PHC

432 Team

15 Elderly Care: Concept and Principles

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COLOR GUID: Doctor's Notes Team Notes Slides Not important Important **431 team work**

Objectives

- Understanding the aging process.
- Identifying the geriatric heath care risks
- Explaining the geriatric assessment methods.
- Justifying the need for special care for elderly population
- Conceptualizing the role of physician when caring of old person.

Note

There aren't many notes from the doctor in this lecture. Text in **this color** was taken from Blueprints Family Medicine, Third Edition – Chapters 74 & 75.

Aging:

Who is old?

- **60 & + years of age** (UN)
- 65 & + developed countries
- 50 & + African countries, birth

The typical "geriatric" patient:

- Chronic disease
- Multiple disease (co-morbidity)
- Multiple drugs (**poly-pharmacy**)
- Social isolation and poverty
- Physiological function

LOSS OF RESERVE

Definition of aging:

Aging is a **physiological process** is associated with complex changes in all organs**.** Aging can be defined as the decline and deterioration of functional properties at the cellular, tissue, and organ level; the accumulation of biological changes over time leading to **decreased biological functioning** and impaired ability to adapt to stressors.

Who is a Geriatrician?

A physician, who diagnoses, treats & manages diseases & conditions; with a special approach for aging patients and serve as Primary Care Physicians & consultants for older adults.

Geriatric Medicine: MALTA Definition

Exceeds organ orientated medicine & additional therapies are offered through multidisciplinary team, to optimize functional status, QOL and autonomy .Most patients will be over 65 years of age but the problems best dealt with by the specialist of Geriatric Medicine are in the 80+ age group.

General principles of geriatric care:

- **Multi-factorial disorders** are best managed by **multi-factorial interventions.**
- **Atypical** presentations need to be considered.
- Not abnormalities require evaluation and treatment.
- Complex medication regimens, adherence, problems, and **poly-pharmacy are common challenges**.

Why are elderly special?

Normal Aging vs. Disease:

Normal Aging	Disease
Crow's feet: wrinkle at the outer corner of a person's eye.	Macular degeneration
Presbycusis: loss of hearing due to old age.	Tympano-sclerosis
Seborrheic keratosis: loss of skin elasticity.	Basal cell CA
Benign forgetfulness.	Dementia
Decreased blood vessel compliance.	Atherosclerosis and HTN
Increase in % body fat.	Obesity

Principles of Geriatrics:

1. Aging is not a disease:
   - ✓ Aging occurs at different rates.
   - ✓ Between individuals.
   - ✓ Within individuals in different organ systems.
2. Geriatric conditions are chronic, multiple, multifactorial.
3. **Reversible conditions are underdiagnosed and undertreated.**
4. **Function and quality of life are important outcomes.**
5. **Social support and patient preferences are critical aspects.**
6. Geriatrics is multidisciplinary issues.
7. Cognitive and affective disorders prevalent and undiagnosed at early stages
8. **Iatrogenic disease common and often preventable.**
9. Care is provided in multiple settings.
10. Ethical and end of life issues guide practice.

Common Geriatric Syndromes:

- Dementia and Delerium
- Falls.
- Polypharmacy.
- Pressure Ulcers.
- Urinary Incontinence.

Chronic Disease Burden:

Condition	Age 65 %	Age 75
Arthritis	50	54
Hypertension	36	39
Heart	32	39
Hearing	28	36
Cataracts	16	24
Diabetes	10	11
Vision	8	11

Decline in quality of life: Saudi Elderly study

1. Chronic disease.
2. **Falls, (more with DM (58%) & HTN (29%)).**
3. Sedentary lifestyle (69%; more in joint / bone pain (90%)).
4. Low physical activity (63%).
5. Sleep disturbances.
6. Sensory impairments-depression risk.
7. Decreased self-sufficiency.

Assessment of old patient:

Comprehensive geriatric assessment (CGA)

- Co-ordinated multidisciplinary assessment.
- Identify medical, functional, social & psychological problems.
- The formation of a plan of care including appropriate rehabilitation.
- The ability to directly implement treatment recommendations by the multidisciplinary team.
- Long term follow up.
- Targeting (age & frailty).

Structured Approach	
Multidimensional	**Multidisciplinary**
• Functional ability • Physical health (pharmacy) • Cognition • Mental health • Socio-environmental	• Physician • Social worker • Nutritionist • Physical therapist • Occupational therapist • Family

Frailty:

Frail people suffer from three or more of five of following symptoms:

1. Unintentional weight loss (10 lbs or + in last yr).
2. Muscle loss.
3. A feeling of fatigue.
4. Slow walking speed .
5. Low levels of physical activity.

These people are vulnerable to significant functional decline. They are typically 75 years of age or older with multiple health conditions; acute and chronic; as well as functional disabilities.

Prognostic factors & risk points for 4 year mortality rates for elderly living at home:

Prognostic Factor	Risk points	Prognostic Factor	Risk points
Age 60-64 yrs	1	BMI < 25 kg/m^2	1
64-69	2	Current smoker	2
70-74	3	Function:	
74-79	4	Bathing difficulty	2
80-84	5	Difficult handling finance	2
85 & above	7	Difficult to walk several blocks	2
Male sex	2	Sum of Risk Points & 4 y Mortality	
Diabetes Mellitus	1	1-2	2%
Cancer	2	3-6	7%
Lung Disease	2	7-10	19%
Heart Failure	2	> 10	53%

Areas of assessment:

- Functional assessment
- Mobility, gait and balance
- Sensory and Language impairments
- Continence
- Nutrition
- Cognitive/Behavior problems
- Depression
- Caregivers

Example of Assessment areas:

1. Cognitive and affective disorders are prevalent and commonly undiagnosed at early stages: Dlerium, multi-infartion dementia.
2. Geriatric depression is often **undiagnosed.**
3. Iatrogenic illnesses are common and many are preventable:
   - Polypharmacy, adverse drug reactions.
   - Complications of hospitalization, falls, immobility, and deconditioning.
4. EOL care (End-of-life):
   - Advance directives are critical for preventing some ethical dilemmas.
   - Palliative care and end-of-life care are essential good quality of life.

History:

Many elderly patients ignore symptoms they may feel that their symptoms are a normal concomitant of aging.

- ✓ The past medical history should include previous surgeries, major illnesses, and hospitalizations –within the previous 5 years-.
- ✓ Immunization status and past results of TB testing.
- ✓ Review all medications, both prescription and OTC. "brown bag" technique, where the patient brings all his medications, can be useful.

Physical Examination:

- Mini-Mental Status Examination +/- formal cognitive testing.
- Blood pressure should routinely be checked both sitting and standing (orthostatic hypotension).
- Sensory loss is common and hearing and vision screens are important for detecting impairment.
- Careful inspection of the oral cavity is part of the nutritional assessment.
- Palpation of the temporal arteries ➔ screen for temporal arteritis.
- The abdominal examination ➔ large aortic aneurysm.
- Rectal and genitourinary examination ➔ uterine prolapse, hernias, and testicular atrophy.
- Gait (↑ risk of falls) ➔ correctable causes of unsteadiness
- Signs of abuse ➔ trauma, burns, and weight loss.

Diagnostic Evaluation:

- ✓ Basic testing such as a CBC, chemistry profile, UA, and TSH.
- ✓ Mammography and colon cancer screening (fecal occult blood and/or endoscopy) are recommended for patients until age 75.
- ✓ Pap smears can be discontinued at age 65 if there has been regular testing and a normal Pap smear within the previous 3 years.

Supporting the Normal Changes:

Changes in Vision

- Decreased peripheral vision
- Decreased night vision
- Decreased capacity to distinguish color
- Reduced lubrication resulting in dry, itchy eyes

What's the most significant change? Hearing loss.

Blind elderly can socialize, joke and talk with people easily.

Deaf elderly are hard to communicate with, are very loud when they talk; they can't hear you, and they get irritated if you speak to them with a loud voice. Deaf elderly tend to become more socially isolated (↑ depression).

Changes in Hearing

- Sensitivity to loud noises
- Difficulty locating sound
- More prone to wax build up that can affect hearing

Changes in Smell and Taste

- Decreased taste buds and secretions
- Decreased sensitivity to smell

Changes in Skin

- Decrease in moisture and elasticity
- More fragile- tears easily
- Decrease in subcutaneous fat
- Decrease in sweat glands -less ability to adjust body temperature.
- Tactile sensation decreases- not as many nerves
- May bruise more easily

Changes in Elimination

- Bladder atrophy- inability to hold bladder for long periods
- Constipation can become a concern because of slower metabolism
- Men can develop prostate problems causing frequent need to urinate
- Incontinence make occur because of lack of sphincter control

Changes in Bones and Joints

- Decreased height due to bone changes.
- Bones more brittle – risk of fracture.
- Changes of absorption of calcium.
- Pain from previous falls or broken bones.
- Joints less lubricated – may develop arthritis.

Changes in Cognitive Ability

- Don't lose overall ability to learn new things but there are changes in the learning process.
- Harder to memorize lists of names and words than for a younger person.
- Sensory and motor changes as well as cognitive ability may affect ability to respond – hard to know which is which.

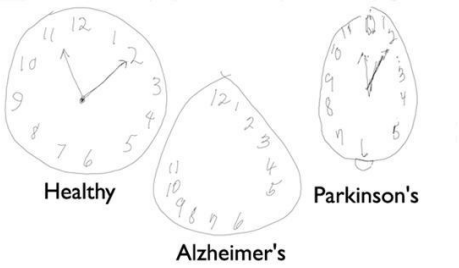
Functional Ability:

Functional status refers to a person's ability to perform tasks that are required for living. Two key divisions of functional ability:

1. **Activities of daily living (ADL):** (Ability to provide self-care)
   Feeding, dressing, ambulating, toileting, bathing, transfer, continence, grooming, communication
2. **Instrumental activities of daily living (IADL):** (Higher functions)
   Cooking, cleaning, shopping, meal prep, telephone use, laundry, managing money, managing medications, ability to travel

Cognitive Assessment:

- MOCA
- MMSE
- Clock Drawing test



Prevention:

Prevention of Falls:

Ambulatory Adults >65 30% per year (I.e. 30% of old people who are able to move, will end up falling)

Consequences:

- Death
- Injury
    - Fractures 10-15%
    - Hip 1-2%
- Long Lie
- Fear of Falling
- Reduced Activity/Independence (25%)

Causes:

I. **Extrinsic:** Environment
II. **Intrinsic**

a. **Age**

1. Gait/Balance Disorder
2. Sarcopenia
3. Vestibular
4. Orthostatic Hypotension
5. Special Senses – Vision/Hearing

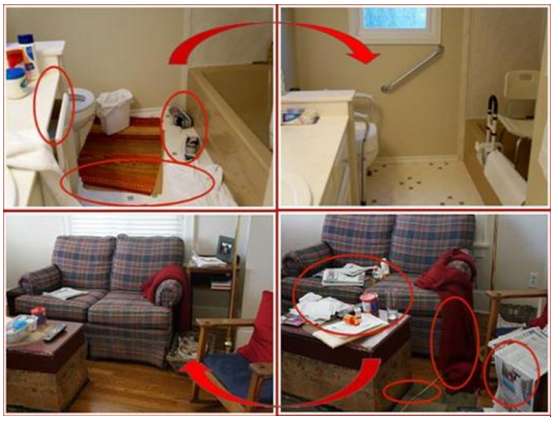
b. **Disease**

1. Dementia
2. Depression
3. Drugs
4. Foot problems
5. Incontinence

Reducing Fall Risk:

Treatable Risk:

1. Problem walking or moving
2. Orthostatic hypotension
3. Four or more meds or one psychoactive
4. Unsafe footwear or foot problems
5. Environmental hazard



Home Safety

Physical Exercise:

Reduces fall risk by 47%

Health Maintenance in the Elderly:

- Recommend primary and secondary disease prevention screening.
- Review all medications.
- Control all chronic medical problems.
- Optimize function
- Verify the presence of an adequate support system
- Discuss and document advanced directives

Immunization:

-Tetanus immunization should be updated every 10 years.

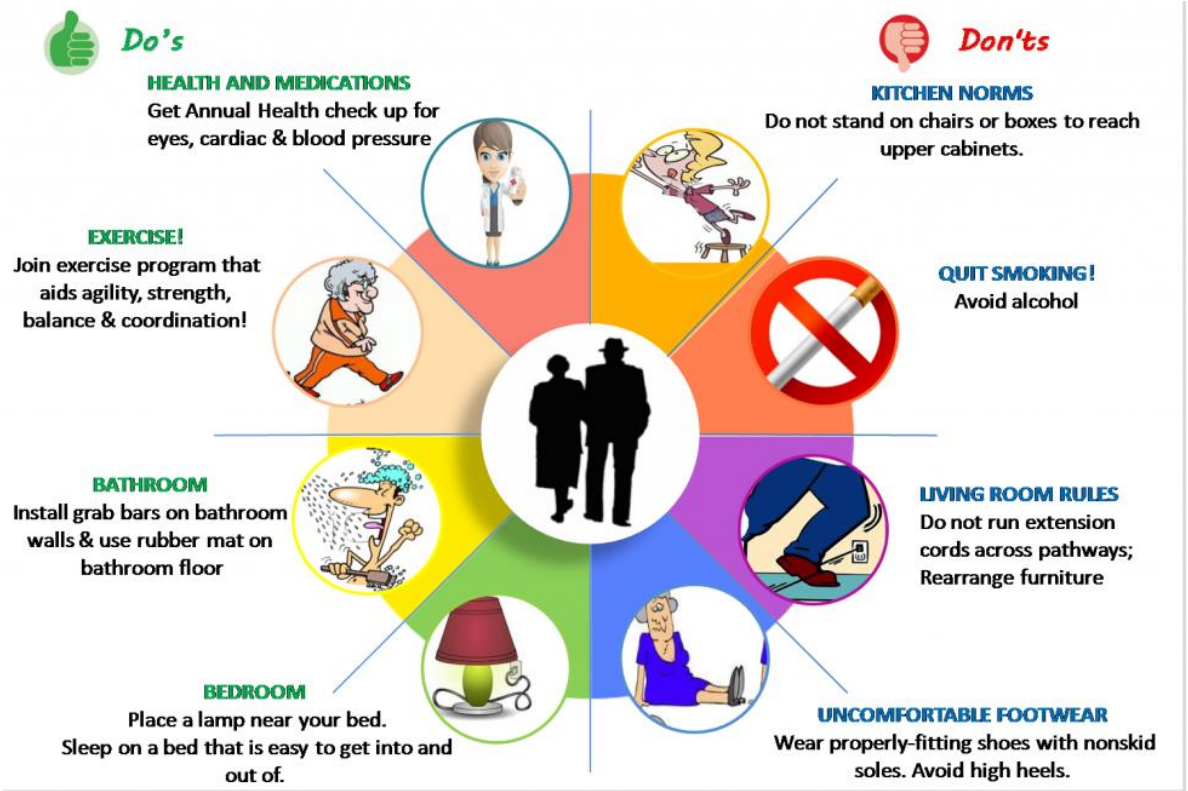
-All patients over 65 years of age should receive pneumococcal and influenza vaccines.

- Herpes zoster as a one-time injection after age 60.

- Patients at risk because of travel ➔ hepatitis A or B vaccines.

Prevention and Promotion:

- Smoking in middle age is a risk factor
- Exercise
- Osteoporosis (Calcium)
- Vaccines (influenza)
- Treatment of HTN & management of risk factors



Summary

- Elderly: >=60 years.
- Normal aging: some hearing loss, loss of skin elasticity and benign forgetfulness (dementia is pathological).
- Many normal changes in vision, hearing, feeling, and others, need good support.
- Problems: many chronic diseases with polypharmacy, iatrogenic problems, many underdiagnosed illnesses and social isolation.
- Causes of decline in quality of life in Saudi elderly: chronic illnesses then falls.
- Geriatric assessment is an interdisciplinary approach.
- Functional ability is tested by (1) activities of daily living and (2) instrumental activities of daily living.
- Along with assessment of vision and gait, an environmental assessment and education of the family should be included to help with the prevention of falls.
- Most patients should have basic testing such as a CBC, chemistry profile, UA, and TSH.

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