# Elderly Care : Concept and Principles


## Dr.Abdulaziz Al Odhayani

MRCGP(Int.),SBFM,ABFM,COE(C),AF(C)

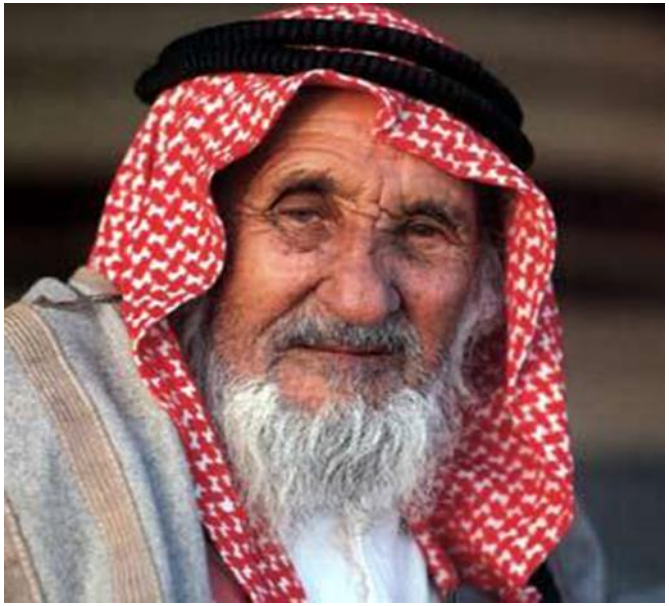
Assistant Professor, Consultant Family Medicine, Care of Elderly, and Home Health Care

Head of HHC Unit

Program Director of SBFM

King Saud University Medical City and College of Medicine, KSU, Riyadh, KSA

# Who is old?



# What's Aging ?

# Why is it a concern?

## The typical "geriatric" patient

Elderly:

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

  birth certificates problem)

- chronic disease
- multiple disease (co-morbidity)
- multiple drugs (poly-pharmacy)
- social isolation and poverty
- ↓ physiological function

**LOSS OF RESERVE**

# Aging – definition

- 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 the ?

## Geriatricians

- Diagnose, treat & manage diseases & conditions
- 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 optimise functional status, QOL and autonomy.

- Most patients will be over 65 years of age but the problems best dealt with by the speciality of Geriatric Medicine are in the 80+ age group.

# General principles of geriatric care

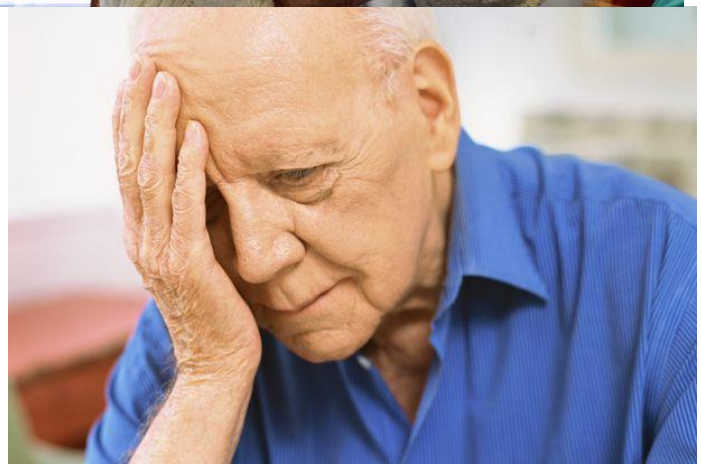
- Multi-factorial disorders are best managed by multi-factorial interventions
- Atypical presentations need to be considered
- Not abnormalities require evaluation and treatment
- Complex medication regimens, adherence, problems, and poly-pharmacy are common challenges

Ref: 2010 Current Medical Diagnosis & Treatment McGraw Hill Lange

# Why Elderly are special group?

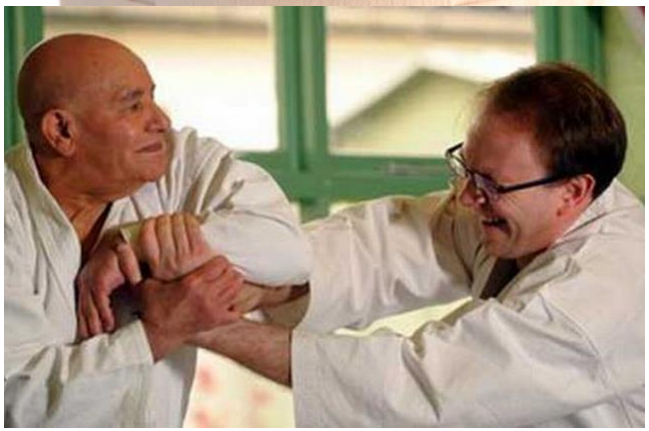
Frailty

Dementia



Mental problems

Polypharmcy and iatrogenic



Agitation and anxiety

Risk of falls

Driving issues


Executive function

# Normal Aging vs. Disease

- Normal aging
  - "Crow's feet"
  - Presbycusis
  - Seborrheic keratoses; loss of skin elasticity
  - Benign forgetfulness
  - Decreased blood vessel compliance
  - Increase in % body fat
- Disease
  - Macular degeneration
  - Tympano-sclerosis
  - Basal cell CA
  - Dementia
  - Athero-sclerosis
  - Hypertension
  - Obesity

# Principles of Geriatrics

1. **Aging is not a disease.**
   - Aging occurs at different rates
   - Between individuals
   - Within individuals in different organ systems

1. **Geriatric conditions are chronic, multiple, multifactorial**
2. **Reversible conditions are underdiagnosed and undertreated**
3. **Function and quality of life are important outcomes**
4. **Social support and patient preferences are critical aspects**

# Principles of Geriatrics

5. Geriatrics is multidisciplinary issues
6. Cognitive and affective disorders prevalent and undiagnosed at early stages
7. Iatrogenic disease common and often preventable
8. Care is provided in multiple settings
9. 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** |

Merck Manual Geriatrics

# Decline in quality of life: Saudi Elderly study

Senani SA & Al-saif A, J. Phys. Ther. Sci. 27: 1691–1695, 2015

- chronic disease,
- falls, (more with DM (58%) & HTN (29%))
- sedentary lifestyle (69%;more in joint / bone pain (90%))
- low physical activity (63%)
- sleep disturbances,
- Sensory impairments-depression risk and
- decreased self-sufficiency.

# Assessment of old patient!

**Comprehensive geriatric assessment (CGA)**

# 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 recommodations by the multidisciplinary team
- Long term follow up
- Targeting (age & frailty)

# Structured Approach

## Multidimensional

- Functional ability
- Physical health (pharmacy)
- Cognition
- Mental health
- Socio-environmental

## Multidisciplinary

- Physician
- Social worker
- Nutritionist
- Physical therapist
- Occupational therapist
- Family

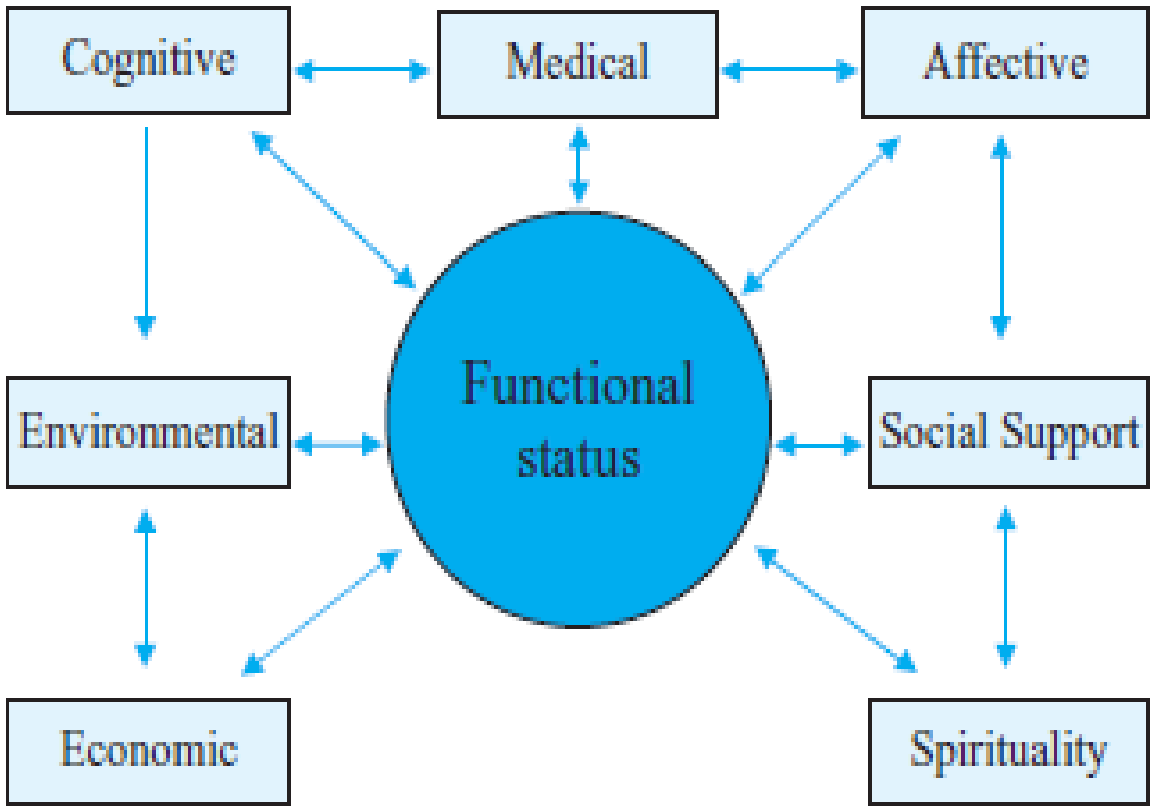



**FIGURE 11-1.** Interacting dimensions of geriatric assessment.

# Frailty

- Frail people suffer from three or more of five of following symptoms;
  - unintentional weight loss (10 lbs or + in last yr ),
  - muscle loss,
  - a feeling of fatigue,
  - slow walking speed and
  - low levels of physical activity.
- vulnerable to significant functional decline
- 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 (JAMA 2006 295(7):801-8)

| 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!

- Cognitive and affective disorders are prevalent and commonly undiagnosed at early stages: Dlerium, multi-infartion dementia.

- Geriatric depression is often undiagnosed

# Iatrogenic illnesses are common and many are preventable:

- Polypharmacy, adverse drug reactions.
- Complications of hospitalization, falls, immobility, and deconditioning.

# EOL care

- **Advance directives are critical for preventing some ethical dilemmas.**
- **Palliative care and end-of-life care are essential good QOL.**

# 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

# 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:
- Activities of daily living (ADL)
- Instrumental activities of daily living (IADL).

# Functional Assessment

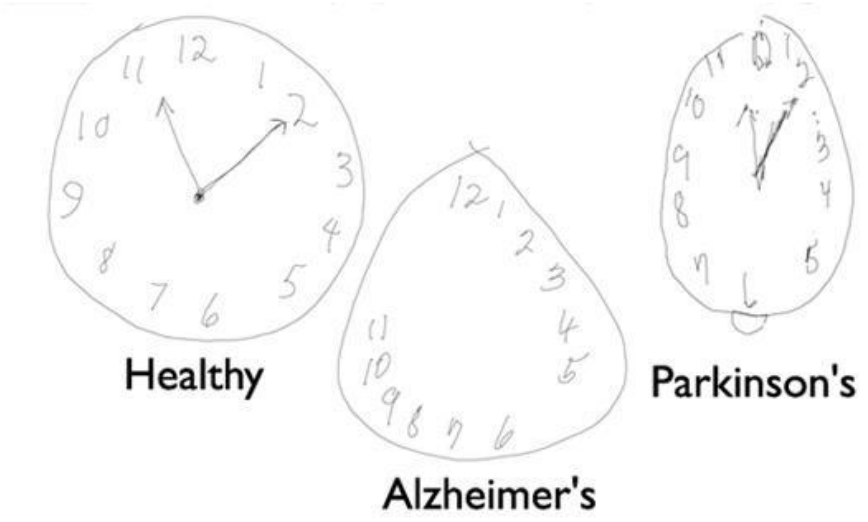
- **Activities of Daily Living (ADL):**

  Feeding, dressing, ambulating, toileting, bathing, transfer, continence, grooming, communication

- **Instrumental ADL (IADL):** Cooking, cleaning, shopping, meal prep, telephone use, laundry, managing money, managing medications, ability to travel

# Cognitive Assessment

- Many tools
- MOCA
- MMSE
- Clock Drawing test



# Prevention of Fall

**Ambulatory Adults >65  30% per year**

**Death**
**Injury**
**Fractures 10-15%**
**Hip 1-2%**
**Long Lie**
**Fear of Falling**

**Reduced Activity/Independence (25%)**

# Causes

**Extrinsic**

Environment

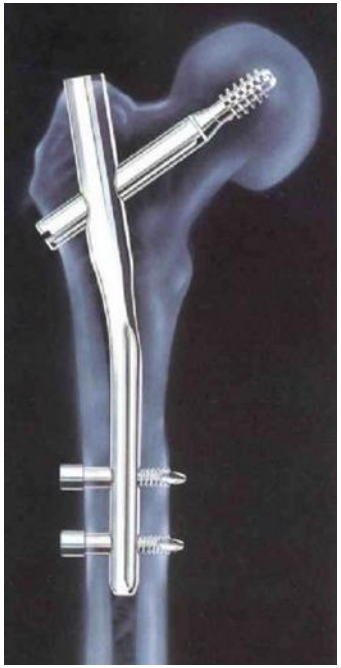
**Intrinsic**

**Age**

- **Gait/Balance Disorder**
- **Sarcopenia**
- **Vestibular**
- **Orthostatic Hypotension**
- **Special Senses –Vision/Hearing**

**Disease**

- **Dementia**
- **Depression**
- **Drugs**
- **Foot problems**
- **Incontinence**



## Do's

### HEALTH AND MEDICATIONS
Get Annual Health check up for eyes, cardiac & blood pressure

### EXERCISE!
Join exercise program that aids agility, strength, balance & coordination!

### BATHROOM
Install grab bars on bathroom walls & use rubber mat on bathroom floor

### BEDROOM
Place a lamp near your bed.
Sleep on a bed that is easy to get into and out of.

## Don'ts

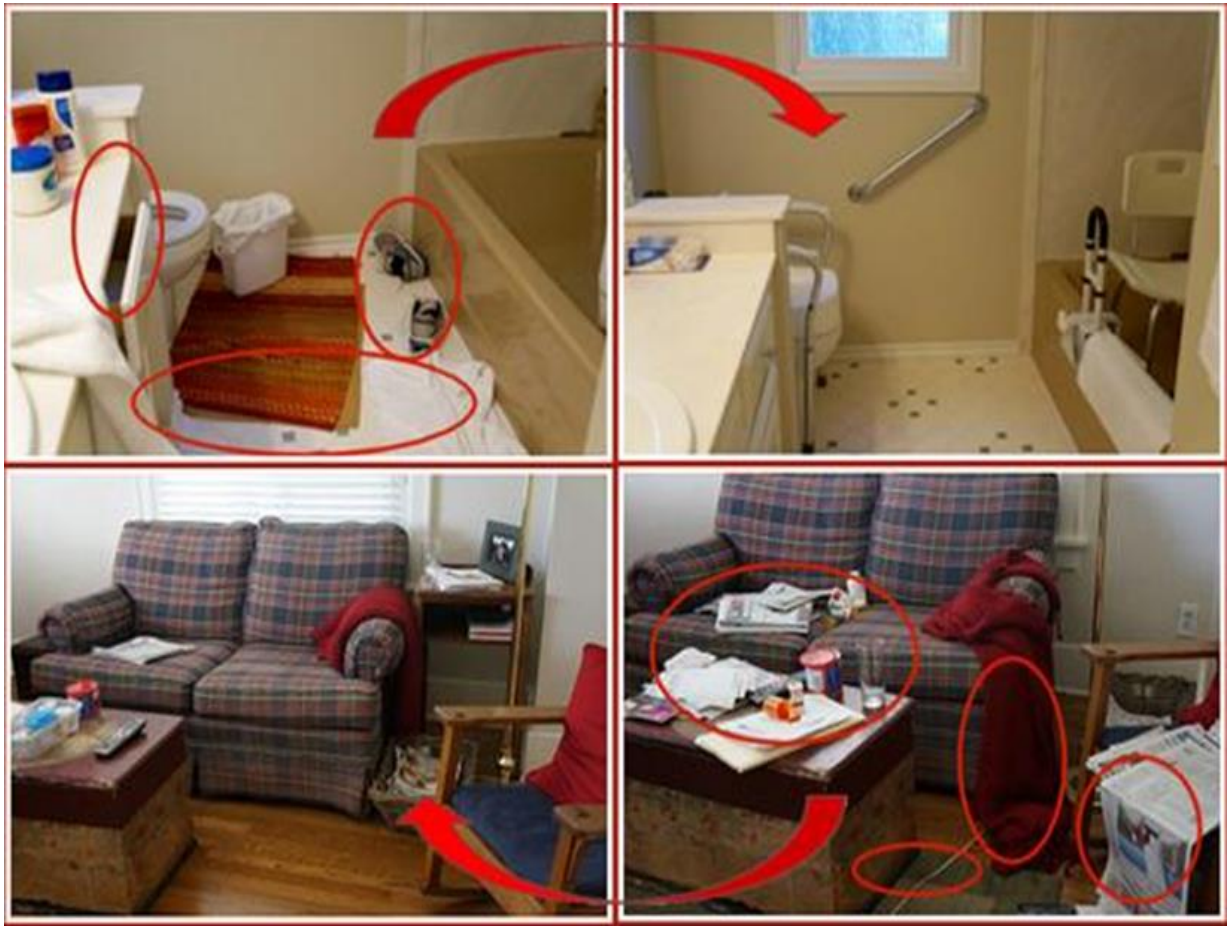
### KITCHEN NORMS
Do not stand on chairs or boxes to reach upper cabinets.

### QUIT SMOKING!
Avoid alcohol

### LIVING ROOM RULES
Do not run extension cords across pathways; Rearrange furniture

### UNCOMFORTABLE FOOTWEAR
Wear properly-fitting shoes with nonskid soles. Avoid high heels.

# Home Safety



# Reducing Fall Risk

**Treatable Risks:**

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**

# Physical Exercise

Reduces Fall risk  by 47%

# Summary

# 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**

# Prevention and Promotion

- Smoking in middle age is a risk factor

- Exercise

- Osteoporosis (Calcium

- Vaccines (influenza)

- Treatment of HTN & management of risk factors

# Any Questions?

Thank You