GERIATRIC MEDICINE
The Approach to the Elderly Patient

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I. Unfocusing Perceptions

II. Management of Elderly People

III. Refocusing
Everyday 5,000 people celebrate their 65th birthday

It is now possible to buy a birthday card for someone reaching 100 years of age

A baby girl born today has a fifty-fifty chance of living to age eighty
US Population Growth 1900-2000

Number of Persons 65 or older
Special Features of Aging

• Most compelling statistic is the death rate
  – Changes focus from cure to care
  – Shifts the target of preventive efforts
    – from maximizing longevity
    – to maintaining function and independence
Impairment Prevalence
Among Community Elderly People

<table>
<thead>
<tr>
<th>Years of Age</th>
<th>Vision</th>
<th>Cataract</th>
<th>Hearing Problems</th>
<th>Orthopaedic Problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>55-64</td>
<td></td>
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<td>65-74</td>
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<tr>
<td>75-84</td>
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<td>85+</td>
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</tbody>
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Legend:
- Green: Vision
- Orange: Cataract
- Blue: Hearing Problems
- Red: Orthopaedic Problem
IADL Difficulty
Among Community Elderly People

FEMALES

MALES

Meals
Telephone
Shopping
Money
Light Housework
I. Unfocusing Perceptions

II. Management of Elderly People

III. Refocusing

- Relevant clinical differences
- Changes in clinical perspective
- Importance of function
II. Management of Elderly People

Relevant clinical differences

- What is aging?
- What changes occur with aging?
- What are implications of aging?
Acrylic and pastel painting by Arthur Lidov, 1979

Clin Geriatrics, 3rd ed, 1986
The Baltimore Longitudinal Study

- Begun in 1958, a study of the aging process in over 1000 people age 20-90
- Findings:
  - Variations in human development increase with aging
  - Organ systems age at different rates
  - Some older people have a striking deficiency of some nutrients (Ca, zinc, iron, magnesium, B6, B12, D, E, and folic acid)
The Baltimore Longitudinal Study

Implications

• Genetics (~30%), lifestyle and disease (~70%) influence aging rates
• Biologic and chronologic age are not the same
• As we age we become more unique
• Function cannot be predicted from age
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Relevant clinical differences

What is aging?

- What changes occur with aging?
- What are implications of aging?

- A ubiquitous biologic process characterized by progressive, predictable, inevitable evolution and maturation until death
- Remarkably benign process
- Biologic and chronologic age not same
- Occurs at different rates influenced by lifestyle changes
Effect of Conditioning and Increasing Age on Organ Function

- Change in function due to age alone
- Maximal possible function
- Rate of atrophy of disuse
- Increasing use
- Decreasing use

% Organ Function

Increasing Age
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Relevant clinical differences

- What is aging?
- What changes occur with aging?
- What are implications of aging?

- Decreased regulation of homeostasis
- Decreased reserve capability
- Changes in body composition
- Immunologic alterations
Comparison of Major Body Composition Changes

25 year old

- Other: 25
- Fat: 14
- Water: 61

75 year old

- Other: 17
- Fat: 30
- Water: 53
II. Management of Elderly People

Relevant clinical differences

• What is aging?
• What changes occur with aging?

• What are implications of aging?

  – Increasing differentiation and biologic uniqueness
  – Increasing vulnerability to environmental demands and iatrogenic illness
  – Changing presentation of illness
Presentation of Illness

- Underreporting of illness
- Altered pattern of illness
- Altered response to illness
Presentation of Illness

- **Underreporting of illness**
  - Altered pattern of illness
  - Altered response to illness

Attitudes and Isolation

- ageism - the belief that old age is inextricably linked to disability and dependency
- perceptions of unresponsive healthcare system
- depression
- denial for fear of economic, social, or functional consequences
- isolation reducing opportunities for feedback
Presentation of Illness

- Underreporting of illness
- **Altered pattern of illness**
  - Altered response to illness

  - Some diseases confined to late life
  - Some conditions more common in old age
  - Multiple chronic disorders, exacerbation, masking
Presentation of Illness

- Underreporting of illness
- Altered pattern of illness
- Altered response to illness

- Symptoms may be absent, less dramatic
- Symptoms often nonspecific (confusion, anorexia, incontinence, unsteady gait, weight loss)
- Sudden changes require immediate attention
II. Management of Elderly People

Changes in clinical perspective

FROM:

Cause ➔ Anatomy ➔ Pathophysiology ➔ Function

TO:

Function ➔ Pathophysiology ➔ Anatomy ➔ Cause
II. Management of Elderly People

- Importance of function
  - What is function?
  - Function essential concern
  - Geriatric assessment = assessment of function
A Clinical Challenge

A 76 year old man has hypertension, maturity onset diabetes mellitus, mild congestive heart failure, stable angina pectoris, venous insufficiency, chronic obstructive pulmonary disease, constipation, prostate hypertrophy with obstructive symptoms, and osteoarthritis. Does he sit on the US Supreme Court or is he a resident in a local nursing home?

The defining issue is FUNCTION.
II. Management of Elderly People

- Importance of function
  - What is function?
    - Function essential concern
    - Geriatric assessment = assessment of function

Function--
- ability to manage everyday routine
- implies ability to live independently
- loss of function is serious illness
The Economic Implications of Functional Impairment

- Billions spent on hip fractures
- Billions spent on long-term care
- Significant care-giver burden
- Major psychological distress
- Lost income and productivity
A Simple Conceptual Model of Disability

Available Resources

Environmental Demands

Individual Niche

Demands Met (Stay in Control)

Demands Not Met (Vulnerable to Change)
A Simple Conceptual Model of Disability

- Adding resources helps to secure the balance
- Reducing demands helps restore the balance
- Aging makes the balance more fragile
### WHO Dimensions of Function

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
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<tbody>
<tr>
<td>Pathophysiology</td>
<td>Interruption or interference of normal physiology</td>
</tr>
<tr>
<td>Impairment</td>
<td>Abnormality of body structure or function</td>
</tr>
<tr>
<td>Functional Limitation</td>
<td>Restriction of ability to perform activities</td>
</tr>
<tr>
<td>Disability</td>
<td>Inability to participate in typical societal roles</td>
</tr>
<tr>
<td>Societal Limitation</td>
<td>Barriers to full participation resulting from attitudes, social policies and architectural barriers</td>
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</tbody>
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II. Management of Elderly People

- Importance of function
  - What is function?
  - **Function essential concern**
    - Geriatric assessment = assessment of function
    - Diagnostic capability ≠ care
    - Diagnostic efficiency may not improve quality or quantity of life
    - Function can be impaired and disease not defined
    - Measure of function may be superior to disease-oriented indices
The diagram illustrates the relationship between needs and frailty. As frailty increases from independent to frail, the needs also increase, indicating a positive correlation between the two variables.
The Spectrum of Needs Changes as Function Declines

- **Independent**
  - Health Maintenance
    - Monitor illnesses
    - Health information
    - Screening
  - Maintain Function
    - Skill maintenance
    - Skill acquisition
    - Exercise supervision
  - Minimize Isolation
  - Reduce disability

- **Frail (Patient and family)**
  - Case Management
  - Manage Chronic Illness
    - Symptom control
    - Improve function
  - Provide Basic Assistance
    - Shopping
    - Meals
    - Handling finances
  - Relief of Caregiver Burden
  - End of Life Care
II. Management of Elderly People

Importance of function

- What is function?
- Function essential concern

Geriatric assessment = assessment of function

Assessment-- getting to know older person (a refinement of what we already do)

Hierarchy of function

Key principles:

- observe, avoid discomfort, use time and effort to quantify, uncover disease signs, eliminateiatrogenicity
HIERARCHY OF FUNCTION

- Independent travel
- Driving
- Handling finances
- Cooking
- Dressing
- Eating

Very predictable

Very unpredictable
OVERVIEW OF THE CLINICAL ASSESSMENT

1. Issues in the presentation
2. Initial observations
3. The interview as the examination of mental function
4. Performance of complex mental and physical tasks
Accurately sizing up older person is crucial

Basic premise --

-- everyone presents unified sense of self through appearance, dress, language, behavior

Any incongruity from simple eccentricity to a sign of illness tends to trigger further inquiry

Personal expression may be influenced by environment

Skill in observation takes dedicated effort
I. Unfocusing Perceptions

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III. Refocusing
III. Refocusing

- Approach is different
  - spectrum of complaints
  - subtle manifestations
  - implications for independence
  - improvements slower, less dramatic
  - presentation non-specific
  - symptoms difficult to interpret

- Crucial issue: FUNCTION
Summary

**Increasing Uniqueness**

**Increasing Vulnerability**

**Changing Presentation**

**Increasing Likelihood of Death**

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**Need of Individualized Approach**

**Interdisciplinary Operation**

**Constant Vigilance**

**Shift in Clinical Perspective**
Degree to which we assist chronically ill people indicates level of understanding and sensitivity.

A disease-specific focus has narrowing effect.
Defining disease is less complicated and more financially profitable... but it limits true healing