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Training Manual on Elderly Care for Medical Officer

at Ayushman Bharat – Health and Wellness Centres

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Introduction to Healthcare of Elderly

1

With increased access and advancement in health care combined with several other factors, people all over the world are now living longer than before. It is natural, therefore, that health care workers are likely to encounter older patients frequently in their practice and service. Population ageing is one of the most discussed global phenomena in the current century. With a comparatively young population, India is still poised to become home to the second largest number of older persons in the world. India has many people now aged 60 years or more. The population over the age of 60 years has tripled in the last 50 years in India and will relentlessly increase in the near future. According to census 2001, older people were 7.7% of the total population, which increased to 8.14% in census 2011. The projections for population over 60 years in the next four censuses are 133.32 million (2021), 178.59 (2031), 236.01 million (2041), and 300.96 million (2051). The increases in the elderly population are the result of changing fertility and mortality regimes over the last 40-50 years.[1,2]

India recorded a significant improvement in life expectancy at birth, which was 49 years in 1970-75 to 69 years in 2013-17, registering an increase of 19.3 years in the last four decades.[3] The share of the population of the elderly was 8% in 2015 i.e., 106 million (10 crores plus) across the nation, making India the second-largest global population of elderly citizens. Further, it has been projected that by 2050 the elderly population will increase to 19%.[4]

As the elderly population continues to grow, the elderly dependency ratio will rise dramatically from 0.12 to 0.31. Gender disparity has also been reported with 50% of women aged 75 years and older report difficulty with at least one Activity of Daily Life (ADL) compared to only 24% of men, adding the focus towards female elderly care.[5]

The Longitudinal Ageing Study in India (LASI) Wave 1, 2017-18, launched under the aegis of Ministry of Health and Family Welfare has enabled better understanding of India's elderly health problems. The self-reported prevalence of cardio-vascular disease was 34% among those in age 60-74 which increases to 37% among those age75 and above. 32% of the elderly reported hypertension, lung disease, 5.9% reported asthma, 2.6% reported neurological and psychiatric problems, 55.3% reported vision related problems, 9.6% reported ear related problems. A higher proportion of elderly age 60 and above experienced difficulty in stooping, kneeling, or crouching (58%), followed by difficulty in climbing upstairs without resting (57%) and pulling/ pushing large objects (53%). 11% of the elderly age 60 and above reported having at least one form of impairment (locomotor, mental, visual and hearing impairment). A quarter (24%) of the

elderly age 60 and above reported having at least one Activity of Daily Living (ADL) limitation; Difficulty in using the toilet facility is the most common ADL limitation faced. Although 43.3% of elderly people use some kind of supportive device. However, 37.5% uses spectacles/contact lens due to presbyopia, 3.1% uses dentures, 8.3% uses walker/walker sticks and 0.7% uses hearing aids. More than a third (36%) are widowed. The proportion of widowed is higher among older adult women (30%) than older adult men (10%).

Old age is a sensitive phase; elderly people need care and comfort to lead a healthy life without worries and anxiety. Lack of awareness regarding the changing behavioral patterns in elderly people at home leads to abuse of them by their kin. Various issues affect the lives of senior citizens and further complicate into major physiological and psychological problems. It is just not a disease that affects old age; there are various other issues that govern the downfall of the health of old people. Old people need supervision, the laxity to understand the needs and worries of elders make them appear strangers to the younger generation, who later regard them as a burden. Elders suffering from cognitive challenges undergo serious personality changes; at this point, they need care and attention. When they are left unattended, most of them are gripped with overwhelming feelings of dejection, purposelessness; some of them even turn violent. Although many of us know that ageing is a natural progression and it has its own shortcoming, most of us tend to ignore this and resort to an unruly approach.

Elderly populations have varying and complex social and health-care needs. For example, while dementia may be addressed with health inputs, the social and financial insecurities that may co-exist require inputs from the social welfare and finance sectors. A multidisciplinary and multisectoral approach, comprising professionals and general staff from several relevant sectors, should be considered as the key mode of care delivery for the elderly populations.

The National Sample Surveys of 1986-87, 1995-1996, and 2004, a comprehensive status report on older persons have shown that[6]:

- The burden of morbidity in old age is enormous.
- Non-communicable diseases (lifestyle-related and degenerative) are extremely common in older people irrespective of socio-economic status.
- Disabilities are very frequent which affect the functionality in old age compromising the ability to pursue the activities of daily living.[6]

However, very little effort has been made to develop a model of health and social care in tune with the changing need and time. The developed world has evolved many models for elderly care e.g., nursing home care, health insurance, etc. As no such model for older people exists in India, as well as most other societies with a similar socioeconomic situation, it may be an opportunity for innovation in health system development, though it is a major challenge. The requirements for the health care of the elderly are also different for our country. India still has family as the primary caregiver to the elderly and the scope for training this lot to provide support to the program. Presently elderly are provided health care by the general health care delivery system in the country. At the primary care level, the infrastructure is grossly deficient. As per The National Policy for Older Persons (NPOP), the Ministry of Health & Family Welfare was entrusted with the following agenda to attend to the health care needs of the elderly[7]:

- Establishing a geriatric ward for elderly patients at all district-level hospitals
- Expansion of treatment facilities for the chronic, terminal, and degenerative diseases

- Providing improved medical facilities to those not able to attend medical centers – strengthening of CHCs / PHCs / Mobile Clinics
- Inclusion of geriatric care in the syllabus of medical courses including courses for nurses
- Reservation of beds for the elderly in public hospitals
- Training of Geriatric Caregivers
- Setting up research institutes for chronic elderly diseases such as Dementia and Alzheimer[7]

The elderly suffers from multiple chronic diseases. They need long term and constant care. Their health problems also need specialist care from various disciplines e.g., ophthalmology, orthopedics, psychiatry, cardiovascular, dental, urology to name a few. Thus, a model of care providing comprehensive health services to the elderly at all levels of health care delivery is imperative to meet the growing health needs of the elderly. Moreover, the immobile and disabled elderly need care close to their homes.

Ayushman Bharat Health and Wellness Centres are envisioned to be providing healthcare service closer to the community with comprehensive approach. The expanded service packages are a part of this approach. Elderly care is an important package among these expanded services. A Primary Health Centre (PHC) that is linked to a cluster of SHC-HWCs would serve as the first point of referral for many disease conditions for the SHC-HWCs in its jurisdiction. In addition, the PHCs are also being strengthened as HWCs to deliver the expanded range of primary care services. The Medical Officer at the PHC would be responsible for ensuring that elderly care services are delivered through all SHC-HWCs in her/his area and through the PHC itself. This module would serve as a guide for Medical Officer in ensuring elderly care services.

Key messages

- With a comparatively young population, India is still poised to become home to the second largest number of older persons in the world.
- According to LASI Wave 1 survey of the older adult population undertaken under the aegis of Ministry of Health and Family Welfare, elderly aged 60 years and above share a disproportionately higher burden of chronic diseases than middle-aged adults.
- Elderly needs a comprehensive care addressing their physical, psychological, social, economic and spiritual health issues requiring the entire spectrum of primary, secondary and tertiary healthcare interventions.
- Elderly care is an integral part of the expanded package of services provided by the Ayushman Bharath – Health and Wellness Centers (HWC). A Primary Health Centre (PHC) - HWC that is linked to a cluster of SHC-HWCs would serve as the first point of referral for many disease conditions for the SHC-HWCs in its jurisdiction.

2 Ageing in Health and Disease - Understanding Elderly

What is ageing?

Ageing is an incremental and universal phenomenon comprising of gradual loss of cells leading to deterioration of organ functions in a human body. Ageing is an irreversible, unstoppable, time-dependent process that is neither detrimental nor good but should be assessed in the individual context, which would permit an individualized intervention to adjust the process to optimize functioning in the ageing body.

More than 300 theories exist trying to explain the concept of ageing. All these aspects were recently summarized as the "nine hallmarks of ageing," including the intercellular communication, genomic instability, telomere attrition, epigenetic alterations, loss of proteostasis, deregulated nutrient sensing, mitochondrial dysfunction, cellular senescence, and stem cell exhaustion.

Gerontology is multidisciplinary and is concerned with physical, mental, and social aspects and implications of ageing.

Geriatrics is a medical specialty focused on care and treatment of older persons. Although gerontology and geriatrics have differing emphases, they both have the goal of understanding ageing so that people can maximize their functioning and achieve a high quality of life.

Geroscience is an interdisciplinary field that aims to understand the relationship between ageing and age-related diseases.

With the increase of the life expectancy, the incidence of chronic age-related diseases (ARDs) has also increased.

What is intrinsic capacity?

WHO defines intrinsic capacity as the combination of the individual's physical and psychological capacities?

Functional ability is the combination and interaction of intrinsic capacity with the environment a person inhabits.

What is healthy ageing?

Ageing healthily is what we all aspire to. Healthy ageing is defined as the ability to maintain the functional capacities which allow you to do the things that you value.

Elderly displays a great variation in intrinsic capacity. Such diversity across the older age groups is a hallmark of ageing itself. One person may have an age difference of 10 years or more but may share the same level of intrinsic capacity and functional status. Thus, chronological age is a poor marker of health status.

Approximately 60% to 75% of elderly have no or minimal chronic disease and are functionally independent, approximately 20% to 35% are chronically ill (i.e., still independent or minimally dependent on activities of daily living but have multiple chronic disorders and take prescription drugs), and approximately 2% to 10% are frail (i.e., have multiple severe chronic disorders and are functionally dependent)

Facts about ageing

1. There is no typical older person

Older age is characterised by great diversity.

Some 80-year-olds have levels of physical and mental capacity that compare favourably with 20-year-olds. Others of the same age may require extensive care and support for basic activities like dressing and eating.

2. Diversity in older age is not random

Social and environmental environments in which the older adult lives play a great role in determining the various losses or strengths which accompany ageing.

3. The world's population is rapidly ageing

The number of people aged 60 years or older will rise from 900 million to 2 billion between 2015 and 2050 (moving from 12% to 22% of the total global population) with the most of it occurring in countries like India, China and Brazil.

4. Good health in older age is not just the absence of disease

The combination of a person's physical and mental capacities (known as intrinsic capacity) is a better predictor of their health and wellbeing than the presence or absence of disease.

5. Families are important but alone cannot provide the care many older people need

Long-term care is about more than meeting basic needs – it is about preserving older persons' rights (including to health), fundamental freedoms and human dignity.

Myths about ageing

1. Depression and loneliness are normal in elderly

These feelings are **not a normal part of ageing** as growing older can have many emotional benefits, such as long-lasting relationships with friends and family and a lifetime of memories

to share with loved ones. Elderly who seems to be depressed or lonely should receive referral and care to manage and treat these conditions.

2. Elderly can't learn new things

Not true. Elderly still can learn new things, create new memories, and improve their performance in a variety of skills. Learning new skills, creating new social connections will help to improve cognitive capacity in elderly.

3. All elderly will develop dementia

Dementia is not a part of normal ageing. Elderly who develops significant change in behaviour or thinking processes should get themselves tested and treated. Many of the causes for apparent cognitive impairment are reversible. Occasionally, forgetting your keys, or missing an appointment are signs of benign forgetfulness and are a part of normal ageing.

4. Elderly should take it easy and avoid exercise, so they don't get injured.

Inactivity will lead to a rapid loss of intrinsic capacity and independence in elderly adults. Elderly stand to lose the ability to do things on their own, more by sitting than they would by exercising.

5. Elderly is complainers

Although it may seem as if elderly complain a lot, **most elderly under-report symptoms** of diseases, leading to late presentations and increase in disease severity before treatment is initiated. Hence the health care team should be alert and should proactively assess elderly for suspected symptoms to allow early detection of diseases and prevention of complications.

Changes due to ageing in a healthy elderly

An understanding of the physiological changes in the ageing body is essential for healthcare workers to create mechanisms for healthy ageing. The table below describes some common physiological changes seen in the ageing elderly:

Human body systems	Changes occurring due to ageing in the human body	Clinical consequences of ageing
General Changes 1) Temperature regulation	▪ Decreased subcutaneous fat, decreased sweating, decreased shivering, decreased awareness to cold, less autonomic vasoconstriction, decreased metabolic rate, decreased heat generated in response to eating ▪ Medical conditions: hypothyroidism, malnutrition, chronic neurological conditions affecting self-care and temperature regulation ▪ Extrinsic factors: Poverty, poor housing	▪ Increased tendency to develop hypothermia/heat stroke

Human body systems	Changes occurring due to ageing in the human body	Clinical consequences of ageing
2) Fluid homeostasis	▪ Decreased total body water (up to 30% more body fat) ▪ Blunted thirst sensation, lower renal plasma flow, decreased urine concentrating ability, drugs (diuretics)	▪ Increased tendency to develop dehydration
Changes in organ systems 1) Cardiovascular system	▪ Reduced maximum heart rate ▪ Dilatation of the aorta ▪ Loss of myocardial cells and increase in cell volume ▪ Thickening and calcification of heart valves ▪ Reduced elasticity of conduit and capacitance vessels ▪ Degeneration of the conducting system of the heart	▪ Reduced exercise tolerance ▪ Widened aortic arch on X ray ▪ Widened pulse pressure ▪ Increased risk of pseudo hypertension ▪ Increased risk of postural hypotension ▪ Increased risk of atrial fibrillation and other arrhythmias
2) Respiratory system	▪ Reduced lung elasticity and alveolar support ▪ Increased chest wall rigidity ▪ Increased V/Q mismatch ▪ Reduced cough and ciliary action ▪ (Age related changes resemble emphysema)	▪ Reduced vital capacity and peak expiratory flow ▪ Increased residual volume ▪ Reduced inspiratory reserve volume ▪ Reduced arterial oxygen saturation ▪ Increased risk of infection (Decrease in host defense mechanisms due to ageing predisposes elderly to pneumonia, influenza and reactivation of tuberculosis)
3) Oral Cavity	▪ Atrophy of certain types of taste buds ▪ Loss of teeth (most elderly is edentulous due to neglect rather than any natural age-related process)	▪ Decreased threshold for certain tastes like sweet and sour. Elderly prefer sweet foods, tend to take more sugar in tea/coffee ▪ Difficulty in mastication (elderly prefer mashed/soft starchy foods ➡ leads to protein energy malnutrition and micronutrient deficiencies)
4) Gastrointestinal system	▪ Reduced salivary, gastric and pancreatic secretions ▪ Weakening of mastication (chewing) muscles and oropharyngeal muscles affecting swallowing ▪ Reduced lower esophageal sphincter tone ▪ Decreased gastric size reduced intestinal motility ▪ Impaired ability to metabolize and detoxify toxins	▪ Altered digestion of complex carbohydrates ▪ Elderly prefers frequent small meals rather than three large meals ▪ Increased incidence of dyspepsia, flatulence, and constipation

Human body systems	Changes occurring due to ageing in the human body	Clinical consequences of ageing
5) Endocrine system	▪ Decreased secretion and metabolism of thyroid hormones ▪ Impaired pancreatic beta cell function ▪ Worsening insulin resistance with decline in carbohydrate tolerance ▪ Decreased levels of growth hormones, estrogen, and androgens	▪ Increased risk of impaired glucose tolerance
6) Musculoskeletal system	▪ Sarcopenia: Loss of muscle mass (upto 80% loss in skeletal muscle mass occurs in non-active seniors) ▪ Decrease in weight, increase in body fat and decrease in height occurs (especially in women) ▪ Reduced body movements ▪ Loss of tensile strength ▪ Osteopenia (loss of bone mass occurs) ▪ Wear and tear of cartilages	▪ Muscle weakness and wasting ▪ Reduced grip strength ▪ Increased risk of falls and fractures ▪ Osteoporosis ▪ Osteoarthritis
7) Genitourinary and Reproductive system	▪ Decrease in production of female sex hormones ▪ Osteoporosis ▪ Structural changes in sex hormones, urinary tract and skin ▪ Loss of libido ▪ Enlargement of prostrate ▪ Loss of nephrons ▪ Reduced renal perfusion ▪ Reduced GFR, tubular function ▪ Decreased muscle power in abdominal and perineal muscles	▪ Urinary incontinence ▪ UTI ▪ Impaired fluid balance ▪ Increased risk of dehydration / fluid overload ▪ Impaired drug metabolism and excretion
8) Sense organs	▪ Vision- 1) Increased sensitivity to glare 2) Dry eyes 3) Impaired night vision 4) Reduced color discrimination ▪ Hearing- loss of high sound frequencies and impaired speech discrimination (presbyopia) ▪ Taste 1) Decrease of taste sensation 2) Atrophy of taste buds	▪ Presbyopia ▪ Poor night vision, difficulties with depth and color vision ▪ Increases risk of falls ▪ Loss of hearing (worsens cognitive decline) ▪ Alteration in taste leading to decreased pleasure of eating

Human body systems	Changes occurring due to ageing in the human body	Clinical consequences of ageing
9) Nervous system	▪ Decrease in brain mass and selective loss of cortical neurons ▪ Reduced taste and smell perception ▪ Anterior horn cell loss ▪ Dorsal column loss ▪ Impaired postural reflexes ▪ Increased reaction time ▪ Sleep: less sleep required, but sleep latency is increased	▪ Increased risk of delirium ▪ Reduced position and vibration sense ▪ Increased risk of falls ▪ Elderly takes longer to fall asleep than the young ▪ They wake frequently, and tend to be light sleepers (transition between sleep and wakefulness tends to be abrupt)
10) Blood Production	▪ Decrease in active bone marrow	▪ Anemia ▪ Cytopenia
11) Immune system	▪ Reduced reserve capacity	▪ Infections ▪ Cancers ▪ (Autoimmune diseases are less common)

Chronic diseases are not only the attribute of older subjects, but also of a considerable proportion of younger sufferers. Age may be at most a non-modifiable risk factor playing a role in the clinical appearance of these chronic diseases, but by no means their cause.

So again, what distinguishes ageing from a disease conceptually?

- First, the extent of ageing is systemic and complex while that of a disease is mostly limited.
- Ageing is an inevitable and universal process (concerning all humans living long enough). While most diseases are associated with individuals' susceptibilities/vulnerabilities, and most of them, even chronic, are preventable.
- The most important cause of ageing is time, while diseases usually have specific known causes. In other words, ageing is irreversible and progressive while diseases are reversible and discontinuous.
- Finally, and most importantly, ageing may be modulable but not treatable, while diseases are ultimately treatable even if we do not know presently how, which is only a question of progress of science.

So many essential differences clearly speak against the notion that ageing is "just another" disease. The effects of ageing must be considered during the diagnosis and treatment of elderly. We should not-

- Mistake pure ageing for disease (E.g., slow information retrieval is not dementia)
- Mistake disease for pure ageing (E.g., ascribe debilitating arthritis, tremor, or dementia to old age)
- Forget that elderly often have multiple underlying disorders (E.g., hypertension, diabetes, atherosclerosis) that accelerate the potential for harm

Key Messages

- Ageing is an irreversible, unstoppable, time-dependent phenomenon of gradual loss of cells leading to deterioration of organ functions in a human body.
- According to WHO, intrinsic capacity is the combination of the individual's physical and mental and psychological capacities. Elderly displays a great variation in intrinsic capacity.
- Functional ability is the combination and interaction of intrinsic capacity with the environment a person inhabits.
- Healthy ageing is defined as the ability to maintain the functional capacities which allow you to do the things that you value.
- Long term care of elderly is about more than meeting basic needs; it is about preserving older persons' rights (including to health), fundamental freedom and human dignity.

Approach to Evaluation of Elderly

3

As illustrated in the previous chapter, elderly often suffer from multiple health conditions and disorders at the same time. Even in the absence of disease, the functional decline during old age manifests as signs and symptoms which need to be evaluated and managed in a holistic manner to facilitate healthy ageing. A comprehensive geriatric assessment (CGA) is required to capture accurate details about health and functional capacity. This needs to start from the community level where frontline workers screen all elderly and identify anyone who needs further assessment. The elderly individuals so identified are then referred for a holistic assessment.

Risk assessment pathway

1. One of the tasks of the ASHA is to fill the Community Based Assessment Checklist (CBAC) for all people above 30 years of age in her village/community. The CBAC contains a section **(section B3)** which is ***specific to the elderly above 60 years of age***.

B3: Elderly Specific (60 years and above)			
	Y/N		**Y/N**
Do you feel unsteady while standing or walking?		Do you need help from others to perform everyday activities such as eating, getting dressed, grooming, bathing, walking, or using the toilet?	
Are you suffering from any physical disability that restricts your movement		Do you forget names of your near ones or your own home address	

   ASHA will identify all elderly in need of CGA ***if the answer to any of the questions in Part B3 of the CBAC is 'Yes'*** (attached in Annexure 1)

2. ASHA will inform MPW(F/M) who in-turn conducts a preliminary assessment of the identified elderly by completing **section 1 and 2** of *CGA*. This contains, apart fromregistration details, identification data of elderly person, chief complaints, past medical history, drug history, consumption of addictive substance, nutritional history, family history, social &spiritual history, personal history, home safety environment.

3. Following this, a **facility-based geriatric assessment** will be done by the CHO by completing **section 3 and 4** of *CGA which* containsscreening for geriatric syndromes, screening for other age-related problems, functional assessment, general examination systemic examination.

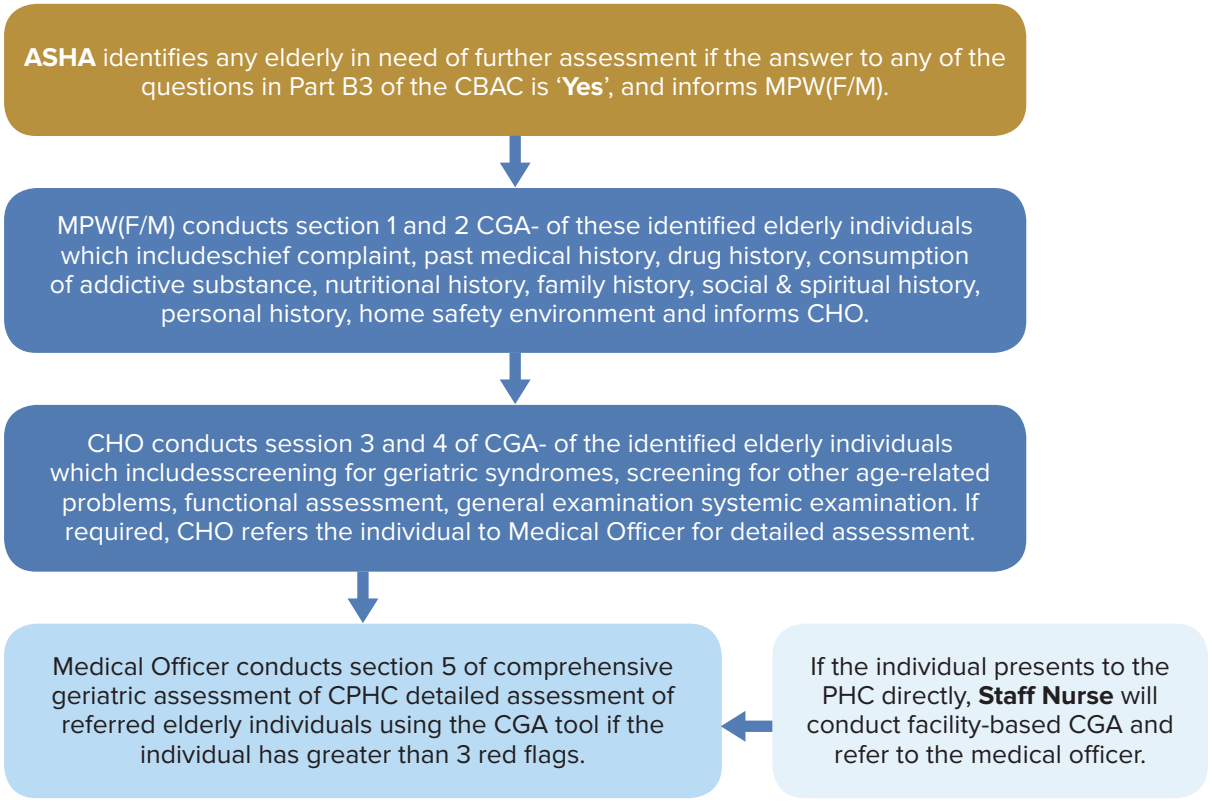
4. If the elderly individual presents directly to the SHC-HWC, or if the preliminary assessment has not been done by the MPW, the CHO will complete **section 1,2,3 and 4** of *CGA-*. If the MPW has already done the preliminary assessment, the **CHO will crosscheck section 1 and 2and undertake section 3 and 4** of *CGA-*. The CHO will then refer those elderly individuals who need specialized management to the medical officer or specialist, based on the assessment.

5. If an elderly individual directly reaches PHC, then the Staff Nurse will do **section 1,2,3 and 4** of *CGA (attached in the Annexure 2)* and then refer to the Medical Officer.

6. The Medical Officer will undertake detailed assessment using the ***CGA*** *(attached in the Annexure 2)* including screening for memory loss, screening for cognitive impairment, screening for depression, fall risk evaluation, incontinence assessment &management guide. The advanced assessment will be done only if the elderly individual has **greater than 3 red flags** stated below. In case the elderly individual has Upto three red flags, the Medical Officer will conduct relevant examination, investigations and management.

Comprehensive Geriatric Assessment (CGA) is a multidimensional, usually interdisciplinary,

Figure depicting flow of events



diagnostic process intended to determine a frail older person's medical, psychosocial, and functional capabilities and problems, **with the objective of developing an overall plan** for treatment and long-term follow-up. It differs from the standard medical evaluation in its

concentration on *frail elderly*, with their complex problems, emphasis on *functional status* and *quality of life*, and frequent use of *interdisciplinary teams and quantitative assessment scales.*

The goal of a CGA is to improve the quality of life and delay the need for dependence / long term care. CGA- recognizes that quality of life is a function of health status, socioeconomic status and environmental factors.

Who needs CGA?

There are no definite criteria to identify those patients who are most appropriate for geriatric assessment. However, some of the red-flags suggested below help to distinguish elderly who are most appropriate for a CGA from those who are too sick or too well to benefit from geriatric assessment.

Commonly, section5 of CGA is initiated when a patient develops a newly worsened health status or when a new risk factor is discovered. Elderly with **more than three of the following red flags** would benefit significantly from a CGA.

1. Age >75 years old
2. Needs help with Activities of Daily Living (ADLs)/Instrumental Activities of Daily Living (IADLs) by caregiver
3. Lives alone
4. History of falls
5. History of delirium/confusion
6. History of incontinence
7. More than 2 admissions to acute care hospital/year
8. Failure to thrive

What are the benefits of doing CGA?

- Decreases long term home placement,
- Minimizes the impact of “geriatric syndromes” such as cognitive impairment, urinary incontinence and falls.
- Enhances health and functional outcomes
- Reduces readmissions to hospital, and
- Facilitates effective discharge planning

Dimensions of Comprehensive Geriatric Assessment

Geriatric assessment focuses on the following four dimensions: physical health; functional status; psychological health, including cognitive and affective status; and socio environmental factors.

In the next section, we will review the specific checklists which will form part of the CGA-

Figure: Comprehensive Health Care of Elderly

Overview of Components of CGA		
Section	Contents under each section	Person responsible for each section
Section 1: Basic details	A. Registration details B. Identification data of elderly person	MPW(M/F)
Section 2: History taking	A. Chief complaint B. Details of complaints C. Past medical history D. Drug history E. Consumption of addictive substance F. Nutritional history G. Family history H. Social &spiritual history I. Personal history J. Home safety environment	MPW(M/F)
Section 3: 10-minute comprehensive screening	A. Screening for geriatric syndromes B. Screening for other age-related problems C. Functional assessment	CHO or SN at PHC

Overview of Components of CGA		
Section 4: Physical examination	A. General examination B. Systemic examination	CHO or SN at PHC
Section 5: Syndromic specific toolkit for assessment of the problem identified in section 3	A. Memory loss B. Screening for cognitive impairment C. Screening for depression D. Fall risk evaluation E. Incontinence assessment & management guide	MO at PHC
Section 6: Comprehensive Geriatric Assessment Report		CHO or SN/MO at PHC

Section 6: Comprehensive Geriatric Assessment Report

Acute Illness	
Comorbidity	
Geriatric Giants/Syndromes	
Other age-related problem	
Social problems	
Economic problems	
Suggested prescription modification	
ADVICE/CARE PLAN	

Following assessment of the elderly for the various geriatric syndromes and common ailments, the multidisciplinary team should conduct a care conference to prepare a care plan and execute the same. The final CGA report can be documented after the final assessment and then used as referral document to monitor progress during implementation and follow up of the older adult.

The care team should bear in mind that the entire checklist may not be filled during a single instance and may require multiple assessments as it may not be possible for the older adult to sit for a long time.

Key Messages

- Functional decline during old age manifests as signs and symptoms even in the absence of disease which need to be evaluated and managed in a holistic manner to facilitate healthy ageing.
- A comprehensive assessment of elderly is required to capture information about health and functional capacity.
- This needs to start from the frontline workers at the community-level through regular screening.
- The elderly identified to be needing further assessment are referred to a health facility for a comprehensive assessment.
- ASHA undertakes Community-Based Assessment Checklist (CBAC) of elderly aged 60 years and above using the section B of the Comprehensive Geriatric Assessment (CGA).
- If the answer to any of the questions in section B of CGA is 'YES', then the concerned MPW (F) conducts a preliminary assessment using the section 1 and 2 of CGA.
- A facility-based geriatric assessment will be done by CHO by completing sections 3 and 4 of CGA- consisting of screening for geriatric syndromes, screening for other age-related problems, functional assessment, general examination and systemic examination.
- If an older adult presents directly to the SHC-HWC, or if the preliminary assessment has not been done by the MPW, the CHO will complete section 1, 2, 3 and 4 of the CGA-.
- If an elderly individual directly reaches PHC, then the Staff Nurse will do section 1, 2, 3 and 4 of CGA- and then refer to the Medical Officer.
- The Medical Officer will undertake detailed assessment using the CGA including screening for memory loss, screening for cognitive impairment, screening for depression, fall risk evaluation, incontinence assessment & management guide.
- The advanced assessment will be done only if the elderly individual has greater than 3 red flags.

1. Age >75 years old
2. Needs help with Activities of Daily Living (ADLs)/Instrumental Activities of Daily Living (IADLs) by caregiver
3. Lives alone
4. History of falls
5. History of delirium/confusion
6. History of incontinence
7. More than 2 admissions to acute care hospital/year
8. Failure to thrive

- After completing the CGA-, a multidisciplinary team should conduct a care conference to prepare a Care plan and implement it. The final CGA report is used as referral document to monitor progress during implementation and follow up of the older adult.

Managing Common Elderly Problems

4

Conventionally, approaches to health care for older people have focused on medical conditions, putting the diagnosis and management of these at the centre.

While this approach remains important in management of several diseases, this approach tends to overlook difficulties with hearing, seeing, remembering, moving and the other common losses in intrinsic capacity that come with ageing.

With the rapidity of ageing globally, there is an imminent need to recognise and manage declines in intrinsic capacity so that the health care system can develop interventions to foster healthy ageing and support caregivers of elderly.

Principles of geriatric care

Care of the elderly differs from that of younger patients with regard to clinical decision making, clinical presentation, diagnosis, evaluation and even with desired outcomes.

We present below some key phenomenon which are exclusive to geriatric care and knowledge of these principles will help the diligent physician to avoid errors and improve efficiency of care in this very unique population.

1. Individuals become more dissimilar as they grow old
2. Abrupt decline in any system is always due to disease and not to normal ageing.
3. Ageing is accentuated by disease and attenuated by modification of risk factors
4. The Iceberg phenomenon: The presenting complaint is very often the ***tip of the iceberg*** and it often hides a multitude of underlying clinical conditions. E.g., A patient presenting with history of fall, may on evaluation be found to have dyspnea of exertion, leading to syncope due to hidden underlying congestive cardiac failure.
5. Weakest link: a new disease manifests itself through organ systems made most vulnerable by previous disease or alterations. E.g. A case of recent stroke, with left hemiparesis, presents with history of increasing weakness of the left upper and lower limb for past 2 days, with history of mild cough and fatigue 2 days back. On evaluation patient is found to have lobar pneumonia, no new changes in CT brain or in power of the affected limb. The patients tend to refer their symptoms during an acute severe illness to a vulnerable organ such as the hemiparetic limb in this example case.

6. Multiple pathology: The universal principle of clinical diagnosis – the law of parsimony where multiple symptoms lead to a single unifying diagnosis, often taught in clinical medicine does not apply to the evaluation of elderly. Multiple complaints often result from multiple co existing diseases and cannot often be attributed to a single diagnosis.

7. Missing symptoms - E.g., Angina/myocardial infarction in an older adult with osteoarthritis- may not manifest with chest pain, but may instead present as confusion, leading to late presentation as pulmonary edema secondary to congestive cardiac failure.

8. Masking of symptoms - E.g., History of fall and fracture of the neck of femur in an elderly female may mask a co existent hemiparesis due to an internal capsule infarct.

9. While younger patients always desire for cure and increased survival, older patients often choose comfort, independence, cognitive function over increased survival or cure. Hence it is important to determine the patients' goals of care before embarking on major treatment regimens which may cause more distress than benefit.

10. The chief complaint, which is the corner stone of history taking in younger patients loses much of its relevance in elderly. Chief/presenting complaints in elderly are vague, and nonspecific.

11. Disease presentation in elderly is atypical. Example: Urinary tract infection presents with confusion, incontinence, rather than with fever or dysuria. Nonspecific presentation maybe the earliest or only presentations in elderly.
    a. Onset of altered mental status, weight loss, fatigue, falls, dizziness, and fever are the most common atypical presentations seen in elderly.

12. Adverse consequences of diseases may be more frequent in elderly
    a. Prevention of disease is critical in elderly people
    i. Treatment of hypertension and Transient Ischemic Attack (TIA)- more cost effective and life-saving than treating Myocardial Infarction, Stroke and Pneumonia

13. Diseases manifest at an earlier stage (but patients often present late)
    a. Due to impaired physiological reserve
    b. Mild disease tips the balance
    c. Despite early symptoms, elderly seek health care much later

14. Small interventions produce dramatic results

GERIATRIC GIANTS

This term was first coined by Sir Bernard Isaacs in the 1960s to denote conditions which cause disability and impair function among elderly. He identified immobility, instability, incontinence and impairment of the intellect as the 4 'I' s. The term '*giants'* refers to the statistical frequency at which they occur in elderly and the huge personal suffering that it causes in them. His observation that if we look closely enough all the problems of elderly lead back to these four giants, is as relevant then as it is today. Over the last few decades, several new giants have been added to the list such as anorexia of ageing, sarcopenia and frailty.

1) Memory loss

Elderly presenting with history of memory loss are evaluated for evidence of major or minor neurocognitive disorder according to the DSM 5 criteria. The GPCOG serves as a good screening tool at the level of the PHC to identify elderly with cognitive impairment. (See GPCOG given in Section 5B) Many of these patients will need to be referred to a specialist for confirmation of the diagnosis of dementia. Very often delirium, depression or dementia appear similar in presentation and may confound diagnosis. Hence a detailed evaluation for depression and delirium is essential in all patients suspected to have cognitive impairment. These patients can be evaluated for depression using the 15 – 30-point Geriatric Depression Scale (Section 5d). Hypoactive and hyperactive delirium is assessed and monitored using various validated scales.

Dementia can be a risk factor for delirium. Delirium should be suspected in an inattentive patient with an acute onset of mental status changes with a fluctuating course with altered consciousness or with evidence of disorganized thoughts.

Older patients with depressive symptoms (i.e., hopelessness, excessive guilt, inertia and suicidality) may be suffering from pseudodementia (i.e., major depression). When the depression improves with treatment, the cognitive impairments may resolve.

During clinical evaluation confirm the diagnosis of dementia using validated tools (See GPCOG given in Section 5B). Chronic psychiatric disorders and life-long personality disorders may confound the diagnosis. Depression, schizophrenia, post-traumatic stress disorders, CNS neoplasms are other common differential diagnoses in dementia patients with behavioral and psychological symptoms of dementia (BPSD).

There are over 70 different types of dementia. Some of the most common types of irreversible dementia have been detailed below:

Dementia subtype	Early characteristic symptoms	Neuropathology	Proportion of dementia cases
Alzheimer's Dementia (AD)	Impaired memory, apathy and depression Gradual onset	Cortical amyloid plaques and neurofibrillary tangles	50-75%
Vascular dementia (VaD)	Similar to AD, but memory less affected, and mood fluctuations more prominent Physical frailty Stepwise progression	Cerebrovascular disease Single infarcts in critical regions, or more diffuse multi-infarct disease	20-30%
Dementia with Lewy Bodies (DLB)	Marked fluctuation in cognitive ability Visual hallucinations Parkinsonism (tremor and rigidity)	Cortical Lewy bodies (alphasynuclein)	<5%
Frontotemporal Dementia (FTD)	Personality changes Mood changes Dis-inhibition, Language difficulties	No single pathology – damage limited to frontal and temporal lobes	5-10%

The table below lists the commonly seen types of reversible causes for dementia. It is important to look for these treatable causes of dementia in elderly screened to have cognitive impairment as per the GPCOG checklist.

Causes of Reversible dementia

1. Delirium
2. Depression: so-called “Pseudodementia”
3. Electrolyte disorders (hyponatremia, hypercalcemia, etc.)
4. Hypothyroidism
5. Late onset Psychosis
6. Medication side effects (e.g., sedatives, anticonvulsants, antihypertensives, anticholinergics, first generation neuroleptics)
7. Alcohol overuse/misuse
8. Vitamin deficiencies (B-12, folate)
9. Normal Pressure Hydrocephalus (although few, if any actually reverse with shunting)
10. Brain tumor
11. Subdural Hematoma (SDH)
12. Sub-acute CNS infections (i.e., syphilis)

Stages of dementia

- Early stage: 1st or 2nd year of disease Often overlooked. May be overlooked as part of ageing. Features: language difficulties, getting lost in familiar places, mood changes, depression, loss of interest in hobbies
- Middle Stage: 2nd to 5th year Pronounced limitations, becomes restricting. Begin to lose ADLs. Becomes dependent for ADLs.
- Later stage: 5th year or after Total dependence for all activities. Becomes bed ridden/ chair bound. Risk of death due to complications such as pneumonia/ UTI/Decubitus Ulcers/ Malnutrition. At this stage patient will need the support of palliative care services.

Behavioral and psychological symptoms of dementia (BPSD)

Another key symptom which requires the support of the health care team is the presence of Behavioral and psychological symptoms of dementia (BPSD). These symptoms form the burden of care in dementia and often lead to caregiver fatigue, stress and elder abuse. Agitation (definition=a range of purposeless verbal, motor behaviors that put the patient or others at risk of harm) is the most common problem and is seen in up to 75% of patients with dementia. The other common symptoms of BPSD that are seen are wandering, depression, repeated stories and statements, psychosis, hoarding &rummaging, screaming, aggression, violence and hypersexuality.

Management of dementia at the PHC-level

- Educating care giver and providing long term support to care giver
- Rule out precipitating factors like delirium or fecal impaction
- Encourage the person to listen to music
- Recall past events
- Encourage outdoor walks and bright light exposure

As part of follow up care advise the family care givers

- Ensure protection from harm
- Maintenance of independence in ADL as long as possible
- Encourage communication
- Support the person to maintain daily care routine
- Avoid arguments and physical restraints
- Divert the person's attention from things that could trigger negative emotions
- Engage the person in recreational activities
- Emotional support by the family members
- Provide psychosocial support to family care giver

When to refer to a higher center?

If a patient scores 0-4 on GPCOG indicating cognitive impairment, refer to higher centre.

2) Depression

Depression is the most common psychiatric illness in the elderly. Although common, it is not a natural part of ageing. The prevalence of depression in community dwelling elders ranges from 8% to 15%; it raises to as much as 30% in those in long-term care facilities. Depression and suicide are common in the elderly (especially older males; those over 75, have the same risk of suicide as 20–24 years old depressed males).

Bereavement or grief reaction is commonly misdiagnosed as depression. A normal grief reaction after the death of a spouse or a loved one lasts about 2 months in time, with the mourning process being complete in <2 years. Feelings of sadness and preoccupation with the deceased are not helped by anti-depressant medications during this time of mourning.

Management of depression in elderly at the PHC level

Counseling is effective especially in mild to moderate depression.

- Exercise Regularly (leisure walk, yoga and meditation)
- Practice Good Sleep Hygiene (regular time for going to bed and waking up, no naps in the day and no electronics an hour before going to bed)
- Eat a healthy diet rich in vegetables, fruits and
- Social connectedness (talk to friends, engage in positive activities, join a support group)

When to refer to a higher centre?

- Refer to a higher center for confirmation of diagnosis and management
- If suicidal/homicidal OR refusing to eat/drink
- If not responding to antidepressants (8-12-week trial at appropriate dose)
- Uncertain diagnosis
- Bipolar disorder present
- Electroconvulsive therapy safe in elderly- if indicated

3) Incontinence

Involuntary loss of urine or stool in sufficient amount or frequency to constitute a social and/or health problem.

Urinary incontinence

Urinary incontinence is defined as the involuntary loss of urine. It is a heterogeneous condition that ranges in severity from dribbling small amounts of urine to continuous urinary incontinence. The prevalence increases with age, but it is not a part of normal ageing. It affects about 25–30% of community dwelling older women and 10–15% of community dwelling older men, 50% of nursing home residents; often associated with dementia, fecal incontinence, inability to walk and transfer independently.

Reversible conditions associated with urinary incontinence

Potentially reversible causes of urinary Incontinence ('DIAP-PERS' mnemonic).
D – Delirium
I – Infection
A – Atrophic vaginitis or urethritis
P – Pharmaceuticals
P – Psychological disorders
E – Endocrine disorders
R – Restricted mobility
S – Stool impaction

Common medications known to cause incontinence are listed in the boxes below

Medications causing incontinence
▪ Diuretics
▪ Anticholinergics: Antihistamines, antipsychotics, antidepressants
▪ Sedatives/hypnotics
▪ Alcohol
▪ Narcotics
▪ α-adrenergic agonists/antagonists
▪ Calcium channel blockers

Categories of incontinence

- **Urge incontinence:** Other Names: Detrusor hyperactivity, detrusor instability, irritable bladder, spastic bladder.
  - Most common cause of UI >75 years of age.
  - Abrupt desire to void cannot be suppressed.
  - Usually, idiopathic.
  - Causes**:** Infection, tumor, stones, atrophic vaginitis or urethritis, stroke, Parkinson's disease, dementia.
  - **Stress incontinence**
  - Most common type in women <75 years old.

- Occurs with increase in abdominal pressure, cough, sneeze, etc.
- Hypermotility of bladder neck and urethra; associated with ageing, hormonal changes, trauma of childbirth or pelvic surgery (85% of cases).
- Intrinsic sphincter problems; due to pelvic/incontinence surgery, pelvic radiation, trauma, neurogenic causes (15% of cases).

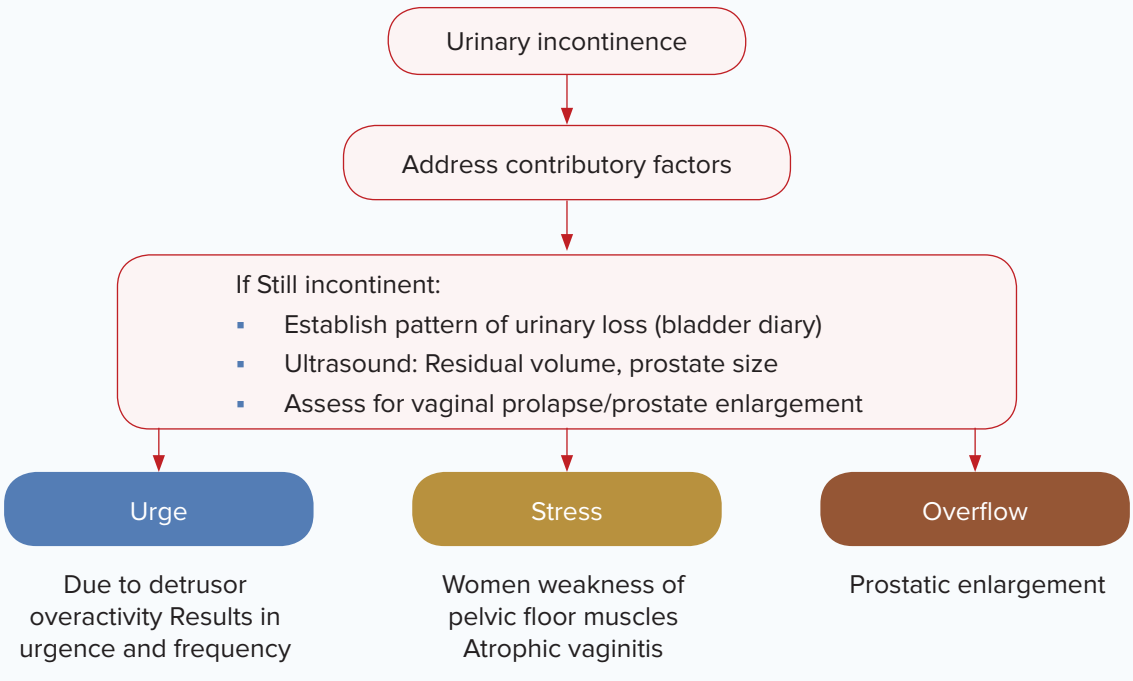
◈ **Overflow incontinence**

- Over distention of bladder.
- Bladder outlet obstruction; stricture, BPH, cystocele, fecal impaction.
- Non-contractile bladder (hypoactive detrusor or atonic bladder); diabetes, MS, spinal injury, medications.

◈ **Functional incontinence** It results when an elderly person is unable or unwilling to reach a toilet on time. Recognizing and removing these barriers to continence are critical. Factors such as inaccessible toilets and psychological disorders also can exacerbate other types of persistent incontinence. Elderly may also have co existent lower urinary tract disease which may contribute to the incontinence.

Management of urinary incontinence at the PHC level;

- Laboratory Diagnosis:
  - Primary care centers
  - Urine examination is routinely done to see for pus cells, RBC's, albumin, casts, glucose. (Note: to collect early morning mid-stream urine sample)
  - Blood test: Glucose
- Non-pharmacological management
  - Behavioral therapy: Patient education on Bladder training, scheduled bathroom trips, limitation of fluid intake in daytime, avoiding strenuous exercise, limiting coffee, tea, carbonated drinks and practicing relaxation techniques, Pelvic floor muscle strengthening exercises.
- Medications:
  - Antibiotics: UTI is a common cause of incontinence. Treat with antibiotics.



Lie on the back with setting the legs apart as the width of shoulder. Relax the lower abdomen and the hips and contract the pelvic muscle for 5 sec.

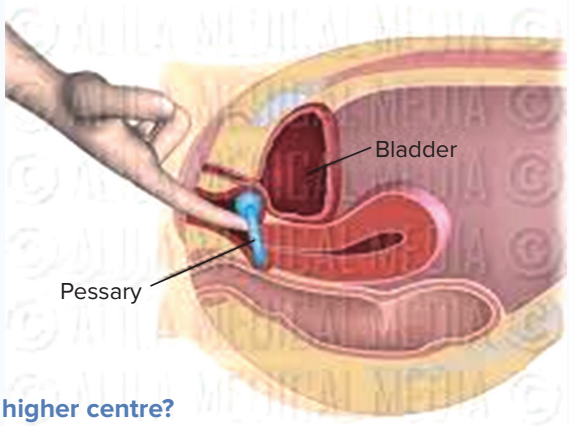
Lie on the back with bending the knees. Lift up the hips slowly with taking in breath and contract the pelvic muscle for 5 sec. Subsequently weaken the power with letting the shoulder, the back, and the hips in order down on the floor.

Put the hands on the knees. Round the back with taking in breath and contract the pelvic muscle for 5 sec. Subsequently return to the original state with giving out breath.

Sit and turn the tiptoes upward. Stretch the tiptoes straightly with contracting the pelvic muscle for 5 sec.

Sit cross-legged and contract the pelvic, the anus and the vagina slowly.

Stand with the elbows close together and balance the body using a chair or a desk. Exercise with lifting up the heels.



When to refer to a higher centre?

- Any incontinence apart from stress and functional needs to be evaluated at secondary hospital before starting medication
- Mismatch between symptoms and test results
- When complex testing is required like video urodynamic studies
- Voiding dysfunction
- When surgical treatment is required.
- Communications about myths with clarifications drinking less liquid will cure urinary incontinence.
- Untrue. Limiting your liquid intake can lead to more concentrated urine, which can irritate your bladder and heighten your Urinary Incontinence and also chances of UTI.
- Sounds or thoughts can trigger trouble
- True. It's not only coughing, laughing, or jumping up and down that can cause people to leak urine; about 3 out of 10 people with incontinence have urge incontinence, which is different from stress incontinence.
- Only older people get it
- Untrue. Although incontinence risk goes up as you age, anyone can experience symptoms at any time.
- Follow up and expected progress including referral
- Behavioral therapy (bladder training and pelvic muscle exercises) is effective in reducing urge and stress UI. Therefore, regular follow up is needed.

- Secondary care centres/ Tertiary centres
- Urine cultures, Renal function tests
- **Pelvic ultrasound: Focus on Kidney, Ureters Bladder, Prostate and genitalia and postvoid residual urine volume**
- **Other tests: Urodynamic testing, cystogram, cystoscopy**
- Differential Diagnosis and Treatment
- Management
- **Anticholinergic Drugs-**Treatment of urge UI and overactive bladder is **O**xybutynin
- Other Agents: Dicyclomine, Imipramine
- Estrogen vaginal cream, ring, or patch is used in post-menopausal women
- 3. Medical devices
- **Pessary**
- This is an intra-vaginal device that supports the bladder, and useful in stress incontinence.
- 4. Surgery
- Recommended when all other measures fail

Communications about myths with clarifications drinking less liquid will cure urinary incontinence.

- Untrue. Limiting your liquid intake can lead to more concentrated urine, which can irritate your bladder and heighten your Urinary Incontinence and also chances of UTI.
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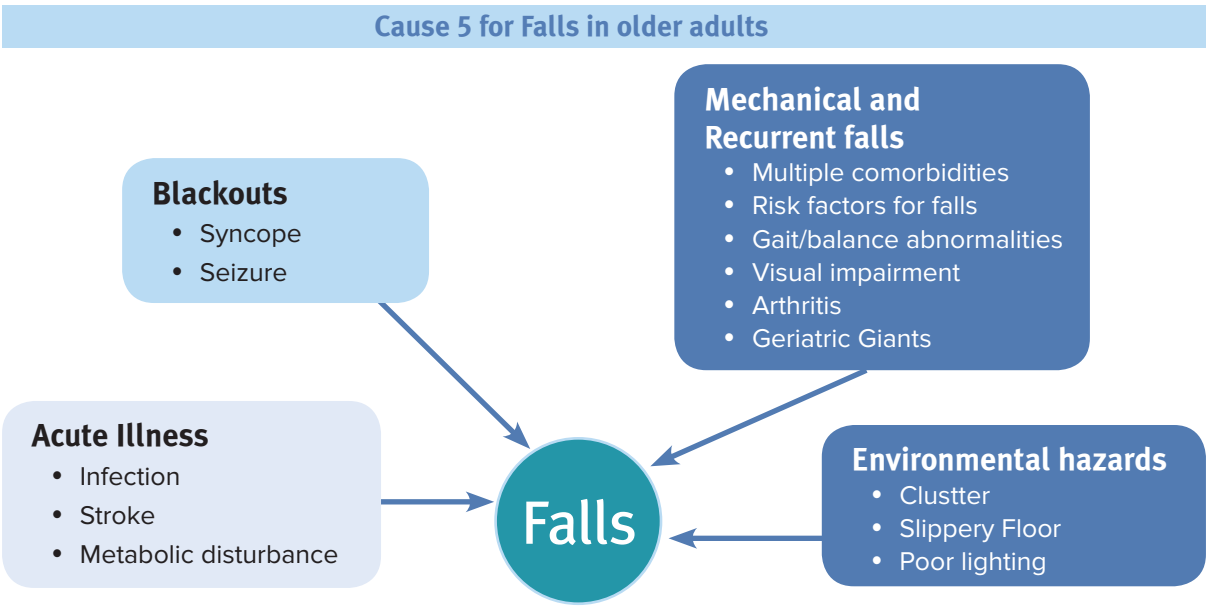
References

1) Harrisons Principle of Internal Medicine 18th edition
2) Davidsons Principles and Practice of Medicine 20th edition
3) CMDT 54th edition

4) Falls/mobility

Falls in the outpatient setting are usually defined as "coming to rest unintentionally on the ground or lower level, not due to an acute overwhelming event" (e.g., stroke, seizure, loss of consciousness) or external event to which any person would be susceptible. Falls are a major threat to the quality of life in elderly and can play a significant role in reducing intrinsic capacity in an older adult. Fear of fall which develops in persons who fall, can also reduce independence and cause limitation of activities, independent of injury.



Management of falls

SCREENING TEST

The following are the simple tests of functional mobility to assess gait and balance. These tests are simple can be done in outpatient setting and takes less time. They identify the subjects at potential risk of falls, for whom active interventions like exercises for improving muscle strength and balance can be advised to prevent a fall or prevent a future fall in a recurrent faller.

Timed up and Go test (TUG):

Where patient is made to sit in a chair without arms and the time taken to rise from chair, walk a distance of 3 meters up and down i.e., 6 meters in total is calculated.

Gait speed:

Time taken for the patient to walk 10 m distance is calculated If TUG is more than 15 sec and gait speed for 10 meters distance is more than 13 sec, it predicts recurrent falls risk.

Goals for fall risk management are:

1. Reduce the chances of falling,

Management of fall risk at the PHC level

- High intensity muscle specific lower extremity exercises, improves strength, walking speed and other physical measures.
- Endurance
- Endurance training can be done as an individual or group basis
- Vitamin D supplementation and calcium intake
- Home and environment adaptation to reduce clutter, slippery mats, good lighting
- Use of appropriate assistive devices
- Medication optimization (reduce drugs causing, sedation, orthostatic hypotension etc.)
- Identify and manage acute illnesses/neurological diseases /visual/hearing problems which are likely to cause falls.

2. Reduce the risk of injury,
3. Maintain the highest possible level of mobility, and
4. Ensure ongoing follow up.

5) Polypharmacy

It is commonly defined as the use of ≥5 drugs or any combination of drugs which have adverse drugs interactions. Polypharmacy is often the cause of much of the morbidity seen among elderly. Due to altered pharmacokinetics and pharmacodynamics, and the presence of multimorbidity drugs prescribing in elderly is complex and needs regular review. There is an increased incidence of adverse drugs reactions, prescribing errors and poor adherence among elderly. Adverse drugs reactions are a common cause for hospitalizations in elderly. Prescribing cascades (where an adverse drug reaction is confused for a new symptom and a new drug is started for the same), drug-drug interactions and inappropriate drug doses are some of the preventable adverse drug effects in this population.

6) Frailty

Frailty is the decline in physiological reserve seen commonly among the elderly, resulting in adverse medical outcomes and increased morbidity and mortality among them. The methods to assess frailty are varied and often lack consensus. The commonly used Fried phenotype, describes frailty as combination of decline in 5 domains namely- unintentional weight loss, self-reported exhaustion, reduced gait speed, decreased physical activity and reduced grip strength. Presence of ≥3of the above listed factors indicate the presence of frailty.

Frailty is associated with increased risk of falls, increased mortality and morbidity among the elderly.

Clinical features:

Dr. Linda Fried proposed operational model of frailty as:

Low Grip strength, slow walk time, self-reported exhaustion, decreased physical activity and unintentional Weight loss >10 pounds in one year.

Scores:

1-3: prefrail

>3: frail

1. Grip strength

   Grip strength can be measured by handheld dynamometer. The cut off for maximum grip strength (in any hand) in >70 years for male were 15and for females were 6 in Kg, respectively Indian population.

2. Gait speed

   Defined in Indian population as <0.6 m/sec.

2. Exhaustion, assessed by two questions answered as everything I did was on effort, or I could not get going.

3. Physical activity by questionnaire

Men (kcal/wk. <383)

Women (kcal/wk. <270)

4. Weight loss

   Unintended weight loss of >10 pounds in the past year

Most obvious physical expression of frailty is Sarcopenia., decrease in muscle mass and strength. The goal should be to institute supportive intervention early.

Management of frailty at PHC level

- Regular exercise of any form by physiotherapist *(Refer to Chapter 5 and page 66 in the section Exercise)*
- Nutritional supplements by dietician
- Prescription of Calcium and Vit D
- Multimodal therapy of nutritional supplementation with physiotherapy as per endurance and health condition is required.

When to refer to a higher centre?

- It is essential to identify vulnerable frail individuals before adverse outcomes occur
- Identification of secondary frailty resulting from latent undertreated or end stage diseases like CCF can cause catabolic waste and weight loss
- Identify other conditions which cause wasting and responsive to therapy like diabetes, thyroid disease, tuberculosis, chronic infections, undiagnosed cancer, temporal arteritis, depression, psychosis.
- Evaluation should include factors which may exacerbate vulnerability to adverse outcomes of frailty like medication, hospitalization, surgery, and other stresses
- Patients with the above-mentioned conditions should be referred to a geriatric healthcare team for evaluation and further management.

Key points

- Frailty is a pre-disability state
- Causes of frailty are multifactorial
- Early recognition and intervention can prevent adverse outcomes
- Resistance exercise and good nutritional supplements are the corner stones in the management of primary frailty

7) Failure to thrive

Failure to thrive is a syndrome of weight loss, decreased appetite, poor nutrition and inactivity, often accompanied by dehydration, depressive symptoms, impaired immune function and low cholesterol “. It affects following 4 main domains:

Assessment of failure to thrive

Physical examination: look for pallor, glossitis, angular cheilitis, dry brittle hair

Anthropometric examination: Body Mass Index may not be a good indicator since total body mass is mostly replaced by adipose tissue. Waist Hip ratio better predicts obesity than BMI.

Management of failure to thrive at the PHC level

- Non – pharmacological treatment
- Encourage family members to make time for elders and unhurriedly feed them
- Patients' food preferences should be respected and encouraged
- Providing flavor enhanced meals
- If the patient has swallowing and chewing problems cook and mash foods accordingly
- Simple exercises like daily walking may improve appetite in elderly. Encourage activity
- Nutritional supplements between meals
- Small frequent meals

When to refer to a psychiatrist?

- If patient has depression psychiatrist evaluation should be sough

Mini Nutritional Assessment (MNA): This can be used to screen for malnutrition. Score is given for weight loss, level of decrease in food intake, mobility, recent acute illness, Neuropsychological problems, and BMI.

Lab investigations: complete blood count, Blood urea, serum creatinine, Blood glucose, Thyroid profile all may give a clue to the underlying cause. Serum albumin may indicate the severity of malnutrition. Serum prealbumin indicates acute change in nutritional status.

Imaging studies can be done when there is a clue to underlying malignancy

8) Sarcopenia

It is an age-related loss of muscle mass. It increases the risk for falls, fractures, dependency, use of hospital services, institutionalization, poor quality of life, and mortality.

Assessment of sarcopenia: 5 item SARC-F score. A score of ≥4 is indicative of sarcopenia.

Management: 1. Protein supplementation, 2. Resistance exercises

Given below is the SARC-F questionnaire used to detect sarcopenia in elderly:

TABLE : **THE SIMPLE "SARC-F" SARCOPENIA QUESTIONNAIRE (0-10 POINTS)[3]**

Component	Question	Scoring
Strength	How much difficulty do you have in lifting and carrying 10 pounds?	None = 0 Some = 1 A lot or unable = 2
Assistance in walking	How much difficulty do you have walking across a room?	None = 0 Some = 1 A lot, use aids, or unable = 2
Rise from a chair	How much difficulty do you have transferring from a chair or bed?	None = 0 Some = 1 A lot or unable without help= 2
Climb stairs	How much difficulty do you have climbing a flight of 10 stairs?	None = 0 Some = 1 A lot or unable = 2
Falls	How many times have you fallen in the last year?	None = 0 1-3 falls = 1 4 or more falls = 2

9) Anorexia of ageing

This is the multifactorial decrease in appetite and/or food intake that occurs in late life. It is a specific geriatric syndrome that can lead to malnutrition if not appropriately diagnosed and treated. It is characterised by the following key features:

- Body wasting (cachexia and sarcopenia)
- poor endurance,
- reduced physical performance,
- slow gait speed, and
- impaired mobility

Management of Anorexia of Ageing at the PHC level

- Address reversible contributing factors/ comorbidities
- Prescription review
- Improve food texture and palatability
- Protein supplementation – 1- 1.2 gm/kg body weight

10) Elder abuse

Elder abuse is defined ***as any action or inaction*** that threatens the wellbeing of an older person. Categories of abuse:

- *Physical & Sexual abuse*

Any act of violence or rough treatment, whether or not actual physical injury results i.e., slapping, punching, kicking, pinching, burning, restraints.

- *Emotional and psychological abuse*

Any act that diminishes dignity and self-worthi.e. confinement, isolation, verbal assault, humiliation & infantilisation.

- *Financial Abuse & material exploitation*

Any improper conduct that results in monetary or personal loss for the older adult.

- *Abandonment & Neglect*

Active Neglect - intentional (deliberate) withholding of basic necessities and/or care for physical or mental health.

Passive Neglect - not providing basic necessities and care. There is no conscious attempt to inflict distress.

- *Medical abuse*

Any medical procedure or treatment done without the permission of the older person or their Power of Attorney or substitute decision maker.

Who are the Abusers?

- Domestic elder abuse (caregivers/distant relatives)
- Institutional elder abuse
- Self-abuse/neglect

Common reasons for Abuse

- Caregiver stress/burnout
- Impairment of Dependent Elder (i.e., dementia)
- Transgenerational "Cycle of Violence"
- Material or other gain

About half of the elderly population in the country face some form of abuse, more in case of women than men.

Indicators of Abuse

- Unexplained physical injury
- Unexplained malnutrition/ decubitus ulcers
- Unkempt Appearance
- Failure of a medical condition to improve or the continued presence of pain
- Fear of certain family members, friends or caregivers
- The older person is largely ignored or treated passively by caregivers or others
- Caregivers who are entirely ignorant of the medical problems or treatments for the older person they are directly caring for.

Management of anorexia of ageing at the PHC level-

- Interdisciplinary team assessment (Involve social workers)
- Interview patient alone
- Act in best interests of the patient

Elder abuse can be screened for using a standardized questionnaire – the EASI: (Elderly Abuse Suspicion Index)

1) Have you relied on people for any of the following: bathing, dressing, shopping, banking, or meals? - 1. Yes 2. No 3. Did Not Answer
2) Has anyone prevented you from getting food, clothes, medication, glasses, hearing aids or medical care, or from being with people you wanted to be with? - 1. Yes 2. No 3. Did Not Answer
3) Have you been upset because someone talked to you in a way that made you feel shamed or threatened? - 1. Yes 2. No 3. Did Not Answer
4) Has anyone tried to force you to sign papers or to use your money against your will? - 1. Yes 2. No 3. Did Not Answer
5) Has anyone made you afraid, touched you in ways that you did not want, or hurt you physically? - 1. Yes 2. No 3. Did Not Answer
6) Doctor: Elder abuse may be associated with findings such as: poor eye contact, withdrawn nature, malnourishment, hygiene issues, cuts, bruises, inappropriate clothing, or medication compliance issues. Did you notice any of these today or in the last 12 months? - 1. Yes 2. No 3. Not sure

Note: Q.1-Q.5 asked of patient; Q.6 answered by doctor (Within the last 12 months)

All six questions should be queried in the order in which they appear in the EASI. A response of YES on one or more of questions 2-6 should raise concern about mistreatment.

11) The Cardiovascular System

Aging represents a convergence of declining cardioprotective systems and increasing disease processes that are fertile ground for the development of heart failure. With 50% of all heart failure diagnoses and 90% of all heart failure deaths occurring in the segment of the population over age 70, heart failure is largely a disease of the elderly.

Clinical Features

Stroke symptoms presents as sudden onset of weakness of the part of the body supplied by the affected cerebral vessel. The symptom depends on the area of the brain affected. It presents as hemiplegia and muscle weakness of face, speech disturbance (Dysarthria or Dysphasia), numbness of the affected limbs and initial flaccidity followed by spasticity. Associated symptoms include loss of consciousness, headache, vomiting due to raised intracranial pressure (hemorrhage) from blood compressing the brain.

Stroke association proposed FAST (face, arm, speech and time), for early recognition of stroke and hospitalization.

Diagnosis

Detailed clinical history including H/O risk factors

- Predisposing Risk Factors-

Non-Modifiable	Modifiable
▪ Age: Stroke risk increases with increasing age (strongest risk factor) ▪ Sex: Males>Females ▪ Family History ▪ Previous Stroke or TIA: Risk of recurrence is about 10-16% in the first year ▪ Other vascular diseases	▪ Smoking ▪ Alcohol Intake ▪ Obesity ▪ Physical Inactivity ▪ Diet ▪ Hypertension ▪ Diabetes ▪ High Cholesterol ▪ Atrial Fibrillation ▪ Carotid Stenosis

Management of Stroke at the PHC level

- Exercise regularly. Exercises should be prescribed according to convenience of the patient. Brisk walking, stretching and balance exercises and yoga are suitable for older persons.
- Avoid smoking and alcohol consumption.
- Follow a heart healthy diet – low in saturated fats, sugars and salt.
- Maintain healthy body weight.
- If diabetic or hypertensive, keep the disease under control by taking regular medication and following lifestyle advice
- Evaluation of
  - Level of arousal and orientation, inattention
  - Vital signs: Airway, Breathing, Circulation (ABC)-Emergency Referral

When to refer to a higher centre?

- When the following symptoms are visible, refer to a secondary care centre-
  - FACE-One side of the Face is drooping
  - ARMS-Arm or leg weakness
  - SPEECH-Speech Difficulty
  - TIME-Time to call for ambulance immediately

12) Respiratory system

As discussed previously, older persons are at greater risk of developing lung disease due to various physiological changes in the respiratory system.

Management of respiratory issues at the PHC level

- **Avoid smoking:** Smoking is harmful for lungs and will cause them to age more quickly. It is a major cause of lung cancer and chronic obstructive pulmonary disease (COPD).
- **Right amount of exercise for age and capabilities:** Regular exercise can help improve the lung function.
- **Movement:** Staying in bed or sitting for long periods allows mucus to accumulate in lungs and puts lungs at risk for infections. This is particularly true after surgery or illness.
- **Avoid pollution:** As much as possible, minimize exposure to pollution — indoors and outdoors. Indoor pollutants include things like secondhand smoke and chemicals in the home and workplace. Outdoor pollution can vary from day to day, so checking the pollution forecasts and avoiding exercising outside when pollution levels are up. Also exercising near high-traffic areas, where pollution levels can be high must be avoided.
- **Preventing infections:** Keeping infection at bay, by washing your hands often, avoiding crowds during cold and flu season, getting the flu vaccine every year, and practicing good oral hygiene.
- **Pneumonia in the elderly:** Pneumonia is a common cause of morbidity and mortality in elderly. Emphasis should be placed on early detection and effective management using appropriate antibiotics as per national guidelines. Vaccination for pneumococcus and influenza will help reduce morbidity significantly in this population.
- **Tuberculosis in elderly:** Standardized TB medications are prescribed to elderly with proven tuberculosis. The challenges to management of TB in elderly begin with difficulty in diagnosis, prevalence of extrapulmonary TB, increased incidence of adverse effects to Antitubercular drugs and challenges to managing prolonged course of drug therapy in older with multiple other diseases and medications.

13) Gastrointestinal System

Old age brings many health challenges including an increase in Gastrointestinal (GI) disorders. Of course, problems with digestion can occur at any age. Yet nearly 40% of elderly have one or more age-related digestive symptoms each year. As you get older, new stomach symptoms as well as more serious digestive system disorders can crop up.

Some common disorders of the GI tract and their ill effects are listed in the table:

Sr. No.	Disorder	Ill effects
1	Hiatus Hernia and Gastro-esophageal reflux	Pyrosis and sour regurgitation, weight loss, decreased visceral sensation
2	Gastropathy and peptic ulcer	Nausea, vomiting, diarrhea, slow Internal bleeding leading to anemia, black or bloody stools
3	Non-ulcer dyspepsia	upper abdominal discomfort or burning, nausea, vomiting, belching, bloating and feeling uncomfortably full after meals, gastrointestinal dysmotility

Sr. No.	Disorder	Ill effects
4	Gastrointestinal tract Cancer	frequent heartburn, bloody stools, Lymphoma, excessive fatigue, *H. pylori* bacterial infections, stomach polyps, tumors in other parts of the digestive system
5	Constipation	Fecal impaction, mega colon, urinary infection and incontinence and confusion state
6	Gastrointestinal malignancy	Effective screening of suspected and high-risk individuals and evaluation of anemia in elderly should be done to ensure early diagnosis.

Managing disorders of the GI tract in old age at the PHC level:

- Weight loss is advised if the person is obese
- Minimize fats, alcohol, caffeine, nicotine at night
- Avoiding eating at least 3 hours before bedtime
- Sleeping with the head of the bed elevated by 6 inches
- H2 receptor antagonists or PPIs and prokinetic drugs administration
- Testing for H. pylori should be performed in all individuals with a history of peptic ulcer disease or evidence of gastritis, duodenitis, or gastric atrophy or when an ulcer or erosion is identified during endoscopic examination.
- For people over 50 years of age, a colonoscopy examination should be considered every three to five years.

- Colorectal examinations are recommended for screening for cancer. Digital rectal examination and checking of stool for occult blood should be a part of routine health checks for people over 40 years of age.
- Viral screening for sores and other signs of cancer should be done, especially among persons who are at high risk from smoking, chewing tobacco, and drinking alcohol or especially hot beverages regularly.

14) Endocrine System

Common endocrine problems due to old age are listed in table

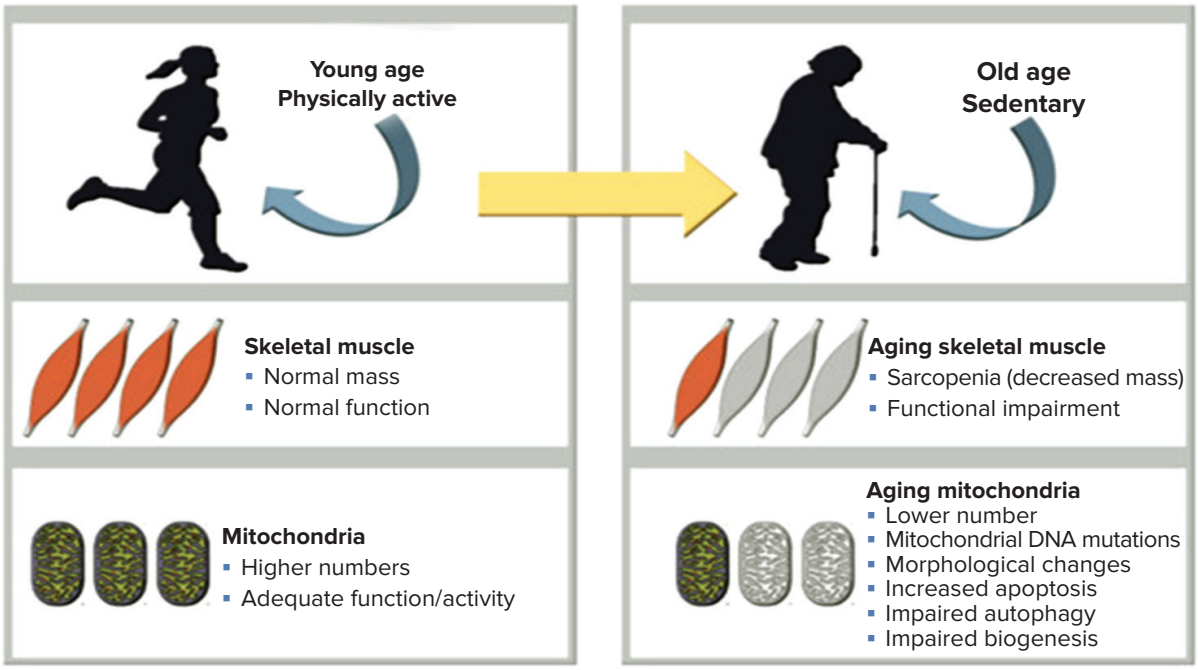
Sl No.	Disorder	Ill effects
1	Diabetes mellitus	retinopathy, nephropathy and neuropathy, vascular and neurological complications, hyperglycemia, dementia.
2	Hypothyroidism	Obesity, deafness, coarse skin, cold intolerance, hoarse and slurred voice, fatigue, arthralgia, entrapment neuropathy and a low cardiac output state with bradycardia
3	Hyperthyroidism	functional decline, anorexia, weight loss, fatigue, cardiac arrhythmia and cardiac failure

15) Musculoskeletal System

The density of bones begins to diminish in men and women at the age of 30. This loss of bone density accelerates in women after menopause. As a result, bones become more fragile

and are more prone to fracture, especially in old age. Sarcopenia also adds to the process of musculoskeletal breakdown.

Figure: Sarcopenia in ageing



Common diseases of the musculoskeletal system due to ageing

Disease	Consequences
Osteoarthritis	Pain, Stiffness, Bony swelling and crepitus Loss of movement Instability, Loss of function
Rheumatoid arthritis (RA)	Joint pain with tenderness and stiffness, painful swelling, bone erosion and joint deformity.
Osteoporosis	Fractures of the hip, spine, and wrist, low bone mass and structural deterioration of bone tissue, Risk of fall

Managing musculoskeletal diseases at the PHC level

- Taking diet rich in calcium and vitamin D, avoiding tobacco, alcohol and excess of tea and coffee, Brisk physical exercise may help.

When to refer to a higher center?

Refer if the patient for any definitive diagnosis and management

What is done at the secondary health center?

- As osteoarthritis is degenerative disease, treatment of osteoarthritis includes symptomatic relief with analgesics and physiotherapy to strengthen the muscles and improve balance.
- Rheumatoid Arthritis treatment: Analgesia with NSAIDs, modification of the course of the disease with disease-modifying drugs (methotrexate, chloroquine, corticosteroids), rehabilitation and corrective surgery if required. Monitor for adverse drug reactions.

- Various drugs used in the treatment and prevention of osteoporosis are: Anti-resorptive agents: estrogen, progesterone, bisphosphonates, calcium, calcitonin and Selective Estrogen Receptor Agonists, Bone formation agents: fluoride, parathyroid hormone, Agents with unknown action: vitamin D and analogues, anabolic steroids.
- A multifaceted intervention may be adopted for fall prevention.

16) Urinary system

Ageing increases the risk of kidney and bladder problems such as: Bladder control issues, such as leakage or urinary incontinence (not being able to hold your urine), or urinary retention (not being able to completely empty your bladder) bladder and other urinary tract infections (UTIs), chronic kidney disease.

- In men, enlargement of the prostate can block the flow of urine through the urethra, causing hesitancy and difficulty initiating the steam and finally leading to retention of urine or retention with overflow.
- In older women, there is laxity of pelvic musculature resulting in incontinence of urine.
- The net result of the changes in the kidney and urinary tract are: Higher risk of infection, Risk of life-threatening hyponatremia and Nocturia & Urinary incontinence, Necessity of adjustment of drug dosage in old age.

Common diseases of urinary system due to ageing

Disease	Clinical features
Urinary tract infection	burning pain during micturition, frequent urination, behavioral symptoms such as confusion.
Benign prostatic hypertrophy	urinary obstruction and retention of urine, bladder damage and infection, blood in the urine, kidney damage
Malignancy of prostate	irritation of the tissues, including increased urinary frequency, increased urinary urgency, and pain upon urination.
Effects of Urinary Incontinence	Rashes, skin infections, bed sores, urinary tract infections, and disturbed personal and social life

17) Stroke

Stroke is defined as rapidly developing clinical signs of focal or global disturbance of cerebral function with symptoms lasting 24 hours or longer, or leading to death, with no apparent cause other than of vascular origin. Strokes can be either occlusive or hemorrhagic.

Hypertension is the single most important risk factor for stroke. Other risk factors for stroke include increasing age, family history, obesity and hypercholesterolemia, smoking, lack of exercise, heart failure, atrial fibrillation, diabetes mellitus, anticoagulant therapy.

The management of stroke involves

- Medical intervention to minimize impairment
- Prevention and treatment of acute complications
- Rehabilitation to minimize disability
- Adaptation to minimize handicaps

- Prevention of stroke in patients with TIA requires:
  - Modification of risk factors: hypertension, smoking, cholesterol
  - Drug therapy with antiplatelet agents and anticoagulants

The patient as well as the family requires support in terms of education, training and counselling. Community and domiciliary rehabilitative services are essential for stroke patients living in communities.

18) Mental health

Mental health and well-being are as important in older age as at any other time of life. Mental and neurological disorders among elderly account for 6.6% of the total disability (DALYs) for this age group. Approximately 15% of adults aged 60 and over suffer from a mental disorder.

Common situational stresses in the older people include:

- Widowhood and the death of other significant relatives
- Care-giver stress
- Fear of death, financial difficulties and loss of independence
- Changes in living arrangements and previous roles; and
- Social isolation

The emotional response to these problems includes grief, guilt, loneliness, loss of meaning in life and lack of motivation, anxiety, anger, feelings of powerlessness and depression.

Psychiatric problems faced by elderly people:

- Depression
- Personality disorder
- Anxiety disorders
- Post-traumatic stress disorder and bereavement
- Somatoform disorders
- Late life delusional disorders
- Obsessive compulsive disorders
- Self-neglect
- Alcoholism

Management of mental health issues at the PHC level

Counseling is effective especially in mild to moderate depression.

- Exercise Regularly (leisure walk, yoga and meditation)
- Practice Good Sleep Hygiene (regular time for going to bed and waking up, no naps in the day and no electronics an hour before going to bed)
- Eat a healthy diet rich in vegetables, fruits and
- Social connectedness (talk to friends, engage in positive activities, join a support group)

Management at the secondary care level:

- Selective Serotonin Reuptake Inhibitors (SSRI) agents acting primarily on serotonin system are the most favored drug for treating all types of depression in elderly.
- Electroconvulsive therapy (ECT) is a first-line treatment for depression with psychotic features; it is an alternative to combination medication treatment with antidepressants and antipsychotics.

19) The sensory system

With advancing age, there is gradual decline in the senses (hearing, vision, taste, smell and touch.

The sense organs and common disease conditions related to them are mentioned in the following table

Organ	Common disease	Ill effects
Skin	Infections: Common infections are herpes zoster, scabies, decubitus ulcer and pyoderma. Pruritus: As a result of dryness or systemic disease. Treatment: emollients, antihistamines. Xerosis: Dry and rough skin as a result of ageing. Treatment: emollients. Seborrheic dermatitis: Treatment: topical anti-fungal or cortisone cream. Drug reaction, Cancers	Thickness of epidermis decreases and dermis changes, melanocyte number declines, reduced skin Langerhans cells, fibroblast number decreases, wound healing slows down, Sweat and sebaceous gland secretion declines, hairs turn grey, nail growth slow down.
Eye	Cataract, Glaucoma, Macular degeneration, Diabetic retinopathy	Visual impairment, Eyelids become lax, subconjunctival hemorrhage, arcus senilis, pain, colored halos around lights, headaches, nausea and vomiting, blurred vision, dysfunctioning of photoreceptors, blindness,
Ears	Presbycusis	decrease hair cells and ganglion cells, Blood supply to cochlea decreases, decrease in sensory nerve fibers
Taste and smell	Hypogeusia, ageusia, Loss of smell (anosmia)	Taste buds diminish, decreased salivary secretion, decrease in receptors and nerve fibers for smell

Management

Eyes:

- Treatment of cataract is surgical, removal of the lens and implantation of intra- ocular lens is done under local anesthesia, which is the safe and simple procedure.
- Older persons should be screened for glaucoma regularly with the measurement of intra- ocular pressure, and those with any known history of the disease would need periodic examinations.
- Regular monitoring for retinopathy is the single most important step in its management

Ears:

- A hearing aid can be helpful. However, it must be made sure that the older person and the family know how to (i) insert the appliance; (ii) turn it on and off properly; (iii) know the battery type and where to get more; and (iv) know how to test and replace the batteries.
- While communicating with the older person, speaking slowly, facing the person with lower pitch of voice can be more useful than raising the voice and only creating more high frequency sounds, which are heard with difficulty. Avoiding background environmental noise and several conversations at a time in group discussions may be useful.

Taste and smell:

- Most interventions for age-related decline in taste and smell involve education of the older person and the family about the changes in these senses and the possible dangers to safety which may be associated with them.
- Earwax is frequently a cause of, or at least aggravates, hearing difficulties; therefore, this should be the first thing to be checked. Cleaning the ear is usually preceded by insertion of wax- dissolving drops to loosen the cerumen.

20) Cancers

Cancer is one of the five common causes of death in elderly Indians. With increase in the incidence and prevalence of cancer of all types, physicians are more likely to encounter older patients with cancer.

Principles of management: surgery, radiotherapy, chemotherapy

Elderly patients are usually under-treated due to a widely prevalent misconception that elderly patients are less eligible for surgery, and they tolerate radiotherapy and chemotherapy poorly.

Scientific data on very old patients with cancer is scant as most studies tend to exclude this group of patients. While deciding on the treatment the life-expectancy of older patients should not be underestimated.

The older patient with cancer should be approached with the same principles of therapy as patients of any other age-group. The perceived frailty of the patient in the absence of any objective evidence should not prevent the physician from providing appropriate therapy. Age does not adversely influence the efficacy of treatment, nor does it predispose to higher toxicity. The state of physical fitness and mental health should be the consideration rather than the chronological age and all options of therapy should be considered.

Surgery

The decision to operate in an older patient should depend on:

- Functional status- physical and cognitive
- Target organ status & Level of co-morbidity
- Fitness for anesthesia

Radiotherapy

Older patients being unsuitable for surgery often receive radiotherapy. Both the physician and patient should have a clear picture about the situation while deciding about radical or palliative radiotherapy. Poor physical health and the presence of multiple co-morbid conditions can

increase radiation morbidity while very old patients in good physical health in early cancer can show good response. The outcome of radiotherapy depends on:

- Cognitive state
- Renal function
- Cardio-pulmonary reserve
- Bone marrow resilience
- Integrity of skin and mucous membrane.

Chemotherapy

Older patients are also candidates for chemotherapy as primary treatment in hematological malignancies and as adjuvant treatment in many solid malignancies. As a general principle, chemotherapy should be given in full regimen. However, modification of the drug dosage depends on:

- Drug pharmacokinetics
- State of hepatic and renal function
- Organ-specific toxicities on bone marrow, myocardium and CNS
- Improved drug delivery system.

Palliative care

Palliative care is defined as active care of pain, distressing symptoms and other psychological issues of an incurable or terminal cancer patient. Older cancer patients are more likely to require palliative. The most important action in palliative care is pain relief with even round- the-clock oral opium or its derivatives. Symptomatic care for all symptoms should be attempted in the right earnest. All physicians must have the ability to provide palliative care.

Pain in elderly

It is important to recognize some salient features of pain in elderly:

1. Recognize the physical, social, spiritual and psychological dimensions of pain, as is done in younger patients.
2. In the older adult, you may be assessing pain through a surrogate or bystander (who may also attach emotional content to the pain experience, or inappropriately minimize the patient's pain).
3. Anxiety, dyspnea, fear, constipation, depression, nausea, sleeplessness may serve as amplifiers of pain in elderly
4. The PAINAD score is a useful scale to measure pain in cognitively impaired elderly.
5. Do not rely on heart rate, BP and respiratory rate as an indirect marker for pain in elderly. Hemodynamic responses to pain may be blunted. Instead, proceed with an analgesic trial in elderly suspected to be in pain.
6. Remember the following about use of pharmacological therapy to treat pain in elderly
    a. Acetaminophen: Useful for mild to **moderate somatic and visceral pain** as a single agent or combined with an opioid; does not affect platelets
    b. Non-steroidal anti-inflammatory analgesics: Avoid PO in the older adult; diclofenac gel can be helpful

c. Opioids: Useful in cancer pain, treats all types of physical pain

d. Corticosteroids: Preferred for use at End of Life (EOL)-multipurpose analgesic for bone pain, capsular pain (e.g., liver capsular pain), increased intracranial pressure, bowel obstruction (due to tumor compression).

e. Antidepressants: Use caution with TCAs in Elderly (causes severe anticholinergic side effects); SNRIs are good for use with concurrent depression.

f. Antiepileptic agents: Remember to adjust dose for renal failure; sedation, confusion, ataxia and edema are common with these.

Pain Assessment in Advanced Dementia Scale (PAINAD)

Instructions: Observe the patient for five minutes before scoring his or her behaviors. Score the behaviors according to the following chart. Definitions of each item are provided on the following page. The patient can be observed under different conditions (e.g., at rest, during a pleasant activity, during caregiving, after the administration of pain medication).

Behavior	0	1	2	Score
Breathing Independent of vocalization	☐ Normal	☐ Occasional labored breathing ☐ Short period of hyperventilation	☐ Noisy labored breathing ☐ Long period of hyperventilation ☐ Cheyne-stokes respirations	
Negative vocalization	☐ None	☐ Occasional moan or groan ☐ Low-level speech with a negative or disapproving quality	☐ Repeated troubled calling out ☐ Loud moaning or groaning ☐ Crying	
Facial expression	☐ Smiling or inexpressive	☐ Sad ☐ Frightened ☐ Frown	☐ Facial grimacing	
Body language	☐ Relaxed	☐ Tense ☐ Distressed pacing ☐ Fidgeting	☐ Rigid ☐ Fists clenched ☐ Knees pulled up ☐ Pulling or pushing away ☐ Striking out	
Consolability	☐ No need to console	☐ Distracted or reassured by voice or touch	☐ Unable to console, distract, or reassure	
TOTAL SCORE				

(Warden et. al., 2003)

Scoring: The total score ranges from 0-10 points. A possible interpretation of the scores is: 1-3=mild pain; 4-6=moderate pain; 7-10=severe pain. These ranges are based on a standard 0-10 scale of pain, but have not been substantiated in the literature for this tool.

Source: Warden V, Hurley AC, Volicer L. Development and psychometric evaluation of the Pain Assessment in Advanced Dementia (PAINAD) scale. *J Am Med Dir Assoc* 2003; 4(1):9-15.

Other issues related to elderly care

Caregiver burden and elder abuse

Caregivers need psychosocial support to enable them to continue providing care to the elderly. Caregivers resorting to substance abuse in the form of smoking, excess alcohol use or other drug abuse or abuse of the elderly could lead to worsening situation in the family. Working through issues of stress in healthy ways is an important step to helping caregivers reduce the likelihood of abuse.

The excessive stress and demands on caregivers can cause some to suffer from anxiety, depression, and psychological disorders. Different people have different ways of coping up and relieving stress.

Other ways to cope with caregiver stress include:

- Stress reducing activities like exercise and yoga
- Respite care in order to take a personal break
- Adult day care
- Counseling
- Rehabilitation services for substance abuse
- Warning signs for caregivers

There are some indicators that the caregiver relationship is becoming unhealthy and may lead to abuse. They include:

- Depression
- Low self esteem
- Apathetic attitude towards caring for the elderly
- Resentful attitude towards family member
- Viewing the individual as a burden

Ways to prevent abuse

If a caregiver is beginning to abuse someone, it is important that friends, family, the patient, and others talk to them about the abuse. Sometimes abuse beings unintentionally, and the caregiver may not be aware. If it continues, the abuse should be reported, and the patient should be removed from his care.

Managing the stress of caregiving

Fortunately, there are healthy coping mechanisms that can help caregivers better take care of themselves and the elderly. Support groups and other resources can provide advice and assistance. Caregivers can better manage their negative feelings and stress by speaking with support groups or getting professional help.

Key messages

- Keep a high index of suspicion of an underlying disease in case of an abrupt decline in an older adult
- Reducing risk factors attenuates ageing and disease accentuates ageing
- Ageing is accentuated by disease and attenuated by modification of risk factors
- The presenting complaint in an older adult could just be the tip of the iceberg and it often hides a multitude of underlying clinical conditions
- A new disease manifests itself through organ systems made most vulnerable by previous disease or alterations.
- Multiple complaints often result from multiple co existing diseases and cannot often be attributed to a single diagnosis.
- An older adult may often present with atypical symptoms missing the most common symptom or the symptoms may be masked because of a coexisting disease
- While younger patients always desire for cure and increased survival, older patients often choose comfort, independence, cognitive function over increased survival or cure. Hence it is important to determine the patients' goals of care before embarking on major treatment regimens which may cause more distress than benefit.
- Adverse consequences of diseases are more frequent in elderly
- Prevention of diseases is much more productive than its treatment
- Diseases manifest at an earlier stage but patients often present late.
- Small interventions produce dramatic results
- One of the leading causes of elder abuse is caregiver stress and other problems that prevent caregivers from properly caring for the elderly.
- Caregivers can better manage their negative feelings and stress by speaking with support groups or getting professional help.

5 Health Promotion and Counseling in Elderly Care

Health education

Health education is defined as any combination of learning experiences designed to help individuals and communities improve their health, by increasing their knowledge or influencing their attitudes. It primarily deals with public health systems and various aspects of preventive-oriented health care. Areas within it encompass environmental health, physical health, social health, emotional health, intellectual health, and spiritual health, as well as sexual and reproductive health education. Health education requires the active involvement of people in achieving the goal of health.

Health education for elderly people must include

Human biology

The family and elderly both should be made aware of biological changes in the structure and function of the body concerning ageing. They must also be informed about the difference between age-related changes and pathological states.

Family health

Information regarding the needs of elderly family members to be included to provide a correct perspective of human ageing.

Nutrition

Older people and their families must be guided to understand the principles of a balanced diet, nutritive value of food, value for money spent on food, storage, preparation, cooling, etc.

Hygiene

The Information on bathing, clothing, toilet, washing of hands before eating, care of feet, nails, and teeth; prevention of indiscriminate spitting, coughing, and sneezing; and inculcation of

clean habits should be included in personal hygiene and maintaining a clean home, need for fresh air and light, ventilation, hygienic storage, disposal of waste, sanitation, disposal of human excreta, food sanitation, vector control, etc. should be included in environmental hygiene.

Control of communicable and non-communicable disease

Common communicable and non-communicable diseases specific to old age needs to be included in health education.

Mental health

Elderly suffer cognitive disorders very commonly. Older people need to be educated regarding adjustment to their changing role in family and community as a result of old age and retirement. They need to be educated for dementia, depression, and anxiety.

Prevention of accidents

Elderly should be made aware of accidents and their complications because of their physiological decline and a higher risk of fractures and life-threatening injuries.

Use of health services

older people need to be educated to use the health services available in the community to the maximum extent. They must also be encouraged to participate in national health programs designed to promote health in old age and prevent diseases. The ASHA/MPW will identify various barriers to the use of health services and Medical Officer will work with the HWC team to remove these barriers.

Counseling the older person

There are several issues faced individuals and families related to the ageing process. Areas of concern include everything from the retirement transition clear through to the end of life. One of the central issues that the elderly must cope with is loss. Most people get their first experience with death as children. However, people deal with death much more frequently in their senior years. Particularly difficult are the losses of spouse and lifelong friends. Apart from helping them to deal with the problems of old age per se, counseling can also provide the opportunity for enrichment, personal growth, and satisfaction.

Counselors should be versed in the physical, mental, and emotional aspects of older clients and adept at clinical diagnoses specifically applicable to this population, such as differentiation between depression and dementia. The majority of counseling approaches build upon a foundation of respect, empathy, and support.

The objectives of senior citizens counseling

- To understand the psycho-social and biological problems of old people.
- To help them to solve their problems.
- To enhance wellness in their life.

Counseling includes following agenda for elderly people

1. Living in cohesion with the family members
2. Elderly need to build positive new identity as an older person and they need help in understanding and accepting the value and reality of their life.
3. Issues of anxiety and stress, related to the losses of their life, particularly the sense of losing control over one`s life.
4. Depression and demoralization
5. Abuse may be a pattern of midlife or the effect of the pressure of old age.

A high degree of sensitivity, awareness, and acceptance among health care workers is required for giving care to elderly. The provision of service for the elderly is an integrated effort and can be the most sustainable and successful if self-aware and well-informed health care workers make a coordinated effort with the individual, family, and society.

Health promotion and risk reduction in elderly

Various risk factors and their ill effects in elderly people have been identified. To avoid the ill-effects of the detrimental behavior of the elderly, various health promotion measures have been advised. Besides, early detection of certain common cancers, hypertension, diabetes, and immunization against certain infections have also proven to be cost-effective. Importance should be given to the safe home environment and management of medications in all health promotion activities for older people.

Nutrition

Over-nutrition leads to the commonest health problem in old age that is obesity and is associated with hypertension, ischemic heart disease (IHD), and diabetes.

Under-nutrition is equally harmful leading to frailty, physical dependence, and premature death apart from impairment of the immune system, increased risk of infection and poor wound healing.

Reasons for the risk of under-nutrition in the elderly include -

- Food is no more delightful due to changes in taste and smell sensation
- Painful eating due to lack of teeth, gum problems, and ill-fitting dentures
- Reduced appetite due to lack of exercise, chronic debilitating disease, confusion, forgetfulness, side-effects of drugs, alcohol, and smoking.
- Economic condition of family, food beliefs (hot and cold food, etc.), religious beliefs, caregiver neglect, and abuse, depression, and loneliness

Common nutritional deficiencies in the elderly include iron, fiber, folic acid, vitamin C, calcium, zinc, riboflavin, and vitamin A.

Preventative measures to follow

- It should be ensured that older people are eating nutritious food.

- Their diet should be planned, and food should be cooked so that it could be easily digestible.
- They should have access to food that is tasty and easy to prepare.
- A healthy diet varies widely depending on the availability and cultural acceptability of foods. Most traditional diets are now considered to have been close to being ideal, at least for adults and the elderly.

The principles of a balanced diet are similar in all ages. Elderly being a heterogeneous group, prescription of a uniform dietary schedule is difficult.

The following guidelines can help to make balanced diet for the elderly

1. Complex carbohydrates (whole grains, roots, fruits, vegetables, and beans) should be consumed in large amounts for a good bowel movement while helping the treatment of high cholesterol, blood pressure, heart disease, and diabetes. Simple carbohydrates (sugar and derivatives) should be reduced.
2. Calcium and vitamin D in the form of milk, curd, cheese, small fish, and certain green vegetables should be increased to compensate for osteoporotic changes.
3. Water and other liquid should be consumed liberally.
4. Additional supplementation of vitamins and micronutrients may be required in older people as there is a higher risk of their deficiency.
5. Diverse vegetarian diet is preferred in elderly composed of cereals, pulses and plenty of vegetables.
6. *Remember:* To create a good social environment around food consumption; eating should not be a lonely affair! Also, focus on flavor of food, not just on content.

The so-called “Mediterranean diet” has been the focus of some studies that purport certain benefits to the older population, chiefly cardiovascular benefits. The Mediterranean diet consists of eating primarily plant-based foods, consuming healthy fats such as olive oil rather than butter, limiting salt intake and using herbs to flavor food, limiting consumption of red meat, eating fish, and exercising.

Exercise

Due to ageing, there is a continuous decline in power, strength, and Sufferance of skeletal and cardiac musculature. Gradual biological impairment of normal function, probably as a result of changes made to cells and structural components (such as bone and muscle). These changes would consequently have a direct impact on the functional ability of organs (such as the heart, kidney, and lungs), biological systems (such as the nervous, digestive, and reproductive system), and ultimately the organism as a whole.

A sedentary lifestyle and lack of physical activity accelerate these changes and are associated with a higher risk of morbidity and mortality. Physical exercise in old age is limited by diseases such as obesity, IHD, chronic obstructive lung disease, stroke, arthritis which reduce exercise tolerance. Besides, there are several psychological barriers which include stereotyping (‘old people are weak’, ‘slow’, they must rest’), family attitudes, lack of proper information, cultural and social inhibitions (exercise is for young people), fear of accidents and lack of supportive environment.

Physical exercise is good for physical and mental health and helps in the prevention and control of many diseases like diabetes, osteoporosis and falls, obesity, heart disease and even certain cancers. Exercise also enhances sleep and quality of life. Physical work can be occupation related, household related and transport related.

Exercises can be of aerobic and weight bearing types

- Engage in regular physical activity for at least 30 minutes a day at home with customized light exercises, yoga, stretching, walking, gardening etc.
- Encourage them to sleep for 7- 8 hours daily to improve your immunity and mental health.
- Encourage them to take daily dose of sunlight by sitting in verandah/balcony/terrace for at least 30-40 minutes between 11:00 to 1:00 pm. (urban setup)
- Examples of weight bearing exercises are chair sit ups and climbing stairs.

Some of the exercises which can be encouraged by the elderly are as below: (add pictures)

Flexibility related activities

1. Shoulder and upper-arm stretch

a. Stand with feet shoulder-width apart.

b. Hold one end of a towel with your right hand.

c. Raise the right arm and flex the elbow so as to drape the towel down your back.

d. With your left hand, reach behind your lower back, and grasp the towel.

e. Pull the towel with the left hand to stretch your right shoulder to the point of comfortable tension.

f. You can hold the position from 10-30 seconds.

2. Wall upper-body stretch

a. Stand with feet shoulder-width apart, and slightly farther than arm's length from a wall.

b. Lean forward and put both your palm flat on the wall at shoulder-width, and shoulder-height.

c. Keeping the back straight, slowly walk your hands up the wall until the arms are above the head.

d. Hold the arms overhead for 10-30 seconds.

e. Slowly walk your hands back down and relax.

3. Chest stretch

a. Stand with feet together

b. Grasp your hand behind your back.

c. Slowly bring together the shoulder blades until a gentle stretch is felt in your chest, shoulders and arms.

d. Hold the position for 10-30 seconds.

4. Forward Bend

a. Stand with your feet together, extend your torso down without rounding your back.

b. Stay long throughout your neck, extending the crown of your head toward the ground.

c. Draw your shoulders down your back.

5. Calf Stretch

a. Stand facing a wall. Put your hands against the wall at shoulder height.

b. Put one foot in front of the other.

c. Bend your elbows and lean in toward the wall. You will feel a stretch in your calves.

d. Keep your knee straight and your hips forward. Make sure your heel stays on the ground. 5. Switch your feet and repeat the stretch.

6. Knee to Chest

a. Lie on your back with your legs straight.

b. Bring the right knee toward your chest.

c. Wrap your arms underneath your knee and pull your leg closer to your body until you feel a stretch in the back of your right thigh.

d. Repeat the stretch on your left leg.

7. Bend Down

a. Stand tall with your feet hip-width apart, knees slightly bent, arms by your sides.

b. Exhale as you bend forward at the hips, lowering your head toward the floor, while keeping your head, neck and shoulders relaxed.

Strength related Activities

1. Straight Leg Raises (Lower Body Strength)

a. Stand tall. Use a chair or wall for balance.

Forward:

a. Slowly lift your leg up in front of you as high as you can.

b. Keep your leg straight.

c. Then lower back to the starting position.

d. Do not relax your leg.

e. Do not swing your leg.

Side:

a. Slowly lift your leg out to the side with your toe pointed forward.

b. Keep your leg straight.

c. Then lower back to the starting position.

d. Do not relax your leg.

e. Do not swing your leg.

f. After you have completed all leg lifts on one side, switch to the other side.

2. Push-Ups on the Wall (Upper Body Strength)

a. Stand facing the wall.

b. Place your hands flat on the wall at shoulder level.

c. Keep your arms straight.

d. Your feet should be behind your body so that you are leaning on the wall.

e. Stand on the balls of your feet.

f. Bend your arms to bring your chest to the wall.

g. Keep your legs in place.

h. Make your body a straight line.

i. Push your arms straight to return to the starting position.

j. Make sure your body stays in a straight line the whole time.

3. Squat (Lower Body Strength)

a. Plant your feet on the ground

b. Bend your knees

c. Lower yourself in a controlled manner.

d. Stand again as before.

Agility and Balance Related Activities

1. Calf raises

a. Stand with feet shoulder-width behind a chair or a wall with hands placing on it for stability

b. Rise up onto your toes slowly and then lower to the starting position

c. Repetition can be done for 8-12 times.

2. Seated sit-ups

a. Sit on the front end of an armless chair sturdy chair.

b. Cross your arms across the chest.

c. Lean backward against the backrest of the chair.

d. Slowly, move forward flexing the hip join, and tightening the abdominal muscles till seated upright.

e. Return slowly to the starting point after a very brief pause.

f. Repeat the exercise for 5-10 times.

3. Shifting side to side

a. Stand with feet shoulder-width with hand placed over a chair or any supporting surface to maintain balance.

b. Shift as much of your weight to one leg.

c. Hold the position for 5 seconds, and then return to the Centre position (body weight equally distributed in both the legs.)

d. Then repeat the test to the opposite leg.

e. The exercise can be done 8 times on each leg.

4. Walking on Lines of different shapes

a. Find or make a straight/zigzag line on the floor.

b. Walk on the line for 20 steps.

c. You can put your arms out to the side for additional balance help.

Aerobic /Cardio-vascular Endurance related Activities

1. Brisk Walking

a. Walk a little initially and then gradually increase the time. b. Take light, easy steps and make sure your heel touches down before your toes

2. Walking on toes

a. Position the heel of one foot just in front of the toes of the other foot. Your heel and toes should touch or almost touch.

b. Choose a spot ahead of you and focus on it to keep you steady as you walk.

c. Take a step.

d. Put your heel just in front of the toe of your other foot.

e. Repeat for 20 steps.

3. March and Swing Your Arms

a. March in place. Lift your knees up as high as you can. Go at a steady pace.

b. As you bring your knee up, swing the opposite arm in front of you.

c. Switch your arms when you switch your legs 6. 800 mt. or longer distance Running or Walking (Endurance)

d. Do this as a group activity with many children

e. Try to complete a given task in the shortest amount of time.

Exercises in elderly people may assist in

- greater survival
- protection against cardiovascular disease
- weight reduction

- control of high blood sugar in diabetes
- protection against osteoporosis and fracture
- improvement of muscle strength, balance, and functional capacity and
- improvement in psychological well-being, better sleep, and bowel habits.

The following care should be taken for elderly people

- Physical exercise should be carried out at a frequency of 3 to 5 days per week, between 20 to 30 minutes per session, to achieve the maximum heart rate.
- Multicomponent exercise is recommended in elderly (strength, balance and flexibility)
- Before initiating a physical exercise program, the risks of exercise, the potential for falls and accidents, medications, nutritional adequacy, and motivation needs to be evaluated. Safety is the priority in elderly. Baseline fitness assessment followed by a gradual stepwise approach is preferred.
- The Medical officer must educate the older person in self-monitoring of symptoms and signs of IHD and must know when to stop if symptoms appear.
- Several types of physical exercises are available. The older person should be advised to choose the one which is enjoyable, easy to perform, convenient, and inexpensive. Considering all aspects, brisk walking and stretching exercises seem to be the best for older individuals.

Smoking

Smoking increases the risk of developing several diseases, such as chronic obstructive pulmonary disease (COPD), coronary heart disease, stroke, and peripheral vascular disease, all of which can potentially have negative effects on people's physical, psychological and social health in old age.

Smoking is one of the three determinants of functional disability in old age (the other two are obesity and lack of physical exercise).

Hazards of smoking in elderly are

1. Most respiratory problems in the elderly
2. Cancers of lungs and gastrointestinal tract
3. Ischemic heart disease and
4. Stroke

Despite the knowledge of advantages of smoking cessation, most smokers have difficulty in quitting due to withdrawal symptoms (nicotine craving, irritation, frustration, anxiety, restlessness, and difficulty in concentrating) and lack of motivation.

The benefits of quitting smoking are also there in old age. An attempt must be made to eliminate smoking. However, if the person cannot quit smoking it should at least be cut down. The Medical Officer must counsel the smoker and help him/ her quit smoking.

5 As:	
▪ Ask about smoking. ▪ Advise to quit ▪ Assess willingness to quit ▪ Assist in quitting ▪ Arrange follow-up and support	Ensure that smoking status is documented at every visit. Use clear, personalized messages. Even brief advice from a physician can improve quit rates compared with patients who receive no advice. Patients assessed as not yet willing to quit should receive the motivational intervention. Ask patients who are willing to set a quit date. Provide support in the quit attempt through a series of follow up visits in-person or through phone.

Alcohol

Generally, health workers tend to overlook the problem of alcohol consumption in the elderly. Misconceptions regarding the association of alcoholism with a higher social status, lack of communication skills in asking uncomfortable questions on alcoholism, and a fatalistic attitude may lead to missing alcohol abuse in older subjects.

In clinical interactions, the specific exploration for the use of alcohol is often not done in elderly patients, leading to the under recognition of geriatric substance use. Physicians, themselves, often fail to adequately screen for the geriatric alcohol abuse for several reasons as follows:

- Lack of awareness and sensitization about the problem; stereotypical view of alcohol abuse as a phenomenon of the youth
- Inhibition or embarrassment over screening for alcohol abuse from a senior citizen
- Failure to link the coexisting medical problems with a possibility of underlying alcohol abuse and attributing it instead of ageing. For example, alcohol use may present as insomnia, confused states, which may be linked to the ageing process.
- Therapeutic nihilism about the elderly alcohol and drug use (e.g., even if he is using, then what is the point of intervening? It is okay for him to use)

Alcohol intake in excess increases the potential for diseases such as cardiomyopathy, cirrhosis of the liver, atrophic gastritis, chronic pancreatitis, peripheral neuropathy, and dementia, falls and accidents, malnutrition, immune suppression, and social isolation.

Also, symptoms of intoxication due to alcohol can be easily mistaken for disease and age-related physical changes. Several features of alcohol abuse such as memory loss, poor balance, frequent falls, and ill-health may be ignored as consequences of ageing.

The alcohol consumption problem in the elderly must be assessed through direct as well as indirect questions. The family should also be used as a source of information.

Treatment of chronic alcoholism is difficult and requires specialized effort by a multidisciplinary team through hospitalization. Medical Officers must educate the patient as well as the caregivers about the problem and guide them in deaddiction.

Screening

Early diagnosis and treatment are an important step in the secondary prevention of disease and disability. So regular screening for common, life-threatening, and disabling diseases is important

for health promotion. Screening requires resources (time and finances) but is extremely cost-effective in the long run.

Screening should include

1. Screening for health problems should be done in elderly even before symptoms noticeable to the patient. This includes some forms of cancer screening, as well as screening for conditions like high blood pressure or high blood sugar, which generally don't cause symptoms.
2. A check should be kept on common problems that do cause symptoms but are easily overlooked in routine clinical care. This includes asking patients about things like depressive symptoms, falls, or even checking for signs of alcohol misuse. Also, several diseases such as hypertension, dyslipidemia, heart disease, diabetes can be detected during a routine physical examination and managed with better results. The vision, hearing teeth ad feet of older people should be inspected periodically.
3. Vaccines or medications should be administered to reduce the risk of future illness.
4. Alterations in bowel habits, new onset of constipation, smaller stool size or blood in stools, anorexia, weight loss, wasting, anemia, and low backache are indicators of colorectal cancer which involves an appreciable amount of morbidity and ill-health.
5. About 50% of all breast cancers occur in women aged over 65 years. Older women should be instructed on how to do a self-examination of their breasts and to do it at least once every month. Cancer of the cervix is usually screened in all women after 40 years of age with the annual pelvic examination and Pap smear.
6. Screening for colorectal cancer – by stool occult blood, sigmoidoscopy and colonoscopy is recommended between 60-75 years is strongly suspected.
7. Screening for osteoporosis and Osteopenia recommended in patients> 65 years age.

Accidents

The elderly is vulnerable to accidents and injuries and are associated with: pain and trauma of injury; loss of function, prolonged immobility and its complications; fear of future accident and self-imposed isolation; and loss of independence. Burns and falls are the most common among accidents and injuries.

Burns and falls are the commonest types of injuries and accidents in Elderly.

Most accidents in old age are in some way or the other related to normal age-related changes in the sensory system and the musculoskeletal system.

Some reasons for accidents are listed below:

- Degeneration of sense organs: vision, hearing, smell, pain, touch, temperature
- Decline in body balance
- Defective stance and gait
- Poor muscle strength and co-ordination.

- Dementia
- Confusion
- Chronic illness
- Use of medications for heart diseases; and
- Emotional stress.

A large number of accidents in older people can be avoided. The Medical Officer needs to identify the risk factors for the accident in the elderly and help them with simple and innovative measures such as:

- Use of walking aids
- Optimize the senses:
  - Use of visual aids
  - Use of colors to enhance the older person's vision and depth perception
  - Use of hearing aids
- Exercise regularly to improve gait and power.
- Gait and balance training to improve coordination and reduce the risk of falls
- Environmental modifications to suit elderly:
  - Removal of obstacles and clutter
  - Ensure adequate lighting in the household area
  - Use of flat shoes
  - Availability of stable structures to hold on to in case of an impending fall
  - Proper flooring inside the home and the immediate outside environment.
- Keep floors free of obstacles and moisture.
- Place the non-slippery mats on the floor of the bathroom.

Drug reaction

Older persons require multiple drugs due to the presence of multiple diseases. As a result, there is a high risk of drug interaction and adverse drug reactions. The behavior of the medications inside the body and their effects (pharmacokinetics and pharmacodynamics) are changed in old age due to alterations in absorption from the gastrointestinal tract, detoxification in the liver, excretion through the kidney, composition of body fat, muscle mass, and total body water; and drug-receptor sensitivity.

Common drugs which produce adverse reactions are antibiotics, anti-arrhythmic drugs, digoxin, diuretics, non-steroidal anti-inflammatory drugs, anti-Parkinsonian drugs, anticholinergic drugs, sedatives, anti-depressants, anti-hypertensive, anti-coagulants, and psychotropic drugs.

Common adverse drug reactions are confusion, delirium, postural hypotension, falls, anxiety, depression, sleep disturbances, constipation, diarrhea, urinary incontinence, and urinary retention.

Interventions to reduce adverse drug reactions are

- Avoidance of self-medication
- Minimizing the number of drugs used
- Frequent review of medication
- Use of specific medications for specific illnesses
- Use with caution the medicines which have significant adverse drug reactions and
- Instruct the patient about anticipated side-effects
- Limited use of over-the-counter drugs
- Community Health Workers providing health education to elderly must keep in mind the following aspects: the normal physiological changes in ageing; healthy diet; family support and wellbeing; prevention and control of communicable and noncommunicable disease through avoiding risk factors such as smoking, harmful alcohol use, unhealthy diet, sedentary life and so on; cognitive exercises and counselling support to prevent memory loss and depression; prevention of falls and utilization of health services.
- Health professionals can adopt the 5A approach that includes Ask, Assess, Advice, Assist and Arrange either in community settings or healthcare settings.
- Regular screening is essential to detect chronic age-related conditions such as diabetes, hypertension and cancer for early diagnosis and treatment.

National Programme for Health Care of the Elderly

6

The Ministry of Health & Family Welfare had launched the "National Programme for the Health Care of Elderly" (NPHCE) during 2010-11 to address various health related problems of elderly people. The National Programme for the Health Care for the Elderly (NPHCE) is an articulation of the International and national commitments of the Government as envisaged under the UN Convention on the Rights of Persons with Disabilities (UNCRPD), National Policy on Older Persons (NPOP) adopted by the Government of India in 1999 & Section 20 of "The Maintenance and Welfare of Parents and Senior Citizens Act, 2007" dealing with provisions for medical care of Senior Citizen. The Programme is State oriented and basic thrust of the Programme is to provide dedicated health care facilities to the senior citizens (>60 year of age) at various level of primary, secondary and tertiary health care.

Objectives

- To provide accessible, affordable, and high-quality long-term, comprehensive and dedicated care services to an Ageing population.
- Creating a new "architecture" for Ageing; to build a framework to create an enabling environment for "a Society for all Ages"
- To promote the concept of *Active and Healthy Ageing*.
- Convergence with National Rural Health Mission, AYUSH and other line departments like Ministry of Social Justice and Empowerment.

Components of the Program

- **National Health Mission (NHM) Component:** Primary & Secondary care service delivery through District Hospitals (DH), Community Health Centres (CHC), Primary Health Centres (PHC), Sub-Centre/Health & Wellness Centres.
- **Tertiary Component**: Renamed as **'RashtriyaVaristh Jan Swasthya Yojana'** in **2016-17.** These services are being provided though Regional Geriatric Centres (RGCs) located at 19 Medical colleges in 18 states of India and two National Centres of Aging (NCAs) one in AIIMS, Ansari Nagar, New Delhi and another in Madras Medical College, Chennai.

- **Research: A Longitudinal Ageing Study in India (LASI) project:** The LASI is a nationally representative survey of older persons in India is being undertaken through International Institute of Population Sciences (IIPS), Mumbai. LASI wave-1 survey (2017-18) covers all 30 states and 6 Union Territories of India with a panel sample size of 72,250 older adults aged 45 years including 31464 people above 60 years of age and above and their spouses regardless of age. LASI collects data on four major subject domains:

    1. Health: Disease Burden & Risk Factors (Reported and Measured)
    2. Health Care and Health Care Financing
    3. Social: Family, Social Network and Social Welfare Programmes for the Elderly
    4. Economic: Income, Wealth, Expenditure, Employment, Retirement and Pension

The first wave of LASI has been completed and the final report of LASI wave-I released by Hon'ble Union Health Minister on 6th January 2021.

Longitudinal Ageing Study in India- LASI Wave-1 Report along with India & States/UTs Fact Sheets – Web Link- https://www.iipsindia.ac.in/content/lasi-publications

Program Strategies

- Community based primary health care approach including domiciliary visits by trained health care workers.
- Dedicated services at PHC/CHC level including provision of machinery, equipment, training, additional human resources (CHC), IEC, etc.
- Dedicated facilities at District Hospital with 10 bedded wards, additional human resources, machinery & equipment, consumables & drugs, training and IEC.
- Strengthening of Regional Geriatric Centers to provide dedicated tertiary level medical facilities for the Elderly, introducing PG courses in Geriatric Medicine, and in-service training of health personnel at all levels.
- Information, Education & Communication (IEC) using mass media, folk media and other communication channels to reach out to the target community.
- Continuous monitoring and independent evaluation of the Programme and research in Geriatrics and implementation of NPHCE.

Expected Outcomes of NPHCE

- Establishment of Department of Geriatric Medicine in selected 19 Medical Colleges Sanctioned as Regional Geriatric Centres (RGC) with a dedicated Geriatric OPD and 30-bedded Geriatric ward for management of specific diseases of the elderly, conducting trainings of health personnel in geriatric health care and pursuing research.
- Post-graduation in Geriatric Medicine (two seats) in each of the 19 Regional Geriatric Centres.
- District Geriatric Units with dedicated Geriatric OPD and 10-bedded Geriatric ward Rehabilitation/Physiotherapy Services in all District Hospitals.
- OPD Clinics/Rehabilitation units including domiciliary visits at CHC, PHC & HWC.

- Health & Wellness Centres/Sub-centres provided with equipment for community outreach services for Elderly.
- Training of Human Resources of Public Health Care System for provision of quality Geriatric Care.

Package of Services

The program has two components for provision of geriatric health care services i.e.: district & sub-district level component and tertiary level component. The package of services provided to elderly people at both levels is as given below.

- **Sub/HWC Centre:**
  - **Health Education** related to healthy ageing, environmental modifications, nutritional requirements, lifestyles and behavioral changes.
  - **Special attention to home bound / bedridden** elderly persons and provide training to the family health care providers in looking after the disabled elderly persons.
- **Primary Health Centre**:
  - A **weekly geriatric clinic** at PHC level by trained Medical Officer, Conducting **Health assessment** of the elderly persons and simple investigation including blood sugar, etc.
- **Community Health Centre:**
  - **Biweekly geriatric Clinic and Rehabilitation services** to be arranged by trained staff and rehabilitation worker at CHCs.
  - **Domiciliary visits** by the rehabilitation worker will be undertaken for bed-ridden elderly and counseling to family members for care such patients.
- **District Hospitals:**
  - **Dedicated Geriatric OPD services, In-door admissions through 10 bedded geriatric ward, laboratory investigations and rehabilitation services.**
  - Provide services for the elderly patients referred by the CHCs/PHCs etc. and refer severe cases to tertiary level hospitals
- **Regional Geriatric Centers:**
  - Provide **tertiary level services for complicated/serious Geriatric Cases** referred from Medical Colleges, District Hospitals and below.
  - Conduct **post graduate courses in Geriatric Medicine**. Each RGC to produce 2 postgraduates (MD geriatrics) every year.
  - Providing **training** to the trainers of identified District hospitals and medical colleges
  - Developing/and updating Training modules, guidelines and **IEC materials**.
  - **Research** on specific elderly diseases.
- **National center for Ageing:**
  - High level tertiary care with m**ultidisciplinary clinical services** involving medical and surgical disciplines.

- **Specialized OPD care** in various clinical disciplines. Special clinics like memory clinic, fall and syncope clinic, frail elderly clinic, aids and appliances clinic, implants and cosmetic clinic.
- **Day care center for**: Investigations, rehabilitation, respite care, dementia care, continence care
- **In patient care for**: Intensive care, acute rehabilitation, diagnostic and therapeutic services, long term rehabilitation service.
- **Human resources development in all sub-specialties of Geriatric Medicine**
- Developing **evidence-based treatment protocols** for Geriatric diseases prevalent in the country.
- Special focus on care for 75+ aged population

Service Delivery Framework & Continuum of Care

7

Elderly individuals have distinct physical, emotional, social and economic needs that demand greater attention and prefer to have services closer to their homes. With empathetic, age-friendly and holistic primary health care services, much can be done at the community level, which is cost effective for the providers as well as the beneficiaries. In addition, the multi-morbidity status consequent to chronic disease conditions can be minimized through promotive and preventive care including screening, early detection, supportive and consistent follow up care for those undergoing treatment or with advanced disease conditions. Thus, Comprehensive Primary Health Care for elderly is needed not only to improve the access and affordability, but also to emotionally enable the elderly in the community. The Primary Health Care Team has the responsibility for providing care for the elderly starting from the community level to the SHC-HWC and PHC-HWC level.

At the community level: ASHA, MPW(M/F) will identify elderly individuals in the community including mapping of elderly population under HWC in the category of bedbound, restricted and mobile elderly, undertake risk assessment of the elderly, provide counseling and support to the elderly for various health conditions, including basic nursing care, provide support to the caregivers, identify and report medical conditions suspected to be elderly abuse cases to the HWC, enable formation of support groups for the elderly and caregivers, identify and medical conditions and refer to the CHO for further management and provide follow up care.

At the SHC-HWC level: CHO will carry out comprehensive geriatric assessment of elderly individuals, manage common geriatric ailments and/or refer to appropriate higher centres, arrange for suitable assistive devices from higher centres to the elderly /disabled persons to make them ambulatory, provide counselling and support to elderly and their caregivers.

At the PHC-HWC level: Medical Officer will undertake an advanced comprehensive health care of the elderly referred from the SHC-HWC or coming directly to the PHC. He/she will make diagnosis of diseases and disorders based on clinical examination and investigations and prescribe treatment. Complicated cases will be referred to specialists at higher centres.

At the referral center level: Diagnosis and treatment of complicated conditions, surgical care, rehabilitation and counselling will be provided for the elderly by Medical Officer or specialists.

The Elderly care at Health and Wellness Centers will be based on mobility-based classification of elderly with three main categories - Mobile Elderly, Restricted elderly and Bedbound / Home bound elderly for any reason. Such categories would be used in the assessment of high-risk elderly who would be prioritized accordingly for service delivery.

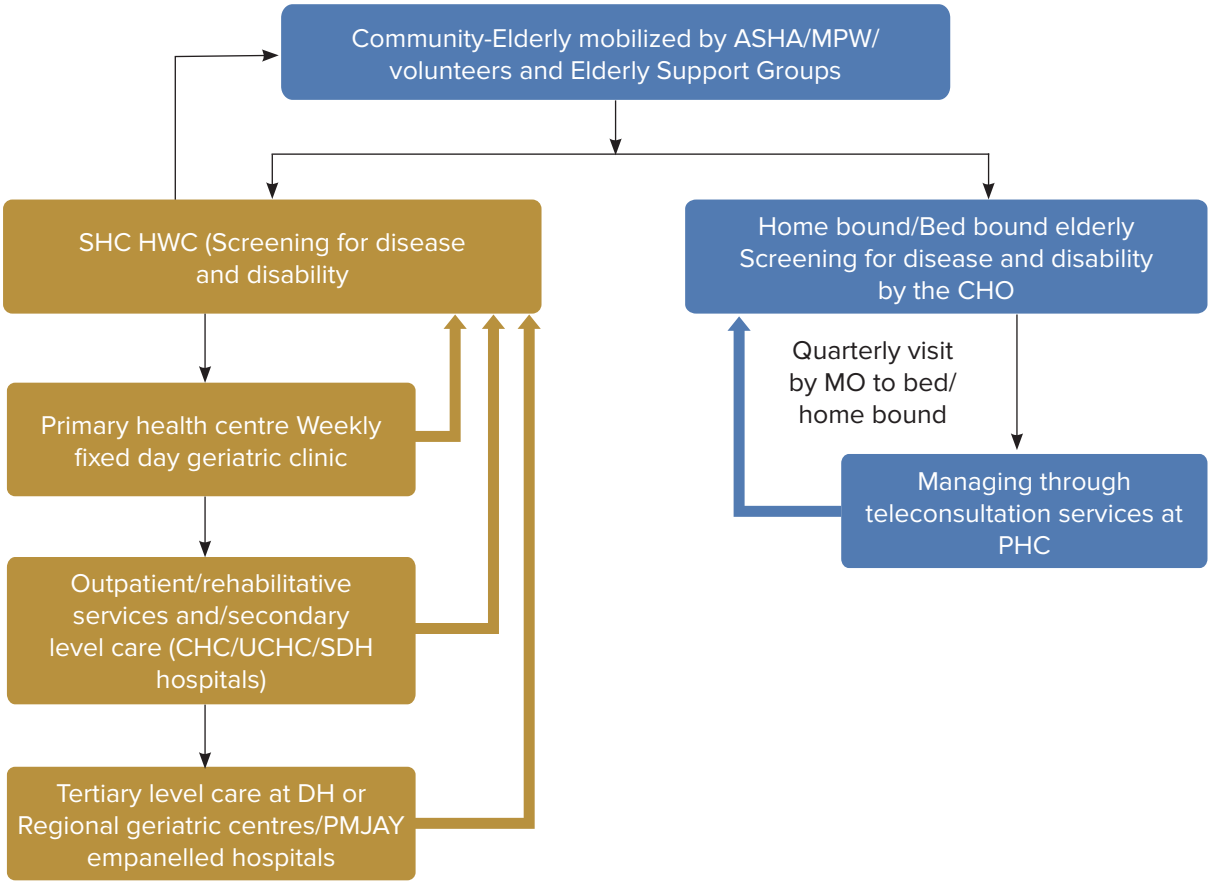
Service Delivery Framework

Human Resources	Responsibilities
ASHA	▪ Undertake household visits for community mobilization, risk assessment, counselling improved care seeking and increasing supportive environment in families and community. ▪ Generate awareness in the community about healthy lifestyle in the elderly to promote active and healthy ageing. ▪ Identify elderly individuals in need of care in the community including mapping of elderly population ▪ Provide support in family counselling and redressal of medical issues ▪ Identify caregivers within or outside the family and link them to the nearest health care facility. ▪ Facilitate environmental modification, nutritional intervention and physical activities including yoga, lifestyle and behavior changes at the family and individual level. ▪ Would work with Gram Sabha, ULB, SHG, VHSNC/MAS, JAS, RWA and local NGO to enable creation of facilitatory environment for elderly. ▪ Support caregivers in learning a range of practical skills like transferring a bed bound elderly within house, support in daily routine activities like eating, bathing etc. ▪ Facilitate services available for elderly at HWCs and referral centres. ▪ Home based follow-up care for elderly discharged from higher facilities.
ASHA Facilitator	▪ All elements of ASHA (as above) ▪ Deliver passive physiotherapy services to bed bound elderly acting as a lay rehabilitation worker under the guidance of CHO & MRW from CHC. ▪ Supportive supervision to ASHA
MPW-F/ MPW-M	▪ Undertake initial screening using preliminary Comprehensive Geriatric Assessment for all elderly twice in a year. ▪ Facilitate formation of Elderly support groups named ‘Sanjeevini’ and elderly care giver support groups ▪ Reinforce healthy ageing via adequate nutrition, physical activity, regular checkups and rehabilitative care. ▪ Undertake weekly visits to home bound/bed bound elderly
CHO	▪ Undertake comprehensive geriatric assessment twice a year ▪ Providing immediate/primary management of common ailments of elderly and referring to MO at PHC or conducting teleconsultation services and manage as per MO-PHC instructions. ▪ Develop and administer a personalized care plan for each elderly identified in the community in consultation with MO-PHC. ▪ Facilitate identification and provide guidance to care givers regarding care given to bed bound elderly. ▪ Develop elderly support groups named “Sanjeevini” ▪ Conduct periodic home visit to bedbound elderly, sick elderly and restricted mobile elderly ▪ Undertake preliminary assessment for the need of assistive devices. - Support for rehabilitative services for the elderly

Human Resources	Responsibilities
Medical Officer	▪ Conduct weekly fixed day geriatric clinics ▪ In-depth person-centered assessment of elderly; Undertake Advanced comprehensive geriatric assessment of the elderly. ▪ Primary management of all common diseases of the elderly and basics of counselling and physiotherapy ▪ Referral and linkages ▪ Assure public awareness on promotional, preventive and rehabilitative aspects of geriatrics and village ▪ Conduct home visit for bed bound elderly at-least on quarterly basis. ▪ Facilitate provision of assistive devices for the needy elderly and also train them to use it ▪ Enable skills and competencies of the caregivers

Referral Pathway for Elderly Care across all levels:

Service Delivery Framework & Continuum of Care



Key roles of Medical Officer in elderly care

Your role in elderly care would be providing primary level care at the PHC-HWC level as well as supervision of the activities of the PHC-HWC team. You will also supervise the SHC-HWCs under your area for providing elderly care services. Broadly, your roles will encompass clinical, public health and managerial aspects.

Clinical roles

- Comprehensive assessment and examination of elderly people attending OPD, relevant investigation and confirming diagnosis. This will also include all those individuals who are referred to you by the CHO. You will use the Advanced Comprehensive Geriatric Assessment tool for individuals with more than 3 red flags.
- Treatment of elderly people for diagnosed conditions and preparing a treatment and follow up plan. You will follow-up all such elderly individuals in whom you have initiated treatment at regular intervals to monitor progression of disease, dose regulation of medicines and any need for referral to higher centres. If you refer any elderly individual to higher centres, you will follow up such patients at regular intervals and re-refer if required.
- You will counsel elderly individuals and their caregivers/family about healthy ageing and ways to maintain good health in old age. You will provide health education regarding healthy lifestyle including avoiding tobacco and alcohol use, taking a balanced diet and practicing regular physical activity.

Public health roles

- You will undertake planning and conduct of awareness generation activities to sensitize elderly and caregivers in identifying common elderly problems and orienting them to home-based care, undertake modifications within the physical home environment to help reduce hazards that cause falls and fractures in the elderly, counsel against malnutrition and neglect of care which is very common in elderly through identifying and providing advice for geriatric friendly home settings, sensitize them to the various needs of the elderly and providing support to the elderly.
- You will ensure implementation of the various components of the National Programme for Health Care of the Elderly.
- In order to provide elderly care services, it is important to establish linkages with – a) NGOs for support group meetings and health promotional activities; b) government departments, such as Department of Empowerment of Persons with Disability Social Justice and Empowerment, District Legal Services Authority, Panchayati Raj Institutions (PRIs), Urban Local Bodies (ULB) etc. to facilitate access to entitlements/schemes/ programs for the benefit of the elderly; c) referral and integrated/coordinated care linkages with other programs (elderly and palliative care, communicable diseases and NCDs program etc.)
- You will also support the formation of support groups for elderly and elderly caregivers to improve motivation and share the challenges and success related to elder abuse, lifestyle changes, reduction in substance abuse and adherence to treatment for chronic diseases.

Managerial roles

- Supervision of elderly care activities at linked SHC-HWCs.
- Maintaining relevant records of elderly care services provided at the PHC-HWC including OPD/ geriatric clinic attendance, screening camps, IEC activities and referrals.
- Inventory control including indenting and supply of assistive devices for the elderly people as per requirement.

Monitoring and Supervision

You can use the following indicators to monitor the Programme at the PHC-HWC level:

- Percentage of elderly registered at the PHC-HWC
- Percentage of elderly registered at the linked SHC-HWCs
- Percentage of elderly population screened by you as a part of Advanced Comprehensive Geriatric Assessment
- Percentage of elderly on treatment at PHC-HWC
- Percentage of bed bound elderly visited by ASHA
- Percentage of needy elderly provided with supportive/assistive devices

Annexures

Annexure 1: Community based assessment checklist (CBAC)

Date: DD/MM/YYYY

General Information	
Name of ASHA:	Village/Ward:
Name of MPW/ANM:	Sub Centre:
	PHC/UPHC:
Personal Details	
Name:	Any Identifier (Aadhar Card, UID, Voter ID): Yes/No
Age:	State Health Insurance Schemes: Yes/No If yes, specify:
Sex:	Telephone No. (self/other - mention relation):
Address:	
Is this person having any visible/known disability?	If yes, please specify

Part A: Risk Assessment

Question	Range	Circle Any	Write Score
1. What is your age? (In complete years)	30-39 years	0	
	40-49 years	1	
	50- 59 years	2	
	≥ 60 years	3	

Question	Range		Circle Any	Write Score
2. Do you smoke or consume smokeless products such as Gutka or khaini?	Never		0	
	Used to consume in the past/ Sometimes now		1	
	Daily		2	
3. Do you consume alcohol daily	No		0	
	Yes		1	
4. Measurement of waist (in cm)	Female	Male		
	80 cm or less	90 cm or less	0	
	81-90 cm	91-100 cm	1	
	More than 90 cm	More than 100cm	2	
5. Do you undertake any physical activities for minimum of 150 minutes in a week? *(Daily minimum 30 minutes per day – Five days a week)*	At least 150 minutes in a week		0	
	Less than 150 minutes in a week		1	
6. Do you have a family history (any one of your parents or siblings) of high blood pressure, diabetes and heart disease?	No		0	
	Yes		2	
Total Score				
Every individual needs to be screened irrespective of their scores. A score above 4 indicates that the person may be at higher risk of NCDs and needs to be prioritized for attending the weekly screening day				

Part B: Early Detection: Ask if Patient has any of these Symptoms

B1: Women and Men	Y/N		Y/N
Shortness of breath		History of fits	
Coughing more than 2 weeks*		Difficulty in opening mouth	
Blood in sputum*		Any ulcers in mouth that has not healed in two weeks	
Fever for > 2 weeks*		Any growth in mouth that has not healed in two weeks	

Loss of weight*		Any white or red patch in mouth that has not healed in two weeks	
Night Sweats*		Pain while chewing	
Are you currently taking anti-TB drugs**		Any change in the tone of your voice	
Anyone in family currently suffering from TB**		Any hypopigmented patch(es) or discolored lesion(s) with loss of sensation; thickened skin or nodules on skin	
History of TB *		Recurrent ulceration on palm or sole, or/ and tingling/ numbness on palm(s) or sole(s)	
Do you have cloudy or blurred vision/ difficulty in reading?		Clawing of fingers or/and tingling and numbness in hands and/or feet	
Pain or redness in eyes lasting for more than a week		Inability to close eyelid	
Do you have difficulty in hearing?		Difficulty in holding objects with hands/ fingers or weakness in feet that causes difficulty in walking	
B2: Women only	**Y/N**		**Y/N**
Lump in the breast		Bleeding after menopause	
Blood-stained discharge from the nipple		Bleeding after intercourse	
Change in shape and size of breast		Foul smelling vaginal discharge	
Bleeding between periods			
B3: Elderly Specific (60 years and above)	**Y/N**		**Y/N**
Do you feel unsteady while standing or walking?		Do you need help from others to perform everyday activities such as eating, getting dressed, grooming, bathing, walking, or using the toilet?	
Are you suffering from any physical disability that restricts your movement		Do you forget names of your near ones or your own home address	
In case of individual answers Yes to any one of the above-mentioned symptoms, refer the patient immediately to the nearest facility where a Medical Officer is available			
**If the response is Yes- action suggested: Sputum sample collection and transport to nearest TB testing center*			
*** If the answer is yes, tracing of all family members to be done by ANM/MPW*			

Part C: Risk factors for COPD

Circle all that Apply
Type of Fuel used for cooking – Firewood / Crop Residue / Cow dung cake / Coal / Kerosene / LPG
Occupational exposure – Crop residue burning/burning of garbage – leaves/working in industries with smoke, gas and dust exposure such as brick kilns and glass factories etc.

Part D: PHQ 2

Over the last 2 weeks, how often have you been bothered by the following problems?		Not at all	Several days	More than half the days	Nearly every day
1.	Little interest or pleasure in doing things?	0	+1	+2	+3
2.	Feeling down, depressed or hopeless?	0	+1	+2	+3
Total Score					
Anyone with total score greater than 3 should be referred to CHO.					

Annexure 2: Comprehensive Geriatric Assessment (CGA)-CPHC

Overview of Components of CGA	
Section 1: Basic details	A. Registration details B. Identification data of elderly person
Section 2: History taking	A. Chief Complaint B. Details of Complaint C. Past Medical History D. Drug History E. Consumption of addictive substance F. Nutritional History G. Family History H. Social & Spiritual History I. Personal History J. Home safety Environment
Section 3: 10 Minute comprehensive screening	A. Screening for Geriatric Syndromes B. Screening for other age-related problems C. Functional Assessment
Section 4: Physical Examination	A. General Examination B. Systemic Examination
Section 5: Syndromic specific toolkit for assessment of the problem identified in section 3	A. Memory Loss B. Screening for cognitive impairment C. Screening for depression D. Fall risk evaluation E. Incontinence assessment & Management guide
Section 6: Comprehensive Geriatric Assessment report	

Section I

A. Registration Details

1. Date of First Assessment:
2. Name of Health worker/Assessor:
3. Designation of Health worker/Assessor:
4. Contact No.:

B. Identification data of elderly person

5. Name: .....
6. Age (In Completed Years): .....
7. Sex: 1. Male 2. Female 3. Others
8. Address/ Contact:
9. Name/Relationship of Contact Person:
10. Marital Status:

1. Never Married	2. Currently Married	3. Divorced	4. Separated	5. Widowed

11. Who is Head of the family?

1. Myself	2. Wife	3. Son	4. Daughter in law	5. Others .....

12. Education:

1. Illiterate	2. Just literate (knows to read and write but nil education	3. Primary school (5^{th} completed	4. Middle school (8^{th} completed)	5. High school (10^{th} completed	6. Senior secondary (12^{th} completed	7. Graduate	8. Postgraduate

13. Occupation:

    1. Not working; 2. Working (Specify) .....

14. Religion:

1. Hindu	2. Muslim	3. Christian	4. Sikh	5. Others (Specify).....

15. What kind of locality is your house in?

    1. Urban (Specify) ..... 2. Rural (Specify) .....

16. Type of Family: 1. Single 2. Nuclear 3. Joint 4. Elderly homes
17. Total Family income per month? /Rs. .....

    a. Total number of family members? .....

    b. Per capita Income per month: Rs.....

18. Are you Married/Unmarried/Windowed/Seperated/Divorced? (tick whichever is applicable)
19. Are you living with your spouse/children/relatives/alone? (tick whichever is applicable)

20. Are you financially completely independent/partially dependent/completely dependent?
21. What is your perception about behavior of family members with you? Positive/ Negative
22. Do you get pension from anywhere? Yes/No, if yes,
    a. Name the source:
    b. Amount (in rupees):
23. Do you get monetary assistance from any other welfare scheme? Yes/No, if yes
    a. Name the scheme/source:
    b. Amount (in rupees):
24. Do you have any health insurance? Yes/No, if yes, name the source: (if yes specify.....)
25. Have you received any monetary assistance from any NGOs/Religious Organization.
26. Do you know about any health insurance scheme for elderly by Government? Yes/No
27. Do you know about any helpline number for elderly in your city? Yes/No

Section II: History Taking

A. Chief Complaint

1. .....
2. .....
3. .....
4. .....
5. .....

B. Details of complaints

B1. Do you have any eye complaints?		Yes/ No
If Yes, have you consulted any doctor for this problem?		Yes/ No
Do you use spectacles?		Yes/ No
If Yes, mention the power of the lens. Right Eye: Left Eye:		
Eye Symptoms	Response	Duration
Diminished Vision (Near/ Distant)	Yes/ No	
Visual blurring/ Double vision/ Distorted vision (straight lines become crooked/magnified/diminished)	Yes/ No	
Pain in the eye	Yes/ No	
Itching/ foreign body sensation in the eye/ Burning/ Stinging sensation	Yes/ No	

Discharge from eyes	Yes/ No	
Any Other, specify:		

B2. Do you have any complaints related to Ear-Nose-Throat?		Yes/ No
If Yes, have you consulted any doctor for this problem?		Yes/ No
ENT Symptoms	Response	Duration
Earache	Yes/ No	
Ear Discharge	Yes/ No	
Hearing Loss	Yes/ No	
Tinnitus (ringing, rushing or hissing sound in the absence of any external sound)	Yes/ No	
Dizziness/ Vertigo	Yes/ No	
Hoarseness of voice (Sudden or Gradual)		
Nasal Discharge		
Any other, specify:		

B3. Do you have any complaints related to oro-dental condition?		Yes/ No
If Yes, have you consulted any doctor for this problem?		Yes/ No
Oro-dental Symptoms	Response	Duration
Bad Breath	Yes/ No	
Visible pits or holes in the teeth/loose teeth	Yes/ No	
Aggravation of pain with exposure to heat, cold or sweet foods and drinks	Yes/ No	
Red swollen gums, tender and bleeding gums	Yes/ No	
Ulcer/ Sore in the mouth that does not healt/ Red or white patches inside the mouth	Yes/ No	
Difficulty in opening the mouth	Yes/ No	
Pain while swallowing	Yes/ No	
Any other, specify		

B4. Do you have any cardiac or respiratory symptoms?		Yes/ No
If Yes, have you consulted any doctor for this problem?		Yes/ No
Cardio-Respiratory Symptoms	Response	Duration
Breathlessness	Yes/ No	
Cough Expectoration	Yes/ No	

Presence of blood in cough	Yes/ No	
Noise coming from chest (audible wheeze)	Yes/ No	
Chest pain	Yes/ No	
Any other, specify:		

B5. Do you have any Gastro-intestinal Symptoms		Yes/ No
If Yes, have you consulted any doctor for this problem?		Yes/ No
Gastro-Intestinal Symptoms	Response	Duration
Difficulty in swallowing	Yes/ No	
Heartburn	Yes/ No	
Indigestion	Yes/ No	
Constipation/ Diarrhoea/ Alteration of bowel pattern	Yes/ No	
Abdominal pain/ distension	Yes/ No	
Bleeding during or after defecation		
Any other, specify:		

B6. Do you have any Genito-urinary complaints?		Yes/ No
If Yes, have you consulted any doctor for this problem?		Yes/ No
Genito-urinary Symptoms	Response	Duration
Pain in the lower part of the belly	Yes/ No	
Pain or burning sensation while passing time	Yes/ No	
Do you have to repeatedly visit washroom to pass urine?	Yes/ No	
Difficulty in initiating urination	Yes/ No	
Passing urine while coughing or sneezing	Yes/ No	
Discharge from external genital region	Yes/ No	
Any other, specify:		

B7. Do you have any skin related problems?		Yes/ No
If Yes, have you consulted any doctor for this problem?		Yes/ No
Skin related Symptoms	Response	Duration
Itching	Yes/ No	
White/light coloured patches	Yes/ No	
Dark/ coloured patches	Yes/ No	
Ulceration/ Soreness/ open wound	Yes/ No	

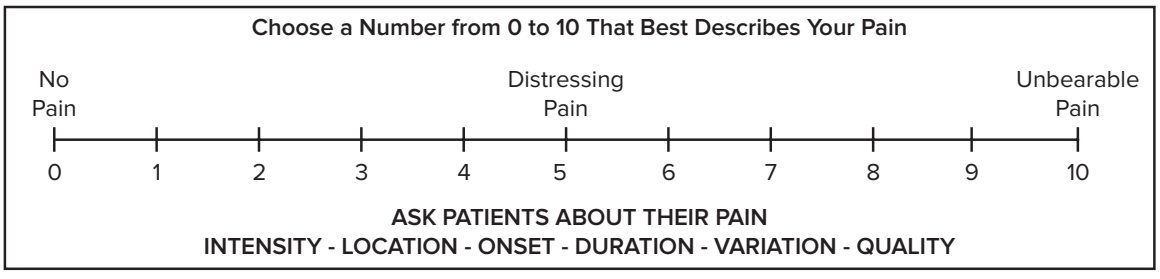
Skin eruptions filled with fluid	Yes/ No	
Any other, specify:		

B8. Dou you have any complaints suggestive of neurological problem?		Yes/ No
If Yes, have you consulted any doctor for this problem?		Yes/ No
Neurological Symptoms	Response	Duration
Increased difficulty in remembering	Yes/ No	
Headache	Yes/ No	
Loss of awareness regarding time, place and person	Yes/ No	
Loss of balance/falls/weakness	Yes/ No	
Involuntary movements of parts of body-tremors/ inability to control limbs	Yes/ No	
Pain/ altered sensation	Yes/ No	
Any other, specify:		

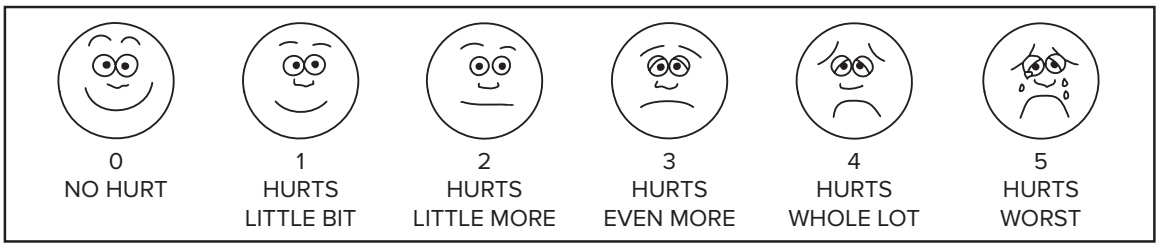
B9. Do you have any complaints related to muscles, bones or joints?		Yes/ No
If Yes, have you consulted any doctor for this problem?		Yes/ No
Musculo-skeletal symptoms	Response	Duration
Pain or stiffness in muscles, joints or back	Yes/ No	
Any swelling in joints?	Yes/ No	
Difficulty in carrying out normal activities	Yes/ No	
Difficulty in walking up and down stairs	Yes/ No	
Any other, specify:		

Tool Commonly used to Rate Pain

Visual Analogue Scale



"Faces" Pain Rating Scale



NOTE: Ask Females Only B10. Do you have any gynecological symptoms?		Yes/ No
If Yes, have you consulted any doctor for this problem?		Yes/ No
Gynecological Symptoms	Response	Duration
Bleeding per vagina	Yes/ No	
Discharge per vagina	Yes/ No	
Swelling/mass felt at the genital region	Yes/ No	
Pain in the lower part of the belly	Yes/ No	
Any history of surgical removal of womb (hysterectomy)?	Yes/ No	
Have you ever been screened for: A) Breast Cancer/ SBE/ Memmogram B) Cervical Cancer/ VIA-VILI/ Colposcopy/ PAP SMEAR	Yes/ No	
Any other, specify:		

C. Past medical History

Is on treatment for	Duration of illness	Current medication & dosage	Verification of records	In case of treatment completion or stoppage, mention since how long
Diabetes Mellitus			Yes/ No	
Hypertension			Yes/ No	
Thyroid Disease			Yes/ No	
Chronic Kidney Disease			Yes/ No	
Tuberculosis			Yes/ No	
Any other respiratory disease, specify			Yes/ No	
Cardiac condition Specify.....			Yes/ No	
Musculoskeletal condition Specify.....			Yes/ No	
Neurological Condition Specify.....			Yes/ No	
Psychiatric Disorder Specify.....			Yes/ No	
Dental disorder Specify.....			Yes/ No	

Any other condition Specify.....			Yes/ No	
Has any vaccine taken during the past 5 years? Yes/ No. If Yes, please specify: Vaccine..... Date received ..... Vaccine..... Date received ..... Vaccine..... Date received ..... \				
History of recent hospitalization (previous one year): Yes/ No If yes, specify the reasons below:				

D. Drug History

S. No.	QUESTION	RESPONSE (tick appropriate answer wherever applicable)
1	Are you taking any medication?	Yes/NO If Yes, No. Of medicines taken daily:
2	Are you taking any medications without consulting the doctor?	Yes/No If Yes, Nmae the condition for which medicine is being taken:
3	Are you suffering from any drug side effects?	Yes/No If Yes, please specify:
4	Are you taking any medicines other than allopathy?	Ayurveda/Homeopathy/Unani/ Any other/ None
5	Do you use a pill organizer?	Yes/No

E. Consumption of additive substances

Additive Substances (tick 'Y' for yes and 'N' for no)		If yes, specify duration (in weeks or months or years)	Standard quantity	Quantity consumed (Fill any one)	If stopped, specify duration since last consumption
Tobacco					
Smokeless & chewable (Eg. gutka, khaini, paan masala, zarda, betel quid)	Y/N		No. Of packets	Per day... OR Per week.... OR Per Month... OR Occasionally	
Snuff	Y/N			Per day... OR Per week.... OR Per Month... OR Occasionally	

Additive Substances (tick 'Y' for yes and 'N' for no)		If yes, specify duration (in weeks or months or years)	Standard quantity	Quantity consumed (Fill any one)	If stopped, specify duration since last consumption
Smoking (Eg. Cigarette, beedi, cigar, hookah)	Y/N		No. Of pieces/ packets	Per day... OR Per week.... OR Per Month... OR Occasionally	
Alcohol	Y/N		One small peg= 30ml	Per day... OR Per week.... OR Per Month... OR Occasionally	
Opioids ('Afeem' or 'Doda' or 'Amal')	Y/N			Per day... OR Per week.... OR Per Month... OR Occasionally	
Sleeping pills	Y/N		No. of pills	Per day... OR Per week.... OR Per Month... OR Occasionally	
Painkillers	Y/N		No. of pills	Per day... OR Per week.... OR Per Month... OR Occasionally	
Cannabis (Ganja/Bhang)	Y/N			Per day... OR Per week.... OR Per Month... OR Occasionally	
Any other, specify:					

F. Nutritional History

Complete the screening by filling in the boxes with the appropriate numbers. Total the numbers for the final screening score.

Screening	
A Has food intake declined declined over the past 3 months due to loss of appetite, digestive problems, chewing or swallowing difficulties? 0 = severe decrease in food intake 1 = moderate decrease in food intake 2 = no decrease in food intake	☐
B Weight loss during the last 3 months 0 = weight loss greater than 3 kg (6.6 ibs) 1 = does not know 2 = weight loss between 1 and 3 kg (2.2 and 6.6 ibs) 3 = no weight loss	☐
C Mobility 0 = bed or chair bound 1 = able to get out of bed / chair but does not go out 2 = goes out	☐
D Has suffered psychological stress or acute disease in the past 3 month? 0 = yes 2 = no	☐
E Neuropsychological problems 0 = severe dementia or depression 1 = mild dementia 2 = no psychological problems	☐
F1 Body Mass Index (BMI) (weight in kg) / (height in m)^2 0 = BMI less than 19 1 = BMI 19 to less than 21 2 = BMI 21 to less than 23 3 = BMI 23 or greater	☐ ☐
IF BMI IS NOT AVAILABLE, REPLACE QUESTION F1 WITH QUESTION F2. DO NOT ANSWER QUESTION F2 IF QUESTION F1 IS ALREADY COMPLETED.	
F2 Calf circumference (CC) in cm 0 = CC less than 31 3 = CC 31 or greater	☐
Screening score (max. 14 points) 12-14 points: ☐ Normal nutritional status 8-11 points: ☐ At risk of malnutrition 0-7 points: ☐ Malnourished	☐☐

Nutrional Diversity

Food item	Examples	Frequency of consumption(tick the appropriate answer)		Remarks
		Daily	weekly	
Cereals	Wheat, wheat flour (atta/maida), rice (brown/white), rice flakes (chiwra), maize/corn, barley, oats, suji, vermicelli (sevian), puffed rice, etc			
Millets	Bajra, Ragi, Jowar			
Pulses	Bengal gram (channa dal), Bengal gram flour (besan), green gram (moong dal), black gram (urad dal), arhar dal (tur dal) chickpea (white/ black/green chana), sprouted pulses, legumes like rajma, lobia, soyabean and its products, etc.			
Vegetables and fruits	Green leafy vegetables - spinach, mustard leaves (sarson), fenugreek leaves, bathua, coriander leaves etc; Other vegetables - carrots, onion, brinjal, ladies finger, cucumber, cauliflower, tomato, capsicum, cabbage etc; **Starchy roots and tubers - potatoes, sweet potatoes, yam, colocasia and other root vegetables; Fruits - Mango, guava, papaya, orange, sweet lime, watermelon, lemon, grapes, amla, etc			
Milk	Milk, curd, skimmed milk, cheese, cottage cheese (paneer), etc			
Animal products	Meat, egg, fish, chicken, liver, etc.			
Oils, Fats, Sugar and Nuts	Oils and Fats - Butter, ghee, vegetable cooking oils like groundnut oil, mustard oil, coconut oil, etc; Sugars - Sugar, jaggery, honey; Nuts - peanuts, almonds, cashew nuts, pistachios, walnuts, etc.			

*These examples will change according to local crops and diets in different areas ** Starchy roots and tubers like potatoes, sweet potatoes (shakarkandi), yam (jimikand), colocasia (arbi) and other root vegetables; as well as fruits like banana are rich in starch which provide energy

Ask the following questions:

a. Number of meals taken per day.....Veg/Non Veg, Frequency of Non Veh..

b. Quantity of water/ juice and other fluid consumed per day (in litres/in glasses)..

c. History of loss of weight (e.g. Loosening of clothes) Yes/No

d. If weight loss present, mention how much weight was lost in the past one month..

e. History of reduced appetite: Yes/No (If yes, give reason)

f. Difficulty in chewing food: Yes/No (If yes, give reason)

g. Difficulty in swallowing food: Yes/No (If yes, give reason)

h. Does the elderly person feed with some assistance: Yes/No

i. Consumption of additional sources of salt (e.g. Pickle, chutney, papad, ready to eat food): Yes/No (If Yes, specify: .....)

j. Who prepares the food at home? (self/daughter/daughter in law/any other caregiver)

G. Family History

Hypertension	Diabetes	Heart Disease	Dementia	Cancer

Ha. Family support

Married:	Yes	No
Spouse living	Yes	No
Living with		
No of Children		
How often do you see them?		
Who assists you?		
Is the assistance sufficient?	Yes	No
Native Language		
Type of House	Independent	Apartment
Stairs	Present	Absent
Who would be able to help the senior citizen of your family in case of illness or emergency?		

Hb. Social and Spiritual assessment

Do you pray, worship or meditate at home or outside? Yes/No If yes, specify

Do you participate in family or community gatherings? Yes/No If yes, specify .....

Do you have any hobbies? Yes/No If yes, specify .....

I. Personal History

Do you exercise daily?	Yes	No
If yes, minutes/ day?		
What type?		

Smoker	Yes	No
	Duration	
Alcohol	Yes	No
	Duration	
Caregiver fatigue	Yes	No

J. Home safety Environment

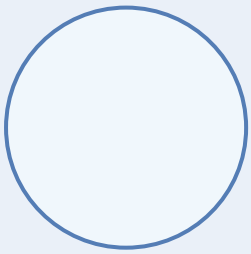
- Ask the senior citizen if he/she has trouble with lighting or with stairs inside or outside the house? Yes/No

Healthcare worker to assess the following

Assessment	Observation (tick the appropriate answer)
Is the bathroom slippery and wet?	Yes/No/Not applicable
Is there any provision for a caregiver at home?	Yes/No/Not applicable
Is there any ramp at home for elderly using walking aids or wheelchairs?	Yes/No/Not applicable
Are there any handrails in the staircase and bathrooms?	Yes/No/Not applicable

Section 3: 10-minute Comprehensive Screening

A: Screening for Geriatric Syndromes

*Memory	3 Objects named	Yes	No	Clock Draw Test 
DEPRESSION (if yes to the question proceed to the Depression Management toolkit at section 5c)	Are you often sad/ depressed?	Yes	No	
FALLS (if yes to first question and not able to walk around chair/if unsteady proceed to fall risk assessment toolkit at section 5d)	Fallen more than twice in last 1 year	Yes	No	
	Able to walk around chair?(Check if unsteady)	Yes	No	
URINARY INCONTINENCE (if yes to any one of the above questions, proceed to toolkit on management of Urinary incontinence at section 5e)	Lost urine / got wet in past one year/ week?	Yes	No	

*MEMORY RECALL	One object	Two objects	Three objects	None
MiniCog Score				

Scoring for Memory testing:

Three item recall score: 1 point is given for each word recalled without cues, for a 3-item recall score of 1, 2, or 3.

Clock draw score: 2 points are given for a normal clock or 0 (zero) points for an abnormal clock drawing. A normal clock must include all numbers (1-12), each only once, in the correct order and direction (clockwise). There must also be two hands present, one pointing to the 11 and one pointing to 2. Hand length is not scored in the Mini-Cog© algorithm.

Add the 3-item recall and clock drawing scores together. A total score of 3, 4, or 5 indicates lower likelihood of dementia but does not rule out some degree of cognitive impairment.

If the score is <3, consider positive for memory loss and refer to the toolkit for assessment of Memory loss) (Section 5a)

B. Screen for other age-related problems

Vision	Ask:"Do you have difficulty reading or doing any of your daily activities because of your eyesight?"(even with wearing glasses)	If, Yes, Test Vision using - Snellen's/Finger Counting	Right eye	Left eye	If visual impairment present, refer to medical officer/ specialist for further assessment
Hearing			Right ear	Left ear	If hearing impairment present, refer to medical officer/ specialist for further assessment
6,1,9 test (Stand behind the patient and speak softly and then in normal voice - 6,1, 9 and check for hearing)		Normally			
		Softly			
Have you noticed a change in your weight over the past 6 months?		Yes	No	If YES, Increase= -----kg or Decrease =----kg	
Constipation			Yes	No	Refer to medical officer for further assessment
Insomnia			Yes	No	

Section C: Functional Assessment

Assessment tool for Activity of Daily Living

Activities Points (0 or 1)	Independence (1 point) NO supervision, direction or personal assistance	Dependence (0 point) WITH supervision, direction, personal assistance or total care
Bathing	(1 POINT) Bathes self completely or needs help in bathing only a single part of the body such as the back, genital area or disabled extremity.	(0 POINTS) Needs help with bathing more than one part of the body, getting in or out
Dressing	(1 POINT) Gets clothes from closets and drawers and puts on clothes and outer garments complete with fasteners. May have help tying shoes.	(0 POINTS) Needs help with dressing self or needs to be completely dressed.

Toileting	(1 POINT) Goes to toilet, gets on and off, arranges clothes, cleans genital area without help	(0 POINTS) Needs help transferring to the toilet, cleaning self or uses bedpan or commode
Transferring	(1 POINT) Moves in and out of bed or chair unassisted. Mechanical transferring aides are acceptable	(0 POINTS) Needs help in moving from bed to chair or requires a complete transfer.
Continence	(1 POINT) Exercises complete self-control over urination and defecation	(0 POINTS) Is partially or totally incontinent of bowel or bladder.
Feeding	(1 POINT) Gets food from plate into mouth without help. Preparation of food may be done by another person.	(0 POINTS) Needs partial or total help with feeding or requires parenteral feeding

TOTAL POINTS = _____ 6 = High (patient independent) 0 = Low (patient very dependent)

Section 4: Physical Examination

A: General Examination

1. Height: cm
2. Weight: kg
3. Waist circumference: C ITI
4. Hip circumference: cm
5. Body mass index (BMI) (kg/m2):
6. Waist hip ratio (formula is waist circumference/hip circumference):
7. Temperature (Normal: 98.6°F- 99.6°F)
8. Respiratory rate (Normal: 14-18 breaths/minute)
9. Pulse rate (Normal: 60-100 beats/minute)
10. Blood pressure (in sitting, standing and supine position) (Normal systolic/diastolic: 100-140/60-90 mm Hg)

    Supine position: mm of Hg

    Sitting position: mm of Hg

B. Head to toe Examination

Aspects to be examined	Findings (tick wherever applicable)
Level of consciousness	Alert-oriented-cooperative
Build	thin/average/large
Stature	small/average/tall
Nutrition	undernourished/average/obese
Facial Appearance	Absence of wrinkling of forehead/deviation of angle mouth

Hair	Loss of hair Colour of hair-white/grey/brownish discolouration
Eyes	Drooping of eyelids Pallor Yellow discolouration (of sclera) Bitot's spots Cataract
Mouth	Dryness of lips Soreness in angle of mouth Dryness of tongue Ulcer in mouth/tongue Presence/absence of teeth Staining of teeth Swelling/bleeding from gums Any growth seen in mouth Pallor/ bluish discolouration (of tongue and lips)
Neck	Swelling
Chest	Abnormal shape of chest Fats breathing (respiratory rate, 20/minute)
Abdomen	Distension of abdomen Change in shape of abdomen
Hands and nails	Change in shape of nails, pallor (nails and palms)
Feet and toes	Bow legs/knocked knees/ claw foot
Skin	Yellowish discoloration Dryness Any change in colour of skin Any growth on skin
Any obvious deformity (of skull, spine, limbs or swelling of abdomen/feet/ face/entire body)	

C. Systemic Examination

	What to look for?	Description
Joints	1. Redness 2. Swelling 3. Degree of movements 4. Increased local temperature 5. Tenderness	
Cervical Spine	1. Pain 2. Stiffness 3. Tenderness	

	What to look for?		Description	
Thoracic Spine	1. Curvature 2. Scars 3. Discolorations			
Lumbar spine				
RS	1. Respiratory rate 2. Respiratory rhythm Palpate the following: a. Size and shape of the thorax during respirations b. Intercostal spaces (for bulging or retractions) c. Any scars or other skin abnormalities (skin temperature as well) d. Tenderness or pain (palpate gently) e. Breath sounds (normal/abnormal-adventious sounds)			
CVS	a. Chest Pain b. S1/S2 c. Murmurs d. Palpitation			
P/A	a. shape b. position of umbilicus c. dilated veins			
Neurological examination				
			Right	**Left**
Muscle strength	Upper limb	Shoulder		
		Elbow		
		Wrist		
		Small muscles of hand		
	Lower limb	Hip		
		Knee		
		Ankle		
Tone	Rigidity/Hypotonia / Spasticity	Describe		
Balance	Normal/ Abnormal	Sensory	Cerebellar	Vestibular
Gait				
Timed Up and Go test (secs)				

D. Current Treatment Details

[Document all prescription and nonprescription drugs including over the counter medications and alternative medications]

Drug with dose and sechedule	Drug with dose and schedule	
1.	2.	
3.	4.	
5.	6.	
7.	8.	
9.	10.	
Polypharmacy (any use of >4 drugs including over the counter drugs and alternative mdeicines)	YES	NO

Section 5: Syndrome specific Toolkit for assessment of the problems identified during Section 3

Section 5	
Purpose	To conduct a detailed assessment of the geriatric syndromes and other problems detected during the initial screening a. Memory Loss b. Depression c. Incontinence d. Falls
Eligibility to conduct	Medical Officer with nurse (physical therapist, social worker, pharmacist may contribute their sections)
Time taken	30 to 40 minutes

Section 5a : Memory loss evaluation form

Purpose	To evaluate for memory loss
Eligibility to conduct	Medical Officer
Time taken	5 to 15 minutes

- Assess history of the memory problem

.....

.....

- Obtain relevant psychiatric history

  .....

  .....

- Medication History: Observe if patient is on any benzodiazepines, sedative hypnotic medications, any recent change in medication or health status.

  .....

- Family History: Tick all that are present

	Dementia		Cardiovascular disease
	Hypertension		Depression
	Stroke		Down's Syndrome
	Diabetes		
	Parkinson's Disease		

	Speech difficulty		Emotional change
	Delusions		Fall
	Confusion		Injury
	Aggressive		Balance problems
	Hallucinations		Eating problems

Symptoms (Tick positives):

- List the main problems identified by the caregiver

  1. .....

  2. .....

  3. .....

Section 5b: Screening for cognitive impairment – The GPCOG-General Practitioner Assessment of Cognition

What for?	Screening test for cognitive impairment
By whom?	Medical Officer
How long?	5 minutes

GPCOG Screening Test
Step 1: Patient Examination

Unless specified, each question should only be asked once

Name and Address for subsequent recall test

1. *"I am going to give you a name and address. After I have said it, I want you to repeat it. Remember this name and address because I am going to ask you to tell it to me again in a few minutes: John Brown, 42 West Street, Kensington." (Allow a maximum of 4 attempts).*

Time Orientation	**Correct**	**Incorrect**
2. *What is the date? (exact only)*	☐	☐
Clock Drawing – use blank page		
3. *Please mark in all the numbers to indicate the hours of a clock* (correct spacing required)	☐	☐
4. *Please mark in hands to show 10 minutes past eleven o'clock (11.10)*	☐	☐

Information

5. *Can you tell me something that happened in the news recently? (Recently = in the last week. If a general answer is given, e.g. "War", "lot of rain", ask for details. Only specific answer scores).*

Recall

6. *What was the name and address I asked you to remember*

John	☐	☐
Brown	☐	☐
42	☐	☐
West (St)	☐	☐
Kensington	☐	☐

To get a total score, add the number of items answered correctly

Total correct (score out of 9) ☐ /9

If patient scores 9, no significant cognitive impairment and further testing not necessary.

If patient scores 5-8, more information required. Proceed with Step 2, informant section.

If patient scores 0-4, cognitive impairment is indicated. Conduct standard investigations.

Step 2 of GPCOG : (the informant interview)

Informant Interview

Date: .....

Informant's Name: .....

Informant's relationship to patient, i.e. informant is the patient's: .....

These six questions ask how the patient is compared to when s/he was well, say 5 - 10 years ago
Compared to a few years ago:

	Yes	No	Don't Know	N/A
1. Does the patient have more trouble remembering things that have happened recently than s/he used to?	☐	☐	☐	
2. Does he or she have more trouble recalling conversations a few days later?	☐	☐	☐	
3. When speaking, does the patient have more difficulty in finding the right word or tend to use the wrong words more often?	☐	☐	☐	
4. Is the patient less able to manage money and financial affairs (e.g. paying bills, budgeting)?	☐	☐	☐	☐
5. Is the patient less able to manage his or her medication independently?	☐	☐	☐	☐
6. Does the patient need more assistance with transport (either private or public)? (If the patient has difficulties due only to physical problems, e.g. bad leg. tick 'no')	☐	☐	☐	☐

(To get a total score, add the number of items answered 'no', 'don't know' or 'N/A') ☐

Total score (out of 6)

If patient scores 0-3, cognitive impairment is indicated. Conduct standard investigations.

Brodaty et al, JAGS 2002; 50:530-534

Section 5c : Screening for Depression – The Geriatric Depression Scale

Purpose	To assess for depression in Older Adults
Eligibility	Medical officer
Duration	5 minutes

Instructions	Circle the answer that best describes how you felt over the past week.		
	1. Are you basically satisfied with your life?	Yes	**No**
	2. Have you dropped many of your activities and interests?	**Yes**	No
	3. Do you feel that your life is empty?	**Yes**	No
	4. Do you often get bored?	**Yes**	No
	5. Are you in good spirits most of the time?	Yes	**No**
	6. Are you afraid that something bad is going to happen to you?	**Yes**	No
	7. Do you feel happy most of the time?	Yes	**No**
	8. Do you often feel helpless?	**Yes**	No
	9. Do you prefer to stay at home, rather than going out and doing things?	**Yes**	No
	10. Do you feel that you have more problems with memory than most?	**Yes**	No
	11. Do you think it is wonderful to be alive now?	Yes	**No**
	12. Do you feel worthless the way you are now?	**Yes**	No
	13. Do you feel full of energy?	Yes	**No**
	14. Do you feel that your situation is hopeless?	**Yes**	No
	15. Do you think that most people are better off than you are?	**Yes**	No
	Total Score		

Scoring Instructions:	**Score one point for each bolded answer.** A score of 5 or more suggests depression.
	Total Score:

If positive, follow the depression management flowchart.

Source: Yesavage JA, Brink TL, Rose TL, Lum O, Huang V, Adey MB, Leirer VO. Development and validation of a geriatric depression screening scale: A preliminary report. Journal of Psychiatric Research 17: 37-49, 1983.

Section 5d : Fall risk Evaluation Form

Purpose	To investigate the origin of falls
Eligibility	Medical Officer
Duration	20 minutes

Section 5d: Part 1

1. History of Your Falls

(Description of the fall)

We need to hear the details of your falls so we can understand what is causing them. Answer the following questions about your last fall.

i. When was the fall? ..... Date and Time of the day .....

ii. What were you doing before you fell?

.....

iii. Do you remember your fall, or did someone tell you about it?

.....

iv. How did you feel just before?

.....

v. How did you feel going down?

.....

vi. What part of your body hit?

.....

vii. What did it strike?

.....

viii. What was injured?

.....

ix. Anything else you recall?

.....

x. Do you think you passed out?

.....

xi. Do you have joint pain?

.....

xii. Do you have joint instability?

.....

xiii. Do you have foot problems?

.....

xiv. Do you use a cane/walker?

.....

xv. How often have you fallen in the last six months?

.....

Section 5d Part 2: Fall assessment

Timed Up and Go (TUG) Test

Name:..... MR: ..... Date:.....

Equipment: arm chair, tape measure, tape, stop watch.

1. Begin the test with the subject sitting correctly (hips all of the way to the back of the seat) in a chair with arm rests. The chair should be stable and positioned such that it will not move when the subject moves from sit to stand. The subject is allowed to use the arm rests during the sit – stand and stand – sit movements.
2. Place a piece of tape or other marker on the floor 3 meters away from the chair so that it is easily seen by the subject.
3. Instructions: "On the word GO you will stand up, walk to the line on the floor, turn around and walk back to the chair and sit down. Walk at your regular pace.
4. Start timing on the word "GO" and stop timing when the subject is seated again correctly in the chair with their back resting on the back of the chair.
5. The subject wears their regular footwear, may use any gait aid that they normally use during ambulation, but may not be assisted by another person. There is no time limit. They may stop and rest (but not sit down) if they need to.
6. Normal healthy elderly usually complete the task in ten seconds or less. Very frail or weak elderly with poor mobility may take 2 minutes or more.
7. The subject should be given a practice trial that is not timed before testing.
8. Results correlate with gait speed, balance, functional level, the ability to go out, and can follow change over time.

Normative Reference Values by Age 1	
Age Group	**Time in Seconds (95% Confidence Interval)**
60 – 69 years	8.1 (7.1 – 9.0)
70 – 79 years	9.2 (8.2 – 10.2)
80 – 99 years	11.3 (10.0 – 12.7)

Cut-off Values Predictive of Falls by Group	Time in Seconds
Community Dwelling Frail Older Adults 2	> 14 associated with high fall risk
Post-op hip fracture patients at time of discharge	> 24 predictive of falls within 6 months after hip fracture
Frail older adults	> 30 predictive of requiring assistive device for ambulation and being dependent in ADLs

Date	Time	Date	Time	Date	Time	Date	Time

Section 5e: Incontinence Assessment and Management

If Screen positive for Incontinence as per Section 1

Conduct Initial Evaluation

Focused history, targeted examination and evaluation

Identify reversible causes of Incontinence

Develop a management plan/plan of referral to identify and manage the incontinence

The Three Incontinence questions (3IQ)

If reversible causes for urinary incontinence have been identified and managed or ruled out, assess for stress, urge or mixed incontinence using the **3 incontinence questions** given below:

1. During the last 3 months, have you leaked urine (even a small amount?) Yes / No
2. During the last 3 months, did you leak urine: (Check all that apply.)
    a. When you were performing some physical activity, such as coughing, sneezing, lifting, or exercise?
    b. When you had the urge or the feeling that you needed to empty your bladder, but you could not get to the toilet fast enough?
    c. Without physical activity and without a sense of urgency?
3. During the last 3 months, did you leak urine most often: (Check only one.)
    a. When you were performing some physical activity, such as coughing, sneezing, lifting, or exercise?
    b. When you had the urge or the feeling that you needed to empty your bladder, but you could not get to the toilet fast enough?
    c. Without physical activity and without a sense of urgency?
    d. About equally as often with physical activity as with a sense of urgency?

Definitions of type of urinary incontinence are based on response to question 3

Response to question 3	Type of incontinence
a. When you were performing some physical activity, such as coughing, sneezing, lifting, or exercise?	Stress only or stress predominant
b. When you had the urge or the feeling that you needed to empty your bladder, but you could not get to the toilet fast enough?	Urge only or urge predominant
c. Without physical activity and without a sense of urgency?	Other cause only or other predominant
d. About equally as often with physical activity as with a sense of urgency?	Mixed

Refer to Specialist for detailed assessment and management

F. Caregiver & Elderly abuse assessment

Part 1: Caregiver abuse assessment

(to be administered to elderly person's caregiver)

Please answer the following questions as a helper or caregiver:

(fill the name of the elderly person in the blank spaces)

1	Do you sometimes have trouble making control his/her temper of aggression?	Yes/No
2	Do you often feel you are being forced to at out of character or do things you feel bad about?	Yes/No
3	Do you find it difficult to manage ('s) behaviour?	Yes/No
4	Do you sometimes feel that you are forced to be rough with?	Yes/No
5	Do you sometimes feel you cant do what is really necessary or what should be done for?	Yes/No
6	Do you often feel you have to reject or ignore?	Yes/No
7	Do you often feel so tired and exhausted that you cannot control meet ('s) needs?	Yes/No
8	Do you often feel you have to yell at?	Yes/No

Total Score

A score of even 1 is indicative of abuse and a score greater than 4 is suggestive of a higher risk of being abused.

EASI (ELDERLY ABUSE SUSPICION INDEX)

1. Have you relied on people for any of the following: bathing, dressing, shopping, banking, or meals? - 1. Yes 2. No 3. Did Not Answer
2. Has anyone prevented you from getting food, clothes, medication, glasses, hearing aids or medical care, or from being with people you wanted to be with? -1. Yes 2. No 3. Did Not Answer
3. Have you been upset because someone talked to you in a way that made you feel shamed or threatened? -1. Yes 2. No 3. Did Not Answer
4. Has anyone tried to force you to sign papers or to use your money against your will? -1. Yes 2. No 3. Did Not Answer
5. Has anyone made you afraid, touched you in ways that you did not want, or hurt you physically? -1. Yes 2. No 3. Did Not Answer
6. Doctor: Elder abuse may be associated with findings such as: poor eye contact, withdrawn nature, malnourishment, hygiene issues, cuts, bruises, inappropriate clothing, or medication compliance issues. Did you notice any of these today or in the last 12 months? - 1. Yes 2. No 3. Not sure

Note:

Q.1-Q.5 asked of patient; Q.6 answered by doctor (Within the last 12 months)

2. While all six questions should be asked, a response of "yes" on one or more of questions 2-6 may establish concern

Section 6: Comprehensive Geriatric Assessment Report

Acute Illness	
Comorbidity	
Geriatric Giants/ Syndromes	
Other age-related problem	
Social problems	
Economic problems	
Suggested Prescription modification	
ADVICE/CARE PLAN	

Annexure 3: Equipments at Health and Wellness Centre

Basic Rehabilitation Equipment to be kept at Sub Health Centre - Health and Wellness Centre under NPHCE

1. Shoulder Wheel*
2. Wall ladder finger Exerciser**
3. Finger Exerciser web
4. Free exercise weight cuff (0.5 kg, 1 kg, 1.5 kg)
5. Shoulder Pulley
6. Walking aid for training – Adjustable Walker, Reciprocal walker
7. Exercise Couch, pillow, towel
8. Floor patterns may be designed having alternate patterns different colour tiles (1 feet x 1 feet) so to help in teaching gait pattern/visual feedback for neurological impaired geriatric patients.
9. One wheelchair.
10. Charts for teaching basic exercise for neck, back, shoulder, knee joint etc.***
11. Chart for teaching basic positioning/posturing the patient suffering from hemi-neglect/GBS/ Spinal cord injury.***
12. Spiro meter with disposable mouth piece for those patient who need to perform breathing exercise multiple times in a day (Diagnosed cases of chronic bronchitis, emphysema, cystic fibrosis)

* Equipmentto be wall mounted at HWC

** Included as part of branding of HWC and stickers to be placed on the already branded HWC
*** Displayed at HWC

Basic Rehabilitation Equipment for Primary Health Centre - Health and Wellness Centre and Urban Primary Health Centre - Health and Wellness Centre under NPHCE

1. Shoulder Wheel
2. Wall ladder finger Exerciser
3. Finger Exerciser web
4. Shoulder Pulley
5. Walking aid for training – Adjustable Walker, Reciprocal walker
6. Exercise Couch, pillow, towel
7. Floor patterns may be designed having alternate patterns different colour tiles (1 feet X 1 feet) so to help in teaching gait pattern/visual feedback for neurological impaired geriatric patients.
8. One wheelchair.
9. Exercise Charts for teaching basic exercise for neck, back, shoulder, knee joint etc.
10. Chart for showing positioning, lifting and carrying technique for elderly.
11. Spiro meter with disposable mouthpiece for those patient who need to perform breathing exercise multiple times in a day (Diagnosed cases of chronic bronchitis, emphysema, cystic fibrosis)
12. Lower & upper extremity cycle/basic ergo meter.

Following are contents required in Comprehensive Geriatric Assessment kit to be available with Primary Health Centre team

1. Vision- Snellen Chart
2. Hearing- Hand held audio scope
3. Nutrition- Mini-Nutritional Assessment Scale
4. Cognitive – MSME, Mini Cog
5. Affective- GDS, Hamilton Depression Scale
6. Functional- Katz
7. Home Safety Checklist
8. Blood Pressure Machine
9. Thermometer
10. Glucometer
11. HbA1C
12. Haemoglobin Meter
13. Pulse Oximeter
14. Spiro meter
15. Handheld dynamo meter.

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List of contributors

Sl No	Name	Designation
List of contributiors from MoHFW		
1	Dr. Gowri N. Sengupta	Assistant Director General (NPHCE, NPPC & Public Health) Dte. GHS, MoHFW
2	Dr. Mangala Borkar	Prof. Ex. HoD, Dept. of Geriatrics, Government Medical College, Aurangabad, Maharashtra
3	Dr. G Shanthi,	HoD Dept. of Geriatrics, Madras Medical College, Chennai, TamilNadu.
4	Ms. Anita Ahuja,	Consultant-NPHCE (Training & IEC), MoHFW
List of contributors from NHSRC		
1	Maj Gen (Prof) Atul Kotwal	Executive Director, National Health Systems Resource Centre (NHSRC)
2	Dr (Flt Lt) MA Balasubramanya	Advisor, Community Processes and Comprehensive Primary Health Care, National Health Systems Resource Centre (NHSRC)
3	Dr Venkatesh U	Assistant Professor, Department of Community Medicine, Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi

Sl No	Name	Designation
4	Dr Anantha Kumar SR	Senior Consultant, Community Processes and Comprehensive Primary Health Care, National Health Systems Resource Centre (NHSRC)
5	Dr Rupsa Banerjee	Former Senior Consultant, Community Processes and Comprehensive Primary Health Care, National Health Systems Resource Centre (NHSRC)
6	Ms. Haifa Thaha	Consultant, Community Processes and Comprehensive Primary Health Care, National Health Systems Resource Centre (NHSRC)
7	Dr Atul Bhanu Rairker	Consultant, Community Processes and Comprehensive Primary Health Care, National Health Systems Resource Centre (NHSRC)
8	Dr Sheetal Raj	Associate Professor, Department of Medicine, Kasturba Medical college , Mangalore, Manipal Academy of Higher Education

Notes

Notes

Namaste!

You are a valuable member of the Ayushman Bharat – Health and Wellness Centre (AB-HWC) team committed to delivering quality comprehensive primary healthcare services to the people of the country.

To reach out to community members about the services at AB-HWCs, do connect to the following social media handles:

- https://instagram.com/ayushmanhwcs
- https://twitter.com/AyushmanHWCs
- https://www.facebook.com/AyushmanHWCs
- https://www.youtube.com/c/NHSRC_MoHFW

National Health Systems Resource Centre

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