell with tonsillitis/ pharyngitis/ upper respiratory tract infections.
- Wash hands often, especially before eating and after coughing or sneezing.
- Avoid smoking and inhaling second-hand smoke.
- Avoid iced foods and cold drinks.

Management

- Rest
- Drink warm liquids such as lemon tea or tea with honey soups, etc.
- Drinking plenty of fluids to prevent dehydration.
- Gargling with warm salt water (1 teaspoon of salt per 8 ounces of water).

- Humidifier can be used in a room.
- Avoid smoking, passive smoking, alcohol intake.

Intervention at HWC

Medicines	Indications
Belladonna	Tonsils enlarged; throat feels constricted; difficult deglutition; worse, liquids. Sensation of a lump. Oesophagus dry; feels contracted. Spasms in throat. Continual inclination to swallow.
Hepar sulphuris calcareum	Stitches in throat extending to the ear when swallowing. Hawking up of mucus. Sensation of a splinter, fish bone or plug in the throat; quinsy, when suppuration threatens; chronic hyper trophy, with hardness of hearing; better warm water worse in the morning.
Spongia tosta	Cough, dry, barking, worse, during inspiration and before midnight. Respiration short, panting, difficult; feeling of a plug in larynx. Better after eating or drinking, especially warm drinks.
Wyethia	Follicular pharyngitis; Constant clearing and hemming. Dry, posterior nares; no relief from clearing. Throat feels swollen; difficult swallowing. Constant desire to swallow saliva. Uvula feels elongated. Itching in soft palate, patient rolls back his tongue o rub the itching spot on soft palate.

11.2.9 Adenoid hypertrophy

The adenoids, also known as the pharyngeal tonsils, are a collection of lymphoepithelial tissue in the superior aspect of the nasopharynx medial to the Eustachian tube orifices. Adenoid hypertrophy is an obstructive condition related to an increased size of the adenoids, found in children between 3 to 6 years of age. As the child grows, size of nasopharangeal tonsils diminish and they disappear by puberty. The condition can occur with or without an acute or chronic infection of the adenoids.

Causes

- Repetitive infection of the upper airway (viral and bacterial- Streptococcus pneumonia, Haemophilus influenza).
- Allergy, exposure cigarette smoke, Gastroesophageal reflex.
- Adenoids often gets smaller as the child grows and virtually disappear by the teen age)

Sign and symptoms

1. Nasal Symptoms

- Nasal obstruction (Breathing though mouth)
- Nasal discharge.
- Sinusitis.
- Epistaxis.
- Voice change.

2. Aural Symptoms

- Tubal obstruction. (Conductive hearing impairment)
- Earache
- Deafness
- Ear discharge
- Child may have recurrent attacks of acute otitis media and CSOM.

3. General symptoms

- a) *Adenoid facies*. Chronic nasal obstruction and mouth breathing lead to characteristic facial appearance called *adenoid facies*. The child has an elongated face with dull expression, open mouth, prominent and crowded upper teeth and hitched up upper lip. Nose gives a pinched appearance due to disuse atrophy of alar nasi. Hard palate in these cases is highly arched as the moulding action of the tongue on palate is lost.
- b) Headache
- c) Nocturnal cough
- d) Lack of appetite
- e) Mental dullness
- f) Aprosaxia (abnormal inability to sustain attention).
- g) Sleep Disturbances, snoring, sleep apnoea.

On Examination

- **Nose:** mucoid or mucopurulent discharge present.
- **Throat:** post-nasal discharge and in a cooperative child, posterior rhinoscopy shows enlarged mass of adenoids on the posterosuperior wall of the nasopharynx. In a long-standing case, the child presents with a typical appearance called “adenoid facies”.
- **Palpation:** cervical lymph nodes, also nuchal.

Complications

- Recurrent Otitis media with or without middle ear effusions (fluid)
- Speech problems
- Cor pulmonale
- Growth retardation
- Diabetes (Type 1 Diabetes Mellitus occurs especially in children after adenoidectomy)
- Obesity
- Recurrent purulent rhinopharyngitis

Investigation

- X-ray of rhino pharynx (lateral view)

Management

Prevention

- Eating healthy foods.
- Getting enough sleep and drinking plenty of water.
- Maintaining good hygiene.
- Breathing exercises will help.
- Bed rest if needed.
- Avoid exposing children to passive cigarette smoke.
- Avoid foods with artificial colours and flavours, cold food and drinks, sour foods.
- Do not allow sick children to spend time together.
- Wash hands frequently.

Intervention at HWC

Medicines	Indications
Baryta carbonica	Awakes with dry mouth. Catarrh of posterior nares, with frequent epistaxis. Reverberation on blowing nose.
Calcarea carbonica	Scrofulous constitutions who take cold easily with increased mucoid secretions. Stoppage of nose, with fetid, yellow discharge. Swelling of tonsils and submaxillary glands
Iodium	Adenoid vegetations. Nose stopped up; larynx feels constricted. Eustachian deafness
Tuberculinum	Persistent, offensive otorrhœa. Perforation in membrana tympani, with ragged edges. Sensation of suffocation, even with plenty of fresh air. Enlarged tonsils

Referral

- Recurrent infection
- Suspicion of peri-tonsillar abscess, neck abscess, or retropharyngeal abscess.
- Hypertrophy causing upper airway obstruction or severe dysphagia.
- Hypertrophy causing dental malocclusion or adversely affecting oro-facial growth documented by orthodontist.
- Persistent foul taste or breath due to chronic tonsillitis not responsive to medical therapy.
- Nonresponding OSA.

11.3 Section 3: Common Oral Issues

11.3.1 Dental caries

Definition

Dental caries is a microbial disease of the calcified tissues of the teeth, characterized by demineralization of the inorganic portion and destruction of the organic substance of the tooth.

Caries of teeth is one of the most common of all diseases of all oral issues. The ultimate effect of caries is to break down enamel and dentine and thus open a path for bacteria to reach the pulp. The consequences are inflammation of the pulp and, later, of the periapical tissues. Acute pulpitis and apical periodontitis caused in this way are the most common causes of toothache.

Aetiology

- *Dietary factor* – carbohydrates like monosaccharides, disaccharides or polysaccharides and the amount consumed and whether it is between meals.
- *Microorganisms* – acidogenic *Streptococcus mutans* and *Actinomyces viscosus*.
- *Systemic factors* – hereditary, pregnancy and lactation have been suggested as etiological factors for dental caries.
- *Host factor* – poor oral hygiene and improper brushing technique can lead to dental caries.
- *Immunological factor* – the functional role of circulating antibodies as protective agents against tooth decay has been demonstrated in non-human primates.

Symptoms

- Tooth ache, spontaneous pain or pain that occurs without any apparent cause.
- Tooth Sensitivity
- Mild to sharp pain when eating or drinking something sweet, hot or cold.

- Visible holes or pits in teeth.
- Brown, black or white staining on any surface of a tooth.
- Pain on biting or chewing.

Complications

- Tooth abscess
- Broken or damage teeth
- Tooth loss

Prevention

- Good oral and dental hygiene.
- Brush your teeth at least twice a day and rinse after every meal.
- Go in for a regular dental check up.
- Avoid frequent snacking and sipping.
- Eat tooth healthy foods.
- Avoid tobacco chewing.

Intervention at HWC

Medicines	Indications
Kreosotum	Very rapid decay of teeth, with spongy, bleeding gums; teeth dark and crumbly Putrid odor and bitter taste. Child wants everything but throws it away when given. Music causes weeping and palpitation. Vanishing of thought; stupid, forgetful, peevish, irritable.
Staphysagria	Carries in teeth, decay on edges, Teeth black and crumbling. Salivation, spongy gums, bleed easily. Submaxillary glands swollen. After eating feels sleepy pyorrhea. Sickly; tired; sensitive subjects; Bottled up emotions. Easily offended, apathetic indifferent.
Fluroicum acidum	Teeth feel warm. Affects teeth and bones of upper jaw. Dental fistula, with persistent bloody, salty discharge. Worse, warmth, morning, warm drinks. Better, cold. Hot patient, Child looking older than his age; Indifference towards those loved best; inability to realize responsibility; buoyancy. Mentally elated and gay.
Calcarea phosphorica	Complaints during teething; teeth develop slowly; rapid decay of teeth; sensitive to chewing and cold air. Anemic children who are peevish, flabby, have cold extremities and feeble digestion.
Mercurius solubilis	Crown of teeth decay. Teeth loose, feel tender and elongated. Sweetish metallic taste. Salivary secretions greatly increased, Saliva fetid, coppery. Speech difficult on account of trembling tongue. Sore pain on touch and from chewing. Worse, at night, wet, damp weather, lying on right side, perspiring; warm room and warm bed. Sensitive to changes of temperature, Profuse offensive perspiration, Tongue flabby with imprint of teeth, Increased salivation. Increased thirst for large quantity of water.

Referral

When patient does not respond to the initial medicine or develops complications such as tooth abscess requiring surgical intervention or complaints directing towards tooth loss.

11.3.2 Periodontitis

Periodontitis is inflammation of the periodontium i.e. the tissues that surround and support the teeth. Periodontitis is regarded as the second most common dental condition worldwide after dental decay. Periodontitis involves progressive loss of the alveolar bone around the teeth, and if left untreated, can lead to the loosening and subsequent loss of teeth.

Risk factors

- Gingivitis
- Poor oral health hygiene
- Smoking or chewing tobacco
- Older age
- Hormonal changes, such as those related to pregnancy or menopause.
- Substance abuse
- Obesity
- Vitamin C deficiency, malnutrition
- Conditions that decrease immunity like HIV
- Chronic infections, septicemia

Symptoms

- Redness or bleeding of gums while brushing teeth, using dental floss or biting into hard food. Recurrent swelling of gums .
- Gums that feel tender when touched.
- Halitosis or bad breath.
- Persistent metallic taste in the mouth.
- Painful chewing sensitive teeth, gingival recession, resulting in apparent lengthening of teeth, deep pockets between the teeth and the gums and loosening of teeth.
- New spaces developing between teeth.
- Pus between teeth and gums.

Preventive measures

- Maintaining oral hygiene
- Brushing teeth twice a day
- Flossing every day
- Eating a well balance diet
- Avoiding use of tobacco products.
- Visiting dentist regularly for check up and cleaning.

Intervention at HWC

Medicines	Indications
Kreosotum	Painful dentition; teeth begin to decay as soon as they appear; gums bluish-red, soft, spongy, bleeding, inflamed, scorbutic, ulcerated. Teeth dark and crumbly.
Mercurius solubilis	Toothache: pulsating, tearing, lacerating, shooting into face or ears; worse in damp weather or evening air, warmth of bed, from cold or warm things; better from rubbing the cheek. Crowns of teeth decay, roots remain.

Medicines	Indications
Mezereum	Toothache: in carious teeth; feel elongated, dull pain when biting on them and when touched with tongue, worse at night; better with mouth open and drawing in air; roots decay.
Thuja occidentalis	Teeth decay at the roots, crowns remain sound. Crumble, turn yellow. Toothache from tea drinking. "On blowing the nose a pressing pain in the hollow tooth or at the side of it.
Staphysagria	Toothache: during menses; sound as well as decayed teeth; painful to touch of food or drink; but not from biting or chewing; worse drawing cold air into mouth, from cold drinks and after eating. Teeth turn black, show dark streaks through them; cannot be kept clean; crumble; decay on edges.

Referral

- When patient does not respond to the initial medicine or develops complaints such as looseness of teeth, damage to alveolar bone or abscess requiring drainage and further surgical intervention.

11.3.3 Aphthous stomatitis

Aphthae are recurrent mouth ulcers which typically start in childhood, have a natural history to improve with age and are not associated with systemic disease.

- Prevalence (approximate): 25–60% of the population.
- Age: Children and young adults.
- Gender: Female > Male.

Risk Factors

- Malocclusion
- Genetic predisposition (family history and weak HLA association)
- Immunological dysregulation (cross-reacting antigens, Heat shock Proteins, Cell-mediated immune mechanisms)
- Stress
- Trauma
- Various foods (nuts, chocolate, potato crisps)
- Tobacco smoking & chewing
- Betel chewing
- Low serum iron/ferritin
- Vitamin B deficiency

Symptoms

- **Oral:** Aphthae typically start in childhood or adolescence, are multiple, are ovoid or round, recur, have a yellowish depressed floor, have a pronounced red inflammatory halo.
- **Minor aphthae (Mikulicz's aphthae):** small, 2–4 mm in diameter, last 7–10 days, tend not to be seen on gingiva, palate or dorsum of tongue, heal with no obvious scarring. Most patients develop not more than six ulcers at any single episode.
- **Major aphthae (Sutton's ulcers):** can exceed 1 cm in diameter, are most common on the palate, fauces and lips, can take months to heal, may leave scars on healing. At any one episode, there are usually fewer than six ulcers present.

- **Herpetiform ulcers:** start as multiple pinpoint aphthae, enlarge and fuse to produce irregular ulcers, can be seen on any mucosa, but especially on the tongue ventrum.
- **Extraoral:** The presence of extraoral manifestations means there is another diagnosis.

Management

Treatment aims are to:

- Reduce pain
- Reduce ulcer duration
- Increase disease-free intervals
- Predisposing factors should be corrected. If there is an obvious relationship to certain foods, the causal food should be excluded from the diet.
- Good oral hygiene should be maintained.

Intervention at HWC

Medicines	Indications
Aethusa cynapium	Dry aphthae, tongue seems too long. Burning pustules in throat, with difficult swallowing. Hot patient, weakness, exhausted, thirstless, cold and clammy skin, intolerance to milk; restless, anxious, great crying; idiocy. Complaints of children during dentition and summer.
Arsenicum album	Ulceration of mouth with dryness and burning heat. Stitching and burning pain in tongue, ulcerated with blue color. Metallic taste; worse mignight, better warmth. Chilly patient; rapid disproportionate prostration; burning pains better by heat; anxiety, anguish, fear for death and restlessness.
Borax veneta	Aphthae in the mouth, on the tongue, inside of the cheek; easily bleeding when eating or touched; prevents child from nursing; with hot mouth, dryness and thirst. Cracked and bleeding tongue, salivation, especially during dentition. Worse from touch; eating salty or sour food; of old people, often from plate of teeth. Poorly nourished babies dread of downward motion in nearly all complaints; nervous, frightened, sensitive to sudden noises, cries out of sleep as if frightened, awakes suddenly dreaming and grasping sides of bed without apparent cause.
Hepar sulphuris cumcarcum	Gums and mouth painful to touch and bleed readily. The tip of the tongue is very painful and feels sore. Ulcers of the soft palate that eat away the uvula. Offensive breath. Aphthous pustules inside lips and cheeks. Worse cold wind, weather ; better warmth.
Kali bichromicum	Dry; viscid saliva, sticky mouth. Tongue broad, flat, indented, thickly coated. Aphthous ulcers deeply corroding. More adapted to subacute rather than the violent acute stage. Chilly patient, susceptible to cold, fat, chubby, short necked with shifting pains. Aversion and intolerance to meat, desires sour things, beer and acids. Worse morning. Better from heat.
Kali muriaticum	White ulcers in the mouth. Tongue mapped; gray or white at base. Taste; salty, bitter with coldness of tongue. Chilly patient, catarrhal condition, milky white, viscid, sticky, thick, slimy or lumpy discharges. Worse, rich food, fats.
Mercurius solubilis	Tongue large, flabby, shows imprint of teeth; painful, with ulcers; red or white. Intense thirst, although the tongue looks moist and the saliva is profuse. Fetid odor from mouth, can smell it all over room. Great thirst, with moist mouth. Sensitive to changes of temperature. Profuse offensive perspiration. Increased salivation. Increased thirst for large quantity of water. Worse at night, in wet damp weather.

Medicines	Indications
Nitricum acidum	Ulcers in soft palate, with sharp, splinter-like pains. Salivation and fetor oris. Bloody saliva. Tongue clean, red and wet with center furrow. Chilly patient; takes cold easily; thin built; sickly; desires fat, craving for lime, slate, pencil, papers and charcoal. and salt; disposed to diarrhea; strong smelling urine; headstrong, irritable, fearful, vindictive.
Sulphuricum acidum	Aphthae; gums bleed readily. It is frequently indicated remedy for nursing sore mouth. The aphthous mouth of infant or mother with yellowish or whitish ulcers. Rapidly spreading ulcers in the mouth. Chilly patient; right sided complaints; pain appears and disappears suddenly; remedy for chronic alcoholism; craving for brandy and alcohol; cannot drink water until mixed with alcohol; alcoholic dyspepsia; hurried tendency; dissatisfied, peevish.

Referral

- Any suggestion of systemic disease from extraoral features (genital, skin or ocular lesions, gastrointestinal complaints (e.g. pain, altered bowel habits, bloodinfeces)
- Weight loss
- High fever
- Lymphadenopathy
- Hepatomegaly
- Splenomegaly
- Candidiasis (including angular stomatitis)
- Glossitis
- Purpura or gingival bleeding
- Gingival swelling
- Necrotizing gingivitis
- Herpetic lesions
- Hairy leukoplakia
- Kaposi sarcoma.

GERIATRIC AND PALLIATIVE CARE

12.1 Introduction

Geriatrics is the branch of medicine concerned with the medical problems and care of the aged. [Geras=old age + iatrikas=healing]. The speciality of geriatric medicine is defined less in terms of the diseases it treats than in the range of responsibility it accepts. This responsibility embraces preventive care, health promotion, and diagnosis and treatment of acute illness followed by rehabilitation and resettlement of patients in the community. Ageing, in the sense of senescence, is a progressive loss of adaptability of an individual as time passes. As individuals, we age at different rates and with different patterns. Primary ageing is the product of interactions between intrinsic, genetically determined factors and extrinsic factors in lifestyle and environment. Based on the physical capacity to work, the old are placed in three categories:

- o Recent old who are still active and undertake normal activities without support.
- o Old who work with difficulty and hence have reduced activities.
- o Very old who work with difficulty in home or cannot work at all.

Older age group categories

Category	Age Group (years)
Elderly (Older persons)	65+ (sometimes 60+)
Oldest-old	80+

12.2 Common diseases of Geriatrics

Organ System	Ailments
Cardiovascular system	Myocardial Infarction, Hypertension, Congestive Cardiac Failure.
Respiratory system	Bronchial Asthma, Chronic Bronchitis, Snoring, COPD, Pneumonia, Acute bronchitis.
Musculoskeletal system	Osteoarthritis with joint deformities and reduced flexibility, Osteoporosis, Muscle weakness/ spasm, Fractures esp. colle's fracture and hip bone fracture (neck of femur).
Gastro-Intestinal system	Dyspepsia, flatulence, Constipation, hernias.
Genito-Urinary system	Chronic balanitis and penile cancer, Prostate enlargement, Cancer of prostate, Bladder incontinence.
Endocrinal system	Diabetes Mellitus
Nervous system	Stroke, Senile Dementia, Parkinson's Disease, Depression, Insomnia.
Skin and its appendages	Skin dryness, Hair loss & baldness.

Others	Ophthalmic	Senile Cataract, Presbyopia (refractive error), Dry eye syndrome, Glaucoma, Age related Macular Degeneration (ARMD).
	Auditory	Impaired/ Loss of hearing (presbycusis).
	Cancer	Prostatic Cancer, Lung Cancer, Colon Cancer, Breast Cancer.
	Gynecological	Pelvic organ prolapse, Malignancies, Dry vagina.
Others	Dental problems	Loss of teeth, inability to chew which are potent cause of nutritional deficiencies, gastric problems.

12.3 General principles of geriatric care

The following principles are helpful to keep in mind while caring for older adults:

- o Many disorders are multifactorial in origin.
- o Diseases often present atypically.
- o Not all abnormalities require evaluation and treatment.
- o Complex medication regimens, adherence problems, medication dependence, and polypharmacy are common challenges.
- o Multiple chronic conditions often coexist and should be managed in concert with one another.

Risk of many malignancies increases with age. Multimorbidities are common and many old age persons are on multiple medications. Risk of fall and accidents is greater in old age due to joint deformities, lack of balance, multimorbidity conditions and medication use, further compromising old age functioning.

Geriatric care, therefore, encompasses an estimate of potential risk or mortality and increasing morbidity in the aged person and a holistic treatment approach taking into consideration multiple medication use.

12.4 Screening in Older Persons

- o Osteoporosis: Bone mineral density (BMD) at least once after the age of 65 years. There is little evidence that regular monitoring of BMD improves the prediction of fractures. However, because of limitations in the precision of DEXA the minimal interval between evaluations should be 2-3 years.
- o Hypertension: Blood pressure at least once a year, more often in patients with hypertension.
- o Diabetes: Serum glucose and hemoglobin A1C every 3 years, more often in patients who are obese or hypertensive.
- o Lipid disorders: Lipid panel every 5 years, more often in patients with diabetes or any cardiovascular disease.
- o Colorectal cancer: Fecal occult blood test, sigmoidoscopy or colonoscopy, regular schedule up to age 75 years. No consensus guidelines after age 75 years.
- o Breast cancer: Mammography every 2 years between ages 50 and 74 years. No consensus guidelines after age 75 years.
- o Cervical cancer: Pap smear every 3 years up to age 65 years.
- o PSA in elderly males, if symptoms of prostate enlargement are found.

12.5 Exercise

In older adults, increased physical activity improves physical function, muscle strength, mood, sleep, and metabolic risk profile. Regular, moderate-intensity exercise can reduce the rate of age-associated decline in physical function. Older persons should have at least 150 min per week of moderate-intensity aerobic activity (such as brisk walking) and muscle-strengthening activities that work all major muscle groups (legs, hips, back, abdomen, chest, shoulders, and arms) on 2 or more days a week.

12.6 Nutrition

Basic principles of a healthy diet that are also valid for older persons are as follows:

- o Encourage consumption of fruits and vegetables; they are rich in micronutrients, mineral, and fibers. Whole grains are also a good source of fiber. Keep in mind that some of these foods are costly and thus less accessible to low-income persons.
- o Good hydration is essential. Fluid intake should be at least 1000 ml daily.
- o Encourage the use of fat-free and low-fat dairy products, legumes, poultry, and lean meats. Encourage consumption of fish at least once a week.
- o Match intake of energy (calories) to overall energy needs in order to maintain a healthy weight and body mass index (BMI 20–27). If BMI >27, implement a 5–10% calorie restriction.
- o Limit consumption of foods with high caloric density, high sugar, and high salt content (less than 6 g per day).
- o Limit the intake of foods with a high content of saturated fatty acids and cholesterol.
- o Limit alcohol consumption (1 drink per day or less).
- o Older persons who have little exposure to UVB radiation are at risk of vitamin D insufficiency. Thus, vitamin D–fortified foods and/or vitamin D supplements should be introduced in the diet.
- o Make sure that the diet includes adequate food-related intake of magnesium, vitamin A, and vitamin B12.
- o For constipation: increase dietary fiber to 10–25 g and fluid intake to 1500 ml daily.

12.7 Geriatric assessment

- The rationale of geriatric assessment is to better recognize common geriatric disorders in order to improve functional outcomes and quality of life for older adults.
- A number of simple geriatric screening instruments have been published for the purpose of increasing the detection of common geriatric conditions. Few screening instruments which are easy to use, well accepted by practitioners and relatively quick to administer are:
 - o For functional disability developed by Lachs et al.
 - o Screening instrument by Moore et al.
 - o Index of independence in ADLs.
 - o Walking speed instrument.
 - o Six minute walk test.
 - o Short Physical Performance Battery.

12.8 Management of geriatric ailments with homeopathy

Homoeopathic treatment can be useful as it fulfils all the parameters required for being an ideal system of medicine for Geriatric care. The basis of cure is the fundamental law of similars which is also the fundamental law also in the palliation of incurable states. In incurable cases, or seemingly incurable cases, we must not put a limitation on the possibilities of the similar remedy, for in many seemingly incurable conditions the simillimum will so completely meet the situation as to obliterate the symptomatology of disease and the pathology, and will restore the patient to health.

12.9 Common Geriatric ailments

The management for hypertension, diabetes, eye complaints, menopausal syndrome, cognitive impairment/dementia has been mentioned in respective chapters of non communicable diseases, eye, ENT and oral disorders and reproductive health of women, mental disorders. Few conditions which are not described elsewhere are given here:

12.9.1 Benign Prostatic Hyperplasia (BPH)

Benign Prostatic Hyperplasia (BPH) is a condition in which a non-malignant growth of the prostate gland makes urination frequent, difficult and uncomfortable. BPH rarely causes symptoms before age 40, but more than half of men in their sixties and 75% by age of 80 have some symptoms of BPH. It is a common part of ageing. Prevalence rates are 2-7% for men aged 45-49, increasing to 24% by the age of 80 years.

Symptoms

Initial symptoms of BPH include difficulty in starting to urinate and a feeling of incomplete urination. The symptoms can be understood as irritative and obstructive.

- **Irritative**
 - Increased frequency
 - Nocturnal urgency
 - Urge Incontinence
- **Obstructive**
 - Hesitancy
 - Decreased flow of urine
 - Dribbling
 - Straining
 - Feeling of incomplete emptying of bladder
 - Prolonged urination
 - Urinary retention

Assessment through IPSS score

The IPSS is made up of 7 questions related to voiding symptoms. A **score** of 0 to 7 indicates mild symptoms, 8 to 19 indicates moderate symptoms and 20 to 35 indicates severe symptoms.

	none at all	Less than 1 time in 5	Less than half the time	About half the time	More than half the time	Almost always	Your score
Incomplete emptying Over the past month, how often have you had a sensation of not emptying your bladder completely after you finish urinating?	0	1	2	3	4	5	
Frequency Over the past month, how often have you had to urinate again less than two hours after you finished urinating?	0	1	2	3	4	5	
Intermittency Over the past month, how often have you found you stopped and started again several times when you urinated?	0	1	2	3	4	5	
Urgency Over the last month, how difficult have you found it to postpone urination?	0	1	2	3	4	5	
Weak stream Over the past month, how often have you had a weak urinary stream?	0	1	2	3	4	5	
Straining Over the past month, how often have you had to push or strain to begin urination?	0	1	2	3	4	5	
	None	1 time	2 times	3 times	4 times	5 times or more	
Nocturia Over the past month, many times did you most typically get up to urinate from the time you went to bed until the time you got up in the morning?	0	1	2	3	4	5	
Add Your scores and write total in the box to the right. Total score: 0-7 Mildly symptomatic; 8-19 moderately symptomatic; 20-35 severely symptomatic							
Quality of life due to urinary symptoms	Delighted	Pleased	Mostly satisfied	Mixed: Equally satisfied / dissatisfied	Mostly dissatisfied	Unhappy	Terrible
If you were to spend the rest of your life with your urinary condition the way it is now, how would you feel about that?	0	1	2	3	4	5	6

Investigations (As per availability at HWC)

- o Per- rectum examination
- o USG: Kidney, Ureter, Bladder along with assessment of post voidal residual volume.
- o Serum Prostate specific antigen (PSA) Blood test

Management

- *Watchful waiting:* As long as the symptoms are mild and are not causing any change in the day to day activities, wait and watch approach with regular check-up is recommended. It is appropriate in patients with mild to moderate IPSS symptom score. Lifestyle alterations to manage the symptoms of BPH includes:
 - o Decreasing fluid intake before bedtime.

- o Moderating the consumption of alcohol and caffeine-containing products.
- o Following a timed voiding schedule.
- o Practicing muscle strengthening exercise: Kegel exercises (pelvic exercises).

Intervention at HWC

Medicines	Indications
Pulsatilla nigricans	Prostate enlargement with pain and tenesmus in urinating, worse lying on back. Bladder pain, worse at the need of micturition, worse if trying to retain. After micturition, spasmodic pains in the neck of the bladder, extending to pelvis and thighs. Involuntary micturition at night, while coughing or passing flatus. Prostatic troubles with small and flattened faeces. Worse night, evening, Better: open air.
Sabal serrulata	Cystitis with prostatic hypertrophy. Discharge of prostatic fluid with enlargement of the gland. Difficult urination and smarting and burning in urethra. Constant desire to pass urine at night.
Chimaphila umbellata	Prostate enlargement showing symptoms of acute prostatitis, Retention of urine and a feeling of a ball in perineum when sitting; from sitting on cold stones or pavements. Scanty urine, loaded with ropy or muco-purulent, sediment. Burning and scalding during micturition, and straining afterwards. Unable to urinate without standing with feet wide apart and body inclined forward.
Lycopodium clavatum	Hypertrophy of the prostate with pain in back before urinating which ceases after flow; flow of urine slow, must strain. Polyuria during the night. Heavy red sediment in urine.

Referral

- o Incontinence of urine
- o Recurrent urinary infection
- o Recurrent blood in the urine
- o Urinary retention
- o Suspected case of carcinoma of prostate gland / high PSA levels
- o If the size of prostate gland is on increasing
- o Complications like hydronephrosis or pyelonephrosis and signs of renal failure are observed.

12.9.2 Osteoporosis

Osteoporosis is a systemic disease, characterized by reduced bone mass and structural deterioration of bone tissue. It is considered a public health issue threatening a large portion of the population above 50 years of age and is most common in women after menopause. Fragility fractures have doubled in the last decade. 40% of all women over 50 years will suffer on osteoporotic fracture. The number of the hip fractures will rise from about 1.7 million in 1990 to 6.3 million by 2050. The symptoms described are weak and porous bones, vertigo, darkness in front of eye, cutting pain in bones and numbness etc.

Symptoms

Osteoporosis itself has no specific symptoms; in fact the first manifestation of the illness may be -

- o Hip, spine or wrist fractures
- o External rotation and shortening of the involved leg
- o Delayed fracture healing process

- o Vertebral collapses
- o Kyphosis and painless vertebral fracture

Investigations (As per the availability of HWC)

- o X-ray - Hip and wrist
- o Dual energy X-ray absorptiometry (DXA)
- o Serum Calcium, Alkaline phosphatase, Phosphate

Management

- o Patients should be counseled to quit smoking because it has been shown to decrease BMD at all skeletal sites.
- o Alcohol consumption (defined as more than four drinks per day for men or more than two drinks per day for women) is a major risk factor for fracture and should be discouraged.
- o A balanced diet consisting of vitamin D, calcium, protein, vegetables, and fruits is recommended.

Intervention at HWC

Medicines	Indications
Calcarea phosphorica	Conditions arising from poor, cellular development, frequent colds, irritability, worse: cold, wet, changeable damp, cold and draughts, warm, dry weather. Better: warm, dry weather.
Calcarea flourica	Conditions due to loss of elasticity, of connective tissue, weak bone, enamel and tendons and fear of financial ruin. Worse: on rising, first movement – cold, wet weather, Better by motion, hot applications.
Calcarea carbonica	Rheumatic pains, exposure to wet, cold knees, digestive complaints, mental dullness, increased perspiration. Worse – exertion, mental and physical – cold, damp and washing, Better by rest, dry, lying on painful side.

Referral

- Worsening of any condition.

12.10 Palliative care

Palliative care is an important public health issue due to population ageing, the increasing number of older people in most societies and insufficient attention to their complex needs. World Health Organization (WHO) has defined palliative care as: "...an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual." WHO classifies palliative care as a human right.

Geriatrics and palliative care are distinct but overlapping medical specialties. Similar to geriatrics, palliative care is grounded in a holistic anthropology, integrating on the same level the physical, psychological, social, and spiritual dimensions of the human being, which is mirrored in a multi-professional team approach. Not only do these services significantly improve patients' quality of life and satisfaction with care, but they also tend to reduce hospital readmissions and service utilization, thereby lowering total healthcare costs.

Palliative care

- o Provides relief from pain and other distressing symptoms.
- o Affirms life and regards dying as a normal process.
- o Intends neither to hasten nor postpone death.
- o Integrates psychological and spiritual aspects of patient care.
- o Offers a support system to help patients live as actively as possible until death.
- o Offers a support system to help the family cope during the patient's illness and in their own bereavement.
- o Uses a team approach to address the needs of patients and their families, including bereavement counselling, if indicated; will enhance quality of life, and may also positively influence the course of illness.
- o Is applicable early in the course of illness, in conjunction with other therapies that are intended to prolong life, such as chemotherapy or radiation therapy, and includes those investigations needed to better understand and manage distressing clinical complications.

The common symptoms which are observed for palliative care management are:

Signs & Symptoms	Medicines	Indications
Pain	Aconitum napellus	Complaints caused by exposure to dry cold air. Pains are intolerable, they drive him crazy. Usually acute and violent.
	Chamomilla	Pain worse by heat, evening before midnight with heat, thirst and fainting with numbness of affected part.
	Magnesium phosphoricum	Pains of cramping nature, Amelioration by warmth, heat and pressure.
	Coffea cruda	Pains are felt intensely, seem almost insupportable, driving patient to despair, tossing about in anguish.
Abdominal colic	Magnesium phosphoricum	Pains: sharp, cutting, stabbing; shooting, stitching, lightning-like in coming and going. Better - Bending double, heat, warmth, pressure.
	Colocynthis	Agonizing pain in abdomen causing patient to bend double, with restlessness, better by hard pressure.
	Dioscorea villosa	Violent twisting colic, as if intestines were grasped and twisted by a powerful hand. Aggarvated from bending forward and while lying, Amelioration from bending backwards.
	Viburnum opulus	Uterine pains, spasmodic and membranous dysmenorrhea.
Nausea & Vomiting	Nux vomica	Nausea in the morning, after eating. Weight and pain in stomach; worse, eating.
	Ipecacuanha	Tongue usually clean. Constant nausea and vomiting not ameliorated by vomiting. Thirstlessness.
Anorexia	Psorinum	Lack of reaction after severe acute diseases. Appetite will not return.
	Ferrum metallicum	Loss of appetite, with extreme dislike for all food. Vomiting: immediately after midnight; of ingesta, as soon as food is eaten.
	Avena sativa	Debility after exhausting diseases.
	Chelidonium majus	Nausea, vomiting; better, very hot water. Pain through stomach to back and right shoulder-blade.

Signs & Symptoms	Medicines	Indications
Constipation	Opium	Obstinate constipation, no desire to go to stool. Round, hard, black balls.
	Lac defloratum	Constipation. Stools hard, large, with great straining; painful, lacerating anus.
	Nux vomica	Frequent ineffectual desire which is relieved by-passing stool.
	Hydrastis canadensis	Constipation with sinking feeling in the stomach. Tongue white, swollen, large, flabby, slimy, shows imprint of teeth.
Diarrhoea	Aloe socotrina	Diarrhoea: has to hurry to closet immediately after eating and drinking. Mucus in jelly-like lumps along with stool.
	Podophyllum peltatum	Diarrhea in hot weather after acid fruits, worse in morning.
	Arsenicum album	Diarrhea from taking spoiled meat; after eating and drinking. Profound weakness.
	Gentiana chirata	Inflation and tension of stomach and abdomen. Colic, umbilical region sensitive to touch.
	Camphora officinalis	Asiatic cholera, with cramps in calves, coldness of body, anguish, great weakness, collapse, tongue and mouth cold. Great coldness of skin, yet wants to be uncovered.
Hiccups	Ranunculus bulbosus	Bad effects of Alcohol; delirium tremens. Spasmodic hiccough.
	Sulphur	Great acidity, sour eructation. Burning, painful, weight-like pressure.
	Cinchona officinalis	Hiccough and sour belching; Heartburn with flatulency, not relieved by belching.
Fatigue	Zincum metallicum	Persons suffering from cerebral and nervous exhaustion, defective vitality, brain or nerve power wanting.
	Muriaticum acidum	Great debility: as soon as he sits down his eyes close; lower jaw hangs down; slides down in bed.
	Selenium metallicum	Weak, easily exhausted; from either mental or physical labor.
Fever	Belladonna	Sudden onset of fever on exposure to of head to heat or cold. No thirst with fever.
	Gelsemium sempervirens	Chill during fever. No thirst.
	Rhus toxicodendron	Fever after getting wet in rain. Bodyache and restlessness, wants to stretch body and limbs, wants to be covered.
	Ferrum phosphoricum	Initial stage of fever with cough and cold.

Signs & Symptoms	Medicines	Indications
Dyspnoea	Spongia tosta	Suffocating; as if had to breathe through a sponge. Worse after sleep, after midnight.
	Carbo vegetabilis	Breathlessness. Desires to be constantly fanned.
	Antimonium tartaricum	Great rattling of mucus, but very little is expectorated. Seems as if he would suffocate; must sit up.
	Arsenicum album	Breathing: asthmatic; must sit or bend forward.
	Hepar sulphuris calcareum	Asthma: breathing, anxious, wheezing, short, deep breathing, must bend head back and sit up.
Cough	Antimonium tartaricum	Coughing and gaping consecutively. Great rattling of mucus, but very little is expectorated.
	Hepar sulphuris calcareum	Cough: Loose cough worse in winter, amelioration- Warmth in general.
	Ipecacuanha	Loose cough; rattling sound while coughing, no thirst.
Anxiety, Agitation	Aconitum napellus	Great fear, anxiety. Fears death but believes that he will soon die; predicts the day. Music is unbearable; makes her sad.
	Arsenicum album	Great anguish and restlessness. Changes place continually. Fears, of death, of being left alone. Thinks it useless to take medicine. Suicidal.
	Kali carbonicum	Very irritable. Full of fear and imaginations. Anxiety felt in stomach. Never wants to be left alone. Never quiet or contented.
Depression	Aurum metallicum	Feeling of self-condemnation and utter worthlessness and thoughts of suicide.
	Ignatia amara	Mental conditions rapidly, from joy to sorrow, from laughing to weeping; moody. Persons mentally and physically exhausted by long-concentrated grief. Involuntary sighing.
	Natrum muriaticum	Irritability. Marked disposition to weep; sad weeping mood without cause. Consolation from others < her troubles.
Insomnia	Coffea cruda	Sleepless, wide-awake condition; impossible to close the eyes; Full of ideas; quick to act, no sleep on this account.
	Pulsatilla nigricans	Sleep: wide awake in the evening, first sleep restless, sound asleep when it is time to get up.
	Gelsemium sempervirens	Patients are dull and stupid, seem on the verge of slumber, but unable to sleep.
Delirium	Belladonna	Hallucinations; sees monsters, hideous faces. Delirium. Frightful images; furious; rages, bites, strikes; desire to escape.
	Hyoscyamus niger	Very suspicious. lascivious mania, uncovers body.
	Stramonium	Beseeking and ceaseless talking, laughing, singing, swearing, praying, rhyming. Religious mania. Cannot bear solitude or darkness.
	Phosphorus	Ecstasy. Dread of death when alone. Insanity, with an exaggerated idea of one's own importance.
	Veratrum album	Sits in a stupid manner. Shrieks, curses. Puerperal mania. Aimless wandering from home. Mania, with desire to cut and tear things.

Signs & Symptoms	Medicines	Indications
Itching	Bovista lycoperdon	Tettery eruptions, dry or moist. Intolerable itching, must scratch till parts become raw and sore.
	Sulphur	Skin: itching, voluptuous; scratching >; "feels good to scratch;" scratching causes burning; < from heat of bed.
	Carbo vegetabilis	Itching; worse on evening, when warm in bed.
	Croton tiglium	Intense itching of skin, but so tender is unable to scratch; better by gentle rubbing; eczema over whole body.
Mouth ulcers	Borax	Aphthae: in the mouth, on the tongue, inside of the cheek; easily bleeding when eating or touched; with hot mouth, dryness and thirst.
	Cundurango	Painful cracks in corner of mouth.
	Mercurius solubilis	Tongue: large, flabby, shows imprint of teeth; painful, with ulcers; red or white. Intense thirst.
	Nitricum acidum	Ulcers: easily bleeding; in corners of mouth; splinter-like pains, especially on contact; zig-zag, irregular edges; base looks like raw flesh; exuberant granulations.
Bed Sores	Arsenicum album	Ulcers with offensive discharge.
	Calendula officinalis	Promotes healthy granulation and prevent excessive suppuration and disfiguring scars.
	Pyrogenium	Old sores with putrid, thin, bloody discharges.
	Gun powder	Protective against wound infection.
	Muriaticum acidum	Carbuncles; foul-smelling ulcers on lower extremities.
Vaginal discharge or bleeding	Millefolium	Menses: early, profuse, protracted; suppressed, with colic pain in abdomen.
	Hamamelis virginiana	Menses dark, profuse, with soreness in abdomen. Metrorrhagia, occurring midway between menstrual periods.
	Secale cornutum	Brownish, offensive leucorrhoea. Menses irregular, copious, dark; continuous oozing of watery blood until next period.
Fluid retention/ Dropsy	Apocynum cannabinum	Excretions diminished, especially urine and sweat. Dropsy of serous membranes. Dropsy: with thirst.
	Acetic acid	Dropsical symptoms, great debility, with great thirst.
	Kali nitricum	Sudden dropsical swellings over the whole body. Gastro-intestinal inflammation, with much debility.
Excessive weakness	Acetic acid	Great debility, frequent fainting. Pale, waxen, emaciated. Eyes sunken, surrounded by dark rings.
	Phosphoricum acidum	"Debility" is very marked in this remedy, producing a nervous exhaustion. Mental debility first; later physical.
	Muriaticum acidum	Great debility: as soon as he sits down his eyes close; lower jaw hangs down; slides down in bed.

GENERAL OUTPATIENT CARE FOR SIMPLE AND MINOR AILMENTS

13.1 Introduction

Minor ailments are generally defined as medical conditions that will resolve quickly, can be reasonably self-diagnosed and self-managed with simple medications or interventions from the Primary Healthcare Centre. Examples of minor ailments include headache, back pain, heartburn, indigestion, nasal congestion, skin rashes etc.

13.2 Principles of managing minor ailments

- o Ensure safe and helpful environment to the patient.
- o Finding the cause, making the diagnosis and planning for care.
- o Treat at risk/injured person promptly to prevent any possible complication.
- o Evaluating the case and condition of the patient. If the outcome is successful, plan for follow up.
- o If condition does not improve or any serious condition, refer to the hospitals without any delay.
- o Always remember the limitations in providing treatment.
- o In case of infectious diseases, take appropriate precautions to prevent the spread of infection.

13.3 Classification

Minor ailments are of two types:

- o General minor ailments: common accidents or injuries which need immediate first aid. For example- Superficial Injuries, first degree Burns in less than 1% body surface area, Fever, Diarrhoea without dehydration, non-poisonous Insect bites etc.
- o Systemic minor ailments: include common conditions of Eye, Ear, Nose, Respiratory tract, Digestive, Urinary, Reproductive, Neuromuscular, and Skin. For example conjunctival hyperemia, Earache (without fever), non-traumatic nosebleed (with normal blood pressure), Upper respiratory tract infections without fever, Tooth sensitivity or mild pain, Burning urination without fever, non-neurological Headache (without fever and with normal blood pressure), spasmodic non-incapacitating Dysmenorrhoea, Boils, small abscess etc.

13.3.1 Injuries

- o Minor Injury and trauma: Based on various types of injury it will be discussed in following heading.
- o Bruises and blunt trauma: It is an injury transmitted through unbroken skin to underlying tissue causing rupture of small blood vessels and escape of blood into the tissue with resulting discoloration.

Referral

- Blunt trauma on head, chest, abdomen
- Fall / rise in blood pressure
- Sudden loss of vision /hearing defect
- Vomiting
- Medico-legal cases

Management

Use of first aid technique i.e. use of ice, elevation of affected part, compression.

Intervention at HWC

Medicines	Indications
Arnica montana	Marked soreness, tender to touch or pressure, bed feels too hard, feels as if beaten. Worse Jarring. Touch or pressure.
Bellis perennis	Indicated especially for deep trauma and bruises; deep muscle injury. Sore bruised pains. Worse from warm bathing. Cold drinks. Becoming cold. Better from cold application to part.
Ledum palustre	Injured part often feels icy cold to touch. Better from ice cold applications.
Hypericum perforatum	Injuries to areas rich in nerves – fingers, tongue, genitals.
Ruta graveolens	Injury to periostium, where the bone is close to the surface.
Symphytum officinale	Specifically used for blunt trauma to the eyeball.
Rhus toxicodendron	Sprains with annoying, stiff painful, restless feeling. Marked stiff feeling in muscles and joints. Worse in first motion; better continued motion and from heat.
Strontium carbonica	Chronic sprains of ankle. Sprains with pitting oedema. Weak ankles with repeated twists and sprains.

13.3.2 Burn injury

A burn is type of injury to skin or other tissues caused by heat (dry and moist), electricity, chemicals, friction, or radiation.

Red flags

- Burns due to electricity, chemicals, friction or radiation
- Burns affecting more than 5% body surface area
- Second or third degree burns
- Hypovolemia/ hypotension
- Severe pain not responding to treatment
- Medico-legal cases

Management

General management

For small superficial burns:

- Flood the injured part with cold water for at least ten minutes to stop the burning and relieve the pain. If water is not available, any cold, harmless liquid, such as milk or canned drinks, will do.

- On small minor burns, wet dough (used for making chapattis) can be applied to relieve burning.
- Gently remove any jewellery, watches, belts, or constricting clothing from the injured area before it begins to swell.
- Cover the area with a sterile dressing, or any clean, non-fluffy material, and bandage loosely in place.

Intervention at HWC

Medicines	Indications
Cantharis vesicatoria	Burns. Horribly painful burning, better from cold applications. Given immediately, it can abort skin blistering. Alcoholic preparation when the skin is not broken, aqueous preparation when it is broken.
Urtica urens	Minor burns (1st and) especially when the skin is unbroken and unblistered. Burning with itching sensation. For scald with hot or boiling water.
Calendula officinalis	Patients with serious chemical burns. Burns and scalds. Prevents scarring as wound heals.
Carbolicum acidum	Skin ulcers following burns with offensive discharge.
Picricum acidum	Burns with numbness.

Referral

- Burns involving large area: Typically, a burn that covers more than 10% of the total body surface area (TBSA) of a child is considered to be a critical burn, except for first degree burns. A quick way to estimate the percentage of surface area of a burn is to estimate how large the burn is as compared to the palm of a child's hand (which represents about 1% of TBSA) and for this don't include the fingers.
- Most serious burns, including second degree burns that cover more than 10% of the total body surface area (TBSA) of a child, third degree burns that involve more than 5% of TBSA, or burns that involve the face, genitals, hands feet or thy at cross a joint or totally encircle an extremity, should be referred to a secondary or tertiary referral centre or a specialized burn center.
- Burns requiring cleaning and debridement, which involves removing devitalizes tissues around the wound, but this should only be done in surgical settings with complete asepsis.
- If a burn does not heal within two weeks or if it becomes infected, developing redness and a purulent discharge.
- Serious burns often require hospitalization and may require surgery and skin grafting.

Systemic Minor ailments

13.3.3 Headache

Headache may be common or rare/occasional

Common	Occasional/ Rare
<ul style="list-style-type: none"> ○ Systemic illness (febrile episodes: viral, typhoid, malaria) ○ Migraine ○ Tension/ stress headache ○ Headache due to sinusitis ○ Psychogenic (depression, anxiety) ○ Vascular (subarachnoid hemorrhage (SAH), intracerebral hemorrhage) ○ CNS infections. ○ Post-traumatic headache ○ Substance abuse (alcohol, caffeine, nicotine) ○ Cervical spondylosis ○ Referred pain (sinus, dental, aural). 	<ul style="list-style-type: none"> ○ Cluster headache ○ Chronic subdural hematoma ○ Accelerated/ malignant hypertension ○ Neoplasms (space occupying lesions, i.e. SOL) ○ Ocular (acute narrow angle glaucoma) ○ Lumbar puncture headache. ○ Thunderclap headache (i.e. TCH). ○ Benign intracranial hypertension

Investigations -General (as available at HWC)

- **CBC:** Rarely useful or definitive, except in a febrile patient.
- **ESR:** Elevated ESR (61-80 mm/hr) is useful to support the diagnosis of GCA.
- **Skull X-ray:** Immediately after head injury; CT scan is superior.
- **X-ray PNS:** Useful if sinusitis is suspected - opacification, fluid level, mucosal thickening may be visualized.

Investigations- Specific (As available at HWC)

- **Biochemistry:** Electrolytes, urea, creatinine, blood glucose, LFT, TFTs, and VDRL may be indicated to exclude secondary causes of headache.
- **Blood Culture for systemic illness**
- **CT Scan**
- **CSF:** CSF analysis is indicated when meningitis, encephalitis, and SAH are diagnostic consideration.
- **MRI:** In patients with atypical or complicated headache patterns, e.g. a history of seizures and/or focal neurological signs or symptoms, MRI is the preferred choice
- **MR Angiography (MRA):** Useful to demonstrate small aneurysm.
- **IOP:** In patients with glaucoma, tonometry will show high intraocular pressure.

Clinical Assessment

Five questions need to be answered when dealing with a patient with headache:

- Is it the only symptom (e.g. tension headache); or associated with other symptoms (e.g. visual aura in migraine, neurological deficit in stroke)?
- Is it an acute, new-onset symptom (e.g. Cerebrovascular Diseases, temporal arteritis)?
- Is it a chronic, recurring symptom (e.g. migraine, substance use or abuse)?
- Is it part of the systemic illness (e.g. Space occupying lesion (SOL), depression)?
- Does it represent a potentially serious threat to life (e.g. stroke, temporal arteritis)?

Comparison of clinical features of primary headaches

	Migraine	Tension headache	Cluster headache
Symptoms	Photophobia; phonophobia; GI upset (e.g. anorexia, nausea, vomiting); 'aura' with brain dysfunction (e.g. headache, vertigo, dysarthria)	Disturbed memory or concentration, labile moods-irritability, restlessness; sleep disturbance; fatigue	Parasympathetic overactivity: all ipsilateral-lacrimation; red conjunctive; scleral injection; nasal congestion/rhinorrhea; ptosis; miosis of the eye; forehead and facial sweating
Location/character	Typically unilateral; intense pulsatile pounding, throbbing, and/or debilitating	Bilateral, all over the head; weight-like or vise-like pressure; nonpulsatile; distracting, but not debilitating	Always unilateral orbital, supraorbital, and/or temporal; severe excruciating stabbing or burning pain
Frequency/duration	Intermittent; 4-72 hours	Daily or near daily; 30 min-few days; may be constant	From 1 every day to 8 per day; remission for few months or even years; 15 min 2 hours
Triggers	Stressful event; food (chocolate, red wine); skipping meals; changes in sleep/weather; hormone fluctuations	Anxiety, stress, lack of sleep	Alcohol; selected drugs like histamine or nitroglycerin

Management

General Techniques that have been shown to reduce headache pain includes:

- o Massage
- o Relaxation training
- o Meditation/sitting in quiet calm atmosphere
- o Lying down in a dark and quiet room
- o Hot or cold compresses on the head and neck
- o Changing diet can improve headaches.

Intervention at HWC

Medicines	Indications
Belladonna	Right sided headache, throbbing or pulsating headache from exposure to cold air, direct sun heat, from having hair cut; worse light, noise, jar, lying down; better by tight bandage, pressure and semi-erect posture; thirst absent.
Bryonia alba	Headache from constipation, headache in hot weather, ironing; bursting, pain in forehead, worse by stooping coughing, any motion better by hard pressure and rest; profuse thirst.
Gelsemium sempervirens	Headache with heaviness of eyelids preceded by blindness; worse from heat of sun, mental exertion, better, profuse urination with drowsiness; thirst absent.
Natrum muriaticum	Headache in school children; Aches as if a thousand little hammers were knocking on the brain, in the morning on awakening, after menstruation, from sunrise to sunset.
Cedron	Head pain from temple to temple across eyes. Pain over whole right side of face, coming on about 9 a.m. Crazy feeling from pain across forehead; worse, working on black. Whole body seems numb with headache.
Glonoinum	Effects of sunstroke; heat on head, as in type-setters and workers under gas and electric light. Head heavy, but cannot lay it on pillow. Cannot bear any heat about head. Better from uncovering head.

Medicines	Indications
Spigelia anthelmia	Nervous headache; periodical, beginning in morning at base of brain, spreading over the head and locating in eye, orbit and temple of left side; pain, pulsating, violent, throbbing. Headache; at sunrise, at its height at noon, declines till sunset. Intolerable, pressive pain in eyeballs; could not turn the eyes without turning the whole body; worse, especially on making a false step.

Referral

When patient does not respond to the initial treatment or develop signs like nausea, vision impairment, seizures, faintness etc along with headache.

13.3.4 Functional dyspepsia

Functional dyspepsia is a gastrointestinal disorders which is manifested by bothersome:

- o Postprandial fullness
- o Early satiation
- o Epigastric pain and / or burning

There is no evidence of organic/structural disease at upper gastro-intestinal tract endoscopy that is likely to explain the symptoms.

Investigations (As per the availability at HWC):

- o Hb (to rule out anemia/ occult GI bleed)
- o ECG (to rule out coronary ischemia),
- o LFT (to check for liver function,)
- o USG abdomen (to detect obstructive and neoplastic lesion),

Management

- o Light diet
- o Avoidance of oily and spicy food
- o Adequate water intake
- o Food Gap not more than 3-4 hours
- o Avoiding drinking while eating
- o Refrain from tobacco consumption
- o Refrain from junk food

Intervention at HWC

Medicines	Indications
Nux vomica	Indigestion from over eating, highly spiced food or irregular dietary habit, Sour taste and nausea in the morning, after eating better from induced vomiting; constipation with frequent desire for stool at a time; unsatisfactory feeling after each stool.
Carbo vegetabilis	Gastric upset with heartburn, flatulence, distension in upper abdomen, temporary relief from belching. No relief from passing flatus which is offensive.
Cinchona officinalis	Indigestion from taking fruits, vegetable. Whole abdomen distended, not relieved by belching, and passing flatus. Night diarrhoea with undigested food. With great weakness.
Pulsatilla nigricans	Useful in cases who suffer from taking fatty, oily food. Complete loss of appetite with thirstlessness with dry tongue and bitter taste in mouth.

Medicines	Indications
Iris versicolor	Burning of whole alimentary canal. Vomiting, sour bloody, biliary. Nausea. Profuse flow of saliva. Deficient appetite.
Lycopodium clavatum	Dyspepsia due to farinaceous and fermentable food, cabbage, beans, etc. Excessive accumulation of gas in lower abdomen with heart burn; worse afternoon; relieved by passing flatus which is offensive. Desire for sweet things. Likes to take food and drink hot.
Robinia psueudocacia	Acidity is accompanied by frontal headache. Intensely acrid eructations. Acrid and greenish vomiting, colic and flatulence, nightly burning pains in stomach and constipation with urgent desire. Acidity of children. Stools and perspiration sour. Incarcerated flatus.

Referral

- o Weight loss
- o Blood in stools
- o Vomiting
- o Diarrhoea
- o Severe incapacitating pain
- o Jaundice
- o Sudden change in bowel habits
- o Lymph nodes palpable

13.3.5 Nausea & vomiting

Nausea is an unpleasant sensation and an impending desire before vomiting, usually accompanied by autonomic signs such as pallor, hyper-salivation, diaphoresis, tachycardia, and tachypnoea.

Vomiting is a physical event that results in the speedy, forceful evacuation of gastric contents through the mouth which may or may not be preceded by nausea. Vomiting may be a protective physiologic mechanism that prevents entry of potentially harmful substances into the gastrointestinal tract. However, persistent vomiting can lead to complications such as dehydration, metabolic alkalosis, hyponatraemia, hypokalaemia, oesophagitis, gastritis, aspiration pneumonitis, and rarely Mallory-Weiss syndrome, or Boerhaave syndrome – irrespective of the cause of vomiting.

Differential Diagnosis

- o Gastritis, Acute infections (gastroenteritis, acute infections),
- o Inflammation (Appendicitis, Peptic Ulcer, Viral Hepatitis, cholecystitis, pancreatitis, peritonitis)
- o Motility Disorder (Gastro-esophageal reflux)
- o Colic (renal, biliary)
- o Functional, systemic infections (febrile illness; respiratory/ urinary tract infection; UTI; septicaemia)
- o Cardiac ischemia (Myocardial infarction: especially inferior/posterior wall; Congestive heart failure)
- o CNS disorders (migraine; Cerebrovascular disease (CVD), infarction, haemorrhage; infection: meningitis-viral, bacterial, tuberculosis; raised Intra-cranial pressure: abscess, hematoma, and tumour)

- o Labyrinthine disorders (motion sickness, Ménière's disease, and vestibular neuronitis)
- o Pregnancy (hyperemesis gravidarum, ectopic pregnancy)
- o Postoperative (paralytic ileus)
- o Obstruction (achalasia, pyloric stenosis, small/large bowel obstruction, strangulated hernia).

Investigations (As per the availability at HWC)

CBC, Blood for glucose, urea, creatinine, electrolytes, amylase, lipase, chest x-ray, ECG, Pregnancy test, Abdominal and Pelvic ultrasound, Endoscopy, CT scan abdomen etc.

General management

Light meals, Adequate Hydration.

Intervention at HWC

Medicines	Indications
Antimonium crudum	Gastric and intestinal complaints from bread and pastry, acids, sour wine, cold bathing, overheating, hot weather. Desire for acids, pickles. Thirst in evening and night. Eructation tasting of the ingesta. Heartburn, nausea, vomiting.
Antimonium tartaricum	Nausea, retching, and vomiting, especially after food, with deathly faintness and prostration. Vomiting in any position, excepting lying on right side. Thirst for cold water, little and often, and desire for apples, fruits, and acids generally.
Arsenicum album	Nausea, retching, vomiting, after eating or drinking. Cannot bear the sight or smell of food. Great thirst; drinks much, but little at a time. Ill effects of vegetable diet, melons, and watery fruits generally.
Cocculus indicus	Nausea from riding in cars, boat, etc, or looking at boat in motion; worse on becoming cold or taking cold. Nausea, with faintness and vomiting. Aversion to food, drink, tobacco.
Colchicum autumnale	The smell of food causes nausea even to fainting, especially fish. Vomiting of mucus, bile and food; worse, any motion; great coldness in stomach.
Ipecacuanha	Persistent nausea and vomiting, which forms the chief guiding symptoms. Indicated after indigestible food, raisins, cakes, etc. Clean tongue and thirstless.
Tabacum	The nausea, giddiness, death-like pallor, vomiting, icy coldness, and sweat, with the intermittent pulse, are all most characteristic. Incessant nausea; worse, smell of tobacco smoke; vomiting on least motion, sometimes of faecal matter, during pregnancy with much spitting.
Veratrum album	The profuse, violent retching and vomiting is most characteristic. Vomiting, purging, and cramps in extremities. Thirst for cold water but is vomited as soon as swallowed. Averse to warm food. Hiccough. Copious vomiting and nausea; aggravated by drinking and least motion. Craves fruit, juicy and cold things, ice, and salt.

Referral

- o Weight loss
- o Blood in stools
- o Dehydraton
- o Palpitation
- o Diarrhoea
- o Severe incapacitating pain

- o Jaundice
- o Sudden change in bowel habits
- o Lymph nodes palpable

13.3.6 Hiccups

Hiccups (hiccough) or singultus may be defined as a complex reflex arc phenomenon characterized by involuntary, spasmodic contraction of diaphragm, and respiratory intercostal muscles, followed by abrupt closure of glottis, resulting in the characteristic 'hic' sound.

Common causes

- o Swallowing excessive air (aerophagy) by eating fast, taking carbonated beverages
- o excess smoking
- o Alcohol excess
- o Sudden temperature change
- o Psychogenic (anxiety),

Less common causes include where hiccups is an associated symptoms along with other symptoms of the condition includes

- Hiatal hernia
- CNS: Infection (meningitis, encephalitis), intracranial tumour, stroke, basilar artery insufficiency, trauma, surgery, AV malformation, multiple sclerosis
- Metabolic: Toxic (alcohol and drug abuse), uraemia, electrolyte imbalance, diabetic ketoacidosis, hypocapnia
- Surgical: General anaesthesia, post-operative
- Psychogenic: Stress, excitement, hysteria
- Irritation of vagus or phrenic nerve and branches at the level of:
 - o Head and neck: Foreign body in ear, goitre, cervical tumour.
 - o Thorax: Pneumonia, empyema, pleurisy, GERD, mediastinal tumour, inferior wall MI.
 - o Abdomen: Sub-diaphragmatic abscess, bowel obstruction, hepatomegally, cholecystitis, pancreatitis, peritonitis, tumour etc.

Intervention at HWC

Medicines	Indications
Cuprum metallicum	Hiccough preceding the spasms. Nausea. Vomiting, relieved by drinking cold water; with colic, diarrhoea, spasms. Strong metallic taste. When drinking, the fluid descends with gurgling sound. Craves cool drink.
Kali bromatum	Vomiting, with intense thirst, after each meal. Persistent hiccough.
Niccolum metallicum	Intense hiccough with thirst. Gone, empty feeling in epigastrium, without desire for food. Acute gastralgia with pains extending to shoulder. Suits debilitated, nervous, literary patients, with frequent headaches, dyspepsia and constipation.

Referral

- Hiccups associated with alcoholism.
- Not responding to treatment and causing distress to patient.

13.3.7 Diarrhoea

Diarrhoea is defined as an increase in the frequency of the stool towards a more liquid stool or both. **Diarrhea** is a condition that involves the frequent passing of loose or watery stools while **Dysentery** is an intestinal inflammation, especially in the colon, that can lead to severe **diarrhea** with mucus or blood in the feces.

Types of diarrhoea

On the basis of duration of symptoms it can be classified as acute, persistent and chronic diarrhoea.

- o **Acute diarrhoea:** It refers to an illness usually of few days' duration and definitely not exceeding 2 weeks. It is usually self-limiting leading to recovery with or without specific therapy.
- o **Persistent diarrhoea:** When diarrhoea in an infectious gastroenteritis exceeds >2 weeks, it is considered as *persistent diarrhoea*.
- o **Chronic diarrhoea:** When diarrhoea lasts for more than 4 weeks, it is termed as chronic diarrhoea.

Causes

Infective causes		Non infective causes
Virus	Rotavirus	Irritable bowel syndrome
Bacteria	Enterotoxigenic <i>E. coli</i>	Malabsorption syndrome
	Shigella	Lactose intolerance
	Campylobacter jejuni	Inflammatory bowel disease
	Vibrio cholerae 01	Tuberculosis
	Salmonella (non-typhoid)	
	Enteropathogenic <i>E. coli</i>	
	Tuberculosis	
Parasites	Giardia lamblia	
	Entamoeba histolytica	
	Cryptosporidium parvum	
	Balantidium coli	

Investigations

- CBC
- Fecal leukocytes: The presence of fecal leukocytes > 10/ (or lactoferrin) in stool suggests an inflammatory diarrheal disease and may support obtaining stool culture.
- Faecal occult blood test: The fecal occult blood test (FOBT) is a lab test used to check stool samples for hidden (occult) blood. Occult blood in the stool may indicate colon cancer or polyps in the colon or rectum – though not all cancers or polyp bleed.
- Ova, parasite and cyst of protozoa in stool.

Management

The three essential steps of management of acute diarrhoeal diseases includes-

- Appropriate clinical assessment of dehydration.

- Control of dehydration by Oral rehydration therapy (and in very seriously dehydrated patients by initial IV rehydration therapy followed by Maintenance therapy with ORS).
- Appropriate medicine at suitable interval along with rehydration therapy.

Assessment of dehydration

- Dehydration is assessed on the basis of clinical parameters such as patient's appearance, radial pulse, blood pressure, skin elasticity, appearance of tongue and urine output.
 - o No dehydration
 - o Some dehydration
 - o Severe dehydration

Management

Diarrhoea treatment based on extent of dehydration present in adults.

Intervention at HWC

Medicines	Indications
Aloe socotrina	Stool urgent: at once after eating or drinking with sense of insecurity in anal sphincter. Colic with cutting, gripping pain in caecal region before and during stool; all pains cease after stool leaving profuse perspiration and prostration.
Argentum nitricum	Diarrhoea: green mucus, like chopped spinach in flakes; turning green after remaining on diaper; after drinking; after eating candy or sugar; masses of mucolymph in shreddy strips or lumps; with much noisy flatus like Aloe. Diarrhoea as soon as he drinks.
Arsenicum album	After eating ices, spoiled meat/fruits; or cold drinks when hot. Prostration out of all proportion to the amount of fluid loss. Restlessness, Anguish, Fearful Anxiety. Worse after midnight. Burning thirst for sips of cold water. Better heat, hot drinks.
Cinchona officinalis	Painless diarrhoea with much flatulence. Passes undigested food (lienteria). One hand icy cold, the other warm.
Carbo vegetabilis	Diarrhoea from bad food (like Ars.) and from butter, pork or fat foods (like Puls.) but with more distension. Frequent, involuntary, cadaverous-smelling stools followed by burning.
Podophyllum peltatum	Painless, profuse, putrid, polychromatic (green, watery, chalk like, jelly like, yellow meal-like, undigested) and some time with prolapsed of rectum. Thirst for large quantities of cold water (like Bryonia).
Pulsatilla nigricans	Colic and diarrhoea only, or usually at night. Watery, greenish-yellow, very changeable-no two stools alike; as soon as they eat; from fruit, cold drinks or foods, ice cream; fat or rich food. Complete thirstlessness with dry tongue.
Mercurius corrosivus	Pain in abdomen not relieved by stool. Stool is hot, bloody and slimy, offensive, cutting pain and shreds of mucus.

Referral

- Repeated episodes of diarrhoea not responding to treatment.
- Sudden change in bowel habits.
- Loss of 10% body weight.
- Blood in stools.
- Signs of dehydration.

13.3.8 Functional constipation

Functional constipation (FC) is characterized by abdominal pain, evacuation of hard stool and reduced bowel movements, and is frequent in children. As per the Rome IV criteria, to be diagnosed as suffering from FC, one must have ≥ 2 of the following:

- Straining for $>1/4$ (25%) of defecations
- Lumpy or hard stools (Form 1 of 2 on the Bristol Stool Form Scale) for $>1/4$ (25%) of defecations
- Sensation of incomplete evacuation for $>1/4$ (25%) of defecations
- Sensation of ano-rectal obstruction/blockage for $>1/4$ (25%) of defecations
- Manual manoeuvres to facilitate defecation e.g. digital evacuation, pelvic floor support; for $>1/4$ (25%) of defecations.
- <3 spontaneous bowel movements per week.
- And, must have both of the following
 - o Loose stools rarely present without use of laxatives
 - o Does NOT meet Rome IV Criteria for IBS

Aetiology

- Poor lifestyle (low fibre diet, deficient fluid intake, immobility, repressed urge of defecation, etc.)
- Laxative or enema abuse, painful anal lesion (piles, fissure, abscess etc.),
- IBS-C, psychological (anxiety, depression)
- Medication (opioids, antacids, iron supplements, calcium channel blockers, antidepressants, antipsychotics etc.)
- Eating disorders, intestinal obstruction
- Endocrine disease (hypothyroidism, diabetes mellitus)
- Neurologic disease (stroke syndromes, dementia, spinal cord disease – paraplegia, cauda equina lesion, tumors).
- Metabolic disorder (hypokalemia, hypercalcemia, uremia), postsurgical (abdominal, pelvic, colonic, anorectal), etc.

Investigations

- CBC
- Stool for occult blood, thyroid profile
- USG

General management

- Adequate intake of water and dietary fibre
- Sufficient exercise.
- Warm milk at night

Intervention at HWC

Medicines	Indication
Alumina	Constipation of old people from inactive rectum, and in women of very sedentary habit. Hard dry, knotty; no desire. Rectum sore, dry, inflamed, bleeding. Itching and burning at anus. Even a soft stool is passed with difficulty. Great straining.

Medicines	Indication
Bryonia alba	Constipation; stools hard, dry, as if burnt; seem too large. Stools brown, thick, bloody; worse in morning, from moving, in hot weather, after being heated, from cold drinks, every spell of hot weather.
Causticum	Soft and small, size of goose-quill. Hard, tough, covered with mucus; shines like grease; small-shaped; expelled with much straining, or only on standing up.
Graphites	Constipation; large, difficult, knotty stools united by mucus threads. Burning haemorrhoids. Prolapse, diarrhoea; stools of brown fluid, mixed with undigested substance, very fetid, sour odour. Smarting, sore anus, itching. Lump like stool. Varices of the rectum. Fissure of anus.
Hydrastis canadensis	Constipation, with sinking feeling in stomach, and dull headache. During stool, smarting pain in rectum. After stool, long-lasting pain. Tongue flabby with imprint of teeth.
Natrum muriaticum	Burning pains and stitching after stool. Anus contracted, torn, bleeding. Constipation; stool dry, crumbling. Desire for salt.
Nux vomica	Constipation, with frequent ineffectual urging, incomplete and unsatisfactory; feeling as if part remained unexpelled. Absence of all desire for defecation is a contra-indication.
Opium	Obstinate constipation; no desire to go to stool. Round, hard, black balls. Faeces protrude and recede. Spasmodic retention of faeces in small intestines. Stools involuntary, black, offensive, frothy.
Sulphur	Long lasting constipation, stool, hard, knotty, dry as if burnt. Scanty, large, painful, child is afraid to pass stool on account of pain.

Referral

- When patient does not respond to the initial treatment or his/her condition worsens.

13.3.9 Haemorrhoids (Piles)

Piles are condition of dilated, elongated and congested veins occurring in relation to the internal venous plexuses of anal canal with an enlarged and displaced anal cushion.

Types

Depending on the location the piles may be:

- Internal piles – When the pile mass is above the dentate line, surrounded by the anal mucous membrane and lies internal to the anal orifice.
- External piles – When the pile mass is below the dentate line, surrounded by the skin of the anal canal and lies external to the anal orifice.
- Interno-external piles – Combination of internal and external piles.

Sites

The primary sites of internal haemorrhoids are at 3, 7 and 11 o'clock position. In between, these primary haemorrhoids there may be smaller secondary haemorrhoids.

Symptoms

Painless bleeding per rectum, prolapse of the piles mass outside the anal orifice, mucus discharge, itching, heaviness, anaemia, may present with complications.

Complications

Strangulation, thrombosis, ulceration and gangrene, portal pyaemia and septicaemia, and fibrosis.

Investigations

CBC, Stool test for occult blood, Proctoscopy.

General management

- Soak regularly in a warm bath or sitz bath
- Pelvic floor exercises
- Maintenance of local hygiene, lifestyle changes including: constipation prevention, enhanced dietary fibres, drink adequate water.
- Regular exercise

Intervention at HWC

Medicines	Indications
Aesculus hippocastanum	Non-bleeding or blind piles with dry stools, dryness of rectum, aching. Feels full of small sticks. Anus raw, sore. Much pain after stool, with prolapse. Accompanied by low back pain.
Collinsonia canadensis	Sensation of sharp sticks in rectum. Sense of constriction. Most obstinate constipation, with protruding haemorrhoids. Aching in anus and hypogastrium.
Hamamelis virginiana	Anus feels sore and raw. Haemorrhoids, bleeding profusely, with soreness. Pulsation in rectum
Nitricum acidum	Great straining, but little passes, Rectum feels torn. Bowels constipated, with fissures in rectum. Tearing pains during stools. Violent cutting pains after stools, lasting for hours. Haemorrhages from bowels, profuse, bright.
Nux vomica	Constipation, with frequent ineffectual urging, incomplete and unsatisfactory; feeling as if part remained unexpelled. Constriction of rectum. Irregular, peristaltic action; hence frequent ineffectual desire, or passing but small quantities at each attempt. Absence of all desire for defecation is a contra-indication.
Ratanhia peruviana	Aches, as if full of broken glass. Anus aches and burns for hours after stool. Feels constricted. Dry heat at anus, with sudden knife-like stitches. Fissures of anus, with great constriction, burning like fire; temporarily relieved by cold water.
Sulphur	Itching and burning of anus; piles dependent upon abdominal plethora. Frequent, unsuccessful desire; hard, knotty, insufficient. Child afraid on account of pain. Redness around the anus, with itching.

Referral

- When patient does not respond to the initial treatment or his/her condition worsens.
- In cases of grade IV prolapsed haemorrhoids.
- Anaemia due to bleeding haemorrhoids (Hb- less than 8).

13.3.10 Cough

It is a sudden, explosive, often-repetitive expiration which helps to clear the tracheobronchial tree of secretions, irritants foreign particles and microbes. On the basis of its onset and duration cough, it can be classified as:

	Acute cough	Sub-acute cough	Chronic cough
Duration	Cough occurring for <3 weeks.	Cough occurring for 3-8 weeks.	Cough occurring for > 8 weeks
Cause	<ul style="list-style-type: none"> • Common cold • Acute viral fever as in influenza, measles, etc. • Acute sinusitis, acute laryngitis, acute bronchitis, acute tracheobronchitis, • Pneumonia • acute exacerbation of COPD • acute episodes of asthma • congestive heart failure (CHF) • pulmonary embolism • inhalation of foreign particles 	<ul style="list-style-type: none"> • Post infectious condition such as diseases following viral infection • Post nasal drip (Upper airway cough syndrome) • Pertussis. • Cough variant asthma 	<ul style="list-style-type: none"> • Pulmonary Tuberculosis • Restrictive Lung Diseases • COPD • Laryngeal papilloma • Chronic laryngitis • Bronchiectasis • Lung carcinoma • GERD • Diaphragmatic irritation due to hepatic abscess or subphrenic abscess • Drug induced cough such as ACE inhibitors • Psychogenic cough, habit cough, tic cough

Diagnosis

History of the case based on duration of cough, whether productive or non-productive cough, aggravating and ameliorating factors such as seasonal changes, environmental exposure etc. Other associated sign and symptoms such as fever, rash, heartburn, cyanosis, clubbing or regurgitation, orthopnea, paroxysmal nocturnal dyspnea etc.

Investigations

- CBC
- Sputum examination
- Chest X-ray
- Pulmonary Function Tests

Management

- To take luke warm water
- Saline gargling for bacterial culture etc.
- Wear a mask
- Always cough with mouth covered with napkin
- Promote steam inhalation
- Avoid dust and smoke
- Avoid taking cold drinks and food
- Avoid spicy and rich food
- Keep away from known trigger factors

Intervention at HWC

Medicines	Indications
Antimonium tartaricum	Great rattling of mucus, but very little is expectorated. Rapid, short, difficult breathing; seems as if he would suffocate; must sit up.
Arsenicum album	Cough worse after midnight; worse lying on back, cold or open air; cold drinks. Expectoration scanty, frothy. Darting pain through upper third of right lung. Wheezing respiration.

Medicines	Indications
Bryonia alba	Dry, hacking cough from irritation in upper trachea. Cough, dry, at night; must sit up; worse after eating or drinking, with vomiting, with stitches in chest, and expectoration of rust-colored sputa. Frequent desire to take a long breath; must expand lungs. Coming into warm room excites cough. Cough worse by going into warm room.
Causticum	Cough, with raw soreness of chest. Expectoration scanty; must be swallowed. Cough with pain in hip, especially left worse in evening; better, drinking cold water; worse, warmth of bed.
Drosera rotundifolia	Spasmodic, dry irritative cough, like whooping-cough, the paroxysms following each other very rapidly; can scarcely breathe; chokes. Cough very deep and hoarse; worse, after midnight; yellow expectoration, with bleeding from nose and mouth; retching.
Hepar sulphuris calcareum	Loses voice and coughs when exposed to dry, cold wind. Hoarseness, with loss of voice. Cough troublesome when walking. Dry, hoarse cough. Cough excited whenever any part of the body gets cold or uncovered, or from eating anything cold.
Hyoscyamus niger	Dry, spasmodic cough at night worse lying down; better sitting up, from itching in the throat, as if uvula were too long.
Ipecacuanha	Cough incessant and violent, with every breath. Chest seems full of phlegm but does not yield to coughing. Suffocative cough; child becomes stiff, and blue in the face.
Kali carbonica	Dry, hard cough about 3 am, with stitching pains and dryness of pharynx. Bronchitis, whole chest is very sensitive. Expectoration scanty and tenacious but increasing in morning and after eating; aggravated right lower chest and lying on painful side.
Pulsatilla nigricans	Dry cough in evening and at night; must sit up in bed to get relief; and loose cough in the morning, with copious yellowish green mucous expectoration.
Phosphorus	Repeated hæmoptysis. Cough from tickling in throat; worse, cold air, reading, laughing, talking, from going from warm room into cold air. Sweetish taste while coughing. Pain in throat on coughing.
Rumex crispus	Tickling in throat-pit causes cough. Copious mucous discharge from nose and trachea. Aggravated by pressure, talking, and especially by inspiring cool air and at night.
Spongia tosta	Cough, dry, barking, croupy; larynx sensitive to touch. worse, during inspiration and before midnight. Feeling of a plug in larynx. Cough abates after eating, warm drinks. Worse, lying with head low and in hot room.
Justicia adhatoda	Dry cough from sternal region all over chest. Hoarseness, larynx painful. Paroxysmal cough, with suffocative obstruction of respiration. Cough with sneezing. Severe dyspnoea with cough. Tightness across chest. Asthmatic attacks, worse in a close, warm room.

Referral

- Bloody expectoration
- Suspected tuberculosis
- Worsening of the cough after treatment

13.3.11 Urticaria

Urticaria is a heterogeneous group of disorders characterized by production of 'wheals', (also called as 'hives'), i.e. itchy, transient, erythematous, or pale, oedematous swellings of the superficial layers of the dermis which blanch on pressure; each individual lesion is short-lived,

lasts for few minutes to several hours, seldom more than 24 hours; episodes may recur daily or several times each day for days, or years. Wheals are rounded, oval, or ill-defined closely placed lesions which may coalesce to form various shapes and sizes from a few millimetres to few centimetres. Any part of the body may be affected, trunk being more commonly involved than extremities or face.

Angioedema is a condition which involves subcutaneous or sub-mucosal tissue (rather than the dermis), with sudden, diffuse, non-tender swelling of the involved parts, primarily of the lips, peri-orbital areas, or genitalia. Occasionally there may be swelling of the tongue or pharynx which can be life-threatening, but the larynx is virtually never involved. The pruritus that usually accompanies urticaria is conspicuously absent in angioedema.

Urticaria and angioedema may coexist. Angioedema accompanies urticaria in approximately 40% of patients, another 40% of patients have hives alone, and about 20% of patients have angioedema but not urticaria.

Types of urticaria

Based on its duration, urticaria is classified into:

- **Acute** – If the symptoms last less than 6 weeks; etiological trigger is more likely to be identified in acute urticaria such as drug reactions, and food or contact allergies.
- **Recurrent acute urticaria** – This is recurrent episodes of urticaria, each episode lasting less than six weeks.
- **Chronic** – If there are recurrent episodes occurring daily or almost daily for longer than six weeks. The history itself can be regarded as the most valuable diagnostic tool in identifying causes of chronic urticaria; extensive laboratory studies provide little information beyond that suggested by the patient's history and physical examination.

Aetiology

- Infestations (protozoal and helminthic)
- Ingestions (food and food additives), if allergic
- Injections (aspirin, penicillin, opiates, blood products)
- Inhalants (pollen, spore, dander, dust)
- Insect stings and bites
- Contact urticaria (cosmetics)
- Physical urticaria (pressure, cold and heat)
- Pregnancy, psychogenic (anxiety, depression and stress), and genetic

Investigations

CBC, Urine Analysis, Stool Microscopy, LFT, Thyroid Profile, Skin Prick or Patch Test.

Intervention at HWC

Medicines	Indications
Antimonium crudum	Sensitive to cold bathing. Urticaria; measles-like eruption. Itching when warm in bed. Dry skin.
Apis mellifica	Swellings after bites; sore, sensitive. Stinging. Sudden puffing up of whole body. Worse, heat in any form; Better, in open air, uncovering, and cold bathing.

Medicines	Indications
Bovista lycoperdon	Urticaria on excitement, with rheumatic lameness, palpitation and diarrhoea (Dulc). Urticaria on waking in the morning, worse from bathing. After <i>Rhus tox</i> in chronic urticaria.
Dulcamara	Urticaria, brought on by exposure to cold and wet weather, or sour stomach.
Rhus toxicodendron	Red, swollen; itching intense. Urticaria. Worse, during sleep, cold, wet rainy weather and after rain; at night, during rest, Better, warm, dry weather, warm applications.
Urtic urens	Itching blotches. Urticaria, burning heat, with formication; violent itching. Consequences of suppressed nettle rash. Rheumatism alternates with nettle-rash. Urticaria nodosa. Erythema, with burning and stinging. Angioneurotic oedema.
Natrum muriaticum	Urticaria; itch and burn. worse, eating salt, at seashore, after exertion; Greasy skin.

Referral

- Angiodema
- Respiratory distress

13.3.12 Pruritus

Pruritus is defined as an unpleasant cutaneous sensation that provokes the desire to scratch or rub the skin to obtain relief. As a normal physiological response, pruritus is associated with removal of harmful agents such as insects, and irritant substances such as dust and dirt from the skin surface and defends the skin against harmful external agents. Excessive pruritus however leads to injury of the epidermis with its consequences.

Conditions presenting with pruritis

- Urticaria
- Atopic dermatitis/eczema
- Irritant contact dermatitis
- Food allergy
- Drug allergy/hypersensitivity
- Miliaria, sunburn
- Solar dermatitis
- Dermatophytosis
- Scabies
- Insect bites
- Helminthiasis
- Lichen planus
- Lichen simplex chronicus
- Dry skin
- Ageing
- Uraemic
- Cholestatic pruritus
- Pregnancy
- Psychogenic (anxiety, depression, psychosis, delusion of parasitosis)
- Wound healing

Investigations

CBC, Blood Glucose levels, Electrolytes, Urine analysis, Stool microscopy, KOH mounts, LFT, Thyroid profile, Serum IgE, Skin prick or patch test etc.

Intervention at HWC

Medicines	Indications
Croton tiglium	Feels hide-bound. Intense itching; but scratching is painful. Pustular eruption, especially on face and genitals, with fearful itching, followed by painful burning. Vesicles; confluent oozing. Vesicular erysipelas, itching exceedingly. Worse, during summer; touch, night and morning, washing.
Rumex crispus	Intense itching of skin, especially of lower extremities; worse, exposure to cold air when undressing. Urticaria; contagious prurigo. Worse, in evening, uncovering.

Referral

- Pruritis associated with cholestatic jaundice, uremia.
- Self injurious behaviour of psychotic syndromes.
- Skin eruptions associated with protein loss.

13.3.13 Urinary Tract infection

A urinary tract infection (UTI) is an infection in any part of the urinary system – kidneys, ureters, bladder and urethra. Most infections involve the lower urinary tract – the bladder and the urethra. Women are at greater risk of developing a UTI than are men. Infection limited to the bladder can be painful and annoying.

Causes

The most common UTIs occur mainly in women and affect the bladder and urethra.

Infection of the bladder (cystitis): This type of UTI is usually caused by *Escherichia coli* (*E. coli*), a type of bacteria commonly found in the gastrointestinal (GI) tract. However, sometimes other bacteria are responsible.

Sexual intercourse with an infected partner may lead to cystitis. All women are at risk of cystitis because of their anatomy – specifically, the short distance from the urethra to the anus and the urethral opening to the bladder.

Infection of the urethra (urethritis): This type of UTI can occur when GI bacteria spread from the anus to the urethra. Also, because the female urethra is close to the vagina, sexually transmitted infections, such as herpes, gonorrhoea, chlamydia and mycoplasma, can cause urethritis.

Signs & Symptoms

- Burning in urine
- Urgency
- Increased Frequency of urine
- Urge incontinence
- Dysria/ Pain when passing urine
- Urethral discharge
- Foul smell in urine/ smoky/ cloudy urine

- Pain in lumbar region/ renal angle tenderness
- Fever: persistent low-grade fever or high-grade fever with chills

Complications

- Recurrent infections, especially in women who experience two or more UTIs in a six-month period or four or more within a year.
- Permanent kidney damage from an acute or chronic kidney infection (pyelonephritis) due to an untreated UTI.
- Increased risk in pregnant women of delivering low birth weight or premature infants.
- Urethral narrowing (stricture) in men from recurrent urethritis, previously seen with gonococcal urethritis.
- Sepsis, a potentially life-threatening complication of an infection, especially if the infection works its way up your urinary tract to your kidneys.

Management

Prevention

- **Drink plenty of liquids, especially water.** Drinking water helps dilute your urine and ensures that you will urinate more frequently – allowing bacteria to be flushed from your urinary tract before an infection can begin.
- **Wipe from front to back.** Doing so after urinating and after a bowel movement helps prevent bacteria in the anal region from spreading to the vagina and urethra.
- **Empty your bladder soon after intercourse.** Also, drink a full glass of water to help flush bacteria.
- **Avoid potentially irritating feminine products.** Using deodorant sprays or other feminine products, such as douches and powders, in the genital area can irritate the urethra.

Intervention at HWC

Medicines	Indications
Cantharis vesicatoria	Intolerable urging and tenesmus. Burning after urination; urine passed drop by drop. Constant desire to urinate.
Nux vomica	Frequent calls; little and often. Ineffectual urging, spasmodic and strangury.
Staphysagria	Burning in urethra when not urinating, stops while urinating.
Mercurius corrosivus	Intense burning in urethra. Urine hot, burning, scanty or suppressed; Stabbing pain extending up urethra into bladder; Perspiration after urinating.

Referral

- High grade fever
- Pyelonephritis
- Renal damage
- Persons diagnosed with one kidney

13.3.14 Allergy

Allergy is a condition of overreaction of the immune system in certain individuals to some harmless substances. The substance that causes allergic reaction is called an allergen. Allergic reactions are excessive activation of certain white blood cells called mast cells and basophils by

a type of antibody called immunoglobulin E (IgE). About one third of the population suffer from one or other form of allergy. Children are more affected by allergy. Asthma and rhinitis are the common respiratory allergies. Eczema, urticaria and atopic dermatitis are some of the common skin allergies.

Common allergic disorders

- The common allergic disorders are asthma, allergic rhinitis, anaphylaxis, drug, food, insect allergy, eczema and urticaria.
- About 90% of food allergies are caused by cow's milk, soy, eggs, wheat, peanuts, tree nuts, fish and shellfish. Pulses, rice, black gram, citrus fruits, banana, food additives and preservatives are also found to cause food allergies in sensitive individuals.
- House dust, old papers, certain drugs, cat dander, dog dander, cockroaches, insects, pollen, molds and perfumes are also found to causes allergy.

Symptoms

The severity and appearance of the symptom depend on immunity, type and amount of exposure to the allergen.

Signs & Symptoms of respiratory allergies

- Nasal discharge
- Coryza
- Sneezing
- Lachymation
- Coughing
- Soreness of throat
- Dyspnoea

Signs & Symptoms of gastro-intestinal allergies

- Diarrhoea
- Increased stool frequency
- Stool with undigested food particles
- Flatulence
- Heartburn
- Eructations

Complications: Anaphylaxis

Intervention at HWC

Allergic rhinitis

Medicines	Indications
Allium cepa	Acrid nasal discharge, bland lachrymation, sneezing, better in open air.
Arsenicum album	Watery, irritating discharge; sneezing; burning sensation in nostrils; with weakness and restlessness; increased thirst.
Euphrasia officinalis	Bland nasal discharge but acrid lachrymation.
Sabadilla	Profuse, watery nasal discharge with severe sneezing; suited for children with worm trouble.

Referral

When patient does not respond to the initial treatment or develop anaphylaxis and severe shortness of breath as the case worsens.

13.3.15 Back pain

Back pain is one of the most common complaints and cause of disability in people seen in practice. More than 80% of the adults have had at least one episode of back pain, and many have had recurrent episodes since adolescence.

The history and examination will identify both the majority of patients with self-limiting disease and also the minority who have a potentially serious condition that may present as back pain needing further evaluation.

Diagnostic testing should not be a routine part of the initial evaluation, but used selectively based upon the history, examination, and initial treatment response.

Aetiology

Common	Occasional	Rare
<ul style="list-style-type: none"> Faulty posture Mechanical pain (muscle/ ligamentous strain, sprain) Trauma/accident Infective (TB, i.e. Pott's disease, epidural, Abscess, brucellosis) Lumbar spondylosis (degenerative OA) Spinal dysfunction (intervertebral disk Prolapse, i.e. Inter - Vertebral Disk Prolapse (IVDP)) Psychosocial (depression, anxiety, drug seeking behavior) Referred (lower cervical segments, renal calculi, pyelonephritis) Pelvis (in women – dysmenorrhea, pelvic inflammatory disease). 	<ul style="list-style-type: none"> Infective (osteomyelitis) Spinal abnormalities (kyphosis, scoliosis, Secondary to poliomyelitis, Scheuermann's Disease) Vertebral collapse (osteoporosis, osteomalacia) Referred pain (cardiac – angina, MI; GI – Duodenal ulcer, pancreas) Spondyloarthropathies (ankylosing spondylitis, Reiter's syndrome) Malignancies (usually secondaries: from Lungs, breast, prostate, thyroid). 	<ul style="list-style-type: none"> Congenital (spina bifida, Spondylolisthesis*) Malignancies (primary: Myeloma, Hodgkin's) Referred pain (aorta, pulmonary embolism) Compensatory neurosis (legal issues, workers' compensation) Spinal canal stenosis Cauda equina syndrome Paget's disease Coccydynia

Signs & symptoms

- Back pain can range from a muscle aching to a shooting, burning or stabbing sensation. In addition, the pain may radiate down your leg or worsen with bending, twisting, lifting, standing or walking.
- A careful history taking and physical examination should address the following three aspects of back pain, which are mostly sufficient to arrive at a working diagnosis:
 - Is the back pain due to any systemic disease?
 - Is there a neurological deficit that may entail surgical evaluation?
 - Is there a psychosocial distress that is aggravating or prolonging the pain?
- The vast majority of LBP are mechanical, i.e. muscular and ligamentous strains. They are self-limiting and not severe.
- Diagnostic testing should not be a part of their initial evaluation. However, a patient's failure to improve with conservative treatment (within 4–6 weeks) is an indication for further evaluation.

- Absence of history of trauma does not exclude mechanical causes, IVDP, or vertebral fractures. A seemingly insignificant episode, such as a minor fall, may be a red flag for fracture in an elderly.
- Examine the spine after its adequate exposure and in good light. Sometimes an unexpected finding such as midline mole, tuft of hair, dimpling, or hemangioma will spot the diagnosis of spina bifida occulta.
- Palpation is an important component of examination. Unlike the lumbar spine, the thoracic vertebrae are superficial and it is relatively easy to locate affected (painful) segment roots, either alone or together.
- Inter – Vertebral Disk Prolapse is very uncommon in the thoracic spine.
- Thoracic spine pain is frequently associated with the lower cervical spine lesions.
- The thoracic spine is the commonest site in the vertebral column for metastatic deposits.
- Back pain that is unilateral may have a urologic etiology such as pyelonephritis, or obstructive nephropathy.

Investigations

- CBC,
- X-ray at referral centre
- CT/MRI at referral centre

General management

- Education emphasizes the importance of staying active, reducing stress and worry, and learning ways to avoid future injury.
- Physical therapy and exercise in non-pathological conditions.
- Hot fomentation
- Posture correction
- Yoga practice

Intervention at HWC

Medicines	Indications
Calcarea phosphorica	Rheumatic pain from draught of air, with stiffness and dullness of head. Soreness in sacro-iliac symphysis, as if broken.
Rhus toxicodendron	Pain and stiffness in small of back; better, motion, or lying on something hard; worse, while sitting.
Kali carbonicum	Backache after abortion, labour, menstrual disorder and pregnancy. Stiffness and paralytic feeling in back. Lumbago with sudden sharp pains extending up and down back and to thighs. Worse at 2 -4 am.
Nux vomica	Sedentary habit, Backache in lumbar region, sitting on cold surface. Must sit up in order to turn in bed. Worse, 3 to 4 a.m.
Hypericum perforatum	Pain in nape of neck. Pressure over sacrum. Spinal concussion. Coccyx injury from fall, with pain radiating up spine and down limbs. Jerking and twitching of muscles.
Cimicifuga racemosa	Spine very sensitive, especially upper part. Stiffness and contraction in neck and back. Intercostal rheumatism. Rheumatic pains in muscles of back and neck. Pain in lumbar and sacral region, down thighs, and through hips. Crick in back.

Medicines	Indications
Ruta graveolens	Pain in nape, back and loins. Backache better pressure and lying on back. Lumbago worse morning before rising.
Bryonia alba	Painful stiffness in nape of neck. Stitches and stiffness in small of back. From hard water and sudden changes of weather. Better, lying on painful side, pressure, rest.
Agaricus muscarius	Pain, with sensitiveness of spine to touch; worse in dorsal region. Lumbago; worse in open air. Crick in back. Twitching of cervical muscles.

Referral

- Backpain associated with
 - o Fever
 - o Weight loss
 - o Lump along spine/ para spinal lump
 - o Spinal compression causing neurological deficits

13.3.16 Renal calculi & renal colic

Renal colic is caused by a blockage in the urinary tract usually due to obstructed calculi. The most common cause of a blockage in the urinary tract is a kidney stone or a renal stone.

Types of stones

Type	Compound
Calcium stones	Calcium oxalate dihydrate
	Calcium oxalate monohydrate
	Calcium phosphate
Non-calcium stones	
Infection stones	Magnesium ammonium phosphate
	Carbonate apatite
	Matrix calculi
Uric acid and urates	Uric acid, Ammonium urate, Sodium urate
Cystine	Cystine
Drugs	Indinavir, Triamterene

Risk factors

The risk factors for kidney stone formation are discussed under the following four headings:

General risk factors	Metabolic risk factors	Urinary tract infections	Anatomic risk factors
<ul style="list-style-type: none"> • Family history of tendency to develop stone. • Living in warm and dry climate and not taking sufficient water • Intake of hard water for drinking purpose. • Obesity • High sodium intake diets. 	Calcium stones Hypercalciuria Hyperoxaluria Hyperuricosuria Hypocitraturia Low Urine pH Hypomagnesuria Uric acid stones Low Urine pH Low urine volume Hyperuricosuria	Proteus Klebsiella Pseudomonas Staphylococcus species Proteus mirabilis	Horseshoe Kidneys Calyceal Diverticula

Types of Stones

There are several different types of stone, including:

- Calcium stones: These are the most common types of stone and consist of calcium oxalate.
- Uric acid stones: These stones develop when uric acid concentrates in the urine.
- Cystine stones: Cystine stones are rare and occur due to cystinuria.
- Struvite stones: Bacteria in the urinary tract can cause struvite stones, although these are also less common.

Symptoms

- Symptoms of Acute Renal colic - Pain in flank which may spread downwards and anteriorly towards ipsilateral groin, and testis in male and vulva in females, sometimes extending to thigh, excruciating pain.
- Severe pain - Most of the patients with urolithiasis experience pain which may vary from dull aching to severe colicky in nature. The site of pain differs depending upon the position of stone.
- Acute Renal Colic - When stone is at the renal pelvis.
- Acute Ureteric Colic - When stone is in the ureter.
- Strangury severe pain experienced at the tip of penis in males and at labia majora in females accompanied by intense desire to pass urine but resulting only in the passage of a few drops of urine, which may or may not be blood stained. This is typical of urinary bladder calculi. Sometimes similar type of pain is experienced when the stone becomes impacted in posterior urethra.
- Burning micturition
- Haematuria or reddish discoloration of urine
- Urgency and frequency of urine
- Dysuria
- Fever
- Vomiting

Signs

- Rigidity of lateral abdominal wall
- Tenderness over renal angle/kidney region
- Percussion over kidney or renal angle leading to stabbing pain.
- Reduced output of urine
- Haematuria
- Rise in body temperature
- Increase in Blood Pressure

Investigations

- X-ray
- USG

General management

- Drinking liquids to help decrease pain and flush blockages from your urinary tract.
- Limiting coffee, tea, and / or soda to maximum 2 cups a day if at all are to be taken.
- Strain urine every time while urinating.

- Intake of healthy foods. Healthy foods include fruits, vegetables, whole-grain breads, low-fat dairy products, beans, lean meats, and fish.

Intervention at HWC

Medicines	Indications
Berberis vulgaris	Sensation as if some urine remained after urinating. Urine with thick mucus and bright-red, mealy sediment. Bubbling, sore sensation in kidneys. Pain in bladder region. Pain in the thighs and loins on urinating. Frequent urination; urethra burns when not urinating.
Ocimum canum	Renal colic, especially right side. High acidity, formation of spike crystals of uric acid. Turbid, thick, purulent, bloody; brick-dust red or yellow sediment. Odor of musk.
Lycopodium clavatum	Pain in back before urinating; ceases after flow; slow in coming, must strain. Retention. Polyuria during the night. Red sediment; right sided stone; constipated, desires sweet.
Tabacum	Renal colic; violent pain along ureter, left side. Sense of relaxation of stomach, with nausea.

Referral

- Grade II and above hydronephrosis
- Single kidney
- Acute pyelonephritis
- Staghorn calculi

13.3.17 Fever or Pyrexia

Fever or pyrexia is a common presentation in most fields of medical practice. It is usually associated with benign transitory infection.

Petersdorf and Beeson defined FUO (Fever of Unknown Origin) in adults as:

- Temperature higher than 38.3°C (>101°F) on several occasions (i.e. fever does not have to be continuous or daily but occurs in majority of days of the illness).
- Fever lasting more than three weeks.
- Failure to reach a diagnosis despite one week of inpatient investigation.

The first step should be to confirm the history of fever, its documentation, and *exclusion of habitual, factitious, or drug-induced fever*.

- Fever patterns such as intermittent, relapsing, sustained may aid in diagnosing cases of tertian or quartan malaria, or Hodgkin's Disease (with Pel-Ebstein fever characterized by 5-10 days of fever alternating with 5-10 days of afebrility).
- In all cases of fever, a serial record of temperature is essential; four-hourly in acute cases and eight hourly in all other cases. A simultaneous record of pulse rate and respiration gives additional information that may be clinically useful.
- The duration of fever prior to seeking medical help may give some clues. The longer the duration of the fever, the less likely there is an infectious etiology; if it is of month's duration,

then autoimmune or malignant disorders are the possibilities; when it is more than a year or so, then granulomatous diseases are the probabilities.

- *Drug-induced fever* If fever persists beyond 72 hours of stopping all possible offending drugs then the likelihood of fever being drug-induced is markedly reduced.

Physical examination

Must be thorough and often repeated. Symptoms and signs of common diseases causing FUO are given in fever associated with rash may be a viral exanthem (e.g. rubella, varicella) or a clue to a serious disease (e.g. meningococemia, thrombocytopenia, erythema multiforme).

Investigations

- CBC
- Peripheral blood smear

General management

- Drink plenty of fluids.
- Take adequate rest and ensure you get plenty of rest.
- Wear lightweight clothing and avoid using heavy blankets or quilts which could potentially overheat the person.
- Keep the room at a comfortable temperature.
- Avoid taking baths or showers in cold water.
- Sponging with normal water.
- Light nutritious easily digestible diet.

Intervention at HWC

Medicines	Indications
Aconitum napellus	Sudden onset of fever after exposure to dry cold wind especially in winter, increased thirst for large quantities of water at short interval, anxiety, Physical and mental restlessness
Arsenicum album	Fever with profound weakness, mid day and mid night aggravation, accompanied by diarrhoea and or vomiting, thirst for small quantities of water in small interval; anxiety and fear with great restlessness.
Belladonna	Sudden onset of high fever on exposure of head to heat or cold. Throbbing headache; dry hot burning skin; No thirst with fever.
Bryonia alba	Ferver with dry tongue; Thirst for large quantities of water at long interval, constipated. Desires to lie down quietly; all complaints worse motion.
Eupatorium perfoliatum	Perspiration relieves all symptoms except headache. Chill between 7 and 9 am , preceded by thirst with great soreness and aching of bones. Nausea, vomiting of bile at close of chill or hot stage; throbbing headache. Knows chill is coming on because he cannot drink enough.
Ferrum phosphoricum	Chill daily at 1 p.m. All catarrhal and inflammatory fevers; first stage.
Pyrogenium	Coldness and chilliness. Septic fevers. Latent pyogenic condition. Chill begins in back. Temperature rises rapidly. Great heat with profuse hot sweat, but sweating does not cause a fall in temperature.

Medicines	Indications
Gelsemium sempervirens	Pulse slow, full, soft, compressible. Chilliness up and down back. Heat and sweat stages, long and exhausting. Much muscular soreness, great prostration, and violent headache; drowsiness, dullness, with thirstless.
Rhus toxicodendron	Fever with great myalgia, and bodyaches. Triangular red tip tongue, thirsty during fever, restless physically, suitable for continuous fever.

Referral

- When patient does not respond to the initial treatment along with dietary and routine advice or develops worsened condition such as shock, internal bleeding, severe urinary tract infection causing fever or any severe respiratory illness, etc.
- Cases of tuberculosis or HIV requiring specific conventional treatment for a fixed duration initially.

FIRST AID BEFORE REFERRAL

Objectives

- First aid is the most important aspect of medical treatment.
- First aid is the assistance given to a person experiencing an unexpected illness or injury to save life, prevent the condition from worsening or to promote recovery.
- There are numerous circumstances which may require first aid, and numerous nations have legislation, regulation, or guidance which specifies a basic level of first aid provision in specific conditions.
- First aid, in any case, does not basically require any specific equipment or past data, and may include improvisation with materials offered at the time.

Vital Signs

Vital Signs	Good	Poor
Heart Rate	60-100 beats per minute	Less than 60 or greater than 100 beats per minute
Respirations	14-16 breaths per minute	Less than 14 breaths per minute
Skin	Warm, pink and dry	Cool, pale and moist
Consciousness	Alert and orientated	Drowsy or unconscious

Four A's of First Aid

Awareness	Assessment	Action	After care
Observe Stop to Help	Assess what is required to be done. Ask yourself, 'Can I do it?'	Do what you can. Call for expert medical help. Take care of your and the bystander's safety.	Once you have assisted the victim, stay with him/her till expert care arrives.

While Delivering First Aid Always Remember

- Prevent deterioration.
- Act swiftly, deliberately and confidently.
- Golden Hour - First 60 minutes following an accident.
- Platinum Period - First 15 minutes following an accident.
- Prevent shock and choking.
- Stop bleeding.
- Loosen victim's clothes.
- Regulate respiratory system.
- Avoid crowding/over-crowding.

- Arrange to take victim to safe place/hospital.
- Attend to emergencies first with ease and without fear.
- Do not overdo. Remember that the person giving first aid is not a doctor.

First Aid for different types of injuries

Injury	Symptom	Do's	Don'ts
Fracture	<ul style="list-style-type: none"> • Pain • Swelling • Visible bone 	<ul style="list-style-type: none"> • Immobilize the affected part. • Stabilize the affected part. • Use a cloth as a sling. • Use board as a sling. • Carefully transfer the victim on a stretcher. 	<ul style="list-style-type: none"> • Do not move the affected part. • Do not wash or probe the injured area.
Burns (see Degrees of Burn table)	<ul style="list-style-type: none"> • Redness of skin • Blistered skin • Injury marks • Headache/seizures 	<ul style="list-style-type: none"> • In case of electrical burn, cut-off the power supply. • In case of fire, put out fire with blanket/coat. • Use water to douse the flames. • Remove any jewellery from the affected area. • Wash the burn with water. 	<ul style="list-style-type: none"> • Do not pull off any clothing stuck to the burnt skin. • Do not place ice on the burn. • Do not use cotton to cover the burn.
Bleeding	<ul style="list-style-type: none"> • Bruises • Visible blood loss from body • Coughing blood • Wound /Injury marks • Unconsciousness due to blood loss • Dizziness • Pale skin 	<ul style="list-style-type: none"> • Check victim's breathing. • Elevate the wound above heart level. • Apply direct pressure to the wound with a clean cloth or gauze. • Remove any visible objects from the wounds. • Apply bandage once the bleeding stops. 	<ul style="list-style-type: none"> • Do not clean the wound from out to in direction. • Do not apply too much pressure (not more than 15 min.). • Do not give water to the victim.
Heat Stroke/Sun Stroke	<ul style="list-style-type: none"> • High body temperature • Headache • Hot and dry skin • Nausea/Vomiting • Unconsciousness 	<ul style="list-style-type: none"> • Move the victim to a cool, shady place. • Wet the victim's skin with a sponge. • If possible apply ice packs to victim's neck, back and armpits. Do not apply ice directly on the skin. • Remove any jewelry from the affected area. • Wash the burn with water. 	<ul style="list-style-type: none"> • Do not let people crowd around the victim. • Do not give any hot drinks to the victim.
Unconsciousness	<ul style="list-style-type: none"> • No movement of limbs • No verbal response or gestures • Pale skin 	<ul style="list-style-type: none"> • Loosen clothing around neck, waist and chest • Check for breathing. • Place the victim's legs above the level of heart. • If victim is not breathing, perform CPR. 	<ul style="list-style-type: none"> • Do not throw water or slap the victim. • Do not force feed anything. • Do not raise the head high as it may block the airway.

Degree of Burns

1st Degree Burn	2 nd Degree Burn	3 rd Degree Burn	4 th Degree Burn
Will recover it-self in a few days. Action Required: Place under running water.	Serious but recovers in a few weeks. Action Required: Place clean wet cloth over the burnt area.	Very Serious and will require skin grafting. Action Required: Place a clean dry cloth over the burnt area.	Extremely Serious and requires many years with repeated plastic surgery and skin grafting, is life threatening. Action Required: Leave open and prevent infection.

Splints and Aids of Torso

A splint is a bandage that immobilizes a broken bone. Sometimes this is done by using rigid objects such as sticks or boards. For some injuries, however, this isn't possible, and the only option is to tie the broken limb to the body.

Splints

While applying a splint, do not try to fix or straighten the break. This may exclusively cause an additional injury or pain. Rather, just apply the splint to the break the way it is.

When Using Rigid Material

- Always use sufficiently long gauze to reach the joints behind the break. For example, splinting a forearm, fabric should be sufficiently long to touch both the wrist joint and the elbow. This helps in keeping the fabric in place and keeps an unnecessary amount of pressure from being connected to the injury.
- Always put cushioning/ large amount of cooton pads in between the rigid material and the body to make the victim comfortable. Tie knots between the rigid material and the body (inmid-air) once feasible. This will make them simpler to loosen. In the event that this can be inconceivable, tie knots over the rigid material.
- To support the forearm, envelope the split with rigid material and adequately bandage to the arm with wide fabric/ gauze strips. An old X ray sheet, clean non dusty daily paper or magazine, twisted into a "U" shape, works okay. Splint the wrist joint with the similar approach. The entire forearm needs to be immobilized.
- In order to splint the elbow, utilize enough rigid material to make a trip from the armpit to the hand. The whole arm should be immobilized.
- Try not to plan to fix or end the elbow; support it in position. In order to splint the upper leg, utilize long pieces of gauze of rigid material which will reach from the lower leg (ankle) joint to the armpit. Over the hips, tie long straps round the torso to keep the top of the splint in place.
- To splint the lower leg, use rigid material long enough to travel from the knee to the foot. The foot ought to be immobilized and unable to turn. Make sure to use a lot of cushioning, particularly round the ankle.

Bleeding

- Severe bleeding involves loss of large amount of blood.
- This may occur externally through natural openings, like mouth.
- A cut on the skin too can lead to bleeding.
- Internal bleeding occurs due to an injury to blood vessel.

Causes

- Accidents/Falls
- Blow to the head
- Injuries, like scalp wounds
- Tooth Extraction
- Certain medications
- Illnesses like: Hemophilia, Scurvy, Cancer, Thrombocytopenia, Aplastic Anemia, Leukemia, Hemorrhage, Peptic Ulcer, Platelet Disorder, Liver Disease, Septicemia.

Symptoms

- Discharge of blood from a wound.
- Bruising
- Blood instool/urine
- Blood coming from other areas, like mouth/ear.

Treatment

- Wash hands well before administering to patient.
- Wear synthetic gloves.
- Make the victim lie down.
- Slightly elevate the legs.
- If possible keep the affected area elevated.
- Remove any obvious debris/particle.
- Apply direct pressure using clean cloth/bandage.
- Use hand if cloth is not available.
- Apply pressure continuously for at least 20 minutes.
- Do not remove the cloth to check the bleeding.
- Hold the bandage in place using an adhesive tape.
- If bleeding seeps through bandage, do not remove it.
- Add extra bandage on top of the first one.
- Apply direct pressure on the artery if necessary.
- The pressure points for arm--below arm- pit/above elbow.
- For leg--behind knee/near groin.
- Squeeze the artery keeping finger flat.
- Continue applying pressure on the wound.
- Once bleeding stops immobilize the affected part.
- Monitoring of blood pressure
- Monitoring for vitals

Steps to Avoid

- Do not try to replace displaced organ.

- Just cover the wound with a clean cloth.
- Do not try to remove an embedded object.

Cardio-pulmonary resuscitation (CPR)

CPR refers to basic life support (BLS), which encompasses rescue breathing and closed-chest compressions. For the health provider, the term is much broader and includes advanced cardiac life support (ACLS), pediatric advanced life support (PALS), and advanced trauma life support (ATLS). Thus, it is important for the physician to be specific in discussing re-suscitation with patients and families. The basic steps of CPR are shown in the figure below:


CPR - CARDIO PULMONARY RESUSCITATION

This information is published for those who have had training in cpr and should not be used by an untrained person except in the gravest emergency where no skilled help is available

• CHECK FOR DANGER • STAY WITH THE PERSON • CALL FOR HELP AND START RESUSCITATION

1 AIRWAY


- Quickly turn person on side
- Remove foreign material from mouth
- Place neck and jaw in correct positions
- Listen for breathing
- Watch for chest movement



2 BREATHING


If not breathing

- Quickly turn person on back
- Open Airway
- Start mouth to mouth or mouth to nose
- 5 full ventilations in ten seconds
- Check neck pulse
- If pulse is present, resuscitation at a rate of 15 per minute (one every 4 seconds)
 - check the circulation after 1 minute and then every 2 minutes
- If breathing returns - place the person on side - keep the airway clear



3 COMPRESSION

- Check neck pulse
- If absent
 - Begin external cardiac compression
 - Place the heel of one hand on the lower half of the sternum
 - Lock the other hand to the first by grasping wrist or interlocking fingers
 - Keep fingers of the chest
 - Do 2 ventilations and 15 compressions every 15 seconds



Intervention at HWC

Medicines	Indications
Arnica montana	Traumatic and post-partum (after miscarriage or delivery) haemorrhages. Apply it externally as well. Concussion of brain after injuries on head.
Calendula officinalis	Open wounds, parts that will not heal, ulcers, etc. Promotes healthy granulations and rapid healing by first intention. Wounds or open abscesses. It promotes healthy growth of tissues rapidly.
Millefolium	Active haemorrhage after blow or extraction of tooth, the blood being red and thin.
Aconitum napellus	Shock from bad news or a from having a fall. Conditions which come on suddenly, like a sudden sore throat or headache.
Apis mellifica	Insect bites or stings, and allergic reactions which can be caused by these. Affected areas will be red, hot and swollen, and the pain will be described as stinging.

Medicines	Indications
Arsenicum album	Food-poisoning. A keynote of this remedy is anxiety, and the patient is likely to be very cold. Pains might be described as burning.
Natrum sulphuricum	Epilepsy from concussion of brain after injuries on head; photophobia; violent pain as if the base of brain were crushed hot feeling on top of head; exhaustion and prostration.
Cantharis vesicatoria	Excellent remedy for burns when used orally and externally both. For immediate outer application, use Cantharis. Ext. In 1 dram to 1 oz. of cold water. The part burnt should be kept moist with this application. It will avoid formation of blisters. Burns and scalds of an erysipelatous, vesicular character; superficial ulcerations caused by burns.
Hypericum perforatum	One of the reputed anti-septic remedies: patient feels better by colt application; for excruciating intense pains when nerves are involved even when pus has formed or septic state has developed.
Ledum palustre	Antidotal to stings of insects, bees.

SOFT SKILLS AND COMMUNICATION SKILLS

Key Learning Outcomes

- **At the end of the session, you will be able to:**
 - Understand Art of Effective Communication.
 - Able to handle effective Communication with Patients and their Family.
 - Able to handle effective Communication with Peers/ colleagues using medical terminology in communication.
 - Learn basic reading and writing skills.

Objectives

- **At the end of the session, you will be able to:**
 - Communicate appropriately with co-workers.
 - Gain knowledge about the language skills.
 - Respond to patient's call.

15.1 Overview

A good understanding of the different types of communication and communication styles can help you know and deal with people better, clear up misunderstandings and misconceptions, People communicate in different ways. As a community health officer (CHO) how well you interact with your patients and the people around you will entirely depend on how well you communicate.

15.2 Definition of Communication

Transmitting or exchanging the information by talking, composing, or utilizing some other medium. It likewise implies sending or receiving information via phone lines or PCs. Communication is a two-way mechanism for exchanging ideas and information that brings changes in human behavior. Communication is an interactive system – a series of ever-changing, ongoing transactions between individuals in the environment.

Verbal Communication

We use words when we speak or write. This is verbal communication.

Spoken Verbal Communication Includes

- Face to face communication
- Speech
- Conversation on the phone
- Voice chat over internet

Written and Verbal Communication Includes

- Writings found in newspapers
- E-mails
- Messages & chats on telecommunication/ e-communication portals
- Memos
- Bulletins
- Handouts

Non-Verbal Communication

Non-verbal communication means communicating without the use of speech or the written word. This form of communication includes the use of body language of a person.

- **Examples of non-verbal communication are:**
 - o Body postures
 - o Tone of voice
 - o Gestures and touch
 - o Facial expressions
 - o It can also be in the form of pictorial representations, signboards, or even photographs, sketches, and paintings.

Formal Communication

- Formal communication is concise and straight, official, always precise and has a stringent and rigid tone to it.
- It follows the lines of authority.

Informal Communication

Informal communication does not have any fixed rules and standards. Informal conversations need not have limitations of time, place or even subjects. Examples of informal communication are gossip circles, family, friends etc.

15.3 Communication Process

Communication which is the basis of human interaction is a complex process. It has the following main components:

- Sender
- Messages
- Receiver
- Feedback
- Context

Some Factors Influencing Communication

- Attitude
- Socio-cultural or ethnic background
- Past experiences
- Knowledge of subject matter
- Ability to relate to other's interpersonal perception
- Environmental factors
- Emotional status

Barriers to Communication

- Communication may often fail due to the following reasons:
 - o Physiological barriers: Difficulties in hearing, expression.
 - o Psychological barriers: Perception, distrust, emotion, preconception, past experience.
 - o Semantic barriers: Jargon, language.
 - o Environmental barriers: Noise, distance, congestion.
 - o Socio-cultural background: Age, gender, interest, knowledge.
 - o Organizational barriers: Unclear planning, structure, information overload, timing, technology, status difference.

15.4 Effective Communication

Effective communication means how effectively you pass a message so that it is received and understood by a person exactly the way you wanted it to. You often would need to send, receive, and process a huge number of messages every day. Effective communication can improve relationships with co-workers and patients & care givers at the hospital. Communicating effectively with co-workers is important to ensure continued and reasonable quality of patient care.

15.4.1 Seven C's of Effective Communication

The 7 C's of communication are important as they give a checklist for making sure that your communication with the co-workers, patients, their care givers and general public in your catchment area is so effective that they get your message effectively. According to the 7 C's, communication needs to be:

1. Clear
2. Concise
3. Concrete
4. Correct
5. Coherent
6. Complete
7. Courteous

Clear

When talking to someone, be clear and concise about the message you want to convey. For e.g. instead of saying "The patient's condition is not well, maybe there is some problem with breathing or some problem with pulse rate, or any other reason.", you can say "The patient's condition is not well due to increase in breathing rate."

Concise

Always keep your communication short and sweet. Stick to your point and keep it brief. For e.g. instead of saying "We are thinking to provide medical care for the patient in ward 101. He has some problem with the bed settings. We need to rectify it. He needs more elevated settings at the head side." One can say that, "Patient in ward 101 needs elevated head side settings in his bed."

Concrete

Be specific, so that the receiver understands your message clearly. Your message should be definite and sensible. For e.g. "Report for duty in ward no. 16 at 6:00 am sharp tomorrow or on 15th October (as the case may be)."

Correct

When you communicate, be true to the facts. Always use appropriate words that a person can understand easily. Avoid using slang or too many technical words. For e.g.: "The IV fluid is inserted in the body of the patient". Here the IV fluid is not generally used in the day-to-day life, more commonly used word is drip. Instead say, Patient has been given drip.

Coherent

What you communicate your words should be meaningful. Make sure you don't speak too fast or repetitive. Let your communication be logical.

Complete

Make sure that your entire communication as a whole is complete. The person who receives the message should know exactly what to do. Make sure that you have included all the relevant information in the message. Example, when telling a colleague about transferring a patient from one place to another you need to give complete information regarding the same. By complete information here it would mean the number of the ward, the bed on which the patient has to be transferred, whether the patient has to be taken on a wheel chair or a bed etc.

Courteous

Always be respectful to others while communicating. Do not use rude and impolite language in your speech. Use a friendly approach while conveying a message. Be Courteous friendly, open and honest.

15.5 Language Skills

Language skills comprise of Listening, Speaking, Reading and Writing (LSRW) Skills. For a CHO working in a hospital, it is important that he/she is well versed with the LSRW skills.

15.6 Listening Skills

Listening is the ability to correctly receive and understand messages during the process of communication. Listening is critical for effective communication. Without effective listening skills, messages can easily be misunderstood. This results in a communication breakdown and can lead to the sender of the message and the receiver becoming frustrated or irritated. Remember that listening is not the same thing as hearing. Hearing just refers to sounds that you hear. Listening is a whole lot more than that. To listen, one requires focus. It means not only paying attention to the story, but also focusing on how the story is relayed, the way language and voice is used, and even how the speaker uses their body language. The ability to listen depends on how effectively one can perceive and understand both, verbal and non-verbal cues.

How attentively you listen has a key impact on your job efficiency and on the quality of your relations with the customers. How well you listen has a major impact on your job effectiveness and on the quality of your relationships with the customers.

We listen:

- To obtain information
- To understand
- To learn

Importance of Listening for Your Job Role

A general duty assistant is the person who is the closest to the patient. The patients may have some thought or problem regarding their health condition or any other personal concern. The job of the general duty assistant is to listen to the concerns of a patient. And it is not only about hearing, it is about listening effectively.

Guidelines for Effective Listening

If you try and follow these guidelines while listening, you will become a better listener.

- **Do not talk:** Try not to talk in between, in spite of the fact that you may need to clarify. Do not interrupt when the patient is speaking, clarify your doubts once the patient stops speaking.
- **Listen carefully:** Keep all the other things out of mind and just pay attention towards the speaker.
- **Put the speaker at ease:** Comfort the speaker to feel free to speak, especially in your case it would be the patient. It may also be your colleague or superior or HCW staff or ASHA/AWW of the area. Keep in mind their necessities and concerns. Use gestures or different signals or words to urge them to proceed.
- **Remove distractions:** Focus on what is being said: don't do other activities such as scribbling on paper, shuffling papers, arranging your desk, looking out of the window, etc. Avoid unnecessary interruptions.
- **Empathize:** Try to understand the other person's perspective. Look at issues from their perspective. Let go off fixed ideas or views.
- **Be patient:** A pause, even a long pause, does not necessarily mean that the speaker has finished.
- **Avoid bias:** Try to be neutral. Do not get irritated or get biased due to the person's behavior or mannerisms.
- **Listen to the tone:** Volume and tone of voice, both add to what someone is saying.
- **Listen for ideas:** Not just words: You need to understand the whole topic, not just remote phrases and ideas.
- **Watch and Observe non-verbal communication** and be conscious of your non-verbal communication which should not convey disinterest or defiance or boredom.
- **Gestures, expressions, and eye movements** can all be important. This will be useful while interacting directly with your friends, colleagues and superiors.

15.7 Speaking Skills

Speaking is the most important skill required in the professional environment. How successfully a message gets conveyed depends entirely on how effectively you are able to get it through. An effective speaker is one who enunciates properly, pronounces words correctly, chooses the right words and speaks at a pace that is easily understandable.

Importance of Speaking for your Job Role

As a CHO, it is very important to be effective at speaking. So, how you speak to the patients creates an image in the mind of the patient. You have to speak politely with the patient so that they do not get hurt. But if you want to give some instructions to the patients without hurting them, you have to speak effectively. Practice is the key for effective speaking.

Components of Speaking Skills

The important components of speaking skills are:

- Tone
- Comprehension
- Grammar
- Vocabulary
- Pronunciation
- Fluency
- Body language
- Rate of Speech

Tone: Tone includes the volume you use while speaking, the level and the type of feeling or emotion that you convey and the emphasis that you put on the words that you select. If you speak with lack of energy and in a monotonous tone, then certainly the patient will get bored.

Awareness: For the verbal communication, it surely needs a subject to respond, to speak and to commence it.

Grammar: It is required that you speak a correct sentence in the conversation. The usage of grammar is mandatory to learn in the correct way to gain expertise in the language in both verbal and written form.

Vocabulary: One cannot convey adequately or express their thoughts in both oral and written form if they don't have adequate vocabulary. Without an adequate vocabulary nothing can be passed on.

Pronunciation: Pronunciation is the best approach to speak clearer language when you talk. It manages the phonological procedure that refers to the part of a grammar made up of the components and rule that decide how change and pattern in a language sound. Pronunciation is the knowledge of learning about how the words in a specific language are produced clearly when an individual speaks.

Fluency: It is the one's ability to speak fluently and accurately. Fluency means speaking at a

normal speed without hesitation, repetition and self-correction. To be fluent it is important, that you don't use fillers like "you know", "I mean", "ums", "ers", "aaahhhh", etc.

Body Language: Body language means communicating through body posture, gestures, facial expressions and tone of voice. Body language must be in sync with your words; otherwise it is likely to confuse the patients. Positive body language is important in supporting your words and ensuring that your message is understood correctly.

Rate of Speech: A slow rate of speech makes the conversation disinteresting. Speak at a moderate pace and with appropriate volume. A CHO should match his rate of speech with that of the patient.

As a CHO, in order to demonstrate effective oral communication (listening and speaking skills) you should:

1. Listen patiently and answer to all the queries of the patients.
2. Convey the observations to the nurse. When you see any abnormality or unusualness in the patient's condition, inform directly to the concerned person.
3. Discuss the process with the patient and to make him / her feel comfortable while performing daily activities like grooming, bathing, elimination, transporting etc.

15.8 Reading Skills

Reading requires the skills of decoding and understanding the written message. Decoding and understanding the written language are the required skills for an effective reading.

Importance of Reading Skills

Good reading skills help you to comprehend ideas, follow arguments and detect implications. You can make out your exact task if you can read the documents detailing your roles and responsibilities. As a CHO, you need to:

- Read thoroughly and follow the instructions specified in the patient file.
- Read the instructions given by a doctor/nurse and interpret it accurately and then cross check with the ward nurse/supervisor for correct understanding. For e.g. If a patient is asked to move from one place to another, you have to make sure that the patient is transferred to the right place.

15.9 Writing Skills

Written communication is the form of communication which is transmitted through words. Effective writing skills are required to write documents such as reports, letters, memos and emails. Written communication is more important than oral communication because it creates a permanent record of one's work, and it can be referred to at any point of time. Only practice can perfect the writing skill.

Importance of Writing Skills

As a general duty assistant you will be using your writing skills in assisting nurses in recording the observation. At suitable times you will be needed to mark the template as per the observation.

15.10 Responding to a Patient's Call

The main aim of responding to call bell is to ensure that if the patient needs something, then his need is fulfilled immediately. Immediate responding to call bell is crucial for the patient's wellbeing and overall satisfaction. "If we can anticipate patients' needs before they use their call bells, then we'll have fewer interruptions on our rounds, and patient satisfaction will increase."

Tips

Healthcare professional should use clear model of communication:

- C-Connect:
 - o Acknowledge immediately.
 - o Use patient's name.
 - o Establish eye contact and smile.
- L-Listen:
 - o Maintain eye contact.
 - o Use listening techniques.
 - o Don't interrupt.
 - o Repeat information for accuracy.
 - o Clarify any doubts.
- E-Explain:
 - o Describe what is going to happen.
 - o Answer questions with patience.
 - o Speak slowly: repeat as necessary.
- A-Ask:
 - o Is there anything else that I can do?

ACKNOWLEDGEMENTS

The Ministry of AYUSH, Government of India, acknowledges with thanks the active participation and technical contribution of following experts in the preparation of this publication.

Facilitation and Guidance

- Vd. Rajesh Kotecha, Secretary, Ministry of AYUSH
- Sh. Roshan Jaggi, Joint Secretary, Ministry of AYUSH
- Dr. Anil Khurana, Director General, CCRH

Ministry of AYUSH

- Dr. Sangeeta A Duggal, Advisor (Homoeopathy)
- Dr. A Raghu, Joint Adviser (Ayurveda)
- Dr. Chinta Srinivas, Deputy Advisor (Homoeopathy)
- Dr. I Ghoshmondal, Deputy Advisor (Homoeopathy)
- Dr. Sulochana Bhat, Former Nodal Officer (Ayushman Bharat)
- Dr. Suresh Kumar, Deputy Advisor (Ayurveda)
- Dr. Mahendra Pal, Asst. Advisor (Homoeopathy)
- Dr. Amit Bhatt, Research Officer (Ayurveda)
- Dr. Sameer Deshmukh, Domain Expert-Public Health

Content Developers, CCRH

- Dr. Ch. Raveendar, former Asst. Director (H)/ Scientist- 4
- Dr. Varanasi Roja, Research Officer (H)/ Scientist- 3
- Dr. P. Hima Bindu, Research Officer (H)/ Scientist- 3
- Dr. Amulya Ratan Sahoo, Research Officer (H)/ Scientist- 3
- Dr. Padmalaya Rath, Research Officer (H)/ Scientist- 3
- Dr. Lipi Pushpa Debata, Research Officer (H)/ Scientist- 3
- Dr. Vaishali Shinde, Research Officer (H)/ Scientist- 3
- Dr. R. Bhuvaneshwari, Research Officer (H)/ Scientist-2
- Dr. Deepti Singh Chalia, Research Officer (H)/ Scientist- 1
- Dr. Siva Prasad Goli, Research Officer (H)/ Scientist- 1
- Dr. Amit Srivastava, Research Officer (H)/ Scientist-1
- Dr. Pooja Gautam, Research Officer (H)/ Scientist- 1

Reviewers

- Dr. N Radha Das, Former Advisor (Homoeopathy), Ministry of AYUSH
- Dr. Anil Khurana, Director General, CCRH
- Dr. Subhas Singh, Director, NIH, Kolkata
- Dr. L.K. Nanda, Chairman, Special Committee, Clinical Research, CCRH
- Dr. D.B. Sarkar, Former Asst. Director (H)/ Scientist- 4, CCRH
- Dr. S.R. Sharma, Former Research Officer(H)/ Scientist-3, CCRH
- Dr. Pratima Pal, Lecturer, Dept. of Materia Medica, NIH, Kolkata
- Dr. Divya Taneja, Research Officer(H)/Scientist-2

Editing group

- Dr. Varanasi Roja, Research Officer (H)/ Scientist-3, CCRH
- Dr. Khushboo Garg, Senior Research Fellow(H), CCRH
- Dr. Jyotika Bhatti, Senior Research Fellow(H), CCRH



सत्यमेव जयते

MINISTRY OF AYUSH

AYUSH Bhawan, B-BLOCK, GPO Complex

INA, New Delhi-110023

www.ayush.gov.in