



AYUSHMAN BHARAT

AYUSH Health & Wellness Centres

Orientation Guidelines for Community Health Officers

(CHOs)



Ministry of AYUSH
Government of India

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Government of India
New Delhi, 2020

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FOREWORD

Today, India is passing through epidemiological transition and disease burden is rapidly shifting towards Non-communicable diseases (NCDs). Various documents including National Sample Survey have revealed low utilization of health services at the primary care level, indicating an urgent need of the Comprehensive Primary Health Care interventions for achieving Universal Health Coverage. Hence, the Government of India has announced Ayushman Bharat programme in September 2018. Ayushman Bharat programme has two major pillars of services; one is Pradhan Mantri Jan Arogya Yojana (PM-JAY) 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 near to the communities to provide affordable & accessible health services to all citizens of the country.

The decision of Government for establishing 12,500 Health and Wellness Centres based on AYUSH principles and practices is a paradigm shift towards visualizing a holistic health approach for achieving "Community Health & Wellness". The Ministry of AYUSH would be transforming existing AYUSH dispensaries into Health and Wellness Centres as a first priority & if States and UTs propose, the sub-centres would also be taken up for upgradation in AYUSH HWCs.

These guidelines provide primordial preventions and management 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'. 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 HWCs, would be a continuous and dynamic process. I do believe that the integration of AYUSH would strengthen the preventive and promotive health needs of our society for achieving the National Goal of Health & Wellness for all.

(Shripad Yesso Naik)



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PREFACE

The decision of 10% of the Health and Wellness Centres under Ayushman Bharat in the country would be developed by the Ministry of AYUSH is an important milestone for formalizing AYUSH services at the community level. The Health and Wellness Centre aims to provide Comprehensive Primary Health Care (CPHC) Services to the community as per the informed choice.

This Orientation Guideline is an outlook of service framework for the Community Health Officers. States may design their own service delivery interventions based on available best local evidences and feasibility within the given framework. The given guideline is the result of discussion with the Ministry of Health and Family Welfare, State AYUSH and Health departments. It focuses more on early interventions based on Ayurveda principles and the best available evidences in hand so far. However, with evolving time, as per the need of community and experience gained during implementation of the programme, the fine-tuning of the guidelines would be done at times.

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 Medicinal Plants, 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, National Institute of Ayurveda, Jaipur, All India Institute of Ayurveda and Central Council for Research in Ayurvedic Sciences for framing this Guideline for the Community Health Officers. I also urge the states to use these guidelines as a framework to move expeditiously towards transforming the existing AYUSH dispensaries and sub-health centres into efficient AYUSH Health and Wellness Centres.



(Rajesh Kotecha)

28th May, 2020
New Delhi

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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 the areas of the Public Health Care delivery system, in line and in coordination with existing interventions of the Ministry of Health and Family Welfare (MoHFW) to build a robust public healthcare system which has the dynamism and capacity to meet the emerging health challenges and help build a society, which is more fit and healthy. The establishment of AYUSH Health & Wellness Centres with catchment area approach, aiming at demonstrating the effectiveness of AYUSH based practices and principles to prevent diseases, promote positive health and enhance the feeling of Wellness at community level, has been taken up in partnership with State and UTs. Each HWC shall be seen by a team headed by Community Health Officer (CHO) who is entrusted with the role of a team leader.

The training and orientation modules have been designed for CHO and other members of the team to build the capacities for effective and efficient performance of the assigned duties so that scheme is implemented as per laid down procedures to achieve the desired outcomes.

This Orientation Guideline for Community Health Officers is an initial framework for expansion of population enumeration and family empanelment, identification of "Prakriti" (body-mind constitution of individual), Yoga, use of medicinal plants, healthy living practices, basic OPD interventions and evidence-based NCDs protocols. 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.

The Ministry has high expectations, and I sincerely hope that the States/UTs would take strong ownership of this programme and would be able to establish new benchmarks while working towards the achievement of desired goals.

(RoshanJaggi)



Dr. A. Raghu
Joint Advisor (Ay.)



Dr. Sulochana Bhat
Nodal Officer

PREAMBLE

The Union Cabinet on 20.03.2020 approved the proposal of Ministry of AYUSH to operationalise 12,500 Health & Wellness Centre (HWCs) under Ayushman Bharat in a phased manner from year 2019-20 to 2023-24. The vision is to establish a holistic wellness model based on AYUSH principles and practices, 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.

Functional integration with 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 main objectives of these operational guidelines is to provide information on specific activities to be undertaken at HWC level. Since the primary users of this document are qualified Ayurveda physicians, the guidelines are crisp and indicative only. Further, the CHOs may use their expertise and wisdom to successfully manage AYUSH HWC services.

The approaches mentioned in the operational 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.

The team at Ministry of AYUSH will be very happy to extend its whole hearted support to State/UTs and other stake holders for the successful implementation of the programme.

Dr. A. Raghu, Joint Advisor (Ay.)

Dr. Sulochana Bhat, Nodal Officer

Abbreviations

ADHD	-	Attention Deficit Hyperactivity Disorder
AIDS	-	Acquired Immune Deficiency Syndrome
ANC	-	Antenatal Care
ANM	-	Auxiliary Nursing Midwifery
ASHA	-	Accredited Social Health Activist
AYUSH	-	Ayurveda, Yoga & Naturopathy, Unani, Siddha, Sowa-rigpa and Homeopathy
BD	-	Twice a day
BMI	-	Body Mass Index
CHO	-	Community Health Officer
cm	-	Centimetre
CRM	-	Common Review Mission
DM	-	Diabetes Mellitus
DVT	-	Deep Vein Thrombosis
EDD	-	Estimated Date of Delivery
FHS	-	Fetal Heart Sound
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
kg	-	Kilogram
LMP	-	Last Menstrual Period
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

MoHFW	-	Ministry of Health and Family Welfare
NCD's	-	Non-communicable Disease
NGO	-	Non-Governmental Organizations
NHM	-	National Health Mission
NIP	-	National Immunization Programme
OCD	-	Obsessive Compulsive Disorder
OD	-	Once in a Day
OPD	-	Outpatient Department
ORS	-	Oral Rehydration Solution
PCOD	-	Polycystic Ovarian Syndrome
PHC	-	Primary Health Centre
PNC	-	Post Natal Care
PRI	-	Panchayati Raj Institution
RCH	-	Reproductive & Child Health
RGIs	-	Registrar General of India
SBA	-	Skilled Birth Attendant
SC	-	Sub-Centre
SHGs	-	Self Help Groups
STD	-	Sexually Transmitted Diseases
STGs	-	Standard Treatment Guidelines
T.D.S.	-	Thrice in a day
ULBs	-	Urban Local Bodies
VHSNC	-	Village Health, Sanitation & Nutrition Committee
WHO	-	World Health Organization
XDR-TB	-	Extensively Drug-Resistant Tuberculosis

Chapter 1

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, R&D, standardization & quality control of medicines and procedures, upgradation of healthcare facilities, development of infrastructure, capacity building of healthcare providers, public health initiatives, mainstreaming of AYUSH are yielding encouraging results. National AYUSH Mission (NAM) launched during 2014 in the analogy of National Health Mission (NHM) of 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 during September 2018 has two components. First, the Pradhan Mantri Jan Arogya Yojana (PMJAY) provides health coverage up to Rs. 5 lakh per family per year for secondary and tertiary hospitalization to poor and vulnerable families. The second component is the 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 years scheme has been approved by the Union Cabinet 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 health care facilities to be upgraded as AYUSH HWCs are 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 National Health Mission. To successfully run comprehensive healthcare services, there should be coordination between AYUSH and Health Departments at State level.

1.5 Key components of AYUSH HWC

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 and Axillary Nurse Midwife (ANM) led by a Community Health Officer (CHO). Upgraded AYUSH dispensaries may have 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 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 like Ayurveda, Unani, Siddha, and Homoeopathy. The CHO will take clinical decision in his particular stream of medicine 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 has 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, for dispensing medicines, diagnostic services, adequate spaces for display of communication material of health messages, audio visual aids and appropriate community spaces for wellness activities, practice of Yoga and demonstration of medicinal plants in the garden or display of 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, teleconsultation 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 the integrated services with different National Programmes under NHM, the close cooperation between the frameworks of Department of Health & AYUSH in the States/UTs will be ensured. An agreement may be signed for sharing the 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 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 Department of Health for sharing Mobile Health Units, Ambulance services and 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 requires 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 & department will enable to successfully plan and carryout public health activities. The linkages with AYUSH standalone hospitals, collocated 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 in 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 to conclusions on the functionality of AYUSH HWCs.

The regular evaluation of the National AYUSH Mission shall be carried out to know the implementation progress and 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 SDG 3, as mandated by NITI Aayog measured on the basis of uninterrupted availability of AYUSH services (at HWC/ outreach), 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 such as Care in Pregnancy and Child Birth, Neonatal and Infant Health Care, Childhood and Adolescent Health Care, Contraceptive and Reproductive Health Care, Communicable Diseases, Acute Simple

Illnesses, 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 is 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 Ayurveda physicians, the guidelines are crisp and indicative only. Further, the CHO should use his 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 Ayurveda, however, if the CHO feels the need for additional medicine or facility he is free to make them available to the community, within the power conformed upon him by the States/ UTs

1.7 Advisory to Community Health Officers

- The major focus of HWC activities are promotion of health and prevention of diseases by educating people on proper food, lifestyle including Yoga
- 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 through door to door visits, camps at public places such as schools, panchayats, anganwadi centres
- Mentoring, motivation and sensitization of peripheral health workers and village leaders are key in achieving desired results
- For management of disease, proper diagnosis, understanding its severity, identifying complications are very important in deciding whether the case is suitable for Ayurveda intervention or needs referral
- Diagnosis of the disease at HWC level should be made mainly on the basis of detail history, clinical findings and basic laboratory tests available at HWC level. Referral may be done for further investigations, where ever it is absolutely necessary
- The CHO may avoid too much of medication and for simple illnesses diet and home remedy alone may be sufficient
- If the condition of the patient does not warrant for Ayurveda treatment to begin with or to further continue, proper counselling of the patient and relatives should be done and sufficient reasons explained before advising the alternative options
- The patient should be referred to higher level Ayurveda /Allopathic facility for specialty care or further investigation and it would be responsibility of CHO to ensure that the patient gets appropriate care without suffering financial hardship. The unnecessary referrals should be avoided

- The CHO is expected to be sensitive and empathetic towards the needs of the community
- He would provide an able mentorship and leadership to other healthcare providers in his team
He should ensure continuous availability of quality assured medicines and services in the jurisdiction of 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 & Health 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 the 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:

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

Chapter 2

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 the guidelines about the working areas of each service providers. It is also possible that some HWCs have more staff like pharmacist, staff nurse, housekeeping etc. and therefore it is the responsibility of CHO to delegate and monitor the activities of all available staff at 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 State/UT Govt.
- Provide funds as per the norms of Centrally Sponsored Scheme
- Preparing AYUSH training modules/ standard treatment guidelines/referral protocols to suit the requirement at HWC/ referral level
- Preparing documentation tools, IEC materials
- Detail guidelines (pictorial/ video) for Yoga
- National Medicinal Plant Board (NMPB) will provide the guidelines on cultivation practices and ensure supply 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 Department of AYUSH & Health and other departments for inter-sectoral convergence
- Identify the facility in consultation with Dept. of Health & AYUSH
- Propose the 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 and UCs.

2.3 MoHFW/ Department of Health

- Help in planning and implementation of NHM components in upgraded AYUSH HWCs
- Support in conducting certificate course, regular capacity building 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 such as community outreach for preventive/promotive care, awareness generation/ screening/diagnostic camps/medicinal plant cultivation, inter-sectoral convergence, providing clinical service, documentation and timely reporting
- Propose annual action plan in time
- Placing timely proposal for medicines, IEC materials and other requirement

2.5 Referral points

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

2.6 Specific roles of CHO

The AYUSH physician will be deployed by the State Govt. 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, management and provide leadership 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
- Ensure *Prakriti* assessment of the entire population above 18 years of age in phased manner
- Provide clinical care as specified in the care pathways and standard treatment guidelines for the range of services expected of the HWC
- Dispense allopathic drugs as per the prescription of Medical Officer at PHC or specialist wherever applicable
- He/she may take clinical decision and prescribe AYUSH medicines as per the qualification in the particular stream
- Higher care through referral or facilitated through telehealth
- Focus attention in screening for chronic conditions on screening, enabling suspected cases confirmed and initiating treatment based on appropriate STGs or on basis of 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 disease outbreaks

- Support the team of MPWs and ASHAs on their tasks, including on job mentoring, support and supervision, undertaking the monitoring, management, reporting and administrative functions of the HWC such as inventory management, upkeep and maintenance, and management of untied funds
- Support and supervise the collection of population based data by frontline workers, collate and analyse data for planning and report the data to the next level in an accurate and timely fashion. Use HWC and population data to understand key causes of mortality, 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 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 *Prakriti* analysis of every individual above 18 years of age in the catchment area
- To ensure regular Yoga at the community
- Advocacy of AYUSH IEC campaigns- lifestyle, diet, behavioral codes
- Cultivation of medicinal plants
- 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 AYUSH physician in providing clinical services including diagnostics, dispensation 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, at least 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 aware campaigns
- Help in documentation and reporting related to Yoga component including monitoring 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 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 like watering, deweeding etc.
- Timely replacement of plants

2.12 Roles of State & District Programme Management Units

- All managerial and administrative function of administrator
- Compilation of 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

Chapter 3

Preventive Care

Section 1 *Dinacharya* (Daily regimen)

Section 2 *Ritucharya* (Seasonal regimen)

Section 3 *Achara Rasayana* (Codes of conduct)

Section 4 *Ahara* (Diet)

Ayurveda describes five basic elements that form all non-living and living beings in the universe. These five elements known as *Pancha Mahabhuta* are *Prithvi* (Earth), *Jala* (Water), *Agni* (Fire), *Vayu* (Air) and *Akasha* (Space or ether). The body is a replica (microcosm) of the universe, wherein *Tridosha* (*Vata*, *Pitta* and *Kapha*) are the biological entities derived from the dominance of two of five basic elements that sustain the body. *Vata* is the representative of *Akasha* and *Vayu Mahabhuta*, *Pitta* of *Agni* and *Jala Mahabhuta* and *Kapha* of *Jala* and *Prithvi Mahabhuta*. These three *Dosha* are responsible for physical form of the body and control physiological & psychological functions. *Tridosha* are three physiological entities that work in conjunction with each other, respond to the external environment and maintain homeostasis of the system. For instance, *Vata* contributes to manifestation of shape, cell division, signaling, movement, excretion of wastes, cognition and also regulates the activities of *Kapha* and *Pitta*. *Pitta* is primarily responsible for metabolism, thermoregulation, energy homeostasis, pigmentation, vision, and host surveillance. *Kapha* controls anabolism, growth and maintenance of the structure, storage and stability. The balanced state of three *Dosha* is health and disturbance in the equilibrium causes discomfort and diseases.

Each individual is born with a specific proportion of *Tridosha* that are not only genetically determined but also influenced by the environment during fetal development. This varied combination of *Tridosha* shape and influence the development of multi-systemic phenotypic traits that defines an individual's basic constitution termed as *Prakriti*. The concept of *Prakriti* thus enables integration of underlying physiological variability, responsiveness to environment and susceptibility or protection towards diseases. Knowing an individual's *Prakriti* enables customized advocacy of diet, lifestyle, medicine or treatment regimen so as to restore health and wellbeing.

Health and Wellness are synonymous according to Ayurveda and following is the definition of a healthy person:

- A well balanced state of three *Dosha* (*Vata*, *Pitta* and *Kapha*)
- Properly functioning *Agni* (digestion and metabolism)
- A state of equilibrium of all *Dhatu* (body tissues) in terms of quality, quantity and function
- proper and timely evacuation of excretory products (*Mala*) from the body
- Calm, contented and happy mind
- Social well being

Charaka Samhita, an ancient Ayurveda text further detailed restored health as "normal voice, natural skin color, physical strength, good appetite, proper digestion, sound sleep, proper and timely

excretion of urine and stool, proper functioning of sense organs, sound mental status and absence of any pain".

The healthy status of a person is often disrupted by lifestyles, diet, physical activity, emotions and behavior. Ayurveda advocated ideal way of life called *Swasthavritta*, to be followed by the individual so as to achieve wellness. Such conducts relate to physical, psychological and social dimensions. The recommendations are mainly categorized as *Dinacharya* (daily routine), *Ritucharya* (seasonal regimens), *Achara Rasayana* or *Sadvritta* (behavioral code) and *Ahara* (food).

The regular practice of these recommendations are very beneficial. However, in the present-day situation, it may not be possible to adopt the entire range of prescribed guidelines though they are very relevant. Some measures which can be easily followed by the individual are mentioned in the following pages. One has to gradually develop these healthy habits to achieve desired results.

Section 1

Dinacharya (Daily regimen)

Dinacharya describes the routine that an individual should follow throughout the day so as to remain connected with circadian rhythm. The daily regimen recommends the following healthy practices.

1.1 Waking up: Early rising, preferably before sunrise rise is considered the ideal time. During this period, the environment is calm and pleasant and is considered right time for Yoga/meditation, exercise and study. Waking up early also helps in planning and completion of routine work with leisure.

1.2 Drinking of water: Drinking of approximately 500 to 700 ml of water in the morning helps in easy evacuation of bowels and prevents diseases of the urinary system, gastro-intestinal tract, bleeding disorders, metabolic disorders etc. Honey or herbs like Tulsi, Mint, Ginger and Turmeric may be added to the water for drinking. Boiled and cooled /lukewarm water may be used for drinking in rainy/cold seasons, likewise, warm water or otherwise, according to season and requirement of the person may be used.

1.3 Attending of nature's call : It is advisable to clear the bowels in the morning followed by hand wash to maintain proper cleanliness. One should regularize the timing and bring in practice to clear the bowel every day. Open area defecation should be avoided.

1.4 Brushing teeth : Cleaning the teeth with the help of toothbrush or with twigs of medicinal plants is known as *Dantadhavana*. It should be essentially done twice daily. 1) early in the morning after evacuation of bowels and 2) at bedtime (after having meals). Commonly used twigs are of *Neem* (*Azadirachta indica*), *Babool* (*Acacia arabica*), *Khadira* (*Acacia catechu*), *Pilu* (*Salvadora persica*) etc. *Dantadhavana* helps in maintaining oral hygiene, improves taste perception, imparts a sense of purity and lightness and promotes oral health.

- After brushing teeth, gums should be massaged with the clean index finger and thumb
- The paste made up of the medicinal herbs like *Trikatu*, *Triphala*, *Trijataka* and honey can also be used for brushing

Trikatu: Consists of three drugs, i.e. *Shunthi* (*Zingiber officinale*), *Maricha* (*Piper nigrum*) and *Pippali* (*Piper longum*)

Triphala: *Haritaki* (*Terminalia chebula*), *Vibhitaki* (*Terminalia bellarica*) and *Amalaki* (*Emblica Officinalis*)

Trijataka: Consists of the three aromatic spices, i.e. *Tvak* (bark of *Myristica fragrans*), *Patra* (leaf of *Myristica fragrans*) and *Ela* (*Elettaria cardamomum*)

1.5 Cleaning of tongue: Gentle cleaning of tongue is called *Jihva Nirlekhana*. It is usually done after brushing. Twigs of plants or tongue scrapers can be used for cleaning. It imparts a sense of purity and freshness.

1.6 Gargling and mouth rinsing: Taking a mouthful of liquid and holding it for 3 to 5 minutes is known as *Gandusha*. Taking a small quantity of liquid and moving it constantly in all directions within the oral cavity for 5 to 10 minutes is known *Kavala*. Decoctions of *Triphala*, Luke warm water, saline water, *ghee*, gingelly oil or milk can be used for *Gandusha* or *Kavala*. Both the procedures should be practiced preferably after brushing. *Gandusha* and *Kavala* helps in strengthening of jaw, clean the oral cavity, improve the voice, taste perception and palatability.

1.7 Cleansing of eyes: Simple clean water or cold infusion of *Triphala* or milk can be used for cleaning the eyes. A teaspoon of *Triphala* powder should be soaked in 150-200 ml of water, overnight. The mixture can be used the next morning for cleansing of eyes after filtering through a clean cloth so that it becomes a clear liquid devoid of course powder. Put your eyes in the cup containing the infusion for about 2 to 3 minutes, blinking frequently. This will help in cleansing of eyes.

1.8 Eye care: Application of medicated pastes or collyrium into eyelids is termed as *Anjana* which is similar to *Kajal/Surma* in common language. Pure cow's ghee, honey or castor oil may be used to prepare *anjana*. Traditionally *Anjana* is prepared from herbs like jasmine buds, almond shell, castor oil, ghee etc. in different parts of India. The material should be genuine and devoid of any contamination or irritating material. *Anjana* should not be applied during injury and infection to the eyes.

1.9 Instilling oil drops in nostrils: Two drops of pure cow's ghee, gingelly oil or medicated oil such as Anu taila etc. is recommended. This prevents the diseases of head and neck, premature greying and hair-fall, promotes good sleep and is also helpful in conditions like torticollis, facial palsy, lock jaw, migraines etc. *Nasya* should not be practiced in chronic sinusitis, infections, unconsciousness etc. Stop the use if any inconvenience is caused.

1.10 Body massage: *Abhyanga* is gentle massage of the body with medicated or non-medicated oils. *Abhyanga* should be specially done on head, ears and foot. Locally available oils such as sesame/gingelly, mustard, coconut can be used for *Abhyanga*, preferably in the morning on empty stomach after clearing the bowels.

The ideal duration of *Abhyanga* is 15 to 30 minutes and can be easily done by self. Daily practice of *Abhyanga* nourishes the body, improves luster and complexion of skin, prevents and manages pain/inflammation, delays the aging process, promotes good sleep and delays degenerative changes.

Foot massage prevents roughness, stiffness, dryness, fatigue and numbness of the feet, prevents insomnia, enhances the strength and stability of the foot, improves vision and prevents problems of back and lower extremity. Head massage nourishes nervous system, imparts sound sleep and prevents headache, hair loss and premature greying of hair.

1.11 Physical exercise: Physical exercise should be done every day in accordance with the health status, age, body strength habitat and climate. The ideal duration of exercise is till perspiration occurs in forehead. The level of exertion shall be gradually increased till an optimum level is obtained, without exerting too much. Exercise immediately after food, when afflicted with diseases such as cough, dyspnoea, emaciation, bleeding etc. shall be avoided.

1.12 Powder massage: The process of massaging the body using dry medicated powders in the direction opposite to the direction of body hair is called *Udvartana*. Powder of green gram, barley, Triphala etc. can be used for *Udvartana*. Powder may be mixed with oils to prevent excessive dryness. *Udvartana* promotes strength, improves circulation, complexion and effective in reducing fat.

1.13 Bathing: Usually water with normal temperature should be used for head bath and comfortably hot water should be used for other parts of the body. In diseased persons, water for bathing may be processed with suitable medicines such as Triphala or Neem decoction in skin diseases. After bathing, a soft cloth may be used to wipe the body dry.

Early morning is the best time for taking bath. Bathing stimulates digestion, has an aphrodisiac effect, increases longevity, strengthens the body, provides relief from exertion, fatigue and drowsiness, relieves itching and burning sensation. Bathing may be avoided after meals, in fever, indigestion, diseases of ear, nose and throat etc. When bathing is contra-indicated, a cloth dipped in luke warm water may be used for sponging.

1.14 Food: Guidelines for healthy eating are available in section 4 of this chapter.

1.15 Sleep: Good sleep is essential to maintain physical and mental health and work efficiency. The ideal duration of sleep is 8-10 hours for children and 6-8 hours for adults. It is always advised to sleep in a left lateral position. Going to sleep immediately after food and sleeping during day time should be avoided. Day sleep is indicated in moderation during summer and when the individual is tired or could not sleep during the night.

Washing of hand, feet & face and foot massage with 5-10 ml lukewarm oil for 5-10 minutes induces sleep. Other promoters of sleep include body massage, gentle pressure on the body, listening to soothing music, reading and meditation.

Section 2

Ritucharya

2.1 Ritucharya (Seasonal regimen)

Ritucharya is rules and regulations regarding diet and lifestyle which helps in acclimatizing to seasonal variations without disturbing the body homeostasis. It also enables us to build physical and mental robustness to cope up against seasonal ailments. The Indian calendar is divided into 2 time periods depending on the direction of movement of the Sun, each of which comprises of 3 seasons. Each season lasts for two months.

2.2 Adana kala /Uttaryana (Northern solstice)

During *Uttarayana* the sun moves in northward direction. During this period, encroaching sun-rays and powerful winds wane off the strength of living beings.

- *Shishir Ritu* (Winter) mid- January to mid-March
- *Vasant Ritu* (Spring) mid- March to mid-May
- *Grishma Ritu* (Summer) mid- May to mid-July

2.3 Visarga kala /Dakshinayana (Southern solstice)

During *Dakshinayana* the sun moves in southward direction. During this period, the Moon is powerful than the Sun. The atmosphere becomes cool due to moist winds, clouds and rain as a result of which strength of person improves during this period.

- *Varsha ritu* (Monsoon) mid- July to mid-September
- *Sharad ritu* (Autumn/ Fall) mid- September to mid-November
- *Hemant ritu* (Late Autumn/Pre-Winter) mid- November to mid-January

Following are the recommended and prohibited diet and lifestyle during different seasons.

2.4 Hemanta and Shishira ritu (Mid-November to mid-March)

Category	Do's	Don'ts
Food	<ul style="list-style-type: none">• Unctuous, sweet, sour and salty food, nutritious diet. Can afford to have heavy food• Recipes made with ghee, oil, black gram and wheat flour, milk and milk products, meat• Sugar cane juice, jaggery are advocated in this season	<ul style="list-style-type: none">• Foods, such as too light, cold, and dry, which aggravate Vata
Lifestyle	<ul style="list-style-type: none">• Wear soft, warm clothing• Keep the house warm• Body massage, massage on scalp and forehead with warm oil• Udvartana (powder massage) after Abhyanga• Bathing with hot water• Exercise well	<ul style="list-style-type: none">• Starvation/fasting• Exposure to strong and cold wind, day sleep

2.5 Vasanta ritu (Mid-March to mid-May)

Category	Do's	Don'ts
Food	<ul style="list-style-type: none"> Among cereals, old barley, wheat, rice, and others are preferred Among pulses-lentil, green gram Food items tasting bitter, pungent and astringent, honey Water medicated with dry ginger can be taken 	Food which is cold, sweet, sour, oily and difficult to digest
Lifestyle	<ul style="list-style-type: none"> Use of warm water for bathing purpose Exercise, powder massage, purificatory measures, such as Vamana and Nasya are advised 	Day-sleep is contraindicated during this season

2.6 Grishma ritu (Mid-May to mid-July)

Category	Do's	Don'ts
Food	<ul style="list-style-type: none"> Foods which are light to digest, having sweet, unctuous, cold properties and preferably liquids Drinking plenty of water and other liquids, such as buttermilk, fruit juices, soup Milk with sugar candy may be taken at bedtime 	Spicy, pungent and hot foods
Lifestyle	<ul style="list-style-type: none"> Staying in cool places, applying aromatic pastes over the body, adorned with flowers, wearing light clothes May take a nap for short while at day time During night one can enjoy the moonlight and cool breeze 	<ul style="list-style-type: none"> Excessive exercise or hard work Too much sexual indulgence and alcohol

2.7 Varsha ritu (Mid-July to mid-September)

Category	Do's	Don'ts
Food	<ul style="list-style-type: none"> Foods having sour and salty taste and of Snigdha (unctuous) qualities Among cereals, old barley, rice, wheat, etc. are advised. Besides meat soup, gruel, etc. Medicated water or boiled water are preferred 	<ul style="list-style-type: none"> Excessive liquids Alcoholic preparations The food, which is heavy and hard to digest, like meat, fried items, and sweets etc.
Lifestyle	<ul style="list-style-type: none"> Hot water bath and oil massage Medicated Basti (enema) is prescribed as a cleansing measure 	<ul style="list-style-type: none"> Getting drenched in rain, day-sleep, heavy exercise, hard work, too much sexual indulgence, direct exposure to wind

2.8 Sharad ritu (Mid-September to mid-November)

Category	Do's	Don'ts
Food	<ul style="list-style-type: none"> Food having sweet and bitter taste, cooling properties and which are easy to digest Food having the properties to pacify vitiated Pitta Wheat, green gram, sugar candy, honey, bottle gourd, pointed gourd (<i>Parwal, Lauki</i>), flesh of animals of dry land 	<ul style="list-style-type: none"> Hot, bitter, sweet, and astringent foods Excessive use of fat, oils, meat of aquatic animals, curd etc.
Lifestyle	<ul style="list-style-type: none"> Eat only when hungry Have proximity to flowers and apply sandalwood paste It is said that moon rays in the first 3 hours of the night is conducive to health 	<ul style="list-style-type: none"> Day-sleep Excessive eating Excessive exposure to sunlight

It is advisable to remain very careful during the transition time between two seasons (*Ritu sandhi*) by gradually stopping the measures recommended for the current season and adopting practices for ensuing season.

Section 3

Achara Rasayana (Codes of conduct)

Achara Rasayana is a unique concept in Ayurveda that advocates moral, ethical, and benevolent conduct, truth, non-violence, social values, personal hygiene, devotion, compassion. It is a set of rules aimed at promoting a healthy and harmonious life.

3.1 Benefits

- Helps in building ideal physical, mental, moral and social personality
- Relieves mental stress and prevents many diseases
- leads to better family and social relationship

3.2 Personal conduct

- Adopt healthy lifestyle as advocated under *Dinacharya, Ritucharya*
- Follow a routine of oil massage on head, ears, nostrils and feet everyday
- Perform exercise regularly as per capacity in moderation, don't overdo
- Use clean and comfortable clothes suitable to season
- Choose comfortable footwear according to the season, geographic condition and occupation
- Always maintain personal hygiene and cleanliness around you
- Washing of hand after defecation and urination, before and after food, after the act of sneezing, coughing, after exposure to the dirt and dust etc. are desired
- Be sensitive about the environmental issues
- Proper sleep during the night and avoid sleeping during day time under normal circumstances
- Adopt a diet and regimen according to the season and individual requirement
- Seasonal cleansing especially *Vamana* (therapeutic emesis) in *Vasanta* ritu, *Virechana* (therapeutic purgation) in *Sharad* ritu and *Basti* (therapeutic enema) in *Varsha* ritu is recommended

3.3 Social conduct

- Truthfulness in speech and action, pleasant speech
- Freedom from negative emotions and ego
- Non-violence and maintaining calm in all situations
- Non-indulgence in alcohol and other addictions
- Broad and rational mind, positive attitude
- Sincerity and honesty in work
- Loving, compassionate and charitable nature
- Respectful to teachers, parents and elders and keeping their company
- Controlling materialistic pleasure
- Follow the path of gaining knowledge
- Belief in almighty

3.4 Vega Dharana & Udirana (Suppression and forceful initiation of natural urges)

The urges for elimination of various excretory and such other products from the body appear naturally. Feeling and expression of emotions are also natural to the human being. There are two types of natural urges *Adharaniya Vega* (non suppressible urges) and *Dharaniya Vega* (suppressible instincts).

3.4.1 Adharaniya vega (Non-suppressible urges)

One should attend to the nature's call and should not suppress natural reflexes such as passing flatus, urine, sneeze, belching, thirst, hunger, sleep, cough yawn, cry, vomit, exhalation due to exertion and ejaculation.

3.4.2 Dharaniya vega (Suppressible instincts)

One should try to control *Lobha* (greed), *Shoka* (grief), *Bhaya* (fear), *Krodha* (anger), *Maana* (ego), *Irshya* (jealousy), *Atiraga* (too much attachment) and *Kama* (lust).

Section 4

Ahara (Dietetics)

4.1 Principles of dietetics: Wholesome food and its proper digestion play a pivotal role in growth, development and sustenance of life. In Ayurveda, wholesome food (*Pathya*) is known as *Mahabhaishajya* means the best medicament. Benefits of food can be achieved only when taken judiciously, customized to the individual and according to the codes of dietetics.

Ayurveda recommends a balancing approach to diet in a customized manner taking into consideration the Prakriti (psycho-somatic constitution), status of digestion (*Agni*), climate (*Ritu*), habitat of individual (*Desha*) and habituation (*Satmya*) of the individual.

The amount of food which gets digested as well as metabolized within proper time without giving any discomfort to the individual is ideal. Quantity and quality of food required for maintenance of health vary with constitution, age, digestive capacity, nature of food, geographical location, state of health, season etc. If the capacity of the stomach may be hypothetically divided into three parts, it is required by the individual to consume 2 parts with solid food, 1 part with liquid and 1 part should be left free to enable the process of digestion and assimilation.

4.2 The food containing six types tastes (*Shadrasa*) in appropriate proportion should be used every day. Excessive use of any of the tastes is not good for health. An indicative list of six different tastes and their effect on health is tabulated below

Rasa (taste)	Examples of food items	Qualities
<i>Madhura</i> (Sweet)	Rice, milk and milk products, ripened sweet fruits, potato, dates, sugarcane	<ul style="list-style-type: none">▪ Usually heavy to digest▪ Unctuous in nature▪ Promotes nourishment to all tissues▪ Beneficial to skin and hair▪ Rejuvenates the body▪ Promotes stamina and strength▪ Reduces Vata & Pitta▪ Excessive use leads to increase in Kapha, lethargy, metabolic disorders like obesity, diabetes etc.
<i>Amla</i> (sour)	Lemon, orange, buttermilk, curd, tomato, alcoholic preparations	<ul style="list-style-type: none">▪ Light, hot and moist in nature▪ Promotes taste and appetite▪ Stimulates digestion▪ Stimulates the mind▪ Causes acidity, skin diseases, bleeding disorders if taken in excess
<i>Lavana</i> (Salt)	Salts, seafood, pickles, papad	<ul style="list-style-type: none">▪ Heavy, hot and produces moistness in body tissues▪ Helps in relishing food▪ Provides softness to body and tissues▪ Enhances the flow of saliva and digestive enzymes

		<ul style="list-style-type: none"> ▪ Excess usage produces premature greying & hair loss, wrinkles, edema etc. and depletes strength
<i>Katu</i> (Pungent)	Chilly, garlic, onion, ginger, pepper, cardamom, spices	<ul style="list-style-type: none"> ▪ Hot in nature ▪ In small quantity, enhances digestion and increases sweating ▪ In excess quantity, depletes body tissues, aggravate Pitta and lead to aggressive mind, acid peptic and endocrinological diseases
<i>Tikta</i> (Bitter)	Neem, bitter melon, turmeric, snake gourd, bitter gourd, mint, fenugreek	<ul style="list-style-type: none"> ▪ Light in nature and reduces body mass ▪ Purifies blood, detoxifies the body ▪ Reduces Pitta and Kapha ▪ Helps in drying mucus, aids healing of wounds/ulcers ▪ Excessive use may cause dryness of the body, depletion of tissues, etc.
<i>Kashaya</i> (Astringent)	Green leafy vegetables, spinach, pulses, Jamun, unripe fruits	<ul style="list-style-type: none"> ▪ Cooling to stomach ▪ Light and reduces body mass ▪ Reduces Pitta, helps in skin diseases ▪ Increases Vata if taken in excess and causes degenerative problems

4.3 Relation between Dosha and Rasa

- *Vata dosha* increases with the excess usage of pungent, astringent and bitter tastes in diet and gets decreased with sweet, salty and sweet foods. Unctuous and warm foods and reduce the use of pungent, astringent and bitter tastes
- *Pitta dosha* increases with the usage of pungent, sour and salty food items and gets decreased with sweet, bitter and astringent foods
- *Kapha dosha* increases with the sweet, salty and sweet foods and gets decreased with pungent, astringent and bitter items

4.4 Rules of dietetics:

To attain maximum benefits of food, eight components of food and dietetics need focus.

- *Prakriti* (Qualitative characteristics of the food): *Prakriti* of food is its nature such as *Guru* (difficult to digest, like dry food, frozen food and sweets), *Laghu* (food like gruel, baked vegetables which are light to digest), *Shita* (food which are cold in potency such as milk), *Ushna* (food which are of hot potency like spices, chilli), *Ruksha* (dryness inducing food like barley), *Snigdha* (unctuous food such as ghee, butter)

Individual's *Prakriti* should also be taken into consideration while consuming food. When in healthy state, *Vata Prakriti* people who are generally thin, should include fatty, sweetened and warm food frequently in small quantities (3-4 times). *Pitta Prakriti* people should avoid too spicy or salty food. However, intake of ghee and taking 3 major meals a day is advisable for them. Persons with *Kapha Prakriti*, who generally have a tendency to gain weight should avoid excess fat, salt and sweet items in routine meals and use light, warm and spicy food. Intake of

little oily food will facilitate digestion and improve absorption. However deep-fried food should be avoided in regular use. After meals heavy mental or physical work should be avoided. Some rest is advisable for proper digestion of food

- *Karana* (Processing of food): Washing, cooking, soaking, churning etc. change the properties of food and makes it easy for digestion, absorption and assimilation for getting maximum nutrition. Roasted grains are best for diabetics, churning of curd makes it lighter and best for health
- *Samyoga* (combination of food): The combination altogether produces new qualities, so, while preparing the food, the ingredients must be compatible with each other and should be properly mixed together. Honey and ghee, when taken alone, is wholesome to the body but combined in equal quantity is unwholesome
- *Rashi* (quantity of food): The quantity of food to be taken depends on the digestive capacity and requirement of the person. If the food article is heavy, half of stomach capacity has to be eaten. Even in the case of light food, excessive intake is not conducive to maintain digestion and metabolism
- *Desha* (Habitat): Food items and plants that are grown in the region of Himalayas are heavy in property while those grown in the desert or sandy region are light. Food intake should be guided by the constitution and geographical habitat of the individual
- *Kala* (Time & seasonal variation): In the winter season, food may be comfortably spicy and warm, whereas in summer season the food should be comfortably cooling and light. The intake of food should depend on the health status of the body. Light and liquid food without much oil and spices should be taken when ill. Ayurveda has advised to consume food only when the previously taken food is completely digested
- *Upayogasamstha* (Rules of dietetics): Upayogasamstha represents rules of dietetics mentioned in Ayurveda and given in Sl. No. 4.5 below
- *Upayokta* (Consumer): Upayokta is the one who consumes the food. Every person must take into consideration his own dietary preferences, suitability, digestive capacity, season, time of day and whether the previously taken food has been digested or not

4.5 Rules for food intake:

- **Know your food:** Keenly observe your own health and eat what suits you
- **Eat with a pleasant mind:** Psychological status is very important when taking food. It is better to wait for some time and avoid food when you are depressed or tensed. Even the wholesome food taken in right amount does not get digested if the individual is in the state of anger, fear, and worry or depressed
- **Should not eat without desire:** The food taken without having desire, results in indigestion, anorexia, vomiting and colic
- **Enjoy the taste of food:** Tasty foods bestow pleasantness of mind, strength, nourishment, enthusiasm, exhilaration, satisfaction and happiness, whereas food which is not tasty gives rise to the opposite effects
- **Eat fresh and warm food:** It is better to consume food within one hour after its preparation. The warm and fresh food is tasty and results in fast digestion, proper absorption
- **Avoid reheating of food:** Frequent reheating should be avoided so as to preserve nutrition and other properties of food

- **Should not eat repeatedly:** The individual eating continuously or repeatedly suffers from indigestion, body ache, metabolic diseases etc.
- **Dinner:** Dinner should be lighter than lunch and taken at least three hours before bedtime and take a few steps after dinner then lie on the left side for initial 10-15 minutes
- **Customized diet:** Select the food as per the seasonal and local availability and keeping in view the traditional practices
 - Decide food as per the individual's *Prakriti*
 - Food with dry quality such as barley, millets etc. should be consumed by people with obesity, metabolic disorders, diabetes mellitus, excessively unctuous body etc.
 - Liquid food such as rice gruel, juices, soups etc. should be consumed by people who are weak and dehydrated
 - In weak digestion, food should be restricted to readily digestible items and should be taken in less quantity. Food prepared or added with dry ginger, pepper, rock salt are recommended in persons who have weak digestion and poor appetite
- **Food ingredients:** Food with sweet taste are advisable in the beginning of the meal, sour and salty food are advised in the middle, bitter and astringent food must be taken at the end of the meal. One should regularly take cereals (whole grains, red & old rice), pulses (greengram is preferable), rocksalt, gooseberry (*Amla*), milk, cow's ghee and honey to compensate the daily nutritional requirements
- **What to avoid:** Curd should never be taken plain and it is advisable to take when fresh and during day with sugar/jaggery or black pepper. Avoid consuming curd at night and during autumn, spring seasons and in some health conditions. Water should be avoided at least 15 minutes before food and should not be drunk just after the food. If needed water can be used during meal in small quantity
- **Seasonal consideration:**
 - In the rainy season, food with spicy, bitter and astringent nature should be used in limited quantities and sweet, salty items should be included. Rice and wheat may be used for preparing food. Curd or supernatant part of curd may be used along with salt and *Panchakola* (*Zingiber officinale*, *Piper retrofractum*, fruit and root of *Piper longum*, *Plumbago zeylanica*)
 - During autumn season, intake of food with sweet, astringent and bitter taste is preferable. Sugarcane products, rice, green gram, wheat, boiled and cooled milk is ideal. Curd, spicy and salty food items should be avoided
 - During winter season and in extreme cold climates, wheat, rice, blackgram, meat, freshly harvested grains, sesame etc. should be used for preparing food. Food should be preferably warm
 - During summer, sweet, unctuous, cold in nature and easily digestible food should be included in the diet. Various dishes prepared with flour, milk may be included

Chapter 4

Concept of Prakriti

4.1 Concept of *Prakriti* in Ayurveda

Introduction

According to Ayurveda, each individual is born with specific body and mind characteristics, with the predominance of any of the three *Dosha* (*Vata*, *Pitta* and *Kapha*), which are not only genetically determined but also influenced by environment during fetal development. This basic psycho-somatic constitution known as *Prakriti* is responsible for responsiveness to environment and susceptibility or protection towards diseases. Knowing an individual's *Prakriti* enables advocacy of customized diet and lifestyle as preventive & promotive measures so as to empower the community for Self-care. Similarly, the treatment regimen is planned according to the *Prakriti* in a diseased person to restore health and wellbeing.

Analysis of *Prakriti* of every individual above 18 years of age in the country has been envisaged through the AYUSH Health & Wellness Centres under Ayushman Bharat by using validated methods and tools and with the help of Ayurveda Colleges and National level Institutes. This activity may be undertaken even at community level through outreach camps.

Knowing *Prakriti* is important in diagnosis, treatment and prognosis of diseases. Persons belonging to particular *Prakriti* are more prone to certain group of diseases. For eg. *Vata* type will generally have degenerative problems like osteoarthritis, *Pitta* person are more prone for acid peptic disorder, bleeding and skin problems where as *Kapha* types may have respiratory problems, obesity.

4.2 Types of *Prakriti*

1. *Vataja Prakriti*
2. *Pittaja Prakriti*
3. *Kaphaja Prakriti*
4. *Vata-Pittaja Prakriti*
5. *Pitta-Kaphaja Prakriti*
6. *Vata-Kaphaja Prakriti*
7. *Tridoshaja Prakriti*

4.3 Learning objectives

- Identify features of different *Prakriti*
- Do's and don'ts of diet and lifestyle according to *Prakriti*

4.4 Main traits of *Vata Prakriti*

- Body constituency –lean (*Krishna*)
- Gait - inconsistent, fast (*Laghu Chapala Gati*)
- Skin - rough and dry (*Ruksha Twacha*)
- Veins - more prominent (*Bahu Kandara Sira Pratana*)

- Excellent grasping power and poor memory (*Shruta Grahino Alpa Smriti*)
- Speech - fast, talkative (*Bahu Pralapa*)
- Voice –hoarse (*Ruksha Jarjaraswara*)
- Unstable movement of eyes, eyebrows, hand, legs, shoulder –Unstable (*Anavasthita Akshi, Bhru, Pani, Pada*)
- Very active physically, quick in initiating actions with fast eating habit (*Chapala Aahara*)
- Dreams - Running, flying, falling (*Aakashchari Swapneshu*)

4.5 Main traits of *Pitta Prakriti* assessment

- Plenty of moles, pimples and freckles (*Prabutatila, Vyanga*)
- Early graying of hairs, hair fall and wrinkles (*Akala Vali, Palita, Khalitya*)
- Feeling of hotness in body and mouth (*Ushna Sharira Mukha*)
- Lax (looseness) of muscles (*Shithila, Mridu Sandhi Mamsa*)
- Reddish/coppery nails (*Tamra Nakha*)
- Eyes - Reddish color (*Rakta Netra*)
- Becomes angry quickly (*Kshipra Kopa*)
- Excessive thirst and hunger (*Prabhuta Ashana, Pana*)
- Excessive sweating (*Swedano durgandhah*)
- Dreams -Shining objects like lightening, fire (*Swapneshu Jyotisham Drishta*)

4.1 Main traits of *Kapha Prakriti* assessment

- **Well proportionate body built and stable gait(*Saara Gati*)**
- Soft smooth skin (*Snigdha Anga*)
- Slow in initiating actions (*Manda Cheshta*)
- Eyes –Big (*Prasanna Darshan Aanana*)
- Delayed grasping (*Chira Grahi*)
- Slow eating habit (*Manda Aahara*)
- Like to sleep (*Nidra Priya*)
- Long-time Friendship (*Sthira Mitra*)
- Scanty thirst, hunger and sweating (*Alpa Kshut, Trishna, Sweda*)
- Dreams - River, greenery, swimming (*Swapne Jalashayaaloki*)

4.2 Diet & lifestyle

Vata Prakriti	Foods to be preferred	Foods to be avoided
Cereals	Rice, wheat, green gram, black gram	Barley, legumes
Fruits	Banana, coconut, anjeer, watermelon, pomegranate, bilva (Bael)	Pear, apple, singhada (chestnut), jamun (black berry)

Vegetables	Shatavari, carrot cucumber, garlic, onion, radish, brinjal, pumpkin, patola, changeri	Tinda (Indian round gourd), potato, torai (Ridge gourd), spinach, chaulai (amaranth), karela (bitter gourd)
Spices	Black cumin, ginger, mustard, carom seeds, fenugreek, coriander, tulasi, safron, asafoetida, cardamom, clove, fennel seeds, black pepper	-
Dairy products	Cow or goat milk, butter, ghee	Honey
Others	Sugarcane	

For Pitta <i>Prakriti</i>	Foods to be preferred	Foods to be avoided
Cereals	Barley, rice, wheat	Urada, kulattha (Horse gram)
Fruits	Apple, coconut, fig, raisin, pear, amala	Karaunda (Gooseberry), all eatable with sour taste except pomegranate and amala
Vegetables	Sweet & bitter taste, shatavari, cucumber, makoya (kakmachi), bitter gourd, peas, parval	Brinjal, garlic, onion, carrot, spinach
Spices	Coriander, turmeric, safron, fennel seeds, cardamom	Asafoetida, black pepper, safron
Dairy products	Milk, ghee, buttermilk	Meat of aquatic animals and from wet lands
Others	Sugarcane, meat of the animals from dry lands	

For Kapha <i>Prakriti</i>	Foods to be preferred	Foods to be avoided
Cereals	Barley, ragi	Wheat, blackgram
Fruits	Pomegranate, mango, apple	Banana, lemon, jack fruit
Vegetables	Satavari, brinjal, garlic	Potato, spinach
Spices	Cumin, ginger, mustard, carom seeds, cardamom, clove	-
Dairy products	Milk, ghee	Curd
Others	Honey, lemon juice	Anoopa mamsa, audaka mamsa

4.3 Lifestyle as per Prakriti

- ***Vata***

Massage with oil, avoid excess thinking and talk, a day time small nap, strenuous exercises causing exertion should be avoided

- ***Pitta***

Enjoying pleasant music, spending much time near open water reservoir, residing in home equipped with fountain.

Avoid excessive exposure to sunlight

- ***Kapha***

Exercise, massage with dry powder, running, swimming, avoid day sleep

Note: Questionnaire and tools for *Prakriti* assessment will be provided by the ministry of AYUSH seperately.

Chapter 5

Pre-Conceptional, Ante-Natal and Post-Natal Care

Section 1 Pre-conceptional Care (*Garbhadana Sanskara*)

Section 2 Ante-natal Care (*Garbhini Paricharya*)

Section 3 Post -natal Care (*Sutika Paricharya*)

Mother and child are vulnerable groups of the community and they also constitute a major portion of the population. Improving their health status requires long term planning.

Section 1

Preconception care (*Garbhadana Sanskara*)

Ayurveda has envisaged the concept of planned pregnancy through pre-conceptional care to beget a Supraja i.e. a child with optimum physical, psychological and intellectual qualities by choice and not by chance. Pre-conceptional care is advocated for the couples willing to have a child.

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, as well as family history should be taken
- Assessing the possible risk factors, treatment history and current medications, any addictions like smoking, alcohol intake, and narcotics
- Couple are examined in detail thereafter
- During screening if any of the couple gives history of chronic systemic illness like diabetes mellitus, hypertension, renal disease, coagulopathy, hepatic disorders, endocrinological disorders (hyper and hypothyroidism), the couple should be referred to specialists and the pregnancy should be postponed till the problems are addressed

1.2 Counseling of Eligible Couple

- *Shodhana* through Panchakarma measures is indicated for both husband and wife who are planning to conceive. After assessing requirement of the couple they may be referred to the higher centre for undergoing procedures, if found necessary
- For improving general health and vitality, following medications may be required. For female, medicines like *Shatavari* (*Asparagus recemosus*), *Guduchi* (*Tinospora cordifolia*), *Amalaki* (*Emblica officinalis*), *Bala* (*Sida cordifolia*) and for male, *Amalaki Rasayana/ Ashwagandha Churna/ Chyavanprasha Avaleha/ Kushmanda Rasayana* in the dose of 3-5 gm twice a day may be advised
- Minimizing stress and anxiety through practice of Yogasana, pranayama, meditation, social service, music are desirable
- Special wholesome diet, especially for woman, the nutritional care needs to be taken during menstruation. She needs to be devoid of excessive physical and mental stress during this period
- Comfortable and pleasant environment, positive emotions during coitus will result into successful conception.

Section 2

Antenatal care (*Garbhini Paricharya*)

Ayurveda has described a planned programme of observation, education and medical management for pregnant woman emphasizing on food, lifestyle and mental status for making pregnancy and delivery a safe and satisfying experience. 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.

None of the AYUSH HWCs are delivery points and therefore, as soon as the pregnancy is suspected, the woman should be linked to ASHA in her residential area for standard care under RCH, concurrently the Ayurvedic interventions may be advised as per her requirement. However the Ayurveda physician manned at AYUSH HWCs needs to be reoriented about the following aspects of pregnancy.

2.1 Diagnosis of pregnancy: In women of reproductive age having normal marital relations and with 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.

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 visits should be done as per following schedule:

- 1st visit: Within 12 weeks, preferably as soon as pregnancy is suspected 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

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.

2.4 General examination : Physical examination covers blood pressure, temperature, respiration rate, lung sounds, heart rate and sounds, pallor, weight of the woman. Total weight gain during the course of pregnancy for a healthy woman on average is 11kgs.

2.5 Systemic examination: Examination of respiratory, cardiovascular, renal, GIT, musculoskeletal and genitourinary system is important to assess the condition of maternal health and growth & development of the foetus.

2.6 Local examination: Local examination is especially paid attention to know about the changes that occur in the genital tract and breasts. Uterus becomes abdominal organ during pregnancy therefore 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

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 weeks, 28 weeks, 36 weeks 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 (24 – 28 weeks)
4. Blood Sugar (fasting and post- prandial)
5. Thyroid Function Test
6. HIV/ Hepatitis- B
7. VDRL
8. Urine Analysis - routine and microscopic examination.
9. USG abdomen

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

2.8 Immunization for TT: Two injections of T.T. should be given 4 to 6 weeks apart. The first dose should be given at the first visit. Only 1 injection of T.T. should be given, if previous child birth has occurred within 3 years and she has received complete immunization during her previous pregnancy.

2.9 Month-wise regimen: In general the pregnant woman should have a wholesome diet containing cereals, grains, vegetables, fruits, milk & milk products or meat as per her food habit. To ensure that the food she eats gets digested properly without causing any discomfort and eventually provides nourishment to body, helps in formation of breast milk and proper development of foetus, Ayurveda recommends month-wise regimen known as masanumasika paricharya. If followed regularly, these measures help to prevent the complications of pregnancy like anaemia, loss of appetite, irregular bowels, leg cramps, body ache, weakness, insomnia, anxiety and development of foetus. Month-wise recommendation given below is not a complete diet plan but a slight modification and addition to routine healthy diet.

The diet of a pregnant woman should be preferably as per her liking, preference, appropriate to region & tradition in proper time and quantity.

Months of pregnancy	Diet and regimen
1 st Month	Daily intake of milk , in desired quantity. Light, easily digestible food. Sweet, cold, liquid diet to avoid indigestion and dehydration in case of vomiting. Seasonal fruits or wholesome fruit juice. 5-10 gm powder of equal parts of <i>Yastimadhu</i> (<i>Glycyrrhiza glabra</i>), <i>Parusaka</i> (<i>Grewia asiatica</i>) & <i>Madhukapushpa</i> (<i>Madhuca indica</i>) mixed with tea spoon full of butter & honey followed by 1 glass of milk with sufficient sugar- once daily. or

	5-10 gm powder of equal parts of <i>Yastimadhu</i> (<i>Glycyrrhiza glabra</i>), <i>Ashwagandha</i> (<i>Withania somnifera</i>), <i>Devadaru</i> (paste) (<i>Cedrus deodara</i>) followed by 1 glass of milk with desired quantity of sugar- once daily.
2nd Month	<p>Light, easily digestible food.</p> <p>Fruits & fruit juices made of grapes, pomegranate, orange etc.</p> <p>Milk medicated with coarse powder of equal parts of <i>Shatavari</i> (<i>Asparagus racemosus</i>), <i>Ashwagandha</i> (<i>Withania somnifera</i>), <i>Yashti</i> (<i>Glycyrrhiza glabra</i>), <i>Kharjura</i> (<i>Phoenix dactylifera</i>), 1 glass with desired quantity of sugar – once daily in the morning.</p> <p>or</p> <p>5-10 gm powder/paste of <i>Krishna tila</i> (black sesame) (<i>Sesamum indicum</i>), <i>Manjistha</i> (<i>Rubia cordifolia</i>), <i>Shatavari</i> (<i>Asparagus racemosus</i>) followed by 1 glass of milk with desired quantity of sugar, once daily.</p>
3rd Month	<p>Vegetables like carrot, beetroot and green leafy vegetables; fruits like apple, grapes shall be included in the daily diet.</p> <p>milk with ghee & honey.</p> <p><i>Khichdi/daliya</i> prepared of pulses & beans will be beneficial.</p> <p>5-10 gm powder/paste of <i>Sariva</i> (<i>Hemidesmus indicus</i>), <i>Madhuka</i> (<i>Madhuca indica</i>) flower & <i>Shatavari</i> (<i>Asparagus racemosus</i>) followed by 1 glass of milk with desired quantity of sugar- once daily.</p>
4th Month	<p>Use of milk, yoghurt are recommended.</p> <p>Butter – 5 gm once a day.</p> <p>5-10 gm powder/paste of <i>Sariva</i> (<i>Hemidesmus indicus</i>), <i>Rasna</i> (<i>Pluchea lanceolata</i>), <i>Yashti</i> (<i>Glycyrrhiza glabra</i>) followed by 1 glass of milk with desired quantity of sugar once daily.</p>
5th Month	<p>Use of milk and ghee.</p> <p>5-10 gm powder/paste of <i>Brihati</i> (<i>Solanum indicum</i>), <i>Kantakari</i> (<i>Solanum surattense</i>), <i>Gambhari</i> (<i>Gmelina arborea</i>), <i>Nyagrodha</i> (<i>Ficus bengalensis</i>),</p> <p><i>Udumbara</i> (<i>Ficus glomerata</i>), <i>Ashwattha</i> (<i>Ficus religiosa</i>), <i>Pareesha</i> (<i>Thespesia populnea</i>), <i>Plaksha</i> (<i>Ficus lacor</i>), <i>Dalchini</i> (<i>Cinnamomum zeylanicum</i>) followed by a glass of milk with desired quantity of sugar- once daily.</p>
6th Month	<p>Milk medicated with coarse powder of equal parts of <i>Yashti</i> (<i>Glycyrrhiza glabra</i>), <i>Ashwagandha</i> (<i>Withania somnifera</i>), <i>Shatavari</i> (<i>Asparagus racemosus</i>), <i>Sariva</i> (<i>Hemidesmus indicus</i>), <i>Draksha</i> (<i>Vitis vinifera</i>), <i>Kharjura</i> (<i>Phoenix dactylifera</i>) 1 glass with desired quantity of sugar once daily in the morning.</p> <p>or</p> <p>Ghee medicated with coarse powder/paste of equal parts of <i>Yashti</i> (<i>Glycyrrhiza glabra</i>), <i>Ashwagandha</i> (<i>Withania somnifera</i>), <i>Shatavari</i> (<i>Asparagus racemosus</i>), <i>Sariva</i> (<i>Hemidesmus indicus</i>), <i>Draksha</i> (<i>Vitis vinifera</i>), <i>Kharjura</i> (<i>Phoenix dactylifera</i>) 5 to 10 ml ghee with warm water/ milk, once daily in the morning.</p> <p>Ghee medicated with coarse powder/paste of <i>Gokshura</i> (<i>Tribulus terrestris</i>) 5 to 10 ml ghee with warm water/ milk, once daily in the morning.</p> <p>or</p> <p><i>Khichdi</i> cooked with 1 part rice, $\frac{1}{4}$ part green gram, 6 parts water, adding a pinch of salt, ginger, turmeric and 5-10 gm powder of <i>Gokshura</i> (<i>Tribulus terrestris</i>) once in a while will be beneficial.</p>

	5-10 gm powder / paste of Prishnaparni (<i>Uraria picta</i>), Vacha (<i>Acorus calamus</i>), Sigru (<i>Moringa oleifera</i>), Goksura (<i>Tribulus terrestris</i>), Gambhari (<i>Gmelina arborea</i>) followed by 1 glass of milk with desired quantity of sugar- once daily.
7th Month	<p>Ghee made of milk medicated with Yashti (<i>Glycyrrhiza glabra</i>), Aswagandha (<i>Withania somnifera</i>), Shatavari (<i>Asparagus racemosus</i>), Sariva (<i>Hemidesmus indicus</i>), Draksha (<i>Vitis vinifera</i>), Kharjura (<i>Phoenix dactylifera</i>) 1 glass with desired quantity of sugar once daily in the morning.</p> <p>or</p> <p>Ghee medicated with coarse powder / paste of Yashti (<i>Glycyrrhiza glabra</i>), Ashwagandha (<i>Withania somnifera</i>), Shatavari (<i>Asparagus racemosus</i>), Sariva (<i>Hemidesmus indicus</i>), Draksha (<i>Vitis vinifera</i>), Kharjura (<i>Phoenix dactylifera</i>) 5 to 10 ml ghee with warm water/ milk, once daily in the morning.</p> <p>or</p> <p>Ghee prepared from the milk medicated with or ghee medicated with coarse powder/paste of equal parts of Prishnaparni (<i>Uraria picta</i>), Shaliparni (<i>Desmodium gangeticum</i>), Gokshura (<i>Tribulus terrestris</i>), Sariva (<i>Hemidesmus indicus</i>), Shatavari (<i>Asparagus racemosus</i>), Brihati (<i>Solanum indicum</i>), Kantakari (<i>Solanum surattense</i>), Punarnava (<i>Boerhaavia diffusa</i>), Eranda (<i>Ricinus communis</i>) 5 to 10 ml ghee with warm water/ milk, once daily in the morning.</p> <p>or</p> <p>5-10 gm powder/paste of Shringataka (<i>Trapa natans</i>), Kamalakanda (<i>Nelumbo nucifera</i>), Draksha (<i>Vitis vinifera</i>), Yashti (<i>Glycyrrhiza glabra</i>) & candy sugar followed by 1 glass of milk with desired quantity of sugar once daily.</p>
8th Month	<p>Light easily digestible food with ghee.</p> <p>Constipation should be taken care of & proper bowel habit should be established to avoid pain abdomen (false pains).</p> <p>Light walk and happy atmosphere.</p> <p>Milk medicated with coarse powder/paste of equal parts of Kapiththa (<i>Feronia limonia</i>), Brihati (<i>Solanum indicum</i>), Bilva (<i>Aegle marmelos</i>), Patola (<i>Trichosanthes palmata</i>), sugar cane, Kantakari (<i>Solanum surattense</i>) 1 glass with desired quantity of sugar daily in the morning.</p>
9th Month	<p>Light easily digestible food with ghee.</p> <p>Constipation should be taken care of & proper bowel habit should be established to avoid pain abdomen (false pains).</p> <p>Light walk and peaceful mental atmosphere.</p> <p>5-10 gm powder/paste of Yashti (<i>Glycyrrhiza glabra</i>), Aswagandha (<i>Withania somnifera</i>), sariva (<i>Hemidesmus indicus</i>) followed by 1 glass of milk with desired quantity of sugar once daily.</p> <p>Later in this month - milk medicated with Sunthi, Aswagandha or <i>Shunthi</i>, Devadaru (<i>Cedrus deodara</i>), Yasthimagdu (<i>Glycyrrhiza glabra</i>) 1 cup of milk with desired quantity of sugar once daily will be beneficial.</p> <p><i>Anuvasana Basti</i> with bala taila 60-80 ml daily (Total 9 basti) given in 8th and 9th month will result in easier delivery. The vaginal suppository with clean gauze piece immersed in Bala taila kept for 4-5 hrs for 7 days also helps to have a normal labour and early recovery of reproductive organs.</p> <p>Bathing – Use of water medicated with leaves of <i>Nirgundi</i> (<i>Vitex negundo</i>), <i>Eranda</i> (<i>Ricinus communis</i>) is beneficial.</p>

2.10 General advice to pregnant woman

- Regularly practice yoga under the guidance and observation of the 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 disliked things said be causing harm to 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
- Shouldnot remain hungry or thirsty for long time
- Should not lie down immediately after food
- Husband and other family members should be advised for supportive and pleasant behavior with pregnant woman. It is important that the expectant mother is helped to remain in a pleasant state of mind by listening to music and avoiding thoughts that breed anger, fear, jealousy or hatred
- Strenuous and violent activities, squatting, suppression of natural urges, prolonged stay under the hot sun and peeping into pits or wells, and Panchakarma therapies are prohibited during pregnancy
- Perform normal routine work in a normal pregnancy
- Sleep well and take appropriate rest
- Take bath regularly and maintain hygiene
- Wear clean soft comfortable loose clothes
- Should not take any medicine without advice of the doctor as it may be harmful to the fetus

2.11 Additional advice

- Should be advised for regular use of medicines and for regular ante-natal checkups. (Monitoring of B.P., Weight in each visit and ensure routine investigations of blood and urine done twice during the whole duration of pregnancy)
- 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 ring
 - 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

2.12 Referrals

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 during this pregnancy
- H/o repeated abortions/premature births/congenital anomalies/still-births or marked low birth weight
- 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, specially recurrent renal infection, haemolytic disorders etc., diabetes mellitus or other metabolic disorders
- Suffering from PIH or toxemia of pregnancy
- Suffering from cervix cancer or big cervical/vaginal warts
- IUGR baby
- Having pelvic or uterine growths with pregnancy
- Having undergone last delivery by cesarean section within 2 years
- Breech/abnormal/unstable presentation

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

- No improvement in Hb% within one month and fall of Hb% beyond physiological limits
- Appearance of other complications like PIH
- Diagnosed for Oligoamnios, Hydramnios, IUGR, Macrosomia, Persistent breech presentation, Transverse lie or unstable lie

2.13 Minor ailments during pregnancy

2.13.1 Anemia

Anaemia during pregnancy is one of the important factors associated with a number of maternal and foetal complications. It decreases the woman's reserve to tolerate bleeding either during or after child birth and makes prone to infections. Anaemia during pregnancy also has been associated with increased risk of intra uterine growth restriction, premature delivery, low birth weight (LBW) and maternal and child mortality. Among the various causes of anaemia in women, iron deficiency is the most common cause, primarily due to their recurrent menstrual loss and secondary due to poor supply of iron in the diet. During pregnancy anemia is common due to increased demand of iron for the growing fetus and placenta and increased red blood cell mass (with expanded maternal blood volume in the third trimester), which is further aggravated with other factors such as childbearing at an early age, repeated pregnancies, short intervals between pregnancies and poor access to ante-natal care and supplementation. Some common features of anemia are:

- Weakness or fatigue
- Dizziness
- Shortness of breath
- Rapid or irregular heartbeat
- Chest pain
- Pale skin, lips, and nails

- Cold hands and feet
- Trouble concentrating and irritability
- Hemoglobin (Hb) level below 10.9 gm/dl (Indian Council of Medical Research Standards 2018)

Criteria for inclusion for ayurveda care:

- Nutritional anemia above Hb 7gm/dl and below 10.9 gm/dl
- Presence of Anemia in spite of Iron and Folic Acid tablets (IFA)
- Non-compliance to IFA due to side effects
- As standalone or along with IFA

Do's

- Eat well and do not remain hungry for long time
- Include foods that are high in iron including dry fruits, and leafy green vegetables. Specially, drum stick leaves are indicated
- Amla, resins, dates are useful
- Eat foods that contain folic acid including whole grains, wheat grain, beans, orange
- Vegetables like carrot, beetroot, unripe banana; fruits like apple, grapes, chiku, banana and pomegranate should be included in the diet as much as possible
- Check for any bleeding source like piles
- Deworming through safe methods

Medicines

- Punarnavadi-mandura 500 mg - 1 gm BD (after meals) followed by milk - daily, starting from 3rd month onwards throughout the pregnancy period

Referrals

- Hb% less than 7
- No increase in Hb level even after 1 month of treatment
- Bleeding disorders
- Bleeding points such as hemorrhoids, could not be managed with Ayurveda
- Other forms of anemia such as Sickle Cell

2.13.2 Morning sickness

Morning sickness is also known as nausea gravidarum, emesis gravidarum and pregnancy sickness. For many women, the symptoms of morning sickness are their first signs of pregnancy. Morning sickness affects around 80 percent of all pregnant females. Morning sickness can occur at any time of the day or night and the exact causes are still not known.

General advice

Do's

- Effective psychological support in the form of reassurance to the pregnant women that the symptom will disappear gradually
- Identify nausea triggers and avoid cooking or eating such food
- Tiredness can make nausea worse and getting plenty of rest is vital
- Fluid intake should be regular and in small amounts, rather than less often and in large quantities. This may help reduce vomiting. Sucking candies made of ginger, lemon, cardamom or fruits can help

- Consuming more meals per day, with smaller portions may help. Cold meals are often better tolerated than hot ones
- Pregnant women with morning sickness should try to avoid being hungry for long time
- Early morning - many women find that eating plain biscuits about 20 minutes before getting up is helpful
- Try to avoid vomiting after eating food by chewing elaichi, *saunf* or ginger with salt or candies

Don'ts

- Should not over eat
- Should avoid too salty, fried, sour, spicy and preserved items like chutney, pickles
- Should not take tea and coffee especially on empty stomach

Simple remedies

- Sharbat made of cardinom, lemon and sugar or ginger, lemon and salt
- Butter milk processed with cumin seeds, ginger, asafetida and salt as per her liking
- Powder of Amalaki fruit (*Emblica officinalis*) and raisins with sugar - 2 gm BD - for 1 week or till the symptom subsides
- Paste of coriander with rice water and sugar - 5 gm BD - for 1 week or till the symptom subsides
Soup of green gram medicated with pomegranate salt and ghee - 10-20 ml BD - as and when required
- Pulp of Bilva (*Aegle marmelos*) fruit with *lajamanda* - liquid prepared from *laja* (parched rice) - 5gm BD- for 1 week or till the symptom subsides
- Decoction of tender mango leaves and Jamun (*Syzygium cumini*) leaves with honey - 10 ml BD- for 1 week or till the symptom subsides

Referrals

- Signs of starvation or dehydration like, low general condition, rapid and feeble pulse, low B.P, dry tongue and lips, oliguria or anuria
- Vomiting due to other reasons such as liver diseases

2.13.3 Backache

It is very common to get backache during pregnancy, especially in the early stages. During pregnancy, the ligaments in the body naturally become softer and stretch. This can put a strain on the joints of lower back and pelvis, which can cause back pain.

General advice

- Assess the cause and take corrective measures such as improvement of posture, avoiding soft and uneven bedding, managing mental stress
- Find a comfortable position
- Application of oil followed by hot fomentation
- Yogasana advised by the expert
- Minimize food causing flatulence like potato, peas, bengal gram, besan etc. Use cumin, asafetida, ajwain, ginger and ghee in food preparations

Referrals

- Severe pain restricting routine movements and woman confining to bed
- Signs of bulging or ruptured disks- localized tenderness on spine, numbness or tingling in your arms or legs

2.13.4 Hyperacidity

Burning sensation in the stomach or throat, burning sensation, regurgitation, belching, Nausea, prolonged sour taste in the mouth are common during pregnancy.

Do's

- Have timely food and proper sleep
- Light food, articles having cooling properties such as coconut water, buttermilk, non-spicy food
- Adequate quantity of water

Don'ts

- Do not remain hungry
- Take plenty of fluids
- Avoid lying down immediately after food and in supine position. The best recommended position is left lateral
- Avoid excessive oily, spicy, excessive sour, salty and preserved substances

Simple remedies

1. Clove, Amalaki (*Emblica officinalis*) fruit and sugar are to be soaked in a glass of water, kept over night and filtered in the next morning, taken in the dose 10 - 20 ml BD- for 1 week or till the symptom subsides.
2. Powder of ani seeds with sugar mixed in a glass of water - 20 ml BD- for 1 week or till the symptom subsides.

Referrals

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

2.13.5 Indigestion/ Anorexia

Indigestion and loss of appetite are commonly reported problems during pregnancy. They need to be immediately addressed to ensure the availability of nutritional requirement of pregnant woman.

General advice

- Use of warm water for drinking
- Light and easily digestible food, treated with a little sour and salty substances
- Spices like *cumin seeds*, *carom seeds Ajwain*, ginger and asafoetida are beneficial
- Consume food while fresh and warm
- Avoid heavy and stale food

Simple remedies

- Powder of roasted Jeeraka (*Cuminum cyminum*) 1-2gm before meals - for 1 week/as and when required
- Powder of Shunthi (*Zingiber officinalis*) and Dhaniya (*Coriandrum sativum*)-2 gm BD with Jaggery or Honey for 1 week or till the symptom subsides
- Powder of Haritaki (*Terminalia chebula*), Shunthi (*Zingiber officinalis*), Ajamoda (*Apium leptophyllum*) and saindhava lavana - 3-6 gm BD- for 1 week or till the symptom subsides

Referrals

If indigestion is associated with jaundice, history of gross weight loss, severe abdominal pain etc.

2.13.6 Constipation

In general, anxiety, minimal physical exercise, insufficient food intake due to vomiting, low-fiber diet may cause constipation. Constipation in pregnant women is thought to occur due to hormones that relax the intestinal muscle and by the pressure of the expanding uterus on the intestines. Sometimes iron tablets may contribute to constipation.

General advice

- Treat the cause
- Plenty of fluids
- Avoid excessive intake of coffee, tea
- Avoid cold, stale food
- Diet - light and easily digestible food, whole grains, pulses, leafy vegetables, vegetables and fruits
- Consume food while fresh and warm
- Spend more time in toilet and regularize the timing

Simple remedies

- Decoction of Triphala [Amalaki (*Emblica officinalis*), Haritaki (*Terminalia chebula*) and Bibhitaki (*Terminalia bellerica*)] in equal parts with Sunthi (*Zingiber officinalis*) and jagerry-5-10 ml at bed time- for 2 days / as and when required
- Triphala churna - 2 gm with warm water at bed time- for 2 days/as and when required
- Avipatikar churna 2 gm BD-for 2 days/ as and when required

Referrals

- Severe pain while passing stool
- Bleeding per anum

2.13.7 Oedema

During pregnancy, the body produces approximately 50% more blood and body fluids to meet the needs of the developing foetus. Oedema in the hands, face, legs, ankles and feet is a normal part of pregnancy that is caused by this additional blood and fluid. However, this can be managed with following measures to avoid further complications such as high blood pressure.

Do's

- Regular monitoring of B.P.
- Should restrict salt intake
- Should do mild exercise
- Foot elevation while sleeping

Don'ts

- Should not eat too spicy, sour, pungent and preserved food articles like pickles etc.
- Should not stand or sit for long time and take proper rest

Remedies

- Gokshuru churna - 5 gm BD with water - for 15 days or till the symptom subsides
- Punarnava mandura - 500 mg BD - for 15 days or till the symptom subsides

Referrals

- Should refer if associated with high blood pressure i.e. more than 140/90 mm of Hg.
- canty urination
- Dysuria

2.13.8 Striae Gravidarum

Stretch mark on abdomen during pregnancy is natural, but keeping the skin soft will reduce the mark and prevent itching.

Simple remedies

- Application of the paste of Chandana (*Pterocarpus antalinus*), Ushira (*Vetiveriaziz anoides*) and Tulasi (*Ocimum sanctum*) mixed with oil over the abdomen, daily, starting from 4th month onwards throughout the pregnancy period
- Application of the oil prepared with the paste of leaves of Karanja (*Pongamia pinnata*) - over the abdomen, daily, starting from 4th month onwards throughout the pregnancy period
- Avoid scratching

Note: Other common problems such as cold & cough etc. should be managed as per the guidelines mentioned in the chapter 13 of this guideline.

Section3

Post-Natal Care (Sutika Paricharya)

1. Care of mother

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

The first six weeks after delivery are considered the post-natal period, which are the most crucial period for the health and survival of both mother and newborn. Main objectives of Ayurveda care are to enhance the process of recovery after delivery, prevent complications during puerperal period, early involution of uterus, and improve quality and quantity of the breast milk. Out of very vast knowledge available in Ayurveda, some easily doable post-natal care is mentioned here. ASHA plays a crucial role to provide counseling and services for appropriate care of the mother and newborn at home.

1.1 Care of mother

- Have empathetic approach, talk to woman and her family members about her needs
- Examine pulse, temperature, BP, post-partum haemorrhage, contracted uterus
- Subsequent health checkup includes history about delivery, micturition and motion, sleep, establishment of lactation, any other ailments and pulse, BP, temperature, anemia, breast, involution of uterus, lochia (smell, colour and amount), perinial wound, if any

1.2 Advise of 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
 - Helps in developing bonding between mother and baby
 - Helps in delaying pregnancy through suppression of ovulation
 - Protects baby against infection
 - Easily digested by infant
- Key messages on breastfeeding
 - Initiate breast feeding especially colostrums feeding within an hour of birth
 - Do not give any pre-lacteal feeds. Pre-lacteal feeds may not be hygienic and can cause intestinal infections in the baby leading to diarrhea
 - Ensure good attachment of the baby to the breast
 - Exclusively breast feed the baby for six months
 - Breast feed the baby whenever he/she demands milk
 - Follow the practice of rooming in

Initiation of breastfeeding: Counsel the mother that breastfeeding should ideally be initiated immediately after birth, preferably within one hour, even if the birth has been by caesarean section. The sucking and rooting reflexes of the newborn, which are essential for the baby to successfully start breastfeeding, are the strongest immediately after delivery, making the process of initiation much

easier for the mother and the baby. These reflexes gradually become weaker over the span of a few hours, thus making breastfeeding difficult later on.

Advantages of initiation of early breastfeeding

- 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.

Exclusive breastfeeding for six months: Counsel the mother for exclusive breast feeding in the first six months. The mother should be assured that breast milk has enough water to quench the baby's thirst (even in the peak of summer) and satisfy the hunger for the first six months. In case of insufficient secretion the measures mentioned in following pages should be followed.

- **Oil massage:** Whole body massage with oil especially on back and abdomen everyday results in balancing of Vata, which gets aggravated during delivery. This relieves pain, helps in early involution of uterus. Medicated oil like Bala aila or any other locally available oil like mustard, coconut, gingili should be used. This should be followed by exposure to early morning sun rays and bathing with hot water. A decoction prepared with vatahara plants may be used for bathing
- **Washing of genitalia:** washing the vagina with warm water or medicated decoction made of neem leaves, turmeric, drying and applying oil aids healing and prevents infection
- **Abdominal binder:** Binding of lower abdomen with clean, comfortable, broad and of sufficient length provides support. Readymade binders can also be used
- Emphasizing the importance of using contraceptive methods for spacing or limiting the size of family

Do's

- Exclusive breast feeding up to 6 months
- Emptying of breasts after feeding to avoid engorgement
- Maintain hygiene
- Bathing - use of water medicated with leaves of Nirgundi (*Vitex negundo*), Eranda (*Ricinus communis*) and Nimba (*Azadirachta indica*) after a whole body oil massage
- Considering the strength and digestive power, she should be advised to take light diet in first 10 days
- Food that stimulate digestion (*deepana, pachana*), relieve pain (*shulaghna*) and *Vata* should be recommended. Freshly cooked, warm nutritious soup, scum of boiled rice, gruel and Dalia for first 3-5 days. *Pippali* or *Shunthi* powder and ghee should be added
- Should have only boiled water for drinking

- Raw and cold food, food causing flatulence such as potato, bengal gram should be avoided, whole green gram is very good during this period. Should take milk and milk products
- Gradually the women should be introduced to normal diet. Jaggery is recommended as sweetener
- Remain happy and cheerful
- Observe abstinence up to 6 weeks
- May do light exercise and house hold chores
- Post- natal checkups and immunization schedule

Don'ts

- Should avoid next pregnancy at least for 3 years by adopting a suitable contraceptive for self or spouse
- Avoid constipation with sufficient intake of whole cereals, pulses, vegetables and liquids
- Avoid remaining hungry
- Should avoid strenuous work
- Avoid unnecessary medication
- Exposure to wind, fasting, over eating, over exertion, mental stress

1.3 Medicines

- i. Dashamularistha 20 ml after food, mixed with equal quantity of warm water twice a day for 1 month.
- ii. Saubhagya Shunthi Paka 5 gm after food with a cup of warm milk or water twice a day for 1 month.
- iii. Ajamodadi churna, 3gm, twice daily if she has loss of appetite, distension of abdomen or indigestion.

1.4 Referrals

On identification of following signs, the CHO should refer the woman to the higher centre immediately.

- Puerperal infection in mother when there is fever, pulse more than 110/min, foul smelling lochia, sub involution of uterus
- Urinary Tract Infection—increased frequency of urine, burning sensation in urination, increased pulse and temperature
- Mastitis/Breast abscess—continuous pain in the breast, increased temperature and pulse, redness and tenderness in the breast
- Thromboembolic disease- it is suspected when there is pain in legs and tenderness over calf muscles & chest pain
- Excessive vaginal bleeding
- Development of any other serious illness
- Deterioration in general health

1.5 Problems during post-natal period

1.5.1 Insufficient lactation

Followings are the indicators of insufficient lactation

- Lactating mother feels that secretion is not sufficient
- Baby cries a lot
- Inadequate weight gain
- Development of mal-nutrition
- Baby may develop constipation

Do's

- Continue to feed the baby
- Avoid stress and anxiety
- The diet should be sweet, unctuous, warm and liquid in consistency, milk and milk products should be used
- Sugarcane, Yashtimadhu, Lasuna (*Allium sativum*), Jeeraka (*Cuminum cyminum*), Shatavari (*Asparagus racemosus*), Kulaththa (*Dolichos biflorus*), Methi (*Trigonella foenum-graecum*) are known to increase lactation

Don'ts

- Don't remain hungry and thirsty
- Mental stress and anxiety

If the lactation does not improve and baby is cranky and not gaining weight, then formulae feed if feasible and affordable either cow's or any other milk diluted with boiled and cooled water may be given during the period of 6 months.

1.5.2 Fever (*Sutika Jwara*)

Mild fever of less than 100⁰ F lasting for less than 3 days may be managed at community level but it is very important to assess the status of woman to decide between Ayurveda care and referral to higher centers. Fever may be of following different causes.

- Urinary tract infection: frequency, dysuria, hematuria, chills and rigors
- Genital tract infection: tender bulky uterus, prolonged bleeding/pink or discolored lochia, painful inflamed perineum
- Mastitis: flu-like symptoms, painful, hard, red breast with possible abscess, nipple trauma and cellulitis
- Postoperative infection following caesarean section: painful, red suture line, deep tenderness on palpation, lochia pink/coloured
- Deep venous thrombosis: painful, swollen calf
- Other infections: Pyrexia in a recently delivered mother may also be due to causes common to all, such as viral infection or chest infection

Do's

- Treat the cause as per the guidelines mentioned in other sections of this document
- Frequently take warm decoction of coriander powder
- Decoction of stem of Guduchi, 3 to 4 time a day

- Light and liquid food
- Cold pack
- Consult doctor if fever persists for more than 3 days or associated with warning symptoms

Medicines

- Amritaristha, 20 ml with warm water after food 2 to 3 times a day
- Sanjeevini vati, 2 tablets thrice a day

Referral: as mentioned in Sr. No. 1.4 above

1.5.3 Breast engorgement

Breast engorgement occurs in the mammary glands due to expansion and pressure exerted by the synthesis and storage of breast milk. It is also a main factor in altering the ability of the infant to suckle the milk. Engorgement changes the shape and curvature of the nipple region by making the breast inflexible, flat, hard, and swollen.

Do's

- Breast feed the baby frequently to establish easy flow
- Empty the breast after each feed through gentle pressure
- Maintain hygiene of the breasts
- Don't stop feeding even if it is painful

Referral

- Mastitis- warm and red skin, severe tenderness, fever
- Breast abscess- fever and pus or blood discharge from nipple

1.5.4 Cracked nipples

External application of any edible oil, ghee or medicated oil such as Jatyaditaila after each feeding.

Do's

- Maintain cleanliness of the breasts
- Wash the breast before each feed
- Wear soft cotton clothes

Don'ts

- Do not use synthetic inner clothing
- Don't stop feeding owing to pain, feeding will aid healing

Referral

- Skin disease involving nipples
- Severe infection
- Mastitis- warm and red skin, severe tenderness
- Breast abscess- fever and pus or blood discharge from nipple

2. Care of new born

If the CHO comes across the situation to handle a new born, the following care needs to be taken:

- The cord should be properly ligated and severed with sterile blade
- Eyes should be cleaned with two clean and wet cotton swabs
- After wrapping infant in a clean and soft cloth and should be examined for
- Breathing pattern, heart rate, weight, temperature (cold or warm to touch), color of skin, nail and conjunctiva (anaemia, cyanosis, jaundice), cord stump for bleeding, bleeding wound, swelling, fracture, dislocation, genitals and anus, herniation of any part
- Record weight length, head & chest circumference
- Initiation of breast feeding
- Neonate should be observed for passage of urine and meconium
- Hygiene & thermal care
- Advice the vaccination of the child as per National Immunization Program

2.1 Preventive care - Rakshakarma

Rakshakarma, literally meaning "protective measures" are advised to protect the babies from different infections.

- Advise for cleaning the living area of baby and mother everyday
- *Dhupana* or the fumigation daily with ingredients such as Sarshapa (Mustard), Guggulu (*Commiphora mukul*), Lobana, or any aromatic traditionally used material for 20- 30 minutes each time, which keeps away the pathogens. The drugs are sprinkled over the red hot charcoal or heating device and the smoke emitted is made to cover whole room. The clothing, bedding, etc. should be exposed to this fumigation. Make sure that the fumes are mild and do not irritate baby or nursing mother
- Different aromatic medicinal plants like Neem may be used in different ways to keep the air and atmosphere fresh and clean
- Maintain good ventilation and light
- Avoid excess outdoor exposure of the baby. Contact of the baby with outsiders should be restricted
- Avoid bringing the foot wares worn outdoor. Similarly, avoid loud noise and other types of unpleasant surroundings
- Use comfortable, warm and soft clothing. If baby is wearing ornaments, precious stones etc. then care should be taken not to hurt the soft body parts
- The myths regarding new born and baby care such as wearing the old cloth, keeping sharp weapons near the child, pre-lacteal feeds, not giving bath, application of mud, cow-dung etc. on cord should not be practiced
- Allow touching the baby only after clean hand wash

2.2 Oil massage

Baby should be given a gentle massage with medicated oil, Gingili oil, coconut oil, mustered or any other oil as per the choice before giving bath this ensures proper blood circulation, increase the tone of the muscles, relieves fatigue and induces the good sleep

- Massaging should be done in the direction of hair follicles and upwards to downward direction (Anuloma Gati). It should not be done in opposite direction up to maximum of 15 minutes
- Care should be taken to protect the eyes, genital and other vital organs Care should be taken to prevent the nasal blockage, entry of oil into ears and nose etc.
- Oil should not cause irritation to the child
- Sufficient oil should be taken to avoid the dryness
- Baby's skin is very soft and bracelet rings and long nails might hurt the child accidentally. So, keep the fingernails short and keep aside the jewelry while massaging the baby
- Use smooth, gentle but firm strokes with palm or fingers. Light circular movements on chest and stomach, stroking across the shoulders, downward movement on the arms and legs and upward movements on the back are the best
- Do not put too much pressure on the baby's fragile body and avoid the spine area
- Keep the baby engaged while massaging him or her by talking or singing to the infant
- Eye contact with the baby ensures him or her of uninterrupted attention
- Take care of vomiting, which may cause aspirations
- Do not oil baby's palms or fingers as these little ones tend to put them in their mouths or eyes often, which may cause irritation
- Wrap the baby in a clean and warm towel after the massage and cuddle. The massage can be continued till he/she is three or four years old
- Massage should be avoided when baby is ill
- If the baby is developing Seborrheic dermatitis, oil massage should be avoided for atleast a week or unless the condition is controlled

2.3 Bathing

- Luke warm plain or water medicated with medicinal herbs may be used for bathing as per the traditional practice like Neem leaves, Sandal

Precautions

- Baby should feel comfortable while bathing
- Water should not be too hot or too cold
- Care should be taken to prevent the entry of water in to eye, ear, nose, mouth etc.
- Baby should be gently wiped dry after completion of the bath
- Maintain the temperature of medicated water as per the season i.e. warm in winter and luke warm in summer, however cold water bath is not advised

- Bath can be given in any time of day, however, morning hours are preferred and in winter season it can be done at mid-noon hours
- Never give bath to a baby while sleeping
- Better to use traditional cleaning agents in infants such as than soaps containing chemicals
- Avoid giving bath to preterm and low birth weight babies, sick babies, instead sponging is advisable
- Giving daily bath to baby helps to maintain good personal hygiene, promotes good circulation. Bath also induces good sleep to the baby as it gives the freshness

2.4 General care of infant

- Advice the vaccination of the child as per National Immunization Program
- The umbilical cord of the new born/neonate should be kept clean and dry. Don't pull the cord stump, after falling of stump, if any discharge is seen (blood/pus), then examine the site properly and if required refer to higher centre for proper care
- Feeding should be started soon after birth of the baby, feeding started early helps in developing immunity of the child, feed on demand or at every 2 hour interval
- Burping should be done after each feeding. It is a method of removing the air swallowed during breast feeding. Holding the baby upright on the shoulder of mother and mild tapping on the back will result into belching
- After feeding if baby sleeps then the head should be kept slightly up from body level
- Mother should offer the feeding in sitting position
- Advice not to leave the baby alone in dark and lonely places, especially during evening hours; also protect the baby from bright light, lightening, noisy places etc.
- Don't rock the baby hard
- All the toys and play materials of the child should be made of safe materials and they should have attractive and colourful

2.5 Referrals

- Babies revived after prolonged resuscitation
- Birth weight less than 2 kg
- Unable/refusal to take feed
- Pre-term less than 36 weeks
- Respiratory problem with sign of Lower respiratory Tract involvement
- Severe birth injuries like fractures, dislocation of joint, paralysis, etc.
- Signs of jaundice, cyanosis and other diseases
- Babies having convulsions, abdominal distension, unstoppable bleeding from any part

- Congenital anomalies in children
- High/low temperature
- Severe malnutrition
- Organic diseases of heart, lungs, kidney, liver
- Serious illness
- Any illness not responding to the treatment
- Delay in umbilical drying or if the cord does not fall after 10 days
- Sudden distension of abdomen

Chapter 6

Child and Adolescent Care

A child constitutionally remains weak in all respects due to underdeveloped immunity and body constituents. They are not matured in respect of their intelligence, wisdom and physical activities. Considering this fact, children need special care by the families, parents, society and administration for their all-round development.

The child and adolescent care should be aimed to inculcate good habits regarding early sleeping & waking up, healthy food, physical activity, outdoor games, handling emotions, family/social values and hygiene.

1. Child health care

1.1 Care of child upto 1 Year

- The preventive care, breast feeding, oil massage/bathing should continue as mentioned in the previous chapter
- Immunization should be done as per the schedule
- Detail history on feeding habits, physical and mental activity, micturition, bowel habit, sleep, cry, any other complaints or abnormalities
- Examination of weight, height, pulse, anaemia, malnutrition, respiratory system, cardiovascular system, abdominal examination, genitals, anterior fontanelle, ears, nostrils, oral cavity, throat
- In case of insufficient lactation, management strategy given in Chapter 5 of this Guideline should be followed

Weaning

- As the baby grows, the nutritional requirement increases and breast milk alone will not be sufficient, hence advice the mother to start weaning. Seasonal fruits, vegetables may be started in the form of juice/soup at first and slowly changing to smashed fruits or backed vegetables and introduce solid foods in gradual manner
- Teeth eruption is taken as base for 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
- Further by observing tolerance and digestive capacity of the child, different types of solid foods are gradually introduced. By 12th month baby should be made accustomed to family food
- The requirement of nutrition will be met if the food is properly digested. Ayurveda not only values a healthy and wholesome diet, but also gives importance to use of various spices and other ingredients that stimulate appetite and digestion
- Milk and Ghee in appropriate quantity are especially good for children and teenagers. Spices such as turmeric, cumin and pepper help digestion and metabolism
- Avoid junk food or 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
- Breast feeding should not be stopped all of a sudden, gradual withdrawal from breast milk and subsequent introduction of weaning foods to be done

1.2 General advise

- Children consider parents as role models and therefore how they behave has strong influence on children
- love and affection for the baby, a happy state of mind are essential
- Should make efforts to inculcate healthy lifestyle, eating habits, social behaviour in children as given in Chapter 3 of these guidelines
- Encourage children to play and engage in creative activities with available resources.
- Should not give the child any addictive things like tea/coffee
- Should not use harsh words, threaten or assault the child physically

1.3 Care of child of 1 year and above

- Once the baby is of 1 year of age, teething has set in, then it is time to start 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
- Use all varieties of vegetables, seasonal fruits in the diet of the child
- Introduce all 6 tastes in the food (sweet, sour, salty, spicy, bitter, astringent). They all have different beneficial effect on body and mind. Refer to Section 4 of Chapter 3 for details
- Avoid junk food or canned, frozen or packaged foods as much as possible
- Encourage the child for ‘eat by self’ as early as possible
- Baby should not be forced to eat, as that may result into food fussiness, rather let the child eat the food in a playful manner that will help her/him develop taste for the food
- 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
- Don’t keep or leave the child alone at lonely places, always be there with the child, don’t frighten or beat the child. Keep the child happy and comfortable
- Give cradle care up to the age of 1 ½ years
- Generally this time period is of dentition, the baby try to put anything in mouth which sometime lead to diarrheal infection, apply Amalaki (*Emblia officinalis*) and Yashtimadhu (*Glycrrhiza glabra*) powder along with honey over the gums of the child. Teether may be advised of good quality, which should be used after proper boiling so to avoid chances of infection. This helps in easy eruption of the teeth

1.4 Minor health problems

Children are very vulnerable and therefore 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.

1.4.1 Distension of abdomen or constipation or colic

- Water boiled with few grains of Ajwain (*Trachyspermum ammi*), Sowa (*Anethum sowa*) 2 drops - 2 to 3 times a day may be given
- Keep the baby in prone position to facilitate easy passing of abdominal gas

Referrals

When a child do not respond to these simple remedial procedures, and becomes restless, severe cry, do not pass abdominal gas and stool or pass mucoid jelly like or blood stained stool, or becomes lethargic and has stupor refer the child to higher center for further management.

1.4.2 Cough and Cold

- Keep the children warm
- 1 ml of fresh juice of leaves of tulasi with honey or turmeric paste 2-3-mg with few drops of honey 2 to 3 times a day
- Juice of tulsi leaves given two to three times with honey
- Sips of diluted ginger juice and lime juice given with warm water
- Advice warm mustard oil boiled with rock salt, parsley seeds may be applied over the chest

Medicines: Amritaristha, Agastya Haritaki avaleha, Sitopaladi churna

Referral

- When a child do not respond to these simple remedial procedures, high fever, weezing, breathing difficulty, restlessness, drowsiness
- Stopped/not feeding well
- Central cyanosis
- Apnoea or convulsion
- Severe malnutrition
- No response to treatment/deterioration

1.4.3 Diarrhoea

- Child due to gastro-colic reflex may pass stool many times a day usually after each feed, or may pass once in two days, but if the child is feeding well, passing urine and is active, only assurance to parent should be given, no medication is required.
- In mild cases child is of 6 months age, breast feeding should not be stopped and in addition, ORS made with boiled and cooled water may be added. Pomegranate fruit juice, fruit rind in the form of decoction or powder
- Dadimashtaka churna or syrup may be given in mild cases
- Jayphala (Nutmeg) rubbed with water 3 drops 2 to 3 times a day
- Pulp of the bilwa fruit or its sharbat
- Powder of pomegranate fruit rind given with the juice of pomegranate seeds
- Whey mixed with sugar and salt may be used repeatedly

Referrals

- When a child do not respond to these simple remedial procedures, and becomes restless, severe cry, passes watery stools, develops signs of dehydration such as dry mouth, loose skin, sunken eyes, depressed anterior fontanelle, anuria/oliguria, feeble pulse

1.4.4 Constipation

- Child should be trained for regular time to go to toilet
- Sufficient food and drink is essential
- Raisins soaked in water and given with warm water at bedtime
- A cup of warm milk with half a teaspoon of ghee given at bedtime

1.4.5 Loss of appetite

- One pepper and ginger powder boiled in water and given 30 minutes before meals
- Two pinches of ginger powder boiled in milk and given to drink

1.4.6 Fever

- Treat the case and manage associated symptoms like cold & cough
- In general, *Sudarshana churna* mixed with honey or *Amritarishta* should be given 3 times a day
- Tepid sponging is indicated whenever necessary if temperature is above 101 degree farenheit.
- Give warm and liquid diet more frequently

Referrals

Child with high fever lasting for more than 3 days, with respiratory problems, vomiting, severe diarrhea, urinary problems should be referred to higher center immediately

2. Adolescent health care

The adolescence stage is the period when a child transitions to 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. If not properly guided or counselled, adolescents could take to their own advices and start making their own judgments which are often clouded. As a result, they could end up following the wrong path and becoming prey to negative things that could ruin their lives like drugs, peer pressure. It is for this reason that adolescents should consider counselling to address their feelings and thoughts allowing them to grow into healthy, sound-minded adults.

Every child responds differently to life changes. Some 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 age-appropriate
- Parental divorce or separation

Adolescent girls have additional issues such as

- Menstrual problems
- Discrimination
- Sexual offences-rape, prostitution , STD, pregnancy

2.1 Adolescent counseling

Most common adolescent problems are physical inactivity, malnutrition, obesity, tobacco & substance abuse and mental health issues.

Some basic rules for parents

- The child should be encouraged to inculcate healthy habits under *Dinacharya* (daily routine), *Ritucharya* (seasonal regimens), *Sadvritta* (behavioural code) and *Ahara* (food) as mentioned in the Chapter 3 of the guideline
- Encourage for regular Yoga and physical activities like sports
- Set a good example
- Be a patient listener
- Spend good time and also provide them free space
- Be watchful without letting them know
- Don't bother children with the thing 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
- Don't try to say you are the best example

2.2 Acne

Acne can not only be painful but also may leave behind scars so therefore timely intervention is required.

Some of the general reasons for acne development include:

- Oily skin
- Junk food, too much fried food and sweets
- Dead skin cells
- Clogged pore
- Bacteria/Infection

Advise

- Healthy food choices, plenty of water
- 1 tsp. of Triphala or Amla with hot water in the night in case of constipation
- Crush some fresh and clean Tulsi leaves, apply on face
- Decoction of Neem leaves for internal use and washing the face
- Apply a few drops of honey on the pimples or and rinse off after 5-10 minutes. Repeat regularly for best results

2.3 Eating problems: Most common eating problems in children and adolescents are:

- Skipping meals, irregular eating timing
- Binge eating
- Having unhealthy, fast food
- Persistent worry or complaining about being fat and fasting
- Expressing depression, disgust, shame or guilt about eating habits

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
- Share the dangers of dieting, emotional eating, unhealthy and over eating
- Encourage to eat when hungry and make a habit of eating together as a family
- Discuss media messages, television programs, movies, websites and other media, which might give wrong messages
- Promote a healthy body image. Don't allow nicknames or jokes based on a person's physical characteristics
- Foster self-esteem
- If there is no improvement the adolescent should be referred for further specialist care

2.4 Mental health

Mental status is an important part of overall health of children and adolescents, which also affect their scholastic performance. If mental issues are not recognized or addressed in childhood and adolescence, it may later turn into a mental disorder. The children with following signs and symptoms need counseling and expert consultation.

2.4.1 Young children

- Have frequent tantrums or are intensely irritable much of the time
- Often talk about fears or worries
- Complain about frequent stomachaches 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

2.4.2 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 behaviors (e.g. cutting or burning their skin)
- Smoke, drink alcohol or use drugs
- Engage in risky or destructive behavior 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

2.5 Cigarettes, alcohol and drug abuse

Teens 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 teens experiment with drugs, but are not addicted. Teen 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. Experimentation plays the biggest role in teenage drug use. However, experimentation is a fact of life and just because a teen has tried drugs or alcohol doesn't mean they will become an addict. It's 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

It is up to parents to initiate a conversation with their children if they suspect drug use.

Advice

- The best way to get a teen to communicate about their drug use is by asking compassionate and understanding questions
- 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 away is just as important as asking the right questions

Note: Reproductive problems of adolescent girls including menstrual hygiene should be managed as mentioned in the ensuing chapter 7 on Reproductive Health. Mental Health is also dealt in detail in chapter 10.

Chapter 7

Reproductive Health

Reproductive health refers to the diseases and conditions that affect the functioning of the male and female reproductive systems during all stages of life. The reproductive care not only include 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 problems have multifactorial cause and their management needs comprehensive intersectoral plan in minimizing occupational hazards, clean & safe environment, subsidized nutritional food, school health, advocacy of women friendly measures, robust services for pregnancy care, institutional delivery and post delivery care etc. Achieving good reproductive health remains a far-off goal in many parts of the world. According to Ayurveda, the predominance and various combinations of *Dosha* (*Vata*, *Pitta*, *Kapha*) bring out different bodily changes in different phases of women's life. Considering the concept of "prevention is better than cure", it will be better to restore health naturally with slight modification in life style.

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

7.1 Dysmenorrhea (*Kashtartava*)

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 sometimes associated with nausea, diarrhoea or constipation, dizziness, fatigue and headache. Pain is sometime of that magnitude so as to incapacitate day to day activities.

Preventive measures

- Regular practice of yoga and pranayama for management of stress
- Physical activities such as walking, sports
- Use of ghee and warm food during periods
- Avoid all food causing bloating such as potato, bengal gram during periods
- Avoid constipation

Home remedies

- Frequently drinking about 50 to 100 ml of the warm decoction of carom seeds, fennel, fenugreek, cummin seeds, cinnamon
- Massage of the lower abdomen with warm oil for 10 to 15 minutes, followed by application of hot fomentation, such as a hot water bag during pain
- Oil massage of lower abdomen, hip and thigh

Treatment

- Rajahpravartani vati - 2 tablets BD for - for 3 months
- Dashamularistha— 20- 30 ml TDS - for 3 months
- Ashokaristha – 20- 30 ml TDS - for 3 months
- Matra basti with Tila taila or Bala taila upto 20 – 30 ml daily for 1 week before the expected period, continued to 3 cycles if facility is available

If associated with scanty menstruation

- Paste of Krishna tila (black sesame) with jaggery - 5 – 10 gm BD- for 3 months or till the disappearance of the symptoms
- Decoction of horse gram and black gram with jaggery 10 – 20 ml BD- for 1 week

Do's

- Unctuous & warm, sweet, sour, salty food
- Dairy products like milk, buttermilk etc.
- Rice & wheat, soup made of ghee, rice and green gram
- Sugarcane, jaggery and honey
- Foods may be garnished with spices like cumin, asafoetida, black pepper, cloves, coriander, mint, cinnamon, cardamom, ginger and mustard seeds
- Consume food while fresh and warm
- Take sufficient rest
- Practice Yogasana and Pranayama regularly
- Oil massage and warm water bag on abdomen to reduce pain
- Regular bowel habit should be observed

Don'ts

- Food items causing abdominal distention and constipation (*Vatala Ahara*) such as potato, chick pea etc.
- Too dry, spicy, chilli in the food
- Excess consumption of legumes, raw vegetables, maida and other food items heavy for digestion, frozen food items, etc.
- Night awaking
- Exertion
- Suppression of natural urges like urine and stool

Referral

- Acute pain abdomen with severe vomiting and nausea
- Patient under shock (low BP, rapid and feeble pulse and mentally confused or unconscious)
- Dysmenorrhoea with profuse vaginal bleeding
- Severely anaemic and malnourished patient
- Patient with pelvic or intra uterine growth
- Acute pelvic infection (acute salpingo, parametritis)
- Cervical stenosis such as pin hole cervix, narrow cervical canal

- Pelvic adhesions
- Serious mental illness
- Orthopaedic backache (prolapsed disc) worsening during menses
- Any serious systemic illness
- Patient not responding to the treatment or worsening of condition after treatment for 2 consecutive menstrual cycles

7.2 Menorrhagia (*Rakta Pradara*)

Dysfunctional Uterine Bleeding (DUB) is excessive or prolonged bleeding during menstrual period. In addition, it also includes the 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).

Home remedies

- Amalaki (*Emblica officinalis*) fruit juice with jaggery 10–20 ml BD - for 15 days
- Paste of unripened banana, with Jaggery, 5 -10 gmBD - for 1 week
- Powder of Yashtimadhu (*Glycyrrhiza glabra*) with rice water BD for 15 days or till the symptom subsides
- Milk boiled with Ashoka (*Saraka asoka*) bark for 15 days or till the symptom subsides

Medicines

- Pushyanuga churna 3-6 gm BD for 3 months
- Ashokarista 10–20 ml BD- for 3 months
- Lodhrasava- for 3 months

Do's

- Should take warm, unctuous, preferably ghee, lot of liquids, light, easily digestible and nutritious diet
- Should take lot of vegetables, fruits, milk, butter milk, whole grain in daily diet
- Should wear clean clothes and use clean cotton /cloth for pads during menstruation
- Should use clean water and strictly observe personal hygiene
- Should do light exercise and domestic work

Don'ts

- Should avoid anger, physical strife, quarrel, worry and coitus during menstruation
- Should not take any strong medication for mild abdominal pain, body ache, etc. rather use simple home remedies, like powder of cumin seeds 1 tsf with warm milk or water or use hot water bag/bottle on the site of pain
- Should avoid over tiring physical and mental work
- Should avoid too pungent, salty, sour, very hot & cold, heavy, oily and stale food items

Investigations

- Hb%
- Bleeding time

- Clotting time
- USG

Referral

- Patient not responding to treatment/deterioration after the treatment of 2 consecutive menstrual cycles
- Development of any other serious disease
- Blood dyscrasias
- Intrauterine growth such as myoma, endometrial polyp etc.
- Cancer of cervix and or uterus
- Hb% less than 7 gm.
- Endocrine disorders like hypothyroidism

7.3 Non-specific Leucorrhoea (*Yonisrava / Shwetapradara*)

Vaginal discharge is a frequently presented complaint by women. Leucorrhoea is an abnormal excessive vaginal discharge often associated with irritation and pruritus. Leucorrhoea could be physiological when associated with various phases of menstrual cycle as during ovulation or due to cervical/vaginal inflammation or diseases. It can be due to infection with Trichomonas vaginalis, Candida albicans or mixed bacterial infections, chronic cervicitis, cervical dysplasia, malignancy, or due to senile vaginitis. Pelvic inflammatory disease refers to the upper genital tract infections, which encompasses endometritis-salpingitis-peritonitis

Detail history and examination of the patient will ascertain the cause of the vaginal discharge. If facility for per vaginal examination is available the local changes like inflammation, ulceration, discharge may be looked into. A vaginal smear for diagnosis of infection may be collected and sent to a laboratory

After ruling out major causes of leucorrhoea, the woman should be counseled about the problem, especially about physiological discharge

Home remedies

- Amalaki (*Emblica officinalis*) powder/paste with sugar & honey - 2 gm BD - for 15 days
- Paste of tender leaves of Nyagrodha (*Ficus bengalensis*), Udumbbara (*Ficus glomerata*), Ashwattha (*Ficus religiosa*), Paresha (*Thespesia populnea*), Plaksha (*Ficus lacor*) - 5-10 ml BD with Tandulodaka (the water obtained from washing of rice) - for 15 days

Medicines

- Pushyanuga Churna - 3-6 gm BD - for 15 days
- Candanaasava - 10-20 ml BD with equal quantity of water- for 15 days
- Ushirasava - 10 -20 ml BD with equal quantity of water- for 15 days

Do's

- If the husband is having related problems, he should be provided appropriate treatment and advised for use of condom for safe sex
- Personal hygiene should be maintained, especially during the menstruation
- Use cotton undergarments

Don'ts

- Use of detergents, soaps, synthetic under garments, if allergic, should be avoided
- If persistent, it should not be neglected as it may cause ascending infections and proper medication should be taken

Referral

- Discharge is foul smelling and mixed with blood
- H/o post coital bleeding
- VDRL positive/ HIV/AIDS, any other serious illness
- Patient not responding to treatment/deterioration of the condition

7.4 Care during menstruation (*Rajasvalacharya*)

Ayurveda recommends a regimen during first three days of menstrual cycle related to food, physical activities and lifestyle

Do's

- Take appropriate rest
- Light nutritious and soothing diet so as to avoid constipation, flatulence and indigestion
- Food articles of bitter, sweet or astringent in taste, milk, wheat, seasoned rice, green gram, bitter guard, bottle gourd, cucumber, beet root, pomegranate, grapes etc.
- Gruel mixed with ghee or milk, barley cooked with milk, sweetened rice or broken wheat (sweet Dalia)

Don'ts

- Avoid excess exposure to heat, sexual intercourse, night awaking, suppression of natural urges, strenuous physical exercise, excess of fasting, fear, grief and anger
- Articles made with maida, sour curd, bakery items like bread, biscuits, fermented food, too spicy and salty food, fried food, pickles etc.
- Procedures such as Panchakarma are contraindicated during menstruation

For detail information and action plan please refer to national guidelines on menstrual hygiene management, ministry of drinking water and sanitation, government of India, December 2015

Link: http://www.ccras.nic.in/sites/default/files/notices/16042018_menstrual_hygiene_management.pdf

Chapter 8

Communicable Diseases

Communicable diseases are those that spread by an infectious agent, such as bacteria, viruses, fungi or parasites.

Mode of spread of communicable diseases

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

Unhygienic conditions, lack of awareness about prevention and control, Improper diet, environmental issues contribute to communicable diseases. Communicable diseases are a big challenge for health care system and economy. Ayurveda has described such communicable diseases & their cause, mode of transmission, prevention as well as management. Charaka Samhita has mentioned about *Janapadodhwansa*, (mass destruction of the community due to contaminated air, water, earth time).

By following *Dincharaya, Rutucharya, Sadvritta* explained in the chapter 3 of this document , one can develop immunity against the pathogens and check further spread. Some simple home remedies or medicines/ therapeutic procedures can also be used during changing seasons or outbreak of communicable diseases.

The communicable diseases have been dealt in details in the Chapter 11 and 13 of this document, however some commonly occurring communicable diseases are mentioned below .

8.1 Influenza like illness

The common cold is generally a viral infectious disease of the upper respiratory tract that primarily affects the nose, throat, sinuses, and larynx. The symptoms may include coughing, sore throat, runny nose, sneezing, headache, and fever.

Preventive measures during outbreak

- Maintenance of general hygiene, keeping away from infected person or taking precautions like use of mask, social distancing hand wash with soap, use of sanitizers
- Use of warm water for drinking
- Application of any oil to nostrils twice a day
- Decoction made from tulasi (Basil), cinnamon, black pepper, ginger, once or twice a day. Add jaggery or fresh lemon juice if needed
- Golden milk- half tea spoon turmeric powder in 150 ml hot milk - once or twice a day.
- Intake of light nutritious food and maintain good digestion
- Use of garlic, cardamom, cinnamon, pepper, ginger, honey
- Yoga & Pranayama
- Staying in fresh and ventilated places, moderate sun bath
- Gargling with warm saline water or decoction of carom seeds in case of irritation/sore throat or cough

- Best to avoid curd at night and cold and frozen food and drinks
- Exposure to dust, smoke and direct wind should be avoided

Management

- All the preventive measures mentioned above should be followed
- Sitopaladi churna 2 to 3 gm with honey, 2 to 3 times a day
- Kantakari Avaleha, 3 to 5 gm twice daily

Or

- Vasavaleha, 3 to 5 gm twice daily

Referrals

- Cases not responding to therapy
- Difficulty in breathing
- Patient with co-morbidity
- Vulnerable population such as low weight children, immune-compromised, elderly etc.
- All cases of severe persistent cough for more than 3 weeks
- Fever for more than a week
- Suspected for any other serious illness

8.2 Dengue

Dengue fever is a mosquito-borne tropical disease caused by the dengue virus. Symptoms typically begin three to fourteen days after infection. These may include a high fever, headache, vomiting, muscle and joint pains, and a characteristic skin rash. Typically, people infected with dengue virus are asymptomatic (80%) or have only mild symptoms such as an uncomplicated fever. Others have more severe illness (5%) and in a small proportion it is life-threatening.

In some people, the disease proceeds to a critical phase as fever resolves. During this period, there is leakage of plasma from the blood vessels, typically lasting one to two days. This may result in fluid accumulation in the chest and abdominal cavity as well as depletion of fluid from the circulation and decreased blood supply to vital organs. There may also be organ dysfunction and severe bleeding, typically from the gastrointestinal tract. The symptoms may progress to massive bleeding, shock, and death. This is called dengue shock syndrome (DSS). People with weakened immune systems as well as those with a second or subsequent dengue infection are believed to be at greater risk for developing dengue hemorrhagic fever. Recovery generally takes two to seven days.

Diagnosis

The diagnosis of dengue is usually made clinically. If one has persistent fever for more than 2 days then one should go for a complete blood checkup (CBC). A case compatible with the clinical description of dengue fever with at least one of the following will be considered as confirmed.

- Isolation of the dengue virus (Virus culture +VE) from serum, plasma, leucocytes
Demonstration of IgM antibody titre by ELISA positive in single serum sample

Demonstration of dengue virus antigen in serum sample by NS1-ELISA

- IgG seroconversion in paired sera after 2 weeks with Four fold increase of IgG titre
- Detection of viral nucleic acid by polymerase chain reaction (PCR)

Referral

- High risk group: pregnancy, infant, elderly, obesity, peptic ulcer diseases, bleeding disorders, coronary artery disease, chronic diseases like diabetes, COPD, bronchial asthma, hypertension, patients on steroid, antiplatelet, anticoagulant drugs, HIV infected / immunocompromised persons
- Warning signs: Persistent vomiting >3 times a day, severe abdominal pain, lethargy and/or restlessness, sudden behavioural changes, bleeding (epistaxis, black coloured stools, haematemesis, excessive menstrual bleeding, dark-coloured urine or haematuria) , pale, cold clammy hands and feet, less/no urine output for 4-6 hours, difficulty in breathing, Clinical fluid accumulation,Rising hematocrit together with rapid fall in platelet count

8.3 Chikungunya

Chikungunya virus is spread to people by the bite of an infected mosquito. Chikungunya and dengue are both acute febrile illnesses characterized by fever, myalgia, and lethargy. Some patients may also have maculopapular rash, nausea, vomiting, and headache. Distinguishing features of chikungunya include potentially debilitating bilateral polyarthralgia and, in some cases, arthritis. The Symptoms usually begin 3–7 days after being bitten by an infected mosquito. Chikungunya disease does not often result in death, but the symptoms can be severe and disabling. Most patients feel better within a week. In some people, the joint pain may persist for months. People at risk for more severe disease include newborns infected around the time of birth, older adults (≥ 65 years), and people with medical conditions such as high blood pressure, diabetes, or heart disease. Once a person has been infected, he or she is likely to be protected from future infections.

Case definition

Suspected case: a patient meeting the clinical criteria only

Confirmed case: a patient meeting both the clinical and laboratory criteria

- Clinical criteria: Acute onset of fever and severe arthralgia / arthritis with or without skin rash and residing or having left an epidemic area 15 days prior to onset of symptoms
- Laboratory criteria: At least one of the following tests done in the acute phase of illness
 - Direct evidence - Virus isolation / presence of viral RNA by RT-PCR
 - Indirect evidence- Presence of virus specific IgM antibodies in single serum sample collected in acute or convalescent stage, four-fold increase in IgG values in samples collected at least three weeks apart

Referrals

- High grade persistent fever
- Severe joint pain
- Persistent vomiting / diarrhoea

- Altered sensorium
- Bleeding (GI bleeding due to use of analgesics)
- Shock due to persistent vomiting and diarrhoea, hypotension
- Co-morbid conditions: hypertension, diabetic, CAD/CVD, geriatric age, pregnancy, COPD, hypothyroidism etc.
- Co-infection: tuberculosis, enteric fever, pneumonia, HIV, malaria, dengue

Prevention during outbreak of Dengue and Chikungunya

- Do not leave stagnant water lying anywhere in or around the house
- Use mosquito net while sleeping
- Wear clothes that don't leave any skin areas exposed
- Use mosquito repellent cream. May apply lemon grass oil, neem oil and cinnamon oil to protect against mosquito bites
- Take light, nutritive, warm, easily digestible foods; proper rest, sleep and maintain hygiene
- Avoid chilled food & drinks, strenuous exertion and stressful conditions
- Consume infusion prepared by boiling 5gm (one teaspoonful) of Guduchi (*Tinospora cardifolia*) powder or crushed small fresh stem in 100 ml (1/2 glass) of water along with a pinch of black pepper powder. Dose for children between 6 to 12 years of age will be half and for children below 6 years will be one fourth

or

- One litre of water boiled with 10-15 Tulasi leaves and 10-15gm Dhania(Coriander) powder for ten minutes and cooled to room temperature may be consumed at intervals of 3-4 hours in a day

Management

- All the preventive measures mentioned above should be followed
- Take appropriate rest
- Amritarishta, 10 to 20 ml 2 to 3 times with warm water
- Sanjivani vati, 2 tablets, twice in a day
- Papaya leaves juice is a commonly used natural remedy for dengue fever

For Arthritis as sequel of Chikungunya, Dengue

- Yogaraja guggulu, 2 tablets, twice in a day
- Sanjivani vati, 2 tablets, twice in a day
- Amritarishta, 10 to 20 ml 2 to 3 times with warm water

Aiding recovery from debility

- Amalaki rasayana, 3 to 5 grams twice daily
- Amritarishta, 10 to 20 ml 2 to 3 times with warm water

8.4 Referral of patients with communicable diseases

Referrals are an important part of the management of patients, particularly those with suspected for serious infection like Hepatitis, TB, Leprosy, HIV and STDs etc. for further investigation and

continuous care. Following are some indicative symptoms which require immediate referral:

1. Fever for more than 1 week
2. Unexplained weight loss
3. Extreme and unexplained tiredness
4. Chronic cough of more than 3 weeks
5. Blood in the sputum
6. Difficulty in breathing
7. Skin lesions that are lighter than normal skin and remain for weeks or months
8. Patches of skin with decreased sensation, such as touch, pain
9. Fever associated with dysuria
10. Jaundice, loss of appetite, nausea, and vomiting
11. Prolonged swelling of the lymph glands in the armpits, groin, or neck
12. Diarrhoea that lasts for more than a week
13. Sores of the mouth, anus, or genitals
14. Discharge from the penis
15. Unusual smelling vaginal discharge
16. History of exposure to serious infections like HIV/AIDS, TB, Leprosy etc.
17. Any person in high risk category like pregnancy, old age, suffering from serious illnesses should be immediately referred to a higher centre and their follow up should be ensured

8.5 Prevention of lymphatic filariasis and other causes of lymphoedemas

The experts of Institute of Applied Dermatology in Kasaragod, Kerala have developed an integrative protocol for Morbidity Management of Lymphatic Filariasis affecting lower and upper limbs. For information of all medical officers, a brief of the protocol has been provided below.

Indications for treatment

Lymphatic Filariasis manifests as elephantiasis or limb swelling known as lymphoedema. All types of lymphoedema respond to integrative medicine treatment. Lymphoedema patients with moderate to severe grades require treatment. International Society of Lymphology Consensus grading 2 late or 3 with or without associated comorbidities, wounds, and any of bacterial entry lesions require treatment to prevent further progression of the disease. Patients currently or recently having experienced an acute inflammatory episode (cellulitis/filarial fever) during the previous month of reporting shall not be treated immediately. Such patients shall be taken up for treatment one month or after cellulitis resolves whichever is later.

Lymphoedema can be treated as an outpatient procedure or when necessary through hospitalized care. Patients should attend a counselling session before deciding on treatment. During the treatment, at discharge and during every follow-up attendance counselling to emphasize the treatment procedures, improve the adherence and care of bacterial entry lesions should be done. The initial two weeks of intense phase of treatment and coaching for self-care is followed by follow-ups at the first month and periodically thereafter.

Treatment components

The treatment components are skin wash with soap and water, warm *phanta* soaking, yoga and breathing exercises before and after Ayurvedic massages, Indian manual lymph drainage (IMLD), comprises *udwarthana* and *unmardhana/vimlapana*, and compression therapy. Bacterial entry points care requires using modern dermatology drugs along with Ayurvedic medicines. *Phanta* prepared with mixing powdered drugs in hot water and kept overnight for active principles to get diffused in the liquid. Major herbal powders used are powdered dried officinal part of *Glycyrrhiza glabra* (*Yastimadhu*), *Rubia cordifolia* (*Manjista*) and powdered dried fruits of *Terminalia chebula* (*Haritaki*), *Terminalia belerica* (*Vibhitaki*) and *Emblica officinalis* (*Amalaki*) (*Thripala*), depending on local skin pathology (*Sthaneeya vikruthi*). It is prepared by soaking one part (120 gm) of the fine powder of the dried powders of above-mentioned drugs, with sixty parts (8 litres) of boiled water in a plastic container closed by a lid for 12 hours. The limb is dipped in the *phanta* solution and soaked by pouring the solution over it continuously for 20 minutes.

The yoga exercises included in this protocol are, *Thadasana 1 and 2*, *Thrikonasana*, with breathing exercises, i.e., *Ujjayee*, *Anuloma-viloma*, *Rechaka-kumbhaka*, *Suryabhedana* and *Bhastrika*. Then *Swasthika asana*, *Gomukha asana*, *Bheka asana*, *Makara asana*, *Prasrutha hastha padasana* to be continued and the session ends with *Shava asana-1 and 2*. In post IMLD yoga, instead of knee folding exercises, *Padanguli namana Gulpha namana*, *Gulpha chakra asana*, *Paschimothana asana*, *Bhujanga asana* is to be added. They are used adhering to published protocols. Some patients may require modifications.

Ayurvedic skincare massage using (*Nalpamaradi thaila*) oil for manual lymph drainage (*udwarthana*). During the procedure, oil is applied to the skin, and the affected limb massaged in the opposite direction to hair growth.

After the oil massage compression therapy is to be given using long stretch compression bandages applied using a figure of 8 techniques with CCF moulds filled in crevasses, toe bandages and a few accessories as described in international best practices.

In general, two Ayurvedic oral medications indicated for 3 months based on the disease specifications. They are *Maha manjistadi kashayam* and *Kanchanara guggulu*.

Outcome measures

Response to integrative medicine treatment for lymphoedema measured with the following outcomes recorded on each patient at baseline and every follow-up

1. Limb circumference measurements at seven different anatomical sites: metatarsal, midfoot, ankle, end of the calf, maximum calf bulk, patellar region, midthigh, and maximum bulk on standing. as described in reference no 3 and 8
2. Recording of all bacterial entry points namely intertrigo, non-healing wounds, eczema, folliculitis, paronychia, fissures and keratoderma, caries teeth or any break in the skin

3. History of frequency and evidence of cellulitis or commonly known as inflammatory episodes
4. Changes in quality of life of patients using Lymphatic Filariasis Specific Quality of Life Questionnaire
5. Photographic evidence of changes in limb volume
6. Any other measurements that treating physician feels important mainly when associated with comorbidities

Lymphoedema affecting other segments of the body like genitalia, head and neck, abdomen, back requires special protocols. There are published protocols on integrated medicine to manage lymphoedema affecting different body segments. They will require individualization of the above treatment protocols, including changes in a yoga sequence. The treating physician should develop an individualized treatment protocol for such patients or may choose to refer such complicated lymphoedemas to expert centres like Institute of Applied Dermatology at Kasaragod, Kerala.

Note : For detail about other communicable discuss, please refer to chapter 11 and 13 of this document.

Chapter 9

Screening, Prevention, Control and Management of Non-communicable Diseases

Introduction

Non-communicable diseases (NCDs) are the leading cause of preventable deaths and disability in India. The four identified major NCDs are cardiovascular disease, cancer, chronic respiratory disease, 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 behaviours lead to four key metabolic/physiological changes: raised blood pressure, overweight/obesity, raised blood glucose, and raised blood lipids.

Ayurveda being the foremost life science describes ways to prevent and manage lifestyle disorders including non-communicable diseases. It provides proper dietary management and lifestyle advices through *Dinacharya* (daily regimen), *Ritucharya* (seasonal regimen), *Sadvritta* (Good Conducts), *Panchakarma* (Bio-purification therapies), *Rasayana* (rejuvenation) and the proper use of medicinal plants.

This AYUSH NCDs module will focus on strengthening the capacity and skills of CHO for prevention and timely referral of complicated cases of NCDs. This module will focus more on risk factors of common NCDs. Government of India has already rolled out National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular diseases and Stroke (NPCDCS) programmes. Under NPCDCS- Universal Screening Programme focus is given on population enumeration, family empanelment (all population irrespective of age) and completion of Community Based Assessment Checklist (CBAC) survey for all people above age of 30 years within catchment area with the help of trained ASHAs, who have been trained for screening of NCDs.

1. Overweight, obesity and dyslipidemia

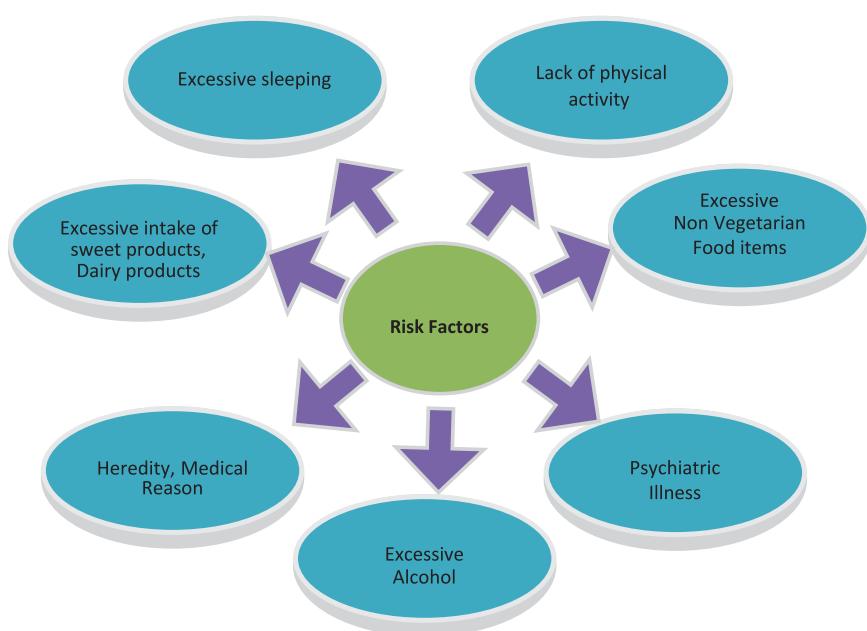
Overweight and obesity (*Medodosha-Medoroga*) are defined as abnormal or excessive fat accumulation that may impair health. Body mass index (BMI) is a simple index of weight-for-height that is commonly used to classify overweight and obesity in adults. It is defined as a person's weight in kilograms divided by the square of his height in meters (kg/m^2).

Dyslipidemia is a group of disorders of lipoprotein metabolism, which includes over production or deficiency of lipoproteins or both. It is regarded as primary risk factors for atherosclerotic disease, especially coronary heart disease. Dyslipidemia components may include elevated LDL cholesterol, elevated triglycerides or both and/or low HDL (protective) cholesterol. It is a pathological condition in which lipid levels are deranged. In developed countries, it is a major contributor to cardiovascular morbidity and mortality. In India approximately 25-30% of urban and 15-20% rural subjects are suffering from dyslipidemia. Although, it is more common among males, but it affects both the

genders. 30 to 40 years age group has tendency to high prevalence, but above 60 years it becomes remarkably high. Several risk factors associated with Dyslipidemia are, obesity, hypertension, diabetes mellitus, sedentary life style, fatty/oily diets, hypothyroidism, excessive alcoholism and smoking. If dyslipidemia is not treated/ managed on time, it may lead to co-morbid symptoms like dyspnoea, lethargy, tiredness, weight gain, loss of appetite and complications like hypertension, hypothyroidism, infertility, poly cystic ovarian disease, atherosclerosis, coronary artery disease and lastly cardiovascular death. It can be correlated to Meda Dhatu Dushti (abnormal lipids) in Ayurveda.

1.1 Essential knowledge

A. Risk factors for overweight, obesity and dyslipidemia



B. Symptoms

a. Obesity

- 1) Breathlessness even on little exertion / physical activity.
- 2) Lack of interest in doing work.
- 3) Profuse sweating with foul body odor.
- 4) Excessive hunger.
- 5) Feeling of tiredness.
- 6) Excessive sleep.

b. Dyslipidaemia

There are no specific symptoms of elevated lipids, but as it leads 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

c. Laboratory investigations

- Lipid profile
- Blood sugar
- Kidney function tests
- Liver function test
- Blood pressure checkup

d. Diagnosis

i) Obesity

Classification	BMI (kg/m ²)
Normal	18.5-22.9
Overweight	23-24.9
Obese	>25
Pre obesity	25-29.9
Obesity class I	30-34.9
Obesity class II	35-39.9
Obesity class III	>40

ii). Dyslipidaemia

Cholesterol guidelines based on the national cholesterol education program for adult

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	
<u>Normal/Desirable</u>	<150
Borderline high	150-199
High	200-499
Very high	≥500
Serum HDL cholesterol	
Low	<40
High	≥60

*LDL-Low-density lipoprotein; *HDL- High-Density lipoprotein

1.2 Preventive measures

➤ Preferred diet

Take low-fat, low-calorie and high fiber food items

Use warm water for drinking

Include fresh and raw vegetables in daily meal.

Steamed boiled and baked vegetables rather than fried

Take Healthy foods such as –Walnuts, Salads, Bitter Gourd (*Karela*), Drumstick (*Shigru*), Barley (*Yava*), Methi (*Fenugreek Seeds*), Haldi (*Turmeric*), Moong Daal (*Green Gram*), Jwar, Bajra (*Millets*), Honey (*Madhu*), Indian Gooseberry (*Amla*), Pomegranate (*Anar*) and Snake Gourd (*Chichinda*) etc.

➤ Restricted diet

High carbohydrate food like – potato, rice etc.

Sugar and sweet products, dairy products, fried and oily foods, fast foods, excess salt and meat of animals of marshyland

Excessive sleep

Alcohol and smoking

Salty foods or excessive salt in meals

1.3 Recommended lifestyle & Yoga practice

Lifestyle practices	<ul style="list-style-type: none"> Brisk morning walk of 45minutes Yoga and Meditation to manage stress and fatigue Avoid Watching TV while having food Avoid excessive sleep especially during daytime after meal
Yoga practices (As per Yoga protocol)	Suryanamaskar, Paschimottasan, Janusirshasana, Kapalbhati, Agnisar Kunjal, Tadasana, Katichakrasana, Konasana, Pavanmuktasana

1.4 Medication

(As per the <i>Prakriti</i> of the patient and severity of the illness)		
Single drug	<i>Shunthi</i> (<i>Zinziber officinalis</i>)	1-2 gm B.D.
	<i>Haridra</i> (<i>Curcuma longa</i>)	3-6 gm B.D.
Poly herbal formulations	<i>Trikatu churna</i>	1-3 gm B.D.
		3-6 gm B.D.

1.5 Referral

Obesity requires continuous monitoring of the 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-

- The patients of uncontrolled Hypertension
- The patients of uncontrolled Diabetes
- Refer to lipid clinic if total cholesterol ≥ 240 mg/dl, triglycerides ≥ 500 mg/dl
- Any other systematic uncontrolled co-morbidities

2. Hypertension

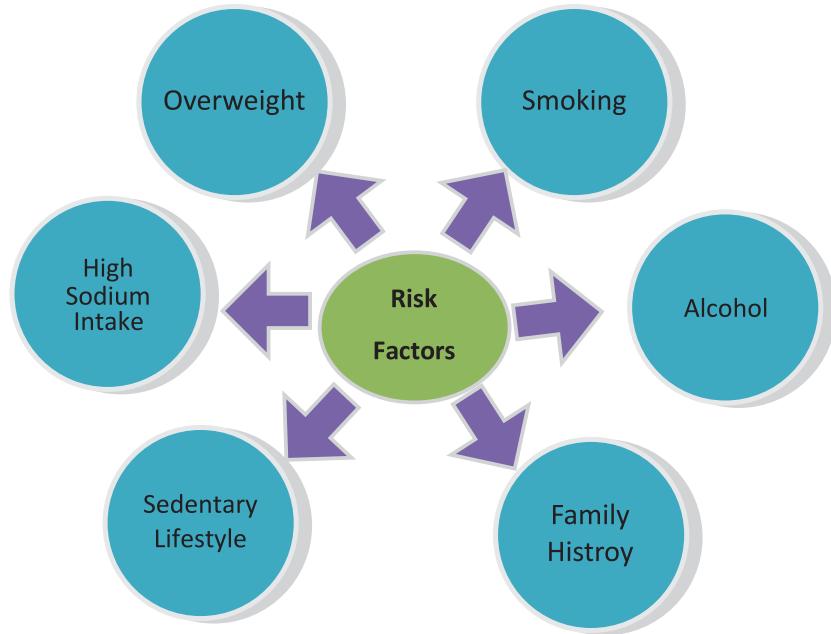
Hypertension, also known as high or raised blood pressure, is a condition in which the blood vessels have persistently raised pressure. Blood is carried from the heart to all parts of the body in the vessels. Each time the heart beats, it pumps blood into the vessels. Blood pressure is created by the 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:

Primary/essential hypertension : Primary or -essential hypertension has no known cause, however many of the above said lifestyle factors are associated with this condition.

Secondary hypertension : Secondary hypertension is caused by some other medical conditions/problem. Secondary hypertension is seen only in very few individuals in the community. The causes of secondary hypertension include: kidney diseases: reno-vascular disease and chronic renal disease, endocrine disorders: hyperthyroidism, Cushing's syndrome and pheochromocytoma, sleep disorders, coarctation of the aorta and nonspecific aorto-arteritis. Some of these causes are often curable, and many others treatable.

As per Ayurveda, the disease is supposed to be due to vitiation of *Vata* and *Pitta* probably due to imbalance of *Vyanavayu* (One type of *Vata* regulating the cardio-vascular functions). Associated conditions like Palpitation (*Hridadrava*), Headache (*Shirahashula*), Vertigo (*Bhrama*), Transient Insomnia (*Nidranasha*), Tinnitus (*Karnanada*) are described as *Vata* diseases in Ayurveda.

A. Risk Factors for hypertension



B. Symptoms

- Early-morning headache
- Severe anxiety
- Nose bleed
- Irregular heart beats
- Vertigo
- Symptoms of severe hypertension include tiredness, nausea, vomiting, confusion, anxiety, chest pain and muscletremors

C. Criteria for diagnosis of hypertension

The diagnosis of hypertension should be based on multiple blood pressure measurements by sphygmomanometer taken on several separate occasions e.g. at least twice at an interval of 10-15 days. The classification provided in the table below is based on consistent elevation during two or more properly measured BP readings in sitting position.

Category	Systolic (Top number)	Diastolic (Bottom number)
Normal	Less than 120	Less than 80
Prehypertension	120-139	80-89
High Blood Pressure		
Stage 1	140-159	90-99
Stage 2	160 or higher	100 or higher

Source: JNC VIII

D. Laboratory examination

- Blood sugar
- Kidney function tests
- Lipid profile

E. Complications

- Chest pain, also called angina
- Cardiac failure
- Cerebrovascular Stroke

2.1. Preventive measures

- Preferred Diet- barley, sorghum (Jowar), wheat, green gram, bitter gourd, bottle gourd, turnip, carrot (Gajar), indian gooseberry (Amla), cucumber (Khira), draksha, sesame oil (Til taila), etc.
- Restricted Diet- Excessive use of butter, chillies, pickles, bengal gram, sour fruits, curd, tea, coffee and intake of processed/oily foods.



2.2 Recommended lifestyle & Yoga practices

Lifestyle practices	<ul style="list-style-type: none"> • Regular blood pressure check-up • Regular exercise especially brisk walking • Avoid stress • Avoid awakening in night
Yoga practices(As per Yoga protocol)	Tadasana, Bhujangasana, Shashankasana, Shavasana, Nadishodhana, Ujjayi, Shitali, Sitkari and Bhramari.

2.3 Medication

Stage 1, Stage 2 and Isolated systolic hypertension is a critical condition so for immediate control of the blood pressure patient may be referred for conventional treatment after advising diet lifestyle, Yoga and integrated Ayurveda management.

(As per the <i>Prakriti</i> of the patient and severity of the illness)		
Single drug	Brahmi (<i>Bacopa monnieri</i>)	3gm B.D. (If stress is the cause)
	Gokshura (<i>Tribulus terrestris</i>)	3gm B.D.
	Giloya (<i>Tinospora cordifolia</i>)	3gm B.D.
	Amla (<i>Emblica officinalis</i>)	3gm B.D.
Poly herbal formulations	Drakshavleha	6-12gm B.D.
	Punarnavasava	15 ml BD
Panchakarma	Shirodhara	Herbal medicated liquids
	Virechana Karma	Therapeutic purgation
	Basti	Therapeutic herbal enema

2.4. 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-

- The patients of hypertensive crisis (BP \geq 180/110mmHg)
- If Hypertension is associated with heart disease, stroke or peripheral vascular disease
- Evidence of Left Ventricular Hypertrophy (LVH) on ECG
- Presence of urinary proteinuria
- Serum creatinine $>1.6\text{mg/dl}$
- Persistent Hypertension (BP \geq 140/90 mmHg) despite 3 months of treatment

3. Prediabetes & Diabetes

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.

The American Diabetes Association (ADA) includes HbA1c between 5.7 and 6.4 per cent in addition to IGT of 140-200 mg/dl and uses a lower cut-off value for IFG between 100 and 125

mg/dl. According to National Urban Diabetes Survey, the estimated prevalence of prediabetes is 14 per cent in India. According to Ayurveda pre-diabetes can be considered as one of the Medopradoshaja Vikaara (disorders of fat metabolism) and Prameha PurvroopaAvastha (premonitory sign and symptoms of Diabetes) based upon the sign and symptoms and pathogenesis.

Diabetes Mellitus (DM) is a chronic disease, which occurs when the pancreas does not produce enough insulin, or when the body cannot effectively use the insulin it produces. This leads to an increased concentration of glucose in the blood (hyperglycaemia). 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.

In Ayurveda, this condition can be explained as Madhumeha. It is one of the types of Prameha (group of diseases characterized by excessive urination) where the patient passes honey like sweet urine (raised level of sugar in urine & Hyperglycemia). The main causative factor is said to be sedentary lifestyle, excessive intake of sweet, meat of marshy land, dairy product except buttermilk, heavy & excessive meals

3.1 Essential knowledge

A. Risk factors for pre-diabetes and diabetes

- 1) Sedentary lifestyle and Lack of physical activity, excessive sleeping
- 2) Obesity
- 3) Smoking

B. Symptoms

a. Prameha poorvarupa (premonitory sign and symptoms of diabetes)

- Burning of palm and soles
- Excessive stickiness of skin in general and face in particular
- Heaviness of body
- Frequent, excessive and turbid urination
- Tiredness
- Excessive thirst
- Foul smell in breath
- Coating of teeth

b. Diabetes mellitus

- Excess thirst
- Excess urination
- Excess hunger with loss of weight
- Frequent infections
- Non-healing wounds
- Lassitude

- Fatigue
- Impotency in men

C. Diagnosis and laboratory investigations

Criteria for diagnosis of T2DM using venous blood samples

	Fasting Glucose (mg/dl)	2Hour Post-Glucose Load (mg/dl)
Diabetes Mellitus	>=126 or	>=200
Impaired Fasting Glucose	>=110 to <126	

American Diabetes Association

Test	Values
75-g OGTT 2-hour plasma glucose	≥200 mg/dl
HbA1C	≥6.5%

D. Complications

- Cardiovascular disease (Coronary artery disease)
- Nerve damage (Neuropathy)
- Kidney damage (Nephropathy)
- Eye damage (Retinopathy)
- Diabetic foot ulcer
- Skin infections

Acute emergencies like:

- Diabetic ketoacidosis
- Hypoglycemia/Hyperglycemia
- Diabetic coma

3.2 Preventive measures

- Preferred Diet- Purana shali (*Oryza sativa*; rice), Purana godhuma (*Triticum sativum*; Wheat), PuranaYava (*Hordeum vulgare*; Barley), Tila (*Seasamum Indicum*; gingely), Chanaka (*Cicer artemium*; chick pea), Kulatha (*Dolichos biflorus*; horse gram), Mudga (*Phaseolus mungo*; greengram), Sarshapa (*Brassica campestris*; Indian colza), Masoora (*Ervum lens*; lentil), Karavellaka (*Momordica charantia*; bitter gourd), Palaka (*Spinacia oleacea*; spinach), Lashuna (*Allium sativum*), Jambu (*Syzygium cumini*), Trapusa (*Cucumis sativus*; cucumber), Tarabooja (*Cucumis melo*; melon), Dadima (*Punica granatum*), Jambhira (*Citrus lemon*; lemon), Shrungataka (*Trapa bispinosa*; Water chestnut), Amalaki (*Phyllanthus emblica*), Takra (Butter milk), Tila taila and Sarshapa taila (*Brassica campestris*).

- Restricted diet-Sugarcane juice, sugar, milk and milk products, sedentary lifestyle, sleeping in the day time and excessive sleeping, alcohol, staying too long on empty stomach, cold drinks, ice cream, fast foods, bakery items, animal products and meat of animals of aquatic and marshy landetc.

3.3 Recommended lifestyle & Yoga practices

Lifestyle practices	<ul style="list-style-type: none"> • Regular exercise especially brisk walking • Avoid stress • Avoid sleeping in the day time
Yoga practices (As per Yoga protocol)	Vakrasana, Mandukasana, Ardha Matsyendrasana, Suryanamaskara, Paschimottanasana, Kapal bhati kriya

3.4 Medication

(As per the <i>Prakriti</i> of the patient and severity of the illness)		
Single drug	<i>Ashwagandha</i> (<i>Withania somnifera</i>)	3-6 gm B.D.
	<i>Bhumyamalaki</i> (<i>Phyllanthus niruri</i>)	3-6 gm B.D.
	<i>Brahmi</i> (<i>Bacopa monnieri</i>)	1-3 gm B.D.
	<i>Guduchi</i> (<i>Tinospora cordifolia</i>)	3-6 gm B.D.
	<i>Nimba</i> (<i>Azadirachta indica</i>)	1-3gm B.D.
	<i>Amalaki</i> (<i>Phyllanthus emblica</i>)	3-6 gm B.D.
	<i>Gokshura</i> (<i>Tribulaster resteris</i>)	3-6 gm B.D.
	<i>Bilva</i> (<i>Aegle marmelos</i>)	3-6 gm B.D.
Poly Herbal formulations	Trikatu churna	1-3 gm B.D.
	Triphala churna	3-6 gm B.D.
	Gokshuradi guggulu	1 gm B.D.
	Kaishora gugullu	2 gm BD
	Nisha-Amalaki	6 gm

3.5 Referral

Diabetes is a chronic illness that requires continuing medical care 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:

- Serious metabolic derangement or diabetes complication that is left untreated would lead to need for hospitalization, or which requires immediate hospitalization
- Newly diagnosed Type 1 with or without urinary ketones
- Decompensate Type 1 or Type 2 diabetes with strongly positive urinary ketones present, dehydration or vomiting
- Foot ulcer with infection
- Type 1 or Type 2 diabetes with suboptimal diabetes control after providing treatment ($\text{HbA1c} > 7.0\%$)
- Marked or symptomatic hyperglycemia not responding to current therapy
- Recurrent severe hypoglycemia

4. Cancer

4.1. Prevention of Cancer

Create awareness about the health hazards of tobacco and advocate avoidance

Encourage and assist habitual tobacco users to quit the habit

Promote healthy dietary practices and physical activity

Make your health institute tobacco free and implement Cigarettes and Other Tobacco Products (COTPA) Act 2003 effectively as per National Tobacco Prevention Programme

4.2. Early detection of Cancer

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

Offer clinical breast examination to any woman over 30 years presenting to the health centre

Refer the women for screening for cervical cancer to the nearest PHC

A. Oral Cancer

Tobacco chewing is the single most important risk factor for oral cancer. Other risk factors include alcohol use, betel nut chewing, and chronic trauma to oral mucosa by sharp tooth or ill-fitting dentures. Chronic exposure to these risk factors causes changes in the oral mucosa and these changes are visible as pre-cancerous lesions. Over a period of time, malignancy may develop in these lesions. Leukoplakia, erythroplakia, palatal changes associated with reverses smoking or beedi smoking and submucous fibrosis are local pre-cancerous lesions.

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



Referral

Examine whether the person is able to open the mouth (four finger test) nearest PHC.

B. 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.

Breast awareness:

- A change in size
- A nipple that is pulled in or changed in position or shape
- A rash on or around the nipple
- Discharge from one or both nipples
- Puckering or dimpling of skin
- Lump or thickening in the breast
- Constant pain in the breast or armpit

All women >30 years should be sent to PHC and then screened using Clinical Breast Examination (CBE).

C. Cervix Cancer symptoms

- Irregular, intermenstrual (between periods) or abnormal vaginal bleeding after sexual intercourse or bleeding after menopause
- Bleeding after douching, or after a pelvic examination
- Vaginal discomfort or odorous discharge from vagina, the discharge may contain some blood and may occur between periods or after menopause
- Pain during sex



These signs and symptoms are not specific, may be present in other conditions also, but it is advised to consult health care professional at the earliest. More severe symptoms may develop at advanced stages of cervical cancer.

Screening

Visual Inspection with Acetic Acid (VIA)

All women above 30 years of age should be referred to nearest PHC for the screening of cervical cancer.

Chapter 10

Mental Health

Introduction

Mental health is an integral part of the complete health and is regarded as one of the basic factors that contribute to the effective physical health and social well being. In conformity with definition given by Ayurveda, WHO defines health as a state of complete physical, mental, social and spiritual wellbeing and not merely an absence of disease or infirmity.

Mental health is the ability to balance feelings, desire, ambition, and ideals in one's daily life. It means the ability to face and accept realities of life. Thus, it is a process of adjustment, which involves compromise and adaptation, growth and continuity or it is the ability of the individual to make personal and social adjustments. As defined in Ayurveda, mental strength is the balanced state of mind in grief, elation, or stress.

Mind in Ayurveda

Life is the State of union of four components namely the body (Sharira), the sensory and motor faculties (Indriya), mind (Satva) and the soul (Atma). Here we find the mind as an inter-link between the inert body and sentient soul through intermediary faculties of which the mind itself is one. Ayurveda conceptualize Soul as "doer" and the components of life are mere tools of this "doer". Of the four components of a living organism only the body is directly perceptible. All the other components including mind is inferred.

Such an Inference is based on genesis of cognition as mentioned in Ayurveda. Soul is the 'Cognizer'. For cognition, they should be sequentially connected with the receptors of information. We find that even when the other three components namely body, the faculties and soul are existing, the occurrence of cognition is not a rule and is conditional. The involvement of another component, i.e., the mind, is the condition required. The mind, inferred in such a manner, has to connect the soul with the concerned faculty for a generation of cognition.

Cognitive concept of mind leads to the principle that mind connects with only one faculty at a time to have clarity in cognition avoiding superimposition and resultant confusion. The mind connects with the faculties, one at a time in rapid succession. This interval of absence of mind in any particular faculty is only for an insignificantly small fraction of time, that this interval is well covered by the persistence of experience and generates illusion of continuity of experience.

Thus we accept that mind is a dynamic component. It moves from faculty to faculty. Anything that has movement has action (Karma), because as per Ayurveda action is movement. In order to check the position that mind is large enough to get connected with more than one faculty at a time, Ayurveda holds that mind is minute (Anutva). Similarly, in order to refute the argument that more than one mind could exist to effect simultaneous

cognition, Ayurveda insists that there is only one mind in an individual (Ekatva). These are known as attributes (Guna) of mind.

As a corollary to the understanding of mind as one which is having Action (Karma) and attributes (Guna) leads us to postulate mind as a substance (Dravya). By definition, anything that has action and anything attributed with property should be a substance.

Mind as faculty

There are two types of faculties, the sensory faculties (Jananendriyani) and motor faculties (Karmendriyani). The faculties are also not perceptible. They are only inferable. Mind is considered as a dual faculty. It has sensory and motor functions. As a sensory faculty its objects is anything that is thinkable. Here thinking includes all sorts of higher mental activities such as contemplation, evaluation, deduction, meditation, and imagination. As a motor faculty mind works as a tool for connecting the soul with other faculties, as a tool for controlling itself and engages itself in the processes of thinking and deducing. Mind collects information through the external faculties, processes them and presents the picture to the soul. It is soul that takes the decision on the presented facts. The judgment of the soul is called intellect (Buddhi). Intellect is an attribute of the soul and not of mind. Mind cannot make its own decisions.

Trigunas and mind

As adopted from Sankhya Philosophy, Ayurveda holds that mind being an entity of the organism; it also has three major attributes (Mahaguna/Trigunas – Satva, Rajas, Tamas). Satva is considered to be pure and the other two are impure. Satva represents knowledge and pleasure. Rajas symbolize pain, aversion and action. Tamas symbolizes ignorance, inertia and confusion. Satva is pure and is not the cause of the diseases because of its purity and virtuousness. But the other two attributes namely Rajas and Tamas are capable of vitiating mind and are causes of disease. Mental health is attained by the increase of Satva in a person where as mental disease is caused by the increase of Rajas and Tamas. Hence Rajas and Tamas are designated as vitiators (doshas) of mind. Affects like anger, worry, grief, valor, competition etc. are considered as mental diseases in Ayurveda. These affects are prompted by Rajas and Tamas.

Body humors and mind

Bodily humors (Tridoshas), though made of five elements are related with mind. The normal physiological functions of Tridoshas include many psychological functions. Thus Vata is responsible for enthusiasm, Pitta is responsible for the activities of brain and generation of intelligence and Kapha is responsible for intelligence and will power etc. Of the three humors Vata is mainly responsible for the activities of the mind. It is the controller and stimulator of mind. Changes in the bodily humors affect the mind. Vitiated bodily humors adversely affect the normal functioning of mind. We find that many psychological signs and symptoms like delirium occur in the derangement of bodily humors.

Two aspects of mental health

- (i) Individual: Person's internal adjustment ability, frustration, conflicts and tension
- (ii) Social: Every society has certain value systems, customs, tradition and heritage, through which the behavior of an individual are controlled or in other words he has to make internal adjustment according to them.

Characteristics of mentally healthy individual

i. Self evaluation (*Atmanam Abhisamikshya/Sameekshyakari*):

A mentally healthy individual evaluating himself is aware of his limitations, easily accepts his faults and makes efforts to get rid of them. He introspects, so that he may analyze his problems, prejudices, difficulties etc and reduce them to minimum

ii. Adjustability (*Samah*):

Special characteristics of mentally healthy individual are the adjustment to new situation with least delay and disturbance. He/She makes fullest possible use of existing opportunities. Deals coolly and patiently with every novel circumstance, without any fear, anxiety etc. and is aware of the fact that change is the principle of life.

iii. Maturity:

Mature mind is constantly engaged in increasing his fond of knowledge, behaves responsibly. Express his thoughts and feelings with clarity. He/She is prepared to sympathize with another's feeling and view point. Behaves like a balanced, cultured and sensible adult in all matters.

iv. Regular life :

It forms proper habits in matters of food, clothing and the normal routine day life.

v. Absence of extremism (*Madhyama Margi*):

Ayurveda believes that the ideal man lacks excess in any and every direction, and the principle that excess of anything is bad is a golden rule for mental health

vi. Satisfactory social adjustment (*Vishayeshwasaktah*):

Mentally healthy individual maintains good adjustment with social situations, and is engaged in some or other activity intended to benefit the society. Social relationships are part of life. The greater the balance of these social relationships, the greater their simplicity, the better will be the mental health.

vii. Satisfaction from the occupation/Profession (*Karma Sukhanubandhi*):

It is absolutely essential for mental health that one should find satisfaction from his occupation. If work interests an individual, a proper utilization of time will bring an increase in his pleasure and happiness.

viii. Expression of emotion in desirable and controlled manner (*Kshamanvan*):

It is the ability to exercise voluntary control over behavior and ability to form affectionate relationship.

Components of mental health in adults

- i. Reality orientation (Indriyabhigraha jnanam)
- ii. Self awareness and self knowledge (Admadi vijnanam)
- iii. Self esteem and self acceptance
- iv. Ability to exercise voluntary control over behavior (Swasya nigraha)
- v. Ability to form affectionate relationship (Maitri)
- vi. Pursuance of productive and goal directed activity

Superior mental status (Satvasara lakshana)

- Excellent status of cognition, retention and recall of recent & remote events, time and persons (Smritimantha)
- Optimum desire in foods and beverages – follows dietary rules (Bhaktimantha)
- Grateful to all who supported, highly affectionate (Kritajnaha)
- Intelligent and analytical (Prajnaha)
- Hygienic (Suchayo)
- Highly enthusiastic (Mahotsaha)
- Highly skilled in one's profession (Daksha)
- Shows one's valor in situations arising out of conflict/possess leadership qualities (Samaravikrantayodhinaha)
- Confident gait (Suvyavasthitagati)
- Magnanimous thoughts and actions (Gambhirabudhicheshtaha)
- Highly optimistic and filled with positive energy (Kalyanabhinvishinaha)

Mental hygiene and mental health

Mental hygiene is a way of life in which the individual's adjustment to environment is maintained. Mental hygiene is the means or tool which makes the adjustment possible while mental health is that ability by means of which we establish our adjustment with the difficult situations of life.

Ayurveda advises certain methods for mental rejuvenation which is as follows:

- i. One should avoid violence, infidelity, theft, calumny, being rude, lying, uttering rubbish, tendency to harm, and longing for others belongings.
- ii. One should lend as much help as possible to the poor, sick, and the mentally distressed.
- iii. One should be even minded in both prosperity and calamity.
- iv. Share the enjoyments of life with others.
- v. Never be too suspicious or trust anybody excessively.
- vi. Always talk of relevant topics in a pleasing manner, to the point, and attractively.
- vii. Never induce much strain over the senses nor let them remain inert.
- viii. Always follow the 'golden mean' (madhyama marga).
- ix. One should be compassionate, do whole hearted charities, control the body, mind and speech and should follow selfless devotion to the cause of others.

- x. One who is always conscious of his position and involvement during the days and nights that pass by, would not be affected by grief.

Aetiology of mental diseases

Mental diseases are generated by the non-fulfillment of desired objects and succumbing to the hatred. As a social being we are unable to fulfill all our desires and we are compelled to accept things that we like. Both these cause frustration and mental stress and are conducive to mental diseases. According to Ayurveda, improper union of time, objects, and actions is the cause of all the diseases. The improper union of mind with its object, namely 'thinkable' and improper action of mind are conducive to mental diseases. From a slightly different perspective, etiology can be classified into three viz. contact of objects that cannot be assimilated (Asatmya), error of consciousness and transformation. Error of consciousness (Prajnaparadha) is the term used for erroneous actions prompted by the lapse of intellect (Buddhi), will power (Dhriti), memory (Smriti) that produce bad result. In the context of mental diseases, we find that errors of consciousness are projected as prime etiological factor.

Mental status examination (Folstein et. Al., 1975)

Orientation:

1. Orientation to Time - Can you tell me what year it is? Season? Date? Day? Month? -1 score for each -5
2. Orientation to Space - Can you tell me 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 to say 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

Serial seven, give one point for each answer, stop after 5 answers, Alternative spell WORLD backwards- Score-5

Recall

Ask for the names of the three objects learned in question 3 give one point for each correct answer -score-3

Language

3. Point to a pensil and a watch; say 'can you tell me what that is called? - score -2
4. Ask the patient to repeat "No its, ands, or buts" - score -1
5. Ask the patient to follow three staged command; please take this piece of paper in your right hand, fold it in half, and put it on the floor - score -3

6. Ask the patient to read and follow the written command (Close your eyes) - score -1
7. Ask the patient to write a sentence of his or her choice.(To score correct, the sentence must contain a subject and verb. Spelling mistakes do not matter) – score -1
8. 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

1. Anidra (Insomnia)

Case definition

Insomnia is the perception or complaint of inadequate or poor quality of sleep because of difficulty in falling asleep, difficulty in maintaining sleep or waking too early in the morning. Chronic Insomnia can lead to severe fatigue, anxiety, depression and lack of concentration. Insomnia can be classified in terms of its duration. It comes under Vata nanatmaja vikara and called Anidra or Nidranasha in Ayurvedic terminology.

Sleep disorders are 1.5 times more common in persons aged more than 65 years compared to younger counter parts and incidence in women is 1.3 times greater than in men. The prevalence of Insomnia increases steadily with age and reported by up to one in 3 people aged 65 years and above.

Insomnia can be classified as:

1. Transient Insomnia - lasting from a night to a week and is usually caused by events which alters normal sleep pattern, such as traveling or sleeping in an unusual environment.
2. Short term Insomnia - lasts about two to three weeks and is usually attributed to emotional factors such as worry or stress.
3. Chronic Insomnia - occurs most nights and lasts a month or more.

Etiology

Insomnia is occasionally a symptom of an underlying medical or psychological condition but it may be caused by stress or life style changes. About half of Insomnia cases have no identifiable cause. Some conditions or situations that commonly lead to Insomnia include:

1. Substance abuse; such as smoking, excessive consumption of caffeine, alcohol and recreational drugs.
2. Disruption of circadian rhythms; such as shift work, change in work schedule.
3. Uncomfortable and unusual sleeping environment.
4. Psychiatric and neurological conditions; such as depression, manic depressive disorder, restless leg syndrome (RLS), post traumatic stress disorders.
5. 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.

6. Sleep disordered breathing - sleep apnea.
7. Chronic illness - such as congestive heart failure, chronic obstructive pulmonary disease, heart burn, prostatic problems, menopause, diabetes, arthritis and hyperthyroidism.
8. Use of certain medicines - long term use of decongestants, bronchodilators, beta blockers and sleep producing medication.
9. Excessive computer work or watching Television.

Clinical presentation

1. Not feeling refreshed
2. Inability to sleep despite being tired
3. Day time drowsiness, irritability, difficulty in concentrating
4. Impaired ability to perform normal activities
5. Body-ache and heaviness of the body

Complications

1. Depression
2. Anxiety disorder
3. Fatal accident
4. Increase in severity of chronic diseases Viz. high blood pressure and diabetes

Investigations (at referral centers)

1. Polysomnography
2. Evaluation for depression and anxiety
3. Multiple sleep latency test (MSLT)
4. Thyroid function test
5. EEG

Management

I. Preventive

1. Use of madhura rasa (sweet in taste) as pradhana ahara and warm buffalo milk before bed time.
2. Maintenance of active mental and physical life
3. Practice of yoga and meditation
4. Practice of siroabhyanga and padabhyanga (massage of scalp and plantar region).
5. Avoidance of excessive consumption of coffee, tea, soft drinks, alcohol and smoking.
6. Avoidance of incompatible, indigestible, hot and spicy food article.
7. Avoid heavy meal and stress at night
8. Remedial measures for hypertension diabetes mellitus and urological problems, if exists.

II. HWC intervention

Single useful herbs

Plant	Dose	Vehicle	Duration
Pippli mool	1 to 2 gm	With milk at night	7 days
Aswagandha churna	3 to 5gm	Suger and ghee before meal	7 days
Jatamansi churna	500 mg to 1gm	Milk after meal	7 days
Brahmi churna	1 to 2gm	Milk	7 days
Mandukparni churna	1 to 2gm	Milk	7 days

Compound formulations (may be provided from referral centres)

Drug	Dose	Vehicle	Duration
Mamsyadi kwatha	15 to 30 ml	Water	7days
Brahmi vati	125 to 250 mg	Honey	7days
Sarpagandhadi vati	125 mg	Milk	7days
Manas Mitra vatika	125 mg	Milk	7days
Maha kalyanaka ghrita	6 gm	Warm milk/ Warm water	7 days
Narayan tail	For shirodhara	NA	21 days
Himasagar taila	For shirodhara	NA	7 days
Ksheera bala taila	For pichu	NA	14 days

III. Counselling – advice to

1. Drink warm milk before bed
2. Light physical activities before going to bed
3. Bath with warm water before bedtime
4. Sleep on comfortable bed
5. Use of bed and bedroom for sleeping purpose only. (Bed room should not be used for watching TV and reading)
6. Maintain a regular sleep/wake up schedule
7. Practice yoga and meditation
8. Leave the bed if unable to sleep
9. Avoid stressful conditions
10. Avoid heavy meals at bed time
11. Avoid consumption of coffee, tea, soft drinks, alcohol and smoking
12. Avoid irregular sleep habits and nap during the day
13. Avoid watching TV at bed time

IV. Medical management at referral centres

- i. Nidana parivarjana (avoidance of aetiological factors)
- ii. Abhyanga (body massage), Padabhyanga (foot massage), Shiroabhyanga (Head massage) with medicated oils.
- iii. Shirodhara with medicated liquids (milk/water/oils (Narayana taila) daily 45-90 minutes for 21 days
- iv. Pichu with Ksheerabalsam taila/ Himasagara taila
- v. Takra dhara daily 45 minutes for 14 days

V. Indications for referral

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

2. Manoavasada (Depression)

Case definition

Depression is a common mental disorder, characterized by sadness, loss of interest, pleasure, feeling of guilt or low self worth, disturb sleep, poor appetite, low energy and poor concentration. It is a common mood disorder in elderly and contributes to significant psychological and physical distress, physical disability and higher mortality. Depression is not a normal part of ageing. Many of our senior citizens face difficult changes such as death of a spouse or chronic medical problems that can lead to depression.

Depression not only prevents from enjoying life like it could be, it also takes a heavy toll on death. Untreated depression poses serious risks for older people including illness, alcohol, drug abuse and even suicide. International studies, including those in India suggest uniform prevalence of mood disorders across the world. Life time risk for major depression ranges from 2-25% with most authorities agreeing to a range of 10-15%. It is about 10% in men and 20% in women. By 2020, the World Health Organization (WHO) expects Depression to be the second frequent cause of morbidity world over.

Aetiology

1. Family history of depression/hereditary.
2. Trauma and stress caused by things like financial problems, breakup of a relationship or death of a loved one can cause depression.
3. Pessimistic personality with low self-esteem and a negative outlook are at higher risk of becoming depressed.
4. Medical illnesses such as stroke, heart attack, cancer, Parkinson's disease, and hormonal disorders can cause depressive illness.
5. Many medications such as steroids, pain killers, anti-hypertensive drugs, tranquilizers, cancer drugs, hormones etc. can trigger or exacerbate depression.

6. Psychological disorders like anxiety disorders, eating disorders, schizophrenia, substance abuse etc.
7. Living alone can result in depression

Risk factors

1. Family history
2. Female gender
3. Death of dear ones
4. Functional disability due to chronic illness
5. Substance abuse of alcohol and drugs
6. Cognitive impairment
7. Sleep disorders

Pathogenesis

By advancing age, Acetylcholine, dopamine and norepinephrine decrease in the CNS; elevated levels of mono amine oxidase (MAO) and decrease in number of neuro-receptors with increased resistance to diffusion of drugs contribute to the vulnerability to depression in older adults.

Clinical features

1. Mood swings; often worse in the morning, improving later in the day
2. Change in sleeping, eating habits or appetite
3. Weight gain or weight loss
4. Feeling of guilt and/or hopelessness
5. Slowed thoughts, speech and movement
6. Negative thoughts, blaming self and low self-esteem, thoughts of death /suicide.
7. Complaints that have no physical cause (somatic complaints) such as unexplained aches and pains.
8. Short temper, feeling of anxiety
9. Tearfulness for no reason, unrealistic sense of failure
10. Lack of concentration and difficulty in making decisions
11. Feeling of loneliness
12. Reduced desire for sex

Differential diagnosis

Before coming on the conclusion for diagnosis of depression, patients are required to be screened for the following common health issues that can affect mood:

1. Anxiety disorders
2. Personality disorders
3. Vit B deficiency
4. Hypothyroidism
5. Systemic malignancies
6. Nutritional deficiencies
7. Metabolic disorders including diabetes and hepatic dysfunction

Investigations (Whichever available at HWC)

1. Neurological examination
2. Mini mental status test
3. Geriatric depression scale (GDS) (Yesavage)
4. Haemogram
5. Blood sugar
6. Blood urea and nitrogen
7. Serum creatinine
8. Liver Function Test
9. Serum Vitamin B12
10. Serum T3,T4, TSH

Management at HWC

I. Prevention

1. Use of wholesome food like whole grams, whole fruits, fresh vegetables, Amla (*Phyllanthus emblica* Gartn) is beneficial.
2. Keep active physically and mentally and conduct exercise regularly.
3. Avoidance of loneliness by engaging in social activities.
4. Continuance of medications as per instructions of Vaidya.
5. Practice of Yogasanas and Meditation
6. Avoidance of heavy to digest diet, frequent eating and very high calory food
7. Avoidance of uncalled far excessive thinking

Medical management

II. Nidana Parivarjana (Avoidance of Aetiological Factors) - In order to treat depression, factors like trauma, use of steroids, pain killers, etc. need to be avoided. If there is any chronic illness, it should be tackled first and living alone should be avoided.

III. Common HWC Single Drug Interventions

Medicinal Plants	Dosage (per dose)	Vehicle	Duration
Asvagandha (<i>Withania somnifera</i>) powder	3 gm	Water	15 days
Jatamansi (<i>Nardostachys jatamamasi</i>) powder	1-2 gm	Milk	15 days
Kapikacchu (<i>Mucuna pruriens</i>) powder	2-4 gm	Water	15 days
Brahmi (<i>Bacopa monnieri</i>) svarasa (Juice)	5-10 ml	Water	15 days
Mandukkaparni (<i>Centella asiatica</i>) svarasa (Juice)	5-10 ml	Water	15 days
Guduchi (<i>Tinospora cordifolia</i>) svarasa (Juice)	5-10 ml	Water	15 days

Kushmanda (<i>Benincasa hispida</i>) svarasa (Juice)	5-10 ml	Sugar	15 days
Shakhapushpi (<i>Convolvulus pleuricaulis kalka</i>) (Paste)	2-4 gm	Water	15 days
Tagara (<i>Valeriana wallichii</i>) churna (Powder)	1-2gm	Water	15 days

Compound formulations (At referral centres)

Drug	Dosage (per dose)	Vehicle	Duration
Brahmi vati	250-500 mg	Honey	15 days
Manasa mitra vataka	125 mg	Milk	Milk
Mahakalyanaka ghrita	6 gm	Luke warm water	15 days
Brahmi ghrita	6-12 gm	Luke warm water	15 days
Kalyanaka ghrita	6 gm	Luke warm water	15 days
Sarasvatarishta	10-20 ml	Water	15 days
Ashvagandharishta	10-20 ml	Water	15 days
Brahma rasayana	10 gm	Milk	15 days
Candanadi taila	for Shirodhara/ Shirovasti		15days
Himasagara taila	for Shirodhara/ Shirovasti		15days
Narayana taila	for Shirodhara/ Shirovasti		15 days
Brahmi taila	for head massage		15 days

NOTE: Out of the drugs mentioned above any one of the drug or in the combination may be prescribed by the physician. The duration of the treatment may vary from patient to patient. Physician should decide the dosage (per dose) and duration of the therapy based on the clinical findings and response to therapy.

IV. Counselling for

1. Spending time with loved once.
2. Take green vegetables and yellow fruit (Vitamin B1, B2, B12 and Biotin) in sufficient quantity.
3. Take less difficult to digest like high fat diet
4. Practice yoga, meditation and exercise regularly
5. Be active and happy always
6. Participation in satsanga (association with virtuous people)
7. Avoidance of driving lonely

V. Interventions at referral centres

- i. Shodhana chikitsa (Bio-cleansing therapies) followed by shamana chikitsa (Palliative therapy) may be done. Following shodhana processes are specially recommended at referral centres
- ii. Snehapana (Internal oleation) - Kalyanaka ghrita 50 ml with 2 gm saindhava lavana (Rock salt) for 3 - 7 days (for early oleation) is recommended.
- iii. Virechana (Purgation) with Eranda taila 10 - 20 ml or Trivrita churna 5-10gm in half glass of warm milk at bed time in night is recommended.
- iv. Nasya karma brihana nasya with purana ghrita (old cow ghee) or Anu taila or Mahakalyanaka ghrita in the dose of 8 drops in both nostrils for 7 days is recommended.
- v. Shiro vasti with Narayana taila for 45 minutes daily upto 7 days is helpful.
- vi. Shirodhara with medicated oils (Narayana taila / Chandanadi taila/ Himasagara taila) (or) Ksheera dhara / Jala dhara / Takradhara) daily 30-90 minutes for 1-2 weeks.
- vii. Shiro abhyanga (head massage) with medicated oils (Brahmi taila) etc.
- viii. Indications for referral
 1. Suicidal tendency
 2. Complicated cases
 3. Non-responsive to medication

3. Chittodvega (Anxiety)

Case definition

Chittodvega (anxiety) is a psychological and physiological state characterized by cognitive, somatic, emotional and behavioural components. Anxiety neurosis is often accompanied by physical sensations such as palpitations, nausea, chest pain, shortness of breath, diarrhoea, chills, and dryness of mouth, abdominal pain and headache. Somatic signs of anxiety may include pale skin, sweating, trembling and pupillary dilatation.

Ageing and anxiety is not mutually exclusive, anxiety is as common in the elderly as in the young, although how and when it appears is distinctly different in older adults.

Generalized anxiety disorder is one of the most prevalent anxiety disorders in older persons. Ageing brings with it a higher prevalence of certain medical conditions as a result. In the older people differentiating a medical condition (dementia, depression, fears) from physical symptoms of an anxiety disorder is more complicated.

Aetiology

The following factors are believed to play an important role in the occurrence of this disease.

1. Genetics and hereditary: Anxiety neurosis tends to run in families.
2. Hormonal/ biochemical imbalance: Imbalance of serotonin and dopamine.

3. Personality type: Certain types of personalities are more prone to anxiety development e.g. people who have low self esteem and poor coping skills.
4. Social factors: Those who are exposed to abuse, violence and poverty are more prone to this type of disorders.
5. Medical causes: Endocrine and cardio pulmonary disorders
6. Drugs and other substances: amphetamine, tranquilizers, steroids etc.

Pathogenesis

Sympathetic nervous system may always be poised to react, a crisis pulling in a state of constant tension. Various factors may cause over reaction of sympathetic nervous system resulting in anxiety.

Clinical features

1. Palpitation
2. Breathlessness and nervousness
3. Chest pain
4. Trembling
5. Dizziness and fainting
6. Insomnia
7. Anorexia
8. Headache
9. Parasthesia and weakness
10. Fatigue

Investigations

1. Hamilton anxiety rating scale
2. Anxiety disorder interview schedule
3. ECG (At referral centres)

Differential diagnosis

1. Post traumatic stress disorders
2. Phobias
3. Social anxiety disorders
4. Alcoholism
5. Thyrotoxicosis
6. Hypoglycemia

HWC interventions

I. Prevention

1. Use of madhura rasa (sweet in taste) pradhana ahara and buffalo milk
2. Follow sadvritta (Mental hygiene)
3. Practice of Yoga and meditation
4. Avoid the causative factors
5. Avoid incompatible food articles

6. Avoid excessive consumption of coffee, tea, soft drinks, hot spicy food, alcohol and smoking
7. Avoid stressful conditions

II. Medical management

Single medicinal plants

Drug	Dose	Mode of Administration/Vehicle	Duration
Ashvagandha (<i>Withania somnifera</i>) powder	3-5 gm	Sugar and ghrita before meal	15 days
Jatamansi (<i>Nardostachys jatamansi</i>) powder	500 mg - 1 gm	Milk after meal	15 days
Brahmi (<i>Bacopa monnieri Linn.</i>) powder	1-2 gm	Water	15 days
Mandoorakaparni (<i>Centella asiatica</i>) powder	1-2gm	Water	15 days

Compound Ayurvedic formulations (At referral centres)

Drug	Dose	Mode of Administration/Vehicle	Duration
Kalyanaka ghrita	6 gm	Warm milk/	15 days
Brahmi vati	250-500 mg	Water	15 days
Sarpagandhadi vati	125 mg	Milk	15 days
Sarasvatarishta	10-20 ml	Water	15 days
Manasa mitra vataka	125 mg	Milk	15 days
Mukta pishti	125-250 mg	Ghee	15 days
Mahakalyanaka ghrita	6 gm	Warm milk/ warm water	15 days
Brhmi ghrita	6-12 gm	Warm milk/ warm water	15 days
Chandanadi taila	for shirodhara/ shirovasti		15 days
Himasagara taila	for shirodhara/ shirovasti		15 days
Ksheerabala taila	for Pichu/Talam		15 days

Initially 2 times in a day after meal for 15 days followed by condition of patient and physician's direction

NOTE: Out of the drugs mentioned above any one of the drug or in the combination may be prescribed by the physician. The duration of the treatment may vary from patient to patient. Physician should decide the dosage (per dose) and duration of the therapy based on the clinical findings and response to therapy.

III. Counselling - Advice the patient to

1. Practice light physical activities, yoga and meditation
2. Read and listen to music
3. Participate in satsanga (association with virtuous people)
4. Visit of religious places
5. Avoid stressful conditions
6. Avoid heavy meals at bed time
7. Avoid consumption of coffee, tea, soft drinks, alcohol and smoking

IV. Management at referal centres

1. Nidana parivarjana (avoidance of aetiological factors) - Manage the disease conditions like endocrine and cardio-pulmonary disorder. Social factors like abuse, violence etc. and certain medications like tranquillizers and steroid should be avoided.
2. Panchakarma therapies followed by Shamana chikitsa (Palliative therapy) should be advocated
 - i. Abhyanga (body Massage).
 - ii. Snehapna (Internal oleation) – Mahakalyanaka ghrita 30 -50 ml for 3 - 7 days.
 - iii. Shiroabhyanga (head massage) with medicated liquids / oils.
 - iv. Shiro vasti with medicated oils (Candanadi taila/ Himasgara taila) daily 45minutes for 7 days.
 - v. Shirodhara with medicated liquid (milk, butter milk, water) / oils (Chandanadi taila/Himas gara taila) daily 45-90 minutes for 7 days. Duration of the process depends upon nature of the illness and physical condition of the patient.
 - vi. Pichu with Ksheerabala taila.
 - vii. Takra dhara daily 45 minutes for 14 days.
 - viii. Nasya karma (Nasal administration of medicaments) with Brahmi svarasa 5 drops/ nostril/ day for 7 days.
 - ix. Shirolepa with Brahmi (Bacopa monnieri Linn.) leaf kalka.

V. Indications for referral

1. Not responding to medication
2. Further deterioration in spite of medication
3. Anxiety associated with complications

4. Madatyaya (Alcohol/ Substance abuse)

The phrase psychoactive use disorder is used to refer to conditions arising from the abuse of alcohol, psycho-active drugs and other chemicals. Excessive consumption of alcohol refers to a daily or weekly intake of alcohol exceeding a specified amount. Alcohol related disability refers to any mental, physical, or social harm resulting from excessive

consumption. Problem drinking is drinking that incurs alcohol-related disability, but has not yet advanced to alcohol dependence. Alcohol dependence refers to a state in which there is a syndrome of mental or physical disturbance when the drug is withdrawn. The term alcoholism, if it is used at all, should be regarded as a short-hand way of referring to some combination of these four conditions.

Alcohol related disabilities

I. Physical damage:

- i. Liver damage including cirrhosis and acute and chronic pancreatitis
- ii. Gastritis, peptic ulcer, oesophageal varices and carcinoma
- iii. Malnutrition
- iv. Increased susceptibility to infection
- v. Brain damage, peripheral neuropathy, cerebellar degeneration

II. Psychiatric disorders:

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

Symptomatic management of withdrawal and drug addiction

Though the drugs used in the process of detoxification will minimize the withdrawal effect, the psycho-somatic clinical manifestation which will be observed at that time, have to be managed by giving symptomatic management. Hence the psycho-somatic clinical pattern, time duration of subsiding and severity of the manifestation varies from drugs to drugs along with its severity of addiction. The symptomatic management of commonly observed clinical features are as mentioned below

Clinical features	Symptomatic management
Nausea & vomiting (WHO)	Ela (<i>Cardamom</i>) powder is given in a dose of 250 mg to 500 mg for adults two to three times a day with a little warm water or honey. It is advisable to consume the powder on an empty stomach or half-an-hour before eating meals. Kharjuradi Mantham 30 ml. twice daily
Headache (WHO)	Dose of the powder Pippalimoola (<i>Root of Piper longum Linn.</i>) for adults is 2 to 3 gm, to be taken twice daily, preferably on an empty stomach mixed with 3 to 5 gm of ghee or butter or honey and followed by warm water or milk.
Bones & joints aches (WHO)	Ajamoda (<i>Apium leptophyllum</i>) powder adults - 1 to 3 gm two or three times a day, with warm water.
Indigestion and loss of appetite	Panchakola powder 500 mg twice a day with ghee, honey, warm water as required. Ashtang Lavana 3 gm. With honey or ghee or alongwith meals.

Diarrhea	Bilvadi Avaleha 6 gm thrice a day
Stomach cramp	Mix 1 teaspoon each of mint juice and lime juice; add a few drops of ginger juice and a pinch of black salt. Drink this mixture to alleviate pain.
Hunger feeling	The seeds of Apamarga (<i>Achyranthes aspera</i>) should be cooked like rice by adding milk to make kheer (payasa- milk & rice preparation).
Anxiety and agitation	100 gm of sabut dhaniya soaked water as intermittent drink, Kushmanda (<i>Benincasa hispida</i>) Swarasa with ghee twice a day. Mandukaparni Choorna 3 times a day, after food with honey.
Insomnia	Guda Pippalimool Yoga 4gm with 1 Glass of Milk at bed time.
Constipation	Triphala choorna – 10 gm bed time with warm water Eranda taila – 10-15 ml at bed time Katuki (<i>Picrorhiza kurroa</i>) - 5 gm bed time

Abhyanga (Massage) - It is done with warm, herb-infused oil pacify Vata Dosha is helpful in relieving stress, anxiety and feeling of spaced-out etc associated with withdrawal symptoms.

Shiro Abhyanga (Head to massage) - Application of medicated oil to the head is said to be Shiro Abhyanga. Head is one of the important vital organs (*Marmas*) and having all sense organs in it and hence one should protect it from stress and strain by doing Shiro Abhyanga. Shirodhara- Pouring of fluids like decoction, medicated oil, medicated milk, medicated butter milk and water over head continuously for a specific period is called Shirodhara, which is effective in insomnia.

5. Cognitive impairment

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 MCI 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.

Ayurvedic approach in the prevention and progression of MCI

Rasaayana, Panchakarma therapy, Pranaayaama, Yoga and the concept of Buddhi-medhaa-kara gana are the Ayurvedic treatment modalities suitable to check MCI.

Medhya rasaayana is a special group of drugs which have exclusive nootrophic activity, stimulating brain functioning

- Centella asiatica juice
- Glycrriza glabra powder with milk
- Tinospora cordifolia paste
- Clitoria ternatea paste

Apart from these, drugs like Brahmi, Vacha, Jatamansi, Ashwagandha etc has also effect in cognitive enhancement.

Neuro-rehabilitation selective Panchakarma therapy avoiding the drastic shodhana practices considers if the bala of patient is satisfactory and it may also considered to be carried out for neuro-rehabilitation.

Shirovasti and Shirodhara with suitable tailas like Ksheerabala, Dhaanwanthara taila etc. are useful for stress relief.

Shirodhara with kwaatha of Amalaki, Musta etc. is also very effective as per stages of the diseases.

Table 1: Categorization of Ayurvedic treatment modality for MCI

Treatment aspect	Preventive aspect
Medhya Rasaayana	Adoption of good behavioral conducts – Aachara Rasayana
Shodhana	Timely intervention of lifestyle diseases
Panchakarma procedures like Talam, Moordhini tailas	Periodic regulated intake of Medhya Rasaayana
	Active involvement in stimulating activities like Yoga

6. Childhood Mental health disorders

Mental Health Disorders (MHD) are very common in childhood and they include emotional Obsessive-Compulsive Disorder (OCD), anxiety, depression, disruptive Oppositional Defiance Disorder (ODD), Conduct Disorder (CD), Attention Deficit Hyperactive Disorder (ADHD) or developmental (speech/language delay, intellectual disability) disorders or pervasive (autistic spectrum) disorders. Emotional and Behavioural Problems (EBP) or Disorders (EBD) can also be classified as either "internalizing" (emotional disorders such as depression and anxiety) or "externalizing" (disruptive behaviours such as ADHD and CD).

Emotional problems, such as anxiety, depression and Post-Traumatic Stress Disorder (PTSD) tend to occur in later childhood. They are often difficult to be recognised early by the parents or other carers as many children have not developed appropriate vocabulary and comprehension to express their emotions intelligibly.

Clinical presentations of childhood behavioural and emotional disorders

While low-intensity naughty, defiant and impulsive behaviour from time to time, losing one's temper, destruction of property, and deceitfulness/stealing in the preschool children are regarded as normal, extremely difficult and challenging behaviours outside the norm for the age and level of development, such as unpredictable, prolonged, and/or destructive tantrums and severe outbursts of temper loss are recognized as behaviour disorders.

Ayurveda management of behavioural and emotional disorders in children

- External therapeutic procedures like Satwaavajaya Chikitsa-Psychological Counselling considering their age and circumstances winning their mind
- Considering the doshic predominance of presenting conditions treating the lakshanas
- Treating with internal medication like Kushmanda Rasayana, Shankha Pushpi, Brahmi etc
- Abhyanga, Shiro basti , Shirolepa

7. Medhya Rasayana

Medhya Rasayanas are group of medicinal plants described in Ayurveda (Indian system of medicine) with multi-fold benefits, specifically to improve memory and intellect by prabhava (specific action). *Medha* means intellect and/or retention and *rasayana* means therapeutic procedure or preparation that on regular practice will boost nourishment, health, memory, intellect, immunity and hence longevity.

Jyothishmati (*Celastrus panniculata*), Kushmanda (*Benincasa hispida*) Vacha (*Acorus calamus*) and Jatamamsi (*Nardostachys jatamansi*). Medhya Rasayana is used either in polyherbal preparations or alone.

Mandukaparni (*Centella asiatica*) fresh whole plant juice is used for therapeutic purposes as medhya (cognitive enhancer).

Yastimadhu (*Glycrrhiza glabra*) is a hard herb or under shrub. Fine powder of dried root is used internally with milk for therapeutic purpose as medhya.

Guduchi (*Tinospora cordifolia*) is a large glabrous, deciduous, climbing shrub of Menispermaceae family found throughout tropical India. Juice of whole plant is used therapeutically as medhya. It is also used in the form of decoction, powder and satwa (starch extract of stem).

Shankhapushpi (*Convolvulus pleuricaulis*) is a perennial, prostate or sub erect spreading hairy herb, found throughout India. Recommended therapeutic form is fine paste of whole plant.

Aindri (*Bacopa monniera*) commonly called as Brahmi belongs to Scrophulariaceae family. It is a small, creeping marshy herb & grown throughout India.

Jyotishmati (*Celastrus panniculata*) is a large, woody, climbing shrub with ovate or obvovate leaves found all over India. Seed oil (Jyotishmati taila) is known for medhya action.

Kushmanda (*Benincasa hispida*) belonging to Cucurbitaceae an extensive trailing or climbing herb cultivated throughout the plains of India as a vegetable, same in the form of Avaleha is considered as medhya rasayana.

Vacha (*Acorus calamus*) of Araceae family is a semiaquatic, perennial, aromatic herb with its rhizome being horizontal, rounded, somewhat vertically compressed, spongy and leaves grass like and sword shaped; grown all over India rhizome is useful part having medhya quality.

Jatamamsi (*Nardostachys jatamansi*) is an erect perennial aromatic herb with long, stout, woody, greyish, rhizomatous, tail-like rootstock covered with reddish-brown hairs or tufted fibrous remains of the petioles of withered radical leaves, and belongs to Valerianaceae family. Hairy roots are used as *Medhya*.

8. Satvavajaya

Sattva Avajaya literally translated refers to conquest of mind. This therapy appears to be more rational and conclusive Ayurvedic psychotherapy (Mind control therapy). It is composed special status by the incorporation of *sadvrittam* (ideal behaviour) or moral code. *Sattva-Avajaya* therapy to have control of mind and abstaining from things not good for health, i.e., psychological method of Ayurveda includes - mind control method.

In this method, only advices are given on right conduct Ayurvedic approach to psychic healing can be termed positive. This is what makes *Sattva-Avajaya* therapy unique in its own righteousness and customization to individual needs.

9. Practice of Yama and Niyama

Yoga describes 8 steps to achieve its ultimate aim of reintegration, these steps follow a certain sequence and each one has its specific role in mental health promotion. The first two steps, *Yama* and *Niyama*, describe the rules of social conduct and personal conduct respectively and together constitute the ethical foundation of human life.

Ethical behaviour defined by five *Yamas* or social conduct are nonviolence (*Ahimsa*), Truthfulness (*Satya*), Control of sexual energy (*Brahmacharya*), non-stealing (*Asteya*) and non-possessiveness (*Aparigraha*).

Rules for personal conduct included under *Niyamas* refers to our daily life-style practices. The five *Niyamas* are purity (*Saucha*), contentment (*Santosha*), Study of spiritual/scientific teachings (*Svadhyaya*), self discipline (*Tapas*), and surrender to God (Iswarapranidhana).

10. Prevention of suicide and deliberate self-harm

Sattva Avajaya plays an important role in suicide and deliberate self-harm prevention, consoling convincing and being considerate by opening up makes a larger difference.

Emergency referral - Suicide prevention as an umbrella term, involves the collective efforts of health professionals to reduce the incidence of suicide. Beyond direct interventions to stop an impending suicide, methods may also involve motivational self-care activities like physical exercise, yoga and meditative relaxation.

Chapter 11

Common Ophthalmic, ENT and Oral Health Issues

1. Abhishyanda (Conjunctivitis)

Case definition

Conjunctivitis is the inflammation of the conjunctiva characterised by redness of the eye and conjunctival discharge. It is the most common eye disease. Conjunctivitis may be of two types. Acute and Chronic are mostly an infection. Other causes of conjunctivitis are allergies or due to chemical irritants. Mode of transmission of infectious conjunctivitis is usually direct contact via fingers, towels, handkerchiefs, etc. It can spread through contaminated eye drops also.

Differential diagnosis

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

Diagnostic criteria

Clinical symptoms

- a. Moderate to copious discharge
- b. Itching
- c. Redness
- d. Pain
- e. Foreign body sensation of the eyes
- f. Stickiness of eye lashes
- g. Burning sensation
- h. Photophobia

Signs

Conjunctival congestion, papillary hypertrophy, follicles.

Prevention

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

Treatment

Home remedies

Wash the eyes frequently with decoction made of triphala or coriander seeds

HWC intervention

Drugs	Drug form	Dose	Anupana
Triphala	<ul style="list-style-type: none">PowderDecoction	<ul style="list-style-type: none">3 gm BDFor washing (3-5 times)	Cow-ghee/ luke-warm water
Avipathikara churna	Powder	3gm BD	Luke-warm water
Ilaneer kuzhampu	Drops	2 drops 2-3 times (only day time)	
Madhuyashti	Powder (Decoction)	For washing (3-5 times)	

Referral

- If the pain is severe or if there is blurring of vision, the case should be referred to higher centres
- When the patient does not respond to conventional treatment
- Confirmed diagnosis as per the differential diagnosis

Pathya- Apathya (Dos and Don'ts)

Pathya

- Giving rest to the eye
- Light diet
- Wheat
- Drumstick
- Amla (Indian gooseberry)
- Grapes
- Green gram

Apathya

- Head wash
- Suppression of natural urges

- Eating sour, spicy, and stale food
- Going out in the hot sun
- Grief and anger
- Day Sleep

2. Refractive errors

Case definition

Refractive error is a disorder that occurs when parallel rays of light entering the non-accommodating eye are not sharply focused on the retina.

Types of refractive errors

1) Myopia (Near sightedness)

Difficulty in seeing distant objects clearly.

2) Hypermetropia (Far sightedness)

Difficulty in seeing closer objects clearly.

3) Astigmatism

It is the refractive condition of the eye in which the refraction differs in the different meridians of the eye. Consequently, the rays of light entering into the eye cannot converge to a point focus but form focal lines.

Anomaly of accommodation

Presbyopia

Physiological phenomenon which affects eye and usually starts around the age of forty. There is difficulty in doing near work like reading, writing, sewing, etc.

Diagnostic criteria

Symptoms and signs

- Defective vision
- Double vision
- Fronto-temporal headaches
- Watering
- Photophobia
- Eye strain

These symptoms are usually seen in cases of Hypermetropia and Astigmatism

Examination of refractive errors

Visual acuity (V/A) should be determined, both unioocularly 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, 3/69, 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 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
- Padabhyanga (foot oil massage with Bala taila, Ksheera bala taila etc)
- Padukadharana – Wearing of footwear

Practicing Trataka kriya

Procedure

- Patient/person is asked to sit on a yoga mat in the easy sitting position
- Ask them to keep the waist, back, neck and the entire spinal column erect, keeping breathing normal
- Hang a piece of paper with a cross or a circle on the wall 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 watering or feel the strain
- Ask them to close their eyes and imagine that symbol to be in the centre of eyebrow and concentrate upon that imaginary sign
- The practice time should be gradually built. During the initial days it should be done only for about 10-15 seconds and can slowly increase the time, till watering from the eyes occur

Benefits

Tratak cures several eye conditions, improves eyesight and relaxes the muscles of eye by reducing the 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 palms is called palming. 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 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
- The 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 your 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 and also is said to relax and improve vision. Person is advised to shift the eyes to the right and

fix their gaze at least 6 to 8 feet away after attaining a comfortable sitting posture for a few seconds and then change the direction

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

Matsyasana

Procedure

- First, ask the person to lie flat on the back with their legs together and their hands duly placed beside the body
- Bend the right leg and keep the right foot on the left thigh
- Bend the left leg and place it on the right thigh
- With the help of your elbows lift your back, arching the back maximum and rest the crown on the ground
- Hold the big toes with hand
- Breathe normally

Benefits

- Releases tension in the neck and shoulders
- Tones up your eye muscles and thyroid glands
- Cures respiratory ailments and alleviates stress, eases chronic fatigue, etc

Limitations

People with heart problems, peptic ulcer, hernia, severe back condition, also pregnant women should not attempt for the practice.

Treatment

HWC intervention

Drugs	Drug form	Dose	Anupana
Triphala	Powder	5 gm at bedtime	Cow ghee
Jivanti	Powder	3 gm (2 times a day)	Cow milk or ghee
Amalaki rasayan	Avleh	5 gm BD	Luke-warm water
Anu taila	Drops	2 drops each nostril once a day	
Saptamrit lauh	Tablet	2 BD	Luke-warm water

Referral

- High Myopia and associated complications

Pathya - Apathya (Dos & Don'ts)

Pathya

- Outdoor activities in children with Myopia
- Tratak kriya
- Wheat
- Drum stick
- Amla (Indian gooseberry)
- Grapes
- Green gram/Mung dal

Apathya

- Prolonged “screen time” especially in children.
- Vega dharana (Suppression of natural urges)
- Lack of physical activity in children
- Dietary deficiencies
- Day Sleep

3. Shushka akshipaaka (Dry eye syndrome)

It is a common condition of the tear film that can affect any race and is more common in women than in men. Dry eyes can occur when tear production and drainage is not in balance. Ayurvedic nomenclature for this condition is *Shushkaakshipaaka*.

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

Examination

Torch light examination of the cornea, conjunctiva and eyelids.

Treatment

HWC intervention

Drugs	Drug form	Dose	Anupana
Triphala	Powder	5 gm at bedtime	Cow-ghee
Amalaki rasayan	Avleh	5 gm BD	Luke-warm water
Anu taila	Drops	2 drops each nostril at bedtime	
Ilaneer kuzhampu	Drops	2 drops TDS	

Referral

- Dry eyes associated with Sjogren's Syndrome should be referred to higher centres
- Condition not responding to treatment within a month

4. Computer vision syndrome

It describes a group of eye and vision related problems that result from prolonged computer, e-reader and mobile phone usage. Under Ayurvedic classification it can be understood and managed on the lines of *Anukta Vyadhi* by analysing the *dosha* and *dushya*.

Causes

- Poor lighting
- Glare on digital screen
- Improper viewing distance
- Poor sitting posture
- Uncorrected vision problems

Diagnostic criteria

Signs & symptoms

- Eye strain
- Headache
- Blurred vision
- Dryness in eyes
- Redness in eyes
- Double vision

- Light and glare sensitivity
- Slow refocusing
- Change in colour perception
- Neck and shoulder pain

Diagnosis

Based on the history and clinical examination.

Management

Aschayotana (eye drops), *Netra Parisheka* (irrigation) and oral administration as advised as explained in dry eyes syndrome depending on the severity and the condition of the patient.

Referral

- Patient with severe pain and discharge in eyes
- Sudden impairment/loss of vision
- Patient with long standing history of diabetes and hypertension
- Patient not responding to above protocol of management

Pathya - Apathya (Dos & Don'ts)

Pathya

Ahara: Oats, wheat, red rice, green gram, pomegranate, grapes, saindhava salt, bitter gourd, drumstick leaves, raw banana, radish, milk, butter, cow's ghee, aloe vera, coriander, honey, chandan, parwal.

Vihara: Wearing foot wear, washing feet, carrying an umbrella while going out, meditation, foot massage, applying collyrium, recurrent palming, timely night sleep and self-discipline.

Apathya

Ahara: Vinegar, sprouts, kulatha, uraddal, beans, meat, spicy food, curd, betel leaf, alcohol, asafoetida.

Vihara: Suppression of natural urges, over eating, sleeping in day time, lack of night sleep, excessive alcohol intake, smoking, indulging in grief or sorrow.

5. Pratishyaya (Rhinitis)

Definition

Rhinitis is defined as the inflammation of the nasal mucosa due to infection, allergy or trauma characterised by nasal discharge. The clinical features of different types of rhinitis can be correlated with *Pratishyaya* and its types.

Dushta pratishyaya (Chronic Rhinitis) is the chronic stage of *Pratishyaya*, which occurs due to neglect or improper management of the disease *pratishyaya*.

Clinical features

- *Shirogurutwam* (Heaviness of the head)
- *Kshavathu* (sneezing)
- *Angamarda* (body pain)
- *Romancha* (horripilation)
- *Jwara* (fever)
- *Aruchi* (loss of appetite)
- *Shira shoola* (headache)
- *Swara bheda* (hoarseness of voice)
- *Nasa kandu* (irritation /itchiness in the nose) etc.

Complications

- Nasal polyp
- Middle ear infection
- Sinusitis

Preventive methods of Pratishyaya

- *Pratimarsha nasya* with Anu taila.
- Steam inhalation
- *Anuloma- Viloma* pranayama
- Avoiding intake of cold water and frozen food
- Drinking water boiled with dry ginger and coriander seeds

Treatment

Home remedies

Steam inhalation, drinking water boiled with dry ginger and coriander seeds.

HWC Intervention

Drugs	Drug form	Dose	Anupana
Trikatu	Powder	125mg-500mg TDS	Honey
Sitopaladi	Powder	2-3 gm TDS	Luke-warm water
Anu taila	Drops	2 drops each nostril BD (pratimarsha nasya)	
Sanjivani vati	Tablet	1 tablet TDS	Luke-warm water

6. Tundikeri (Tonsilitis)

Tonsillitis is a common illness in the childhood period resulting from inflammation of the tonsils. It is usually associated with pharyngitis. Sometimes in case of repeated tonsillitis, the size of the enlarged tonsils remains same even after the inflammation has subsided and leads to obstruction in the throat which may cause difficulty in swallowing.

The clinical features of tonsillitis closely resemble '*Tundikeri*' in Ayurvedic classics.

Diagnostic criteria

Clinical symptoms

- Large cystic swelling
- Pricking pain
- Burning sensation
- Suppuration
- Sore throat
- Fever
- Pain in the ear
- Hyperemia of pillars, soft palate and uvula
- Tonsils are swollen and red with yellowish spots of purulent material
- May be a membrane on the medial surface of tonsils

Laboratory investigation

Not specific at HWC level

Treatment

Home remedies

- Gargles with warm saltwater/warm water with tankan bhasma/with triphala Decoction multiple times a day
- Drinking water boiled with dried ginger and coriander seeds

HWC intervention

Drugs	Drug form	Dose	Anupana
Triphala	Powder	Gargles with water boiled with Triphala	
Sitopaladi	Powder	3gm TDS	warm water
Vasavaleha	Avleh	3-5 gm TDS	warm water
Sanjivani vati	Tablet	1 tablet TDS	warm water

Referral

- Tonsillitis with high fever
- If not responding to conventional treatment for 7 days
- If there is difficulty in swallowing

Pathya - Apathya (Dos & Don'ts)

Pathya

Ahara: Wheat, oats, light warm food, warm water, dalia (porridge), soup, etc.

Vihara: Wearing warm clothes, ingestion of medicated fumes and sudation.

Apathya

Ahara: Heavy food difficult to digest, cold and sour food like citrus fruits, curd, milk, sauce, cold-drink, ice-cream, etc.

Vihara: Bathing in cold water, suppression of natural urges.

7. Shitada/ Dantaveshta (Pyorrhea/Periodontitis)

Case definition

Dantamulagata rogas or diseases of the periodontium are considered under the heading *Mukha roga*. *Shitada* is the sudden onset of bleeding or spongy gums with black colour and foul smell. In *Dantaveshta* there is pus discharge from the gums along with other symptoms and loosening of teeth.

Differential diagnosis

- Herpetic gingivostomatitis
- Osteomyelitis
- Herpes labialis

Diagnostic criteria

Clinical symptoms

- Bleeding from gums
- Soft gums
- Oozing of pus
- Loosening of teeth
- Foul smelling breath
- Receding gums

Laboratory investigation

Not specific at HWC level

Treatment

Home remedies

- *Kabala/gandoosha* (Mouth wash) with decoction of Triphala
- Proper dental hygiene ensured by brushing teeth in the morning and bedtime and rinsing the mouth thoroughly after every meal

HWC intervention

Drug	Drug form	Dose
Triphala	Powder	Mouthwash with water boiled with Triphala
Dashanasanskara churna	Powder	1-2 gm for gum massage twice daily
Kaishora guggulu	Tablet	2 tablets BD
Trikatu churna	Powder	Mixed with Triphala churna and use for gum massage twice daily.

Referral

- Periodontitis as a manifestation of systemic disease
- Uncontrolled diabetes
- Cases not responding to conventional treatment

Pathya - Apathya (Dos & Don'ts)

Pathya

- Freshly cooked easily digestible diets, barley, green gram, bitter gourd, ghee, lukewarm water, wheat, yava, mango, pomegranate, ashgoard, pumpkin, etc
- Regular mouth washes with luke-warm water, medicated dhoomapana

Apathya

- Spicy and sour foods like pickles, curd, buttermilk, sugar, sugar cane juice, jaggery, sweets, chocolates, meat
- Brushing with hard bristle brush, day sleep, sleeping in prone position

Preventive oral health

Krimidanta (dental caries), *Sheetada* (gingivitis-periodontitis), *Dantaveshta* (periodontitis-pyorrhea), etc. are the most common *Mukharogas* (diseases of the oral cavity). All these conditions can be prevented if oral hygiene is properly maintained. The measures for preventive oral health mentioned in Ayurveda are;

- **Dantadhavana**

Brushing of teeth with soft brushes made from twigs of trees like neem, babul, khadir, pilu, etc.

- **Jihva nirlekhana**

Cleaning tongue with twigs of suitable plants or scrapper made out of metals like Silver, Copper, and Steel

- **Gandusha and kabala**

Taking a mouthful of liquids like decoction of Triphala, Taila, milk, etc., and holding it in the mouth for 3 to 5 minutes is known as Gandusha and taking a small quantity of these above mentioned liquids and moving it constantly in the oral cavity for 5 to 10 minutes is known as Kabala

Chapter-12

Geriatric and Palliative Care

Introduction

Increased life expectancy, rapid urbanization and sedentary lifestyle with faulty food habits have led to the increased recognition and emergence of varied problems for the elderly in India. Rasayana in Ayurveda is a unique therapeutic methodology aiming at healthy ageing and to minimize the intensity of problems occurring this degenerative phase of one's life.

Palliative care is 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). Palliative care in various forms offers a support system to help patients live as actively as possible until death, providing the elderly and the ailing relief from pain and other distressing symptoms; enhancing the quality of life and also positively influencing the course of illness and its complications. Palliative care 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. Ayurveda through its holistic approach provides effective palliative care by combining Rasayana, Panchkarmatherapy, Ayurvedic dietetics, Ayurvedic medicines, lifestyle modifications (Dincharya-Ritucharya-Sadvritta) and Yoga in geriatric care.

Common geriatric ailments

System-wise common ailments in elderly persons

S.no.	Organ system	Ailments	
1.	Cardiovascular system	Myocardial infarction, hypertension, congestive cardiac failure	
2.	Respiratory system	Bronchial asthma, chronic bronchitis	
3.	Musculoskeletal system	Osteoarthritis, osteoporosis, muscle weakness/ spasm	
4.	Gastro-Intestinal system	Dyspepsia, flatulence, constipation	
5.	Genito-Urinary system	Nocturia, prostate enlargement	
6.	Endocrinological system	Diabetes mellitus	
7.	Nervous system	Senile dementia, parkinson's disease, depression, insomnia	
8.	Skin and its appendages	Skin dryness, hair loss & baldness	
9.	Others	Ophthalmic	Senile cataract, presbyopia (refractive error)
		Auditory	Impaired/ loss of hearing (presbycusis)

		Cancer	Prostatic cancer, lung cancer, colon cancer, breast cancer
		Gynecological	Post menopausal bleeding, pelvic organ prolapse, malignancies

Approach of geriatric health care

- To adopt measures for the promotion of health and longevity for preserving healthy ageing
- Management of diseases of old age

Prevention of geriatric problems

Healthy ageing and prevention of early degeneration can be achieved by the following:

- Incorporation of principles of healthy lifestyle
- Following the principles of Sadvritta (social and personal ethics, behavioural code) Yoga, meditation for good mental and social health
- Rasayana for general health such as Amalaki rasayana or Chyavana prasha
- Utilization of rasayana (rejuvenating treatment) & vaajikarana (aphrodisiacs) under medical advise
- *Vata* pacifying diet in accordance with prescribed rules
- Regular use of Bala taila or any other oil for external application in muskulo-skeletal pain/ whole body massage/ application on scalp
- To follow Panchakarma procedures as per ritu (season) which is as follows

Ritu (Season)	Dosha predominance	Panchakarma (Bio-cleansing) regimen
Vasanta (March-April)	Kapha	Vamana (Therapeutic emesis)
Varsha(July-August)	Vata	Basti (Administration of medicated enema)
Sharada (Sept.-Oct.)	Pitta	Virechana (Therapeutic purgation)

Rasayana in geriatric care

1. By direct enrichment of the nutritional quality like Shatavari(*Asperagus racemosus*), milk, and ghee
2. By promoting nutrition through improving digestion and metabolism like Pippali (*Piper longum*), Shunthi (*Zingiber officinale*) etc

3. By promoting the competence of micro-circulatory channels in the body leading to better bio-availability of nutrients to the tissues and improve tissue perfusion like Guggulu (*Commiphora mukul*), garlic, Pippali (*Piper longum*)etc.

Rasayana drugs (single) and compound formulations

- i. Rasayana drugs as per the age decade has also been described in Ayurveda which are as follows

Age in yrs.	Bio-values which are on decline	Suitable Rasayana
1-10	Balya (Childhood)	Vaca(<i>Acorus calamus Linn.</i>), Kasmari (<i>Gmelina arborea Linn.</i>), Svarna (<i>Aurum</i>)
11-20	Vriddhi(Growth)	Kasmari (<i>Gmelinaarborea Linn.</i>), Bala (<i>Sida cordifolia Linn.</i>), Ashvagandha (<i>Withania somnifera Dunal</i>)
21-30	Chavi (Colour and complexion)	Amalaki (<i>Phyllanthus emblica Gartn</i>), Lauha Rasayana
31-40	Medha(Intelligence)	Shankhapushpi (<i>Convolvulus pluricaulis Choisy</i>), <i>Yastimadhu</i> (<i>Glycyrrhiza glabra Linn.</i>), Ashwagandha (<i>Withania somnifera Dunal</i>), Guduchi (<i>Tinospora cordifolia (Wild) miers.</i>)
41-50	Tvak (Skin Lusture)	Bhringaraja (<i>Eclipta alba Hussk</i>), Somaraja(<i>Psoralea corylifolia Linn</i>), Priyala (<i>Buchanania lanzen Spreng.</i>), Haridra (<i>Curcuma longa Linn.</i>)
51-60	Drishti (Vision)	Triphala ghrita, Saptamrita lauha, Kataka (<i>Strychnos potatorum Linn.f.</i>)
61-70	shukra (Semen)	Kapikacchu beeja (<i>Mucuna pruriens Hook</i>), Ashwagandha (<i>Withania somnifera Dunal</i>), Krishna,musali (<i>Curculigo orchoides Gaertn</i>), milk, ghrita etc.
71-80	Vikrama (Valour)	This age group is not fit for Rasayanakarma
81-90	Buddhi (Wisdom)	
91-100	Karmendriya (Muscles and organs)	

ii. Drugs for healthy ageing: Guduchi (*Tinospora cordifolia*), Haritaki (*Terminalia chebula*), Amalaki (*Emblica officinalis*), Aparajita (*Clitoria ternatea*), Jivanti (*Leptadenia reticulata*), Ashwagandha (*Withania somnifera*), Bramhi (*Bacopa monieri*), Punaranava (*Boerhavia diffusa*), Rasna (*Pluchea lanceolata*) and Shatavari (*Asparagus racemosus*)

iii. Rasayana for peri menopausal syndrome: Shatavari (*Asparagus racemosus*), Vidari (*Pueraria tuberosa*, Kumari (*Aloe vera*) along with Brahmi (*Bacopa monieri*), Jyotishmati (*Convovulus pluricaulis*), and Shankhapushpi (*Centella asiatica*).

Compound formulations used for Rasayana therapy**-

Chyawanaprasha	For respiratory disorders, neurological and musculoskeletal disorders
Guggulu, Shilajitu	Used in Vatavyadhi (neurological and musculoskeletal disorders)
Agastyarasayana	Shwasa and Kasa (Cough, dyspnoea)
Brahmarasayana	Daurbalya (Debility), Kasa (Cough), Shwasa (Dyspnoea)
Bhallatakarasayana	Medha (Intelligence), agni (Digestion), balavardhana (Increasing body strength)
Triphalarasayana	Sarva vyadhihara
Lashuna, ghrita	Vatavyadhi, Gulma, Manasika vikaras
Ritu Haritaki	Tridosha shamaka

**The person should be referred to higher medical centers for these medicines.

v. Single rasayana drugs for specific disease conditions

Diseases	Ayurveda drugs	Dosage
1. Cognitive disorders	Brahmi (<i>Bacopa monnieri</i>)	Churna 3 – 6 gm
	Mandoookaparni (<i>Centella asiatica</i>)	
	Shankhapushpi(<i>Convolvulus pluricaulis</i>)	Swarasa 5-10 ml
	Kushmanda swarasa (<i>Benincasa hispida</i>)	Swarasa 5-10 ml with mishri
	Mulethi (<i>Glycorrhiza glabra</i>)	Churna 3-6 gm with milk
	Vacha (<i>Acorus calamus</i>)	Churna 250 mg – 1 gm
	Jyotishmati (<i>Celastrus paniculatus</i>):	Taila - 2 -4 drops
	Kapikacchu (<i>Mucuna pruriens</i>)	Churna 3-6 gm
2. Cardiac disorders	Arjuna (<i>Terminalia arjuna</i>)	Churna 3-6 gm
	Shalparni (<i>Desmodium gangeticum</i>)	
3. Respiratory disorders	Pippali (<i>Piper longum</i>)	Churna 1-3 gm
	Haridra (<i>Curcuma longa</i>)	
	Shirisha (<i>Albezia lebbeck</i>)	
4. Neuropathies	Guggulu (<i>Commiphora mukul</i>)	Churna 3-6 gm
	Bala (<i>Sida cordifolia</i>)	
	Ashwagandha (<i>Withania somnifera</i>)	
	Shatawari (<i>Asparagus racemosus</i>)	

Neuropathies	Bala (<i>Sida cordifolia</i>)	
	Ashwagandha (<i>Withania somnifera</i>)	
	Shatawari (<i>Asparagus cemosus</i>)	
5. Joint disorders	Guduchi (<i>Tinospora cordifolia</i>)	Churna 3-6 gm, swarasa -5-10ml
	Guggulu (<i>Commiphora mukul</i>)	Churna - 3-6 gm
	Ashwagandha (<i>Withania somnifera</i>)	
	Shunthi (<i>Zingiber officinalis</i>)	
6. Diabetes Mellitus	Shilajatu (<i>Black bitumen</i>)	250-500 mg
	Aamalki (<i>Emblica officinalis</i>)	Churna 3-6 gm
	Haridra (<i>Curcuma Longa</i>)	
	Guduchi (<i>Tinospora cordifolia</i>)	Churna 3-6 gm, swarasa -5-10ml
	Ashwagandha (<i>Withania somnifera</i>)	Churna 3-6 gm
7. Urinary disorders	Shilajatu (<i>Black bitumen</i>)	250-500 mg
	Gokshura (<i>Tribulus terrestris</i>)	Churna 3-6 gm
	Punarnava (<i>Boerhaavia diffusa</i>)	Churna 3-6 gm, swarasa -5-10ml
8. Senile visual disorders	Triphala Churna	Churna 3-6 gm
	Yashtimadhu (<i>Glycyrrhiza glabra</i>)	
9. Senile dementia	Brahmi (<i>Bacopa monerii</i>)	Churna 3-6 gm
	Mandooparni (<i>Centella asiatica</i>)	Swarasa -5-10ml
	Shankhapushpi (<i>Convolvulus pluricaulis</i>)	
	Kapikacchu (<i>Mucuna pruriens</i>)	Churna 3 – 6 gm
	Guduchi (<i>Tinospora cordifolia</i>)	Churna 3-6 gm, swarasa -5-10ml
	Ashwagandha (<i>Withania somnifera</i>)	Churna 3-6 gm
10. Prostate enlargement	Varuna (<i>Crataeva nurvala</i>)	Churna 3-6 gm
	Shigru (<i>Moringa pterygosperma</i>)	
	Gokshura (<i>Tribulus terrestris</i>)	
	Shilajatu (<i>Black bitumen</i>)	250-500 mg
11. Parkinson's disease	Kapikacchu (<i>Mucuna pruriens</i>)	Churna 3-6 gm
	Krishna Musali (<i>Curculigo orchidies</i>)	
12. Immuno-	Amrita (<i>Tinospora cardifolia</i>)	Churna 3-6gm

deficiency conditions	Aamalki (<i>Emblica officinalis</i>)	
13. Skin problems	Khadira (<i>Acacia catechu</i>)	Churna 3-6gm
	Nimba (<i>Azadirachta indica</i>)	Churna 3-6 gm, Swarasa -5-10ml
	Haridra (<i>Curcuma longa</i>)	Churna 3-6 gm
	Somaraji (<i>Psoralia corylifolia</i>)	Churna 3-6 gm
	Bhringaraja (<i>Eclipta elba</i>)	
	Tuvaraka (<i>Hydnocarpus laurifolia</i>)	
14. Cancers	Amrit Bhallataka (<i>Semecarpus anacardium</i>)	3-6 gm
	Amala (<i>Emblica officinalis</i>)	
	Guduchi (<i>Tinospora cordifolia</i>)	
	Hareetaki (<i>Terminalia chebula</i>)	

Management of common geriatric disorders through ayurveda

Following are some common problems of old age. Further Management of Osteoarthritis, Respiratory, Gastrointestinal, Skin, Ano rectal, urological Problem, metabolic diseases etc. have mentioned under relevant chapters of this documents.

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.

Clinical features

1. Frequent urination, especially at night
2. Urgency of urination
3. Hesitancy and intermittency
4. Leaking or dribbling of urine
5. Interrupted weak stream
6. Painful urination/ dysuria
7. Urine incontinence
8. Prolonged emptying
9. Urine retention (in severe BPH)
10. Hematuria

Investigations/Examination

1. Per- rectum examination
2. Urine analysis
3. Ultrasound : kidney, ureter, bladder
4. Serum prostate specific antigen (PSA) blood test

Management

1. Shodhana chikitsa (Bio-cleansing therapies) /other therapeutic procedures followed by Shamana cikitsa should be advocated. But it should be decided by physician according to the condition of the patient whether Shodhana therapy (Bio-cleansing therapies) is beneficial or not.
 - i. Avagaha sweda (Sitz bath) for 15 days with warm water or decoctions like Pancha valkala kwatha, Triphala kwatha, Dadiamla kwatha*
 - ii. Basti chikitsa
 - Uttara basti with Varunadi ghrita / Shavaryadi ghrita 30-50 ml for 3 days (Each Uttara basti is given with a gap of three days) *
 - Matra basti with Varunadi ghrita/ Shavaryadi ghrita 30-50 ml for 14 days

Note -The dosage (per dose) should be decided by physician according to the severity of the disease and condition of the patient

2. Shamana chikitsa

Single Drugs	Dosage (per dose)	Anupana(Vehicle)
Gokshuura (<i>Tribulus terrestris Linn.</i>) chunra	3-6gm	Water
Haritaki (<i>Terminalia chebula Retz</i>)	3 gm	Lukewarm water at bed time
Varuna (<i>Crataeva nurvala Buch. and Ham.</i>) kwatha	10-20 ml	Water
Punarnava(<i>Boerhavia diffusa Linn.</i>)kwatha	10-20 ml	Water
Compound formulations	Dosage (per dose)	Anupana (Vehicle)
Trinapanchamula kwatha	15-30 ml	Water
Gokshuradi guggulu	250-500 mg , twice a day	Luke warm water/
Kanchanara guggulu		

3.

Indications for referral

- Incontinence of urine
- Recurrent urinary infection
- Recurrent blood in the urine
- Urinary retention
- Suspected case of carcinoma of prostate gland
- If the size of prostate gland is on increasing
- Complications like hydronephrosis or pyelonephrosis and signs of renal failure are observed.

Gynecological disorders

a. Post-menopausal syndrome

Menopausal syndrome includes symptoms associated with the physiological changes that take place in a woman's body as period of fertility ends. 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. Women are usually considered to be menopausal if she has not had a menstrual period for one year without any underlying cause. Some women experience mild problems or none at all but some women have severe symptoms in this period. Similarly in Ayurveda, acharyas depicted that menses starts at the age of 12 year and stops at the age of 50 and the whole process is a natural phase of life.

Clinical features

1. Irregular periods with scanty or excessive bleeding
2. Hot flushes
3. Night sweats
4. Vaginal dryness and itching
5. Mood swings
6. Joint pain
7. Sleeplessness
8. Lassitude
9. Excessive hair fall
10. Anaemia
11. Weakness

Investigations/ examination

1. Haemogram
2. PAP smear
3. Serum FSH levels
4. Serum estradiol levels
5. Serum L.H. level
6. Ultrasound abdomen

Management

1. **Shodhana chikitsa** (bio-cleansing therapies) / other therapeutic procedures followed by Shamana chikitsa should be advocated.

- i. Snehana: Gentle massage with medicated oils such as: Mahanarayana taila, Kshirbala taila, Mahamasha taila, Bala taila
- ii. Internal Snehana (internal oleation) with medicated ghrita (Sukumara ghrita/ Dadimadi ghrita, etc) 50 ml with 2-3 gm saindhava lavana daily upto 3days before pancakarma (bio-cleansingprocedure)*
- iii. Shirodhara with Yashtimadhu kasaya and milk 45 minutes daily for 15 days*
- iv. Takra dhara 45 minutes daily for 15 days*
- v. Matra basti with Dhanvantara taila / Sukumara ghrita 50 ml daily for 15 days

2. Shaman chikitsa

Single Drug	Dosage	Anupan
Atirasa (<i>Asparagus racemosus Willd.</i>)	1 -3gm	Water/ milk
Amalki (<i>Phyllanthus emblica Gartn.</i>)	1 -3 gm	Water
Madhuyasti (<i>Glycyrrhiza glabra Linn.</i>)	1-3 gm	Water
Asvagandha (<i>Withania somnifera Dunal</i>)	3gm	Milk
Asthisrinkhala (<i>Cissus quadrangularis Linn.</i>)	1-3 gm	Water
Kukkutand tvak bhasma	250 mg	Milk / water
Compound formulation		
Pusyanuga churna	1-3 gm	Rice water
Lodhrasava	10-20 ml	Water
Asokarishta	10 20 ml	Water
Dadimadi ghrit	30-50 ml	Warm water
Pravala pishti	250-500mg	Water
Mukta pishti	250-500 mg	Water/ milk
Ushirasav	10-20 ml	Water
Kamdudha ras	125-250 mg	Water
Brahmi vati	125-250 mg	Milk

b. Asthi-saushirya (Osteoporosis)

Osteoporosis is most common in women after menopause. Fragility fractures have doubled in the last decade. 40% of all women over 50 yrs. 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 asthi saushirya (weak and porous bones) bhrama (vertigo),

timira darsana (darkness in front of eyes) asthi toda (cutting pain in bones) and asthi shunyata (numbness) etc.

Clinical features

Osteoporosis itself has no specific symptoms; in fact the first manifestation of the illness may be -

1. Hip, spine or wrist fractures
2. External rotation and shortening of the involved leg
3. Delayed fracture healing process
4. Vertebral collapses
5. Kyphosis and painless vertebral fracture

Investigations

1. X-ray - Hip and wrist
2. Dual energy X-ray absorptiometry (DXA)
3. Serum Calcium, Alkaline phosphatase, Phosphate

Management

1. **Shodhana Chikitsa** - (Bio-cleansing therapies) followed by *shamana cikitsa* should be advocated. But it should be decided by the physician according to the condition of the patient whether áodhana therapy (Bio-cleansing therapies) is beneficial or not.
 - i. Snehana - externally: Gentle massage with medicated oils such as -Mahanarayan taila, Kshir bala tail, Mahamasha taila, Bala taila, etc.
 - ii. Snehapana (internal oleation) with Guggulutikta ghrita/ Pancatiktaka ghrita 50 ml with 2-3 gm saindhava lavana daily upto 3 days before pancakarma (bio-cleansing procedure)
 - iii. Svedana - Upanaha sveda, Sneha dhara (kayaseka -pizhichil) with Dhanvantara taila for 14 days.
 - iv. Basti - Panchatikta kshira vasti for 7 days

The dosage should be decided by physician according to severity of the disease and condition of the patient.

2. Shaman Chikitsa

Single Drugs	Dosage	Anupan
Ashwagandha (<i>Withania somnifera Dunal</i>)	3-6 gm	Water/milk
Shatavari (<i>Asparagus racemosus Willd.</i>)	2-4 gm	Milk
Amlaki (<i>Phyllanthus emblica Gartn</i>)	2-4 gm	Water
Asthisrinkhala (<i>Cissus quadrangularis Linn.</i>)	1-2 gm	Warm milk

Compound formulations	Dosage	Anupan
Trayodasang guggulu	1-1.5 gm	Warm water
Pravala pisti	125-250 mg	Water/milk
Mukta pisti	250-500 mg	Water/milk
Godanti bhasma	250-500 mg	Water/milk

Indications for referral the patient to higher centre in following conditions-

- Any bone fracture

Quality of life

As per World Health Organization, quality of life is an “individual perception of his or her living situation, understood in a cultural context, value system and in relation to the objectives, expectations and standards of a given society. Lawton (1991) has suggested that quality of life is a multi dimensional concept consisting of four main areas: objective environment, behavioural competence (including health), perceived quality of life, and psychological well - being (including life satisfaction). He suggested a loose causal model, in which objective environment influences behavioral competence. Behavioral competence, in turn, influences the perceived quality of life. Psychological well-being is the ultimate outcome.

For quality of life, there are intra-individual conditions which include health, functional capacity and coping mechanisms while external conditions for quality of life includes factors such as the environment, work, housingconditions and socialnetwork.

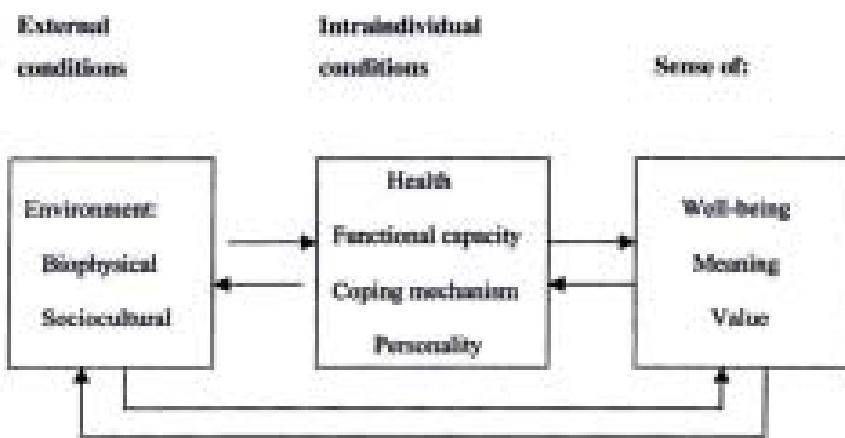


Figure 1. Aspects of quality of life and some factors related to quality of life.

Source: Sarvimaki A. & Stenbock-Hult. Quality of life in old age described as a sense of well-being, meaning and value *Journal of Advanced Nursing* (2000) 32(4), 1025±1033.

Developing an understanding of these aspects will help address the issues of elderly with more patience and add effective counseling to their management protocol, when the elderly come to the medical centre for treatment of any disease condition.

Psychological and moral support

Every elderly need to address their different psychological and emotional needs. Loneliness, depression, low self-esteem, feeling of unworthiness are some of the feelings commonly experienced by the elderly. Every physician should address these feelings of the elderly while managing them for any ailment or management of any symptom.

Chapter 13

General Out-Patient Care for Simple and Minor Aliments

Introduction

The objective of cost-effective Ayurveda interventions that ensure accessible and affordable quality care lies down due emphasis on maintaining equilibrium of various physiological factors by simple remedies and preservation of health with simple dietary practices and lifestyle modifications. It is intended to provide standardized guidance to CHOs on identifying, diagnosing, managing, and deciding the referral cases when common problems are reported in HWC.

Minor ailments are generally defined as medical conditions that will resolve on their own and can be reasonably self-diagnosed and self-managed with simple medications or interventions from Primary Healthcare Centre. Examples of minor ailments include headache, back pain, heartburn, indigestion, nasal congestion, skin rashes etc.

It is aimed that Ayurvedic CHO is able to understand the reporting sign and symptoms in relation to Ayurvedic principles along with etiology which is immediately linked to the life style pattern, environment of the patient etc. Based on initial assessment, CHO is able to execute a simple Ayurvedic intervention within the resources available at HWC along with advise for some effective home remedies, dietary precautions etc. Close follow up is essential to know the outcome of intervention, so that unresponsive cases are referred to higher centres for prompt secondary or tertiary health care.

1. Ajeerna (Dyspepsia)

Case definition

Dyspepsia, often defined as chronic or recurrent discomfort centered in the upper abdomen, can be caused by a variety of conditions. Common etiologies include peptic ulcers (Anna drava/Parinama Shula) and gastro esophageal reflux (Urdhwaga) Amlapitta). Serious causes, such as gastric and pancreatic cancers, are rare but must also be considered. Symptoms of possible causes often overlap, which can make initial diagnosis difficult. In many patients, a definite cause is never established. The initial evaluation of patients with dyspepsia includes a thorough history and physical examination, with special attention given to exclude the elements that suggest the presence of serious disease.

Differential diagnosis

Incomplete or intermittent bowel obstruction, malabsorption syndromes, small bowel diverticula, Mal-digestion due to pancreatic or biliary disease and short bowel syndrome.

Functional “dyspepsia”, dyspepsia caused by structural or bio-chemical disease, peptic ulcer disease, reflux esophagitis, gastric or esophageal cancer, gastro paresis, metabolic disturbances, Crohn’s disease, sarcoidosis, intestinal parasites, systemic diseases like diabetes, thyroid and parathyroid disorders.

Diagnostic criteria

(i) Clinical

Early symptoms

- Anannabhilasha (Loss of appetite)
- Aruchi (anorexia)
- Avipaka (impaired digestion)
- Chhardhi (Vomiting)

After the onset

- Vibandha (Constipation)
- Atipravritti (diarrhoea)
- Glani (lassitude)
- Vishtambha
- Gaurava (Heaviness of body parts)
- Shiroruk (Head ache)
- Shotha (Oedema)
- Murcha(Fainting)
- Angamarda (different type of body pain)
- Kati graham (Low back ache)
- Thrishna (Thirst)
- Jwara (fever)
- Amlodgara (Acidic eructation)
- Dhumodgara (feeling of smoke with belching)
- Sweda (Sweating)

(ii) Laboratory investigations : Not specific at HWC level

Treatment

Home remedies

- Langhana (fasting/light diet)
- Usnodak pana (drinking hot water)
- Dhanyak- Shunthi phanta- drink prepared by overnight soaking of coarse powder of dry coriander and ginger into water
- Chewing a piece of ginger with rock salt before meal
- Rosted Jeerak churna (roasted cumin seed powder) $\frac{1}{2}$ tsf after meal
- Shunthi (*Zingiber officinale*) churna 3-5 gm/ BD with luke warm water is also beneficial

HWC interventions

Drugs	Drug form	Dose	Anupana
Katuki (<i>Picrorrhiza kurroa</i>)	Churna	3-5 gm BD	Luke warm water
Avipattikara churna	Churna	3-5 gm BD	Luke warm water
Ajamodadi churna	Churna	3-5 gm BD	Luke warm water
Sanjivani vati	Vati	125-250 mg BD	Luke warm water
Triphala churna	Churna	3-5 gm BD	Hot water

Referral

- When patient does not respond to conventional treatment
- Confirmed diseases as per the differential diagnosis
- Murchha(Fainting)
- Pralapa(Delirium)
- Vamathu(Excessive vomiting)
- Praseka(Excessive salivation)
- Sadan(Decreased bodytone)
- Bhrama(Vertigo) etc.

Life-style modifications

Pathya (Suitable regimen)

Lohitshali (red rice), light diet prepared from different ratio of rice or green lentil and water, like- vilepi, lajamanda, manda, mudgayush, mamsa rasa, lashuna (garlic), vridha-kushmanda (ripen benincasa hispida), naveena-kadali-phala (unripe banana fruit), shobhanjana (drumstick), patola (pointed gourd), karvellaka (bitter gourd), etc bitter vegetables, vartaku (brinjal), dhatriphala (indian goose berry), dadima (pomegranate).

Apathya (Unsuitable regimen)

Vegvidharana (suppression of natural urges), adhyasana (eating before digestion of previous diet), samashana (eating both suitable and unsuitable diet), vishamashana (not following time, quantity, frequency, etc diet related rules), jagarana (not taking proper sleep at night), shamidhanya (pulses), aaluka (potato), dushtavari (contaminated water).

2. Jwara (Fever)

Case definition

Patients reported with raised body temperature, associated with anhidrosis, body ache, anorexia, headache, fatigue, weakness and lethargy. As per Ayurveda, Jwara as a disease is rooted from amasyaya resulting from agnimandhya. It is presented with santapa, swedavarodha, and angamardha.

Differential diagnosis

Sama/nirama avastha, taruna/jirna avastha, dhatu gata avastha, sharira/manasa jwara, agantuja/nija jwara, santhata/anyedyu/tritiyaka/chaturthaka jwara, punaravartaka jwara.

Jwara specific to romantika, prtishyaya, kasa, mutrkricchra, raja'yakshma etc. should be differentially diagnosed for specific management.

Diagnostic criteria

(i) Clinical

Patient should be diagnosed on the basis of history of illness, degree of fever, onset, associated symptoms, chronicity, complications etc. The body temperature above normal range of 36.5-37.5 C (97.7-99.5 F) or temperature in the mouth is at over 37.7C (99.9F) or temperature under the arm is at or over 37.2C (99.00F) shall also be taken into account.

(ii) Laboratory investigations

- CBC
- Peripheral blood smear

Treatment

(i) Home remedies

- Langhana (fasting/light diet)
- Ushnodak Pana (drinking hot water)
- Dhanyak-shunti, sandal powder, ushir - phanta- drink prepared by overnight soaking of coarse powder of dry coriander and ginger into water

(ii) HWC interventions

Drugs	Drug form	Dose	Anupana
Guduchi churna	Churna	3-5 gm. BD	Luke warm water
KatukI (<i>Picrorrhiza kurroa</i>)	Churna	3-5 gm BD	Lukewarm water
Amritarishta	Arishta	20-30 ml. BD.	With Sanjivani vati
Sanjivani vati	Vati	125-250 mg BD	Luke warm water
Triphala churna	Churna	3-5 gm BD	Hot water

Referral

- When patient do not respond to conventional treatment.
- Patient presenting with signs of high grade fever
- Delirium, severe vomiting
- Posing danger of dehydration
- Complications like bleeding, anuria etc.

Life-style modifications

(i) Navajwara

Pathya (Suitable regimen)

Langhana (fasting), katu rasa in Kapha Jwara, thikta rasa in Paithika Jwara, ushnambu paana in Vata Kapha Jwara, shadanga paneeya in Sheeta Jwara, mandapurva peyadikrama

Apathya (Unsuitable regimen)

Snana, virechana, sexual activity, exercise, abhyanga, day sleep, exposure to wind, travel, mental irritation, milk, ghee, butter milk, pulses, meat, alcoholic beverages, rice

(ii) Madhyama Jwara

Pathya (Suitable regimen)

Old rice and shashtika rice, mudga (green gram), masur dal, kulatha (horse gram) yusha, karavella (bitter gourd), sobhanjana (drumstick), vartaku (brinjal), patola (pointed gourd), Draksha (grapes), Kapitha, Dadima (Pomegranate), Vastuka (spinach)

Apathya (Unsuitable regimen): As mentioned for Navajwara

3. Annadrava shool, parinam shool (Acid peptic disorders)

Case definition

This group of diseases is originated from Annadrava Strotas with main characteristics like urodaha (heart burn), avipaka (indigestion), tikta amla udgara (bitter and acid regurgitation) and udarashula (abdominal pain). The chronic conditions may cause kotha, mandala (skin rashes), kandu (itching) etc.

Differential diagnosis

Gastroenteritis, appendicitis, cholecystitis, cholelithiasis (Pittashmari), intestinal obstruction, diverticulitis, pancreatitis, chhardi, and pittaja gulma

Diagnostic criteria

(i) Clinical

- Hrit, parshwa, prishta, trika, vasthi deshe shulam (Pain on thorax, upper abdomen, low back, sacrum, lower abdomen)
- Vibandha (constipation)
- Enhances with cold diet and upachara
- Amlodgara (acidic eructation)
- Dhumodgara (feeling of smoke with belching)
- Sweda (sweating)
- Pain in upper abdomen before digestion of food in annadrava shula (on taking the food)
- Quick relief in abdominal pain on expulsion of vitiated pitta through vaman (vomiting)
- Bhukte jeeryadi yat shulam (pain during the digestion in parinama shula)

(ii) Laboratory investigations: Not specific at HWC level

Treatment

(i) Home remedies

- Langhana (fasting/light diet)
- Ushnodak pana (drinking hot water)
- Dhanyak-shunthi phanta- drink prepared by overnight soaking of coarse powder of dry coriander and ginger into water
- Chewing a piece of ginger with rock salt before meal
- Rosted jeerak churna (roasted cumin seed powder) $\frac{1}{2}$ tsf after meal

(ii) HWC interventions

Drugs	Drug form	Dose	Anupana
Sunthi (<i>Zingiber officinale</i>)	Churna	3-5 gm BD	Luke warm water
Katuki (<i>Picrorrhiza kurroa</i>)	Churna	3-5 gm BD	Luke warm water
Avipattikara churna	Churna	3-5 gm BD	Luke warm water
Ajamodadi churna	Churna	3-5 gm BD	Luke warm water
Sanjivani vati	Vati	125-250 mg BD	Lukewarm water
Triphala churna	Churna	3-5gm BD	Hot water

Referral

- When patient do not respond to conventional treatment
- Confirmed diseases as per the differential diagnosis
- Murchha(Fainting)
- Pralapa(Delirium)
- Vamathu (excessiveVomiting)
- Praseka (excessive Salivation)
- Sadan (decreased body tone)
- Bhrama (vertigo) etc.

Life-style modifications:

Pathya (Suitable regimen)

Lohitshali (red rice), purana- yava (barley), godhuma (wheat), mudga (green gram), light diet prepared from different ratio of rice or green lentil and water, like-Vilepi, lajamanda, manda, mudgayush, mamsa rasa, vridha- kushmanda (ripen *benincasa hispida*), naveena-kadali-phala (unripe banana fruit), shobhanjana (drumstick), patola (pointed gourd), karvellaka (bitter gourd), etc bitter vegetables, vartaku (brinjal), dhatrighala (Indian goose berry), dadima (pomegranate).

Apathya (Unsuitable regimen) -

Vegvidharana (Suppression of natural urges), adhyasana (eating before digestion of previous diet), samashana (eating both suitable and unsuitable diet), vishamashana (not following time, quantity, frequency, etc diet related rules), jagarana (not taking proper sleep at night), shamidhanya (pulses), aaluka (potato), dushtavari (contaminated water).

4. Vibandha (Constipation)

Case definition

Vibandha (Constipation) refers to bowel movements that are infrequent or hard to pass. Anyone who strains to defecate or who does not effortlessly pass at least one soft stool daily is constipated. Constipation is a common cause of painful defecation. Hard bowels have the predominance of Vata and Kapha and are purged with difficulty. Vibandha occurs because of vitiation of Apanavata.

Differential diagnosis

Irritable bowel syndrome, organic diseases of the anus, rectum, or colon, uncomplicated diverticular diseases, use of drugs like codeine, morphine analgesics etc. prolonged immobilization, fecal impaction, pregnancy, metabolic disorders.

Diagnostic criteria

(i) Clinical

- Purisha nigraha (retained stools)
- Pakwashaya shoola (pain in rectum)
- Pindikaodvestana (cramps in calf muscle)
- Shirashoola (headache)
- Vatavarcha apravrutti (non passing of flatus and feces)
- Adhamana (abdominal distension)
- Pratishaya (cold)
- Hridavarodha (heaviness in cardiac region)
- Parikartika (fissure)

(ii) Laboratory investigations: not specific at HWC level

HWC interventions

(i) Home remedies

- Isabgol husk (*Plantago ovata Forsk*) - 2-5 gm, warm water/hot milk at bedtime
- Sonamukhi Churna (*Cassia angustifolia*) - 1-2gm with luke warmwater
- Aragvadha (*Cassia fistula*) fruit pulp with milk
- Haritaki/Harad (*Terminalia chebula Retz*) 3 gm with luke warm water

(ii) Treatment

Drugs	Drug form	Dose	Anupana
Avipattikar churna	Churna	3-5 gm BD	With luke warm water
Triphala churna	Churna	3-5 gm BD	With luke warm water
Kutaki churna	Churna	3 5 gm BD	With luke warm water
Abhayarishta	Arishta	10-20 ml BD	With equal amount of water
Kumary asava	Aasava	10-20 ml BD	With equal amount of water

Referral

- When patient do not respond to conventional treatment
- Confirmed diseases as per the differential diagnosis
- Patient present with complications like Bowel obstruction, Hemorrhoids, Rectal prolapse, Hernia, Spastic colitis

Lifestyle modifications (Pathya-Apathya)

Pathya

Godhuma (wheat), mudga (green gram), purana shali (old rice), rasona (garlic), seasonal fruits, high fiber diet, hingu (*Asafoetida*), draksha (raisins), amalak (*Phyllanthus emblica* Gartn), Haritaki (*Terminalia chebula* Retz.), Pippali (*Piper longum*), Shunthi (Dry Ginger), green leafy vegetables and lukewarm water.

Apathya

Diet: Heavy food, *vishtambhi* (diet causing constipation), *vidahidravya* (diet causing burning sensation) like chilies, spices, food stuffs made of rice, fried food, maida product, excessive intake of oils, non vegetarian foods, curd, etc.

Lifestyle: Lack of exercise, sleep in day time, constant sitting on hard objects, excessive riding, straining during defecation etc.

5. Kamala (Jaundice)

Case definition

Kamala (Jaundice) is the yellowish discoloration of the skin, mucous membranes associated with complaints like anorexia, malaise, indigestion and with or without palpable enlargement of liver. Yellowish color is commonly found in bulbar conjunctiva, urine, nails and skin.

Differential diagnosis

- *Pittaja Jwara*
- *Pittaja Pandu*
- *Pittaja U dara*

Diagnostic criteria

(i) Clinical

- Yellowish discoloration of skin, nails, face
- Reddish yellow stool, urine

- Tiredness of senses
- Burning of skin
- Indigestion
- Weakness of body
- Emaciation

(ii) Laboratory investigations: Blood for Hb, TLC, DLC, S. Bilirubin

Treatment

(i) Home remedies

Drugs	Drug form	Dose	Anupana
Avipattikar churna	Churna	3-5gm BD	With water
Aamalki Rasayan	Churna	3-5gm BD	With honey
Triphala churna	Churna	3-5gm BD	With water
Aamalki churna	Churna	3-6gm BD	With water
Bhumyaamalki Churna/swaras	Churna/ swaras	3-6gm/15-30ml BD	-
Guduchi churna	Churna	3-6gm BD	With honey
Katuki churna	Churna	3-6 gm BD	Honey/water/ Ikshurasa
Kalmegh churna	Churna	3-6 gm BD	Honey/water/ Ikshurasa

- Juice of Guduchi-30 ml with honey
- Kalka of Bhumyamalki-15 gm
- Decoction of Triphala-30 ml with honey
- Juice of Neem leaves- 30ml with honey

(ii) HWC interventions

- When patient do not respond to conventional treatment
- Confirmed diseases as per the differential diagnosis
- Cases not responding to above mentioned therapy
- Patients having increased levels of bilirubin (more than 20 mg/dl), with mental confusion and altered sensorium, Severe persistent vomiting
- Patient showing signs of deep Jaundice; severe vomiting, posing danger of dehydration, signs of hepatic encephalopathy etc.
- Cases of liver abscess, liver cirrhosis, HbsAg positive (Hepatitis B) and known case of HIV/AIDS infection, Obstructive pathology
- Patients having malignancy
- Patients in acute alcohol withdrawal state, intoxication, hepatic encephalopathy

Lifestyle modifications (Pathya-Apathya)

Pathya

- **Ahara:** Khichdi prepared from old rice (*purana shali*), green gram, fruits like draksha (grapes), sugarcane juice, shritashita jala (boiled and cooled water), vegetables like Patola (*Trichosanthes dioica*), Haridra, Ardrak
- **Vihara:** Complete rest

Apathya

- **Ahara:** Heavy to digest food, fried food articles, pungent food articles like chili, alcohol
- **Vihara:** Excessive physical exercise, day sleep, contaminated water, un-hygienic diet, residing in hot climates and exposure of radiant sun, anger, strenuous physical and mental activities

6. Arsha (Haemorrhoids)

Case definition

Arsha is defined as the mass which is formed in guda (anal canal) by pathological involvement of twak, mamsa and meda. There is a feeling of external mass in anal region associated with or without bleeding and pain. It usually occurs at the level of ano-rectal ring and prolapsed through anus at 3, 7 and 11 o'clock positions.

Types of Arsha with characteristics

Features	Vatika	Paittika	Kaphaja	Raktaja
Morphology of pile mass	Wrinkled, hard, rough, dry, dusky red colored pile mass shape like karpasa phala or kadamba puspa	Soft, flabby and delicate, red yellow black or blue coloured pile mass shape like jalauka or yava	Large sized, protuberant, smooth, rigid and benumbed, plan or white coloured pile mass shape like karira, panasa ashti, gaustana	Shape like vata, gunja seed, vidruma (coral)
Discharge	Absent	Foul smelling, thin yellowish red discharge	continuous and profound discharge of tawny, whitish or reddish and slimy fluid	
Bleeding	-	present	-	Severe
Vega	Retention flatus, and feces of urine	-		
Colour of twak, nakha, mukha, netra, mala and mutra	Blackish	Yellowish or greenish	Whitish	
On palpation		Tender	Painless	Hot

Associated features	Colicky, pricking pain, twitching, tingling	Burning sensation, itching, pricking pain and tendency to suppuration	Thick & long standing swelling, excessive itching	Loss of Strength, senses become weaker, Immunity decreases
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Classification according to the prolapse

- **1st degree** hemorrhoids are those which bleed but do not prolapse outside the anal canal
- **2nd degree** hemorrhoids are those which prolapse outside the anal canal during defecation and reduce spontaneously itself
- **3rd degree** hemorrhoids are those which prolapse outside the anal canal during defecation and goes back manually
- **4th degree** hemorrhoids are those which permanently prolapse outside the anal canal

Differential diagnosis

Diagnostic criteria

(i) Clinical

- **Examination of Arsha (Piles)** Clinical diagnosis: On the basis of history and clinical presentations, patient can be diagnosed provisionally as case of Arsha
- **Inspection-** The second degree hemorrhoids are only visible at the anal verge when the patient strains. While the third degree piles are readily recognized as a prolapsing mass in the outer part covered with skin, the inner portion with red or purple colored anal mucosa, and the junction is marked with linear furrow
- **Palpation:**(tools used– Proctoscope, local anesthetic gel, sterile gloves, torch and sanitizer)
- Per-rectal examination on the early stages of piles, they are soft and collapsible on quite impessible examination. But with chronicity and repeated attacks of the thrombosis the subcutaneous connective tissue undergoes fibrosis and then the piles are palpable as a soft longitudinal fold to the palpating finger on per rectal examination
- **Proctoscopy**

(ii) Laboratory investigations: CBC

Treatment

(i) Home remedies

- Sooran kand in daily diet
- Buttermilk with jirak
- Sitzs bath with luke warm water followed by local application of cow ghee

- Onion juice (swaras) for painful haemorrhoids (charak reference)
- Ajma churna with jeerak
- Isabgul husk after meals

(ii) HWC interventions

Drugs	Drug form	Dose	Anupana
Triphala guggulu	Guggulu	2-4 tab BD	Luke warm water
Triphala churna	Churna	2-4 gm BD	Luke warm water
Abhayarishta	Arishta	10-20ml BD	Equal quantity of water
Jatyadi tail	Taila	-	

Referral

- Cases not responding to the therapy
- Patients with severe bleeding per rectum
- Cases with complications like, profuse haemorrhage, strangulation, thrombosis, ulceration, gangrene, suppuration or abscess formation, fibrosis, perianal haematoma
- Patient having severe anaemia, who needs blood transfusion
- Piles cases associated with other disorders like heart disease, uncontrolled BP, DM, HIV positive, HbsAg positive, VDRL positive, malignancy etc

Lifestyle modifications (Pathya-Apathya)

Pathya

Diet: Takra (mattha), navaneetham (butter), goat milk particularly in raktarshas, gomutra and sarshapat taila in Vata Kapha arshas, wheat, cow ghee, green vegetable etc.

Habits: Regular diet, exercise, proper sleep, etc.

Apathya

Diet: Heavy food, vishtambhi (food articles causing constipation), vidahidravya (food articles causing burning sensation) like chilies, spices, food stuffs made of rice, fried food, maida product, excessive intake of oils and curds.

Habits: Lack of exercise, sleep in day time, constant sitting on hard objects, excessive riding, straining during defecation etc.

7. Parikartika (Fissure-in-Ano)

Case definition

Feeling of sharp cutting pain in anal orifice during and or after defecation associated with fresh bleeding usually in the form of a streak on passing of hard feces, with itching or burning in anal region.

Method of diagnosis

On the basis of history and clinical presentation, patient can be diagnosed provisionally as a case of Parikartika.

Examination of Parikartika

Local examination by

- a) Inspection
- b) Palpation (tools used – local anesthetic gel, sterile gloves, torch, sanitizer)
- c) Digital rectal examination

Criteria for inclusion for AYUSH services

Patients having following features of Acute Fissure-in-ano:

Painful defecation, burning sensation in ano-rectum, bleeding in ano-rectum during defecation, constipation, anal sphincter spasm, presence of longitudinal acute solitary fissure-in-ano.

Home remedies

- Sooran kand in daily diet
- Buttermilk with jirak
- Hot sitzs bath with like warm water followed by local application of cow ghee
- Onion juice (swaras) for painful haemorrhoids (Charak reference)
- Ajma churna with jeerak
- Isabgul husk after meals

Referral

- Cases not responding to the therapy and develop complications
- All cases of moderate to severe bleeding per rectum
- Patients having severe anemia, who need blood transfusion
- Presence of fibrous anal polyp
- A bridged fissure with underlying fistula
- Patients with Acute Fissure-in-ano associated with other ano- rectal disorders such as carcinoma of rectum and anal canal, haemorrhoids, fistula-in-ano, and thrombosed sentinel pile
- Fissure-in-ano associated with Ulcerative colitis, Crohn's disease, Tuberculosis, Venereal diseases, HIV infection and other systemic diseases

HWC interventions

Drugs	Drug form	Dose	Anupana
Triphala guggulu	Vati	500-1000 mg BD	Luke warm water
Triphala churna	Churna	2-4 gm BD	Luke warm water
Abhayarishta	Arishta	10-20 ml BD	Equal quantity of water
Jatyadi tail	Taila	-	-

Lifestyle modifications (Pathya-Apathya)

Pathya

Ahara: Green gram, fruits like Munnaka (dry grapes), orange juice, sweet lemon juice, musk melon, salads prepared from cabbage, cucumber, carrot, spinach and vegetables prepared from green leafy vegetables, surana (jami kanda), patola (parwal), intake of sufficient quantity of warm water.

Vihara: Regular exercises like walking, jogging, outdoor games, following daily & seasonal regimen properly

Apathya

Ahara: Heavy food articles and preparations, green peas, black eyed beans, yellow gram, raw vegetables and salads, refined foods such as white flour, cabbage, cauliflower, brinjal, peas, potatoes, regular intake of chilled water

Vihara: Jobs involving sedentary activities, continuous standing, or sitting for long durations on hard seats, suppression of natural urges especially urination & defecation etc.

8. Eka Kushta (Psoriasis)

Introduction

Eka Kushtha is one among eleven Kshudra Kushta with the dominance of Vata and Kapha, which is characterized by silvery plaques like fish scales may be associated with itching and with tendency to spread all over the body. It can be correlated with Psoriasis.

Method of diagnosis

A patient presenting with dry scaling erythematous / macula-papulous patches, covered with adherent silvery white scales.

HWC interventions

Simple home remedies

Bathing water is prepared with Khadira (*Acacia catechu*).

Leaves of Wrightia tinctoria (*Sveda kutaja*) in coconut oil and heated in sunlight is useful for external application and for internal consumption 5ml. BD.

Treatment

Drugs	Dosage form	Dose	Anupana
Haridra	Churna	3-6 gm BD	Madhu/luke warm water
Guduchi	Churna	3-6 gm BD	Madhu/luke warm water
Kaishora guggulu	Vati	1-2 vati BD	Luke warm water
Khadirarishta	Arishta	10-20 ml BD	Equal quantity of water
Shweta kutaja	Churna	E/A	Boiled in coconut oil

Referral

- Patients not responding to management
- Patients under steroid treatment.(>3years)
- Patients having concomitant illness like PsoriaticArthritis

Lifestyle modifications (Pathya- Apathya)

Pathya

Ahara: Laghu anna (light food), tikta shaka (bitter leafy vegetables), purana dhanya (seasoned grain), yava (barley), godhuma (wheat), mudga (green gram), patola

Vihara: Maintain hygiene, follow Dinacharya and Ritucharya properly.

Apathya

Ahara: Viruddha ahara (incompatible diet), adhyashana (eating prior to the digestion of previous meals), excessive sour and salty food, exercise after heavy meal, masha (black gram), radish, refined flour products, fermented food, curd, fish, jaggery.

Vihara: Mental stress / anxiety, suppression of urges especially of vomiting, day-sleeping, excessive exposure to sun, unhygienic conditions

9. Vicharchika (Eczema)

Introduction

In Ayurveda, skin diseases have been described under the heading of kushtha. Vicharchika is a type of Kshudra kushtha included under Raktapradoshaja vikara with chronic course. It is one of the common skin diseases with predominance of Pitta-Kapha dosha.

Method of diagnosis

Patient with classical signs & symptoms like kandu (itching), strava (secretion), pidika (papules), shyavata (pigmentation), rookshata (dryness), ruja (pain) and daha (burning sensation).

HWC interventions

Simple home remedies

Bathing water prepared with Khadira (*Acacia catechu*).

Dusting with powders like- Turmeric, Neem, Khadira is useful in reducing excessive secretion and oozing.

Treatment

Drugs	Dosage form	Dose	Anupana
Nimba	Churna	3-6 gm BD	Madhu/luke warm water
Haridra	Churna	3-6 gm BD	Madhu/luke warm water
Kalamegha	Churna	3-6 gm BD	Madhu/luke warm water
Kaishora guggulu	Vati	1-2 vati BD	Luke warm water
Khadirarishta	Arishta	10-20mlBD	Equal quantity of water

Referral

- Patients not responding to conventional management
- Patients under Steroid and cytotoxic treatment. (>3years)
- Patients having concomitant illness like uncontrolled HTN, uncontrolled DM and

Chronic Eczema

Lifestyle modifications (Pathya- Apathya)

Pathya

Ahara: Laghu anna (light food), tikta shaka (bitter leafy vegetables), purana dhanya (seasoned grain), yava (barley), godhuma (wheat), mudga (green gram), patola (pointed guard).

Vihara: Maintain hygiene, follow Dinacharya and Ritucharya properly

Apathya

Ahara: Viruddha ahara, adhyashana (eating prior to the digestion of previous meals), excessive sour and salty food, exercise after heavy meal, masha (black gram), radish, refined flour products, fermented food, curds, fish, jaggery.

Vihara: Mental stress/anxiety, suppression of urges especially of vomiting, day-sleep, excessive exposure to sun.

10. Sandhigata Vata (Osteo arthritis)

Sandhigata Vata (Osteo arthritis) is the commonest form of articular disorder.

Clinical diagnosis

According to history and classical sign and symptoms of sandhigatavata (osteoarthritis) shoola (pain)

Shotha (swelling or inflammation) stambha (stiffness) sparshasahyata (tenderness) sphutan (with or without crepts), akunchan prasaran vedana (restricted movements)

Lab investigations (At referral centres)

X ray of affected joints

BMD

ASO titer

HWC interventions

Drug	Dosage	Form	Dosage	Anupana
Ashwagandha churna		Churna	3-5 gm BD	Warm milk
Shunthi churna		Churna	3-5 gm BD	Warm water
Yograj guggulu		Vati	500 mg-1gm BD	Warm water
Narayan tail		Taila	L/A	-
Dashamula kwatha		Kwatha	30-40 ml BD	-

Referral

Patients having any type of anatomical deformity in affected joints. Patient not responding to primary AYUSH treatment. Patient presented with chronicity and more complications.

Patient needs further investigation.

Life-style modifications

Pathya ahara: Green gram, milk, raisins, luke warm water, pointed gourd, drum stick, garlic, purana shali (rice older than 1 year)

Apathya ahara: Dried vegetables, lentils, sprouts, raw vegetables and salads, refined foods such as white flour, excessive use of green leafy vegetables, mushrooms, peas, excessive intake of pungent food, cold drinks, beverages, chilled food and ice cream, continuously fasting or taking limited food for a very long duration.

Pathya vihar: Oil massage, warm water bath and posture correction.

Apathya vihara: Inadequate sleep or frequent changes in sleep pattern, suppression of natural urges especially of hunger, bowel, urine and emotions, excessive physical strain like swimming, climbing, walking, running, sports which involve straining of joints like in badminton, football etc., all such occupation which involves excessive movement of joints, resulting in joint injuries.

11. Aamvata (Rheumatoid arthritis)

Case definition

Amavata is a condition of polyarthritis associated with stiffness and associated symptoms of aama like angamarda (generalized body pain), Aruchi (anorexia), trishna (increased thirst), alasya (lassitude), gaurava (heaviness of the body), jwara (fever), apaka (delayed digestive capacity) and shunata anganam (joint specific or generalized swelling), constipation and polyuria. Rarely the disease can manifest as monoarthritis also.

Method of diagnosis

Clinical diagnosis: On the basis of history and clinical presentation.

Investigations

- ESR
- Complete Blood Count
- CRP and RF (at referral centre)
- Radiographic evaluation - X rays of the more affected joints to evaluate the level of evolving joint deformity. (at referral centre)

HWC interventions

Simple homeremedies

- Castor oil with dry ginger decoction
- Fomentation of the affected joint with waluka pottalika (sand bag)
- Powder of shunthi (dried ginger) 2 gm to be taken with 50 ml. hot water twice a day

Treatment

Drug	Dosage Form	Dosage	Anupana
Ashwagandha churna	Churna	3-5 gm BD	With luke warm water
Shunthi churna	Churna	3-5 gm BD	With lukewarm water
Yograj guggulu	Vati	500mg-1gm BD	With luke warm Water
Narayana taila	Tail	L/A	-
Sanjivani vati	Vati	125-250 mg BD	With luke warm water

Criteria for referral to higher care centre

- Patients not responding to conventional management
- Chronic patients with complications like joint deformities, muscle wasting, anaemia
- Patients of severe chronicity who require complete Panchakarma therapy and Rasayana Chikitsa for better recovery

Lifestyle modifications (Pathya-Apathya)

Pathya

Rakta Shali (a red variety of rice), Yava (barley) and Kulattha (dolichos bean); warm water; Adraka (ginger), bulb of Rasona (garlic), leaf and fruit of Patola (pointed gourd), root of Punarnava (pigweed), leaves of Shigru (horse-radish) and fruit of Karavellaka (bitter gourd)

Apathya

Guru (heavy to digest), Abhishyandi Anna (food causing excessive secretions); seed of Masha (black gram); milk, curd, Guda (jaggery); incompatible and unrelished foods, fish, excessive eating, waking at night; suppression of natural urges and exposure to cold winds are harmful for the patient of Amavata.

12. Kasa (Cough)

Case definition

Prana Vayu obstructed in respiratory tract due to various reasons, attains upward direction and comes out with force making specific sound is called as Kasa. Kasa has been described as an independent disease as well as a symptom of many diseases like Tamaka Swasa (Bronchial Asthma), Rajayakshma etc. It is the disease or symptom of respiratory tract occurring due to obstruction of Vata dosha and its reverse movement. When occurring as an independent disease, it has mainly 5 different presentations as described in classical texts.

Clinical diagnosis

- Dry cough or productive cough with thick saliva or phlegm
- Scanty or excess sputum with thick expectoration
- Hoarseness of voice
- Dryness of chest, throat, mouth
- Pain in Chest, flanks, and head

Differential diagnosis

Bronchitis, pneumonia, bronchial asthma, tuberculosis, allergies, chronic obstructive pulmonary disease (COPD), bronchiectasis, congestive heart failure and gastroesophageal reflux.

Lab investigations

- CBC
- Chest X-ray (at referral centres)
- Cytologic and microscopic sputum examination
- Pulmonary function tests (at referral centres)

HWC interventions

Simple home remedies

- Swarasa of Vasa (*Adhatoda vasaka*) 30 ml. with honey reduces the cough and expectoration
- Fresh ginger juice 15ml twice a day with honey acts as an expectorant
- Bibhitaka (*Terrminalia bellerica*) fruit carp may be retained in mouth and its juice may be chewed
- Turmeric powder added with a cup of milk daily
- Decoction of leaves of Pudina (*Mentha arvensis*) and Tulasi (*Ocimum sanctum*), one or two times a day would behelpful
- Juice of Tulasi (*Ocimum sanctum*) leaves can be consumed with honey
- Eating Kantakari powder (*Solanum surattense*) with honey regularly is advised

Treatment

Drugs	Drug form	Dose	Anupana
Vasa swarasa	Swarasa	20 ml. BD.	With honey
Bhibhitaki kwatha	Decoction	20-40 ml. BD.	With cumin seed powder
Bhibhitaki + Pippali churna	Powder	2 gm. + 1 gm. BD.	With honey
Yashtimadhu churna + Sitopaladi churna	Powder	1 gm. + 2gm. BD.	With honey

Referral

- Cases not responding to therapy
- All cases of severe persistent cough with more than 3 weeks
- Patient with co-morbidity of fever, patient may be suffering from cyanosis
- Severe cases associated with tuberculosis, cardiac diseases etc
- Lifestyle modifications (Pathya-Apathya)

Pathya

- Advised to live in the house where cold air does not have direct entry, to wear adequate and warm clothes, to coat the yellow mustard on the head
- Advise to take the vegetable of bathua, makoya, sunishnak,sushka mooli, fruit and leaves of kantakari, daliya made from cereals like shali (rice) yava (barley), godhuma (wheat), advice to take hot food, milk which is cooked with ginger, products of ikshu (sugarcane) like guda,fania,lapsi, malpuaa etc., ghee, advised langhan (laghu bhojan), milk, ikshu

rasa (sugarcane juice), sharbat made from sugar, juice of mrudvika (grapes), juice of sugarcane, advised to take pippali, kulathi

Apathya

- Avoid extreme use of cold air space, exposure to dew (mist, fog), exposure to breeze and dust, avoid too much of sleeping and keeping awake, avoid keeping the pillow either very low or very high under the head, avoid suppression of vomiting and tears etc. avoid cold and hot both enter the body together, avoid too much speaking, avoid sleep in day time, avoid cold water bath, head bath, avoid sorrow, anger.
- Avoid cold water intake, avoid vegetable like sem, til khali, guru ahar, vishtabhi ahar, vidahi (causing burning sensation)anna

13. Tamaka Shwasa (Bronchial Asthma)

Case definition

Tamaka Shwas is one of the five types of disease shwasa. Bronchia asthma is generally considered as parallel to Tamaka Shwasa in Ayurveda. The main features of bronchial asthma are breathlessness, chest tightness, wheezing and cough.

Method of diagnosis: On the basis of history and clinical presentation.

Investigations

- Complete hemogram.
- Chest X-ray (at referral centre)
- Spirometry. (at referral centre)

HWC interventions

Simple home remedies

- Decoction of Pipali (*Piper longum*) reduces the difficulty in breathing
- Fresh ginger juice 15 ml twice a day with honey acts as an expectorant
- Turmeric powder added with a cup of milk daily
- Decoction of leaves of Pudina (*Mentha arvensis*) and Tulasi (*Ocimum sanctum*), one or two times a day would be helpful
- Juice of Tulasi (*Ocimum sanctum*) leaves can be consumed with honey
- Eating Kantakari powder (*Solanum surattense*) with honey regularly is advised

Treatment

Drugs	Drug Form	Dose	Anupana
Shunti churna	Churna	3 to 5 gm BD	With honey
Vasaavaleha	Avaleha	3-5 gm BD	-
Kanakasav	Asava	10 ml BD	Equal quantity of water
Amalaki rasayana	Avaleha	3-5 gm BD	Hot water

Referral

- Cases not responding to therapy
- All cases of severe persistent Asthma
- Patient with co-morbidity of fever, patient may be suffering from cyanosis
- Patient may have signs of hypercapnia and in acute phase of febrile illness
- Severe cases associated with tuberculosis, cardiac diseases etc
- Chronic cases of Tamaka Shwasa which require classical Shodhana therapy
- Patients taking regular steroid treatment

Lifestyle modifications (Pathya-Apathya)

Pathya

Food (Ahara): All dietary articles that are easily digestible and served warm. Unpolished rice, wheat, green gram, horse gram (kulatha), goat milk, green leafy vegetables like patola, Shigru (*Moringa pterygosperma*), brinjal, garlic, cardamom, cinnamon, pepper, ginger, honey, crab soup, mamsa rasa. Luke warm water for drinking.

Regimen (Vihara): Fomentation, hot water bath, moderate sun bath, warm clothes etc. and staying in fresh and ventilated places. Doing light exercises and maintaining daily routine.

Apathya

Food (Ahara): All cold and heavy food should be avoided. Oily and fried items, bakery items, fast foods, chocolates, wafers etc. should be strictly avoided. All dairy products especially curd, paneer and ice creams should be strictly avoided. Intake of sesame, black gram, and jaggery should be limited. Consuming leaves of mustard, fishes, milk of sheep and tubers.

Vihara: Exposure to cold, dust, smokes and direct wind should be strictly avoided. Heavy exercises and peak sun exposure are not advisable. Avoid air coolers and air conditioners. Avoid cold water bath and application of oil on head especially on symptoms of cold. Do not suppress natural urges especially coughing, sneezing and bowel and bladder responses. Avoid sleeping in day time.

14. Ashmari (Urolithiasis)

Case definition

Ashmari is a disease in which there is formation of stone, exerting pain. The symptoms of Ashmari are excruciating pain over Nabhi, Basti, Sevani, Medhra during micturition, sudden stoppage of urine flow, blood stained urine, and slitting of urine, aggravation of pain during running, jolting etc.

Method of diagnosis

Clinical diagnosis is to be made on the basis of history and clinical presentation. Laboratory and radiological investigations should be done to confirm the diagnosis.

Laboratory investigation

- Complete haemogram,
- Serum uric acid, serum calcium (at referral centre)

- Renal function test. (at referral centre)
- Urine analysis, culture. (at referral centre)
- X-Ray KUB (Kidney, Ureter, Bladder) (at referral centre)

HWC interventions

Simple home remedies

- Decoction prepared out of kulathhi 30 ml twice a day
- Decoction prepared out of ajwain 30 ml twice a day
- Decoction prepared out of pashanabhesha and bhumyamalaki 30 ml twice a day
- More quantity of boiled and cooled water

Treatment

Drugs	Drug form	Dose	Anupana
Avipattikar Churna	Churna	3-5gm BD	With water
Gokshura churna	Churna	3-5gm BD	with water
Gokshuradi Guggulu	Guggulu	2-4 Vati BD	With water
Varunadi kashaya	Kashaya	40 ml BD	-
Trinapanchamula kwatha	Kwatha	40 ml BD	-

Referral

- Cases not responding to conservative therapy
- Acute colicky pain due to urolithiasis
- Haematuria
- Need for further investigation
- Patients with associated diseases like diabetes mellitus, Hypertension etc.
- If the size of stone, pain and severity of symptoms are increasing

Lifestyle modifications (Pathya-Apathya)

Pathya: Basti, Vamana, Virechana, Langhana, Avagaha sweda. Dietetic items advised are: Yava, Kulatha, Puranashali, Mudga, Ginger, and all the Vatanashaka Ahara.

Apathya: Common things to avoid are ativyayama (excessive physical work) Adhyashana (excess food) Sheet, oily heavy food items, Madhura Aahara, suppression of micturition and defecation. Sushka, Ruksha, Pishtanna, exposure to sun. Excessive sexual act Kharjura, Kapiththa, Jambu, Kashaya rasa sevana etc. are also considered as apathy for Ashmari.

15. Diarrhoea

Case definition

Diarrhoea is one of the most common health problems. It can range from a mild temporary condition to a potentially life threatening one. Globally an estimated 2 Billion cases of Diarrhoea disease occur every year and 1.9 Million children under the age of 5 years mostly in a developing countries die from Diarrhoea.

Diarrhoea is characterized by abnormally loose or watery stools. Some people frequently pass stools but they are of normal consistency this is not Diarrhoea. Most cases of Diarrhoea are caused by an infection in the gastro intestinal tract. The microorganisms responsible for those infections include bacteria, virus, and parasitic organisms.

Differential diagnosis: Pravahika/IBS/Visuchika

Diagnostic criteria

Symptoms

Signs and symptoms associated with Diarrhoea may include frequent loose watery stools, abdominal pain, abdominal cramp, fever, blood in stool, bloating.

According to Ayurveda, Diarrhoea (Atisara) can be classified in 2 groups viz Amatisar and

Pakvatisar.

1. Amatisar- Stool in this kind of Diarrhoea is Picchila- Slimy with foul smell which sinks in water and is known as Amatisar.
2. Pakvatisar- Diarrhoea with the feeling of lightness in the body and stool does not sink in water then this condition is known as Pakvatisar.

Laboratory investigations

CBC

Stool test

Treatment

a. Common home remedies

- i) Sipping or taking constantly electoral powder or a mixer of lemon, water, salt and sugar throughout the day.
- ii) Have some strong coffee.
- iii) A mix of yogurt tempered with roasted fenugreek and cumin seeds.
- iv) Avoid dairy product like milk, paneer, cheese etc.
- v) Stay away from fibrous fruits and food product.

b. HWC interventions

- i) Atisar with ama: haritaki, dhanyak, musta, Sunthi, and bilva with ushnodak
- ii) Haritaki and pippali with ushnodak
- iii) Sunthi choorna with ushnodak
- iv) Kutaj tablet
- v) Bilvadi choorna or dadimashtak choorna
- vi) Kutajarishta

Referral

- Dehydration
- Fever
- Weight loss
- Blood mixed with stools
- Persistent abdominal pain
- Nocturnal diarrhoea
- Family history of bowel cancer,
- IBD or coeliac disease in 1st degree

Life-style modifications

Pathya

Aahar: Purana shali, vilepi, laja manda, yush of masur and tuvari, milk of got, takra, jambuphal, kapitha, bilva, dadim, dipan dravya, laghu ahara and pana, langhan.

Vihar: Nidra.

Apathya

Aahar: Ambu pana, viruddhahara, godhuma, masha, yava, sigru, kushmanda, badara, guru annapana, ikshu, guda, lasuna, patra shaka.

Vihar: Svedana, anjana, raktamoksana, vyavaya, jagarana, dhumapana, nasya, abhyanga, vegavroddh, krodh.

16. Backache

Case definition

Backache is one of the most common afflictions to which hardly any body is an exception. However, with the amount of stress and lifestyle these days, anyone can suffer from this condition including children. This is the most agonizing and incapacitating physical disorders which owes its origin to multiple physical factors. It is merely a symptom and not a disease of which cause lies elsewhere in the body.

Known as Nitambha shoola or Kati shoola, this type of pain causes both bone and muscle weakness (asthi dhatus kshaya or mamsa dhatus kshaya). Other names that backache known by Kativata, Prishta shoola, Kati graha, Trika shoola and Trika graha.

Pain in the lower back may be linked to the bony lumbar spine, discs between the vertebrae, ligaments around the spine and discs, spinal cord and nerves, lower back muscles, abdomen and pelvic internal organs, and the skin around the lumbar area. Pain in the upper back may be due to disorders of the aorta, tumors in the chest, and spine inflammation.

Root causes of backache

- Spinal arthritis, rheumatoid or ankylosing spondylitis
- Curvature of spine

- Presence of tumors in the spine
- Some chronic infection
- Injury to spine or abnormal stress caused by lifting any heavy object
- Poor circulation of blood
- Sitting in a particular position at a stretch, but more so when one is obliged to perform some job where bending of the back becomes a necessity
- Psychological upsets
- Loss of bone density and thinning of the bone (osteoporosis)
- Narrowing of the spinal canal (spinal stenosis)
- Displacement of vertebrae (degenerative spondylolisthesis)
- Loss of nerve function at the lower spinal cord (cauda equine syndrome)
- Sciatica

Differential diagnosis

Kati shool/ kati graha/ gradhasee- sciatica/ avascular necrosis/ ankylosing spondylitis.

Diagnostic criteria

(i) Clinical early symptoms: Not specific

After onset

- Constant pain, at times unbearable and severe
- Difficulty in bending forward and/or side ways
- Aggravation of pain by least movement, jerk
- Feeling as if the entire area is sore and sensitive to even slight touch
- Relief is felt after gentle massage
- Incapacitation
- Feeling as if the back muscles were bound and tightened by a binder
- Fever
- Unexplained weight loss
- Numbness or a tingling feeling in one or both legs
- Loss of bladder or bowel control
- Origin following trauma, such as a fall or direct blow or impact to the back
- Constant pain that grows in intensity at night

(ii) Laboratory investigations

CBC

X-ray (at referral centres)

CT or MRI (at referral centres)

Treatment

Common home remedies

- Apply a hot pack to back or low back but avoid extreme temperatures.

- Take rest for limited period
- Massage to aching muscles. Mix camphor in mustard oil and boil it for five minutes cool it and store it in a bottle. Apply on affected part of back.

HWC interventions

Drug	Dosageform	Dosage	Anupana
Ashwagandha churna	Churna	3-5 gm BD	Warm milk
Shunthi churna	Churna	3-5 gm BD	Warm water
Yograj guggulu	Vati	500 mg-1gm BD	Warm water
Narayan tail	Taila	L/A	-
Dashamula kwatha	Kwatha	30-40 ml BD	-

Referral

Patients having any type of anatomical deformity in affected joints. Patient who are not responding to primary treatment in AYUSH service. Patient presented with chronicity and more complications. Patient needs further investigation.

If they have neurological features of cauda equina syndrome (sphincter disturbance, progressive motor weakness, saddle anaesthesia, or evidence of bilateral nerve root involvement).

Risk factors for backache

You are at a greater risk of back pain with following factors:

- Sedentary work
- Old age
- Overweight or obese
- Smoker
- Participate in high-impact activity without prior warm-up
- Stressful job or have depression or anxiety

Life-style modifications

Pathya ahara: Green gram, milk, raisins, Luke warm water, pointed gourd, drum stick, garlic, purana shali (Rice older than 1 year).

Apathya ahara: Dried vegetables, lentils, sprouts, raw vegetables and salads, refined foods such as white flour, excessive use of green leafy vegetables (as they aggravate Vata), mushrooms, peas, excessive intake of pungent food, cold drinks, beverages, chilled food and ice cream, continuously fasting or taking very less food for a very long duration.

Vihar

Pathya vihara: Oil massage, warm water bath and posture correction.

Apathya vihara: Inadequate sleep or frequent changes in sleep pattern, suppression of natural urges especially of hunger, bowel, urine and emotions, excessive physical strain like swimming, climbing, walking, running.

17. Headache

Case definition

Headache is one of the most common medical complaints most people experience at some point of their life.

Headache can be a sign of stress or emotional distress, or it can be associated with other medical disorders such as migraine, high blood pressure, anxiety, depression etc. People with chronic migraine headache may find it hard to do routine works. A headache can occur in any part of the head, either both sides of the head or in just one location.

Differential diagnosis

Vatik Shirshool : Paitik shirshool/ kaphaj shirshool/ tridoshaj shirshool / ardhavbhedk/ shankhavart/ suryavart/ anantvat. Migraine/cluster headache/thunderclap headache/rebound headache/ tension headache/sinus headache.

Diagnostic criteria

There are different ways to define headaches. The International Headache Society (IHS) categorize headaches as primary, when they are not caused by another condition, or secondary, when there is a further underlying cause.

Primary headache: Primary headaches are stand-alone illnesses caused directly by the over functioning or problems with structures in the head that are pain-sensitive. This includes the blood vessels, muscles, and nerves of the head and neck. They may also result from changes in chemical activity in the brain.

Common primary headache include migraine, cluster headache, and tension headache.

Secondary headache: Secondary headache is a symptom which occurs when another condition stimulates the pain-sensitive nerves of the head. In the other words, headache symptoms can be attributed to another cause. A wide range of different factors can cause secondary headache. These include: alcohol induced hangover, brain tumor, blood clots, bleeding in or around the brain, carbon monoxide poisoning, concussion, dehydration, glaucoma, teeth-grinding at night, influenza, overuse of analgesic medicines known as rebound headache, panic attacks and stroke.

Laboratory investigations

- Blood tests
- X-rays, brain scans, such as CT and MRI (At referral centres)

Treatment

Common home remedies

- The most common way of treating headache is take rest and pain relief medication.
- Apply a heat pack or ice pack to your head or neck, but avoid extreme temperatures.
- Avoid stress where possible and develop coping strategies for unavoidable stress.
- Eat regular meals, taking care to maintain stable blood sugar.
- A hot shower can help although in rare condition hot water exposure can trigger headache.

- Exercising regularly and getting enough rest and regular sleep contributes to overall health and stress reduction.

HWC interventions

- Godanti bhasma 500 mg BD with ushanodak
- Shiro shoolarivajra rasa 2 tabs, 2 or 3 times (from referral centres)
- Pathyadi kwath 30 ml BD
- Sunthi haritaki churna 2 gm BD with ushanodak
- Sut shekar ras 2 tabs TDS with water (from referral centres)

Referral

As headache can be a symptom of a serious condition, it is important to seek medical advice if it becomes more severe, regular, or persistent.

- Headache for less than six months duration not responding to lifestyle changes and first line treatment
- Headache associated with abnormal neurologic exam findings, especially papilloedema, nystagmus, gait or motor changes
- Absent family history of headache
- Headache associated with substantial confusion or emesis
- Headache that awaken a person from sleep frequently
- A family history or disorders of central nervous system lesions such as brain tumor or cerebral aneurysm

Life-style modifications

Pathya

Aahar: Sali, mudga, masa and kulattha, ushna kshir, patol, shigru, draksha, karvellaka, amalaki, dadim.

Vihar: Svedan, nasya, dhupan, virechan, lepan, langhan, shirodhara, shirobasti, upanah

Apathya

Aahar: Amla and tikt rasa yukta bhojan, sheet and guru ahar, salt.

Vihar: Vegavarodh, dushit pani, viruddhashana, divaswap.

Chapter 14

First AID Before Referral

Objectives

At the end of the chapter, you will be able to apply first aid on an injured person.

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.

This can grasp specific training or equipment to be procurable within the workzone (for example Automated External Defibrillator).

The scope of specialist first aid covers at a public function, or important first aid coaching among learning institutes.

First aid, in any case, doesn't basically require any specific equipment or past data, and may include improvisation with materials offered at the time, typically by undisciplined people.

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	Aftercare
<ul style="list-style-type: none">• Observe• Stop to Help	<ul style="list-style-type: none">• Assess what is required to be done• Ask yourself, 'Can I do it?'	<ul style="list-style-type: none">• Do what you can• Call for expert medical help• Take care of your and the bystander's safety	<ul style="list-style-type: none">• 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.

First Aid for different types of injuries

Injury	Symptoms	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 jewelry 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 	<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 hands • Remove any visible objects from the wounds 	<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.)

	<ul style="list-style-type: none"> Dizziness Paleskin 	<ul style="list-style-type: none"> Apply bandage once the bleeding stops 	<ul style="list-style-type: none"> 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 sponge If possible apply ice packs to victim's neck, back and armpits 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	3rd Degree Burn	4th 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 things 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 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 strips. A daily paper or magazine, twisted into a "U" shape, works okay. Splint the wrist joint within 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 things 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 in stool/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

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

Snakebite

People who suspect they have been bitten by a venomous snake should be transported to a health facility having anti-venom without delay after the following first aid. Consider the following general symptoms to identify a snake bite:

- Two puncture wounds, with or without bleeding
- Swelling and redness around the wounds
- Pain at the bite site
- Difficulty breathing
- Vomiting and nausea
- Blurred Vision
- Sweating and salivating

- Numbness in the face and limbs
- Tiredness or muscle weakness
- Some venomous snakes also cause symptoms specific to their type like shock, change in the skin colour, convulsions, drooping eyelids, stomach pain, difficulty swallowing, headache,
- shock or paralysis

First aid

Do's

- Immediately move away from the area where the bite occurred. If the snake is still attached use a stick or tool to make it let go. Sea snake victims need to be moved to dry land to avoid drowning.
- Remove anything tight from around the bitten part of the body (e.g.: rings, anklets, bracelets, shoe) as these can cause harm if swelling occurs.
- Reassure the victim, keep the person calm and at rest. Many snake bites are caused by non-venomous snakes. And even after most venomous snake bites the risk of death is not immediate.
- Immobilize the person completely. Splint the limb to keep it still. Use a makeshift stretcher to carry the person to a place where transport is available to take them to a health facility having anti-venom.
- Never use a tight arterial tourniquet.
- Applying pressure at the bite site with a pressure pad may be suitable in some cases.
- Transport the person to a health facility having anti-venom as soon as possible
- Many people die every year on the way to a health facility as a result of being transported lying flat on their backs and having their upper airway obstructed by vomit, or paralysis of muscles in the tongue. Keep them on their left side with mouth turned down so that the risk of this is reduced.
- Closely monitor airway and breathing and be ready to resuscitate if necessary.
- Be ready to describe the snake to emergency staff.

Don'ts

- Do not waste anytime in administering other unproven or unsafe forms of first aid.
- Do not Cut a bite wound
- Do not Attempt to suck out venom
- Do not Apply tourniquet, ice, or water
- Do not Give the person alcohol or caffeinated drinks or any other medication

Health facilities should treat all snakebite cases as emergencies and give priority to assessing these patients and instituting treatment without delay. Improving the clinical outcomes for the victims of snake bite needs much more than just access to safe antivenoms. Intravenous access should be achieved early, hydration state determined and corrected if needed, and vital signs must be closely monitored. The early administration of an adequate dose of effective antivenom to patients with signs of envenoming is crucial. If no antivenom is available, referral to a centre which has supplies should be planned and undertaken quickly. If this is not possible then symptomatic treatment including support of airway patency and breathing, maintenance of circulation and control of bleeding, and the treatment of local wounds should be prioritized as appropriate.

Chapter 15

Soft Skills and Communication Skills

Key learning outcomes

At the end of the unit, 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 unit, you will be able to:

- Communicate appropriately with co-workers
- Gain knowledge about the language skills
- Respond to patient's call

1.1 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 Home Health Aide how well you interact with your patients and the people around you will entirely depend on how well you communicate.

1.2 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 verbal communication includes

- Writings found in newspapers
- E-mails

- 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:

- Body postures
- Tone of voice
- Gestures and touch
- Facial expressions
- 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 is also known as grape-vine communication. It 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.

1.3 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

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.

Barriers to communication

Communication may often fail due to the following reasons:

- Physiological barriers: Difficulties in hearing, expression
- Psychological barriers: Perception, distrust, emotion, preconception, past experience
- Semantic barriers: Jargon, language
- Environmental barriers: Noise, distance, congestion
- Socio-cultural background: Age, gender, interest, knowledge
- Organizational barriers: Unclear planning, structure, information overload, timing, technology, status difference

1.4 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 at the hospital. Communicating effectively with co-workers is important to ensure continued and reasonable quality of patient care.

1.4.1 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 is so effective that your co-workers get your message. 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 condition is not well due to increase 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."

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.

Coherent

What you communicate with 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.

1.5 Language skills

Language skills comprise of listening, speaking, reading and writing skills. For a Home Health Aide working in a hospital, it is important that he/she is well versed with the LSRW skills. So let's know about it one by one and its importance for the given job role.

1.6 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's not only about hearing, it's 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: We all have two ears yet just a single mouth. Try not to talk, in spite of the fact that you may need to clarify. Do as such just when the other individual has finished 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. 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:
- Gestures, expressions, and eye movements can all be important. This will be useful while interacting directly with your friends, colleagues and superiors

1.7 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 Home Health Aide, 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 can't convey adequately or express their thoughts 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 sounds. 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's 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 customers. 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 general duty assistant should match his rate of speech with that of the patient.

As a Home Health Aide, in order to demonstrate effective oral communication (listening and speaking skills) you should:

- Listen patiently and give answer to the questions that patient have.
- Convey the observations to the nurse. When you see any abnormality or unusualness in the patient's condition, inform directly to the concerned person.
- Discuss the process with the patient and to make him/ her feel comfortable while performing daily activities like grooming, bathing, elimination, transporting etc.

1.8 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. Therefore reading is a complicated skill.

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 general duty assistant, 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.

1.9 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.

1.10 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:

- Acknowledge immediately
- Use patient's name
- Establish eye contact and smile

L-Listen:

- Maintain eye contact
- Use listening techniques
- Don't interrupt
- Repeat information for accuracy

E-Explain:

- Describe what is going to happen
- Answer questions with patience
- Speak slowly: repeat as necessary

A-Ask:

- Is anything else I can do

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