# Overview of Evaluation of the Older Adult

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- Evaluation of older adults usually differs from a standard medical evaluation.

- For older patients, especially those who are very old or frail, history-taking and physical examination may have to be done at different times, and physical examination may require 2 sessions because patients become fatigued.

- Older adults also have different, often more complicated health care problems, such as multiple disorders, which may require use of many drugs (sometimes called polypharmacy) and thus greater likelihood of a high-risk drug being prescribed.

- Early detection of problems can result in early intervention, which can prevent deterioration and improve quality of life, often through relatively minor, inexpensive interventions (eg, lifestyle changes).

- Thus, some older patients, particularly the frail or chronically ill, are best evaluated using a comprehensive geriatric assessment, which includes evaluation of function and quality of life, best administered by an interdisciplinary team.

# CGA

- **Comprehensive geriatric assessment is a multidimensional process designed to assess the functional ability, health (physical, cognitive, and mental), and socioenvironmental situation of older people.**

# Multiple disorders

- On average, older patients have 6 diagnosable disorders.

- A disorder in one organ system can weaken another system, exacerbating the deterioration of both and leading to disability, dependence, and, without intervention, death.

- Clinicians should also pay particular attention to certain common geriatric symptoms (eg, delirium, dizziness, syncope, falling, mobility problems, weight or appetite loss, urinary incontinence) because they may result from disorders of multiple organ systems.

- If patients have multiple disorders, treatments (eg, bed rest, surgery, drugs) must be well-integrated; treating one disorder without treating associated disorders may accelerate decline.
- Also, careful monitoring is needed to avoid iatrogenic consequences.
- For example, with complete bed rest, older patients can lose 1 to 3% of muscle mass and strength each day (causing sarcopenia and sharply reduced mobility), and effects of bed rest alone can ultimately result in death.

# Missed or delayed diagnosis

- Disorders that are common among older adults are frequently missed, or the diagnosis is delayed.

- Clinicians should use the history, physical examination, and simple laboratory tests to actively screen for disorders that occur only or more commonly in older patients ; when diagnosed early, these disorders can often be more easily treated.

## Disorders More Common Among Older Adults

| Disorders |
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| Accidental hypothermia |
| Alzheimer disease |
| Atrial fibrillation |
| Basal cell carcinoma |
| Chronic lymphocytic leukemia |
| Degenerative osteoarthritis |
| Dementia |
| Depression |
| Diabetes mellitus |
| Diabetic hyperosmolar nonketotic coma |
| Diastolic heart failure |
| Falls |
| Foot disorders interfering with mobility |
| Gastrointestinal bleeding |
| Hearing and vision abnormalities |
| Heart failure |
| Herpes zoster |
| Hip fracture |
| Hypothyroidism |
| Iron deficiency anemia |
| Monoclonal gammopathies |
| Normal-pressure hydrocephalus |
| Oral disorders interfering with eating |
| Osteoporosis |
| Parkinsonism |
| Polymyalgia rheumatica |
| Pressure sores |
| Prostate cancer |
| Stroke |
| Temporal arteritis (giant cell arteritis) |
| Urinary incontinence |
| Vitamin B12 deficiency |

- Early diagnosis frequently depends on the clinician's familiarity with the patient's behavior and history, including mental status.

- Commonly, the first signs of a physical disorder are behavioral, mental, or emotional.

- If clinicians are unaware of this possibility and attribute these signs to dementia, diagnosis and treatment can be delayed.

# Polypharmacy

- Patients' prescription, over-the-counter, and recreational drugs (including marijuana) should be reviewed frequently, particularly to look for drug interactions and use of drugs considered inappropriate for older patients.

# Caregiver problems

- Occasionally, problems of older patients are related to neglect or abuse by their caregiver.
- Clinicians should consider the possibility of patient abuse and drug abuse by the caregiver if circumstances and findings suggest it.
- Certain injury patterns or patient behaviors are particularly suggestive, including:
- Frequent bruising, especially in difficult-to-reach areas (eg, middle of the back)
- Grip bruises of the upper arms
- Bruises of the genitals
- Peculiar burns
- Unexplained fearfulness of a caregiver in the patient

# Medical History

- Attention to the medical history is particularly important in older adults because the history is often more complicated than in younger patients, and information may need to be gathered from a variety of sources .

- Often, more time is needed to interview and evaluate older patients, partly because they may have characteristics that interfere with the evaluation.

- The following should be considered:
- **Sensory deficits**
- **Underreporting of symptoms**
- **Unusual manifestations of a disorder**
- **Functional decline as the only manifestation**
- **Difficulty recalling**
- **Fear**
- **Age-related disorders and problems**

# Sensory deficits

- Dentures, eyeglasses, or hearing aids, if normally worn, should be worn to facilitate communication during the interview.

- Adequate lighting and elimination of visual or auditory distraction also help.

# Underreporting of symptoms

- Older patients may not report symptoms that they may incorrectly consider part of normal aging (eg, dyspnea, hearing or vision deficits, memory problems, incontinence, gait disturbance, constipation, dizziness, falls).

- However, no symptom should be attributed to normal aging unless a thorough evaluation is done and other possible causes have been eliminated.

# Unusual manifestations of a disorder

- In older adults, typical manifestations of a disorder may be absent.

- Instead, older patients may present with nonspecific symptoms (eg, fatigue, confusion, weight loss).

# Functional decline as the only manifestation

- Disorders may manifest solely as functional decline.
- In such cases, standard questions may not apply.
- For example, when asked about joint symptoms, patients with severe arthritis may not report pain, swelling, or stiffness, but if asked about changes in activities, they may, for example, report that they no longer take walks or volunteer at the hospital.

- Questions about duration of functional decline (eg, “How long have you been unable to do your own shopping?”) can elicit useful information.

- Identifying people when they have just started to have difficulty doing basic activities of daily living (ADLs) or instrumental ADLs may provide more opportunities for interventions to restore function or to prevent further decline and thus maintain independence.

- **Basic ADLs (BADLs)** include eating, dressing, bathing, grooming, toileting, and transferring (ie, moving between surfaces such as the bed, chair, and bathtub or shower).
- **Instrumental ADLs (IADLs)** require more complex cognitive functioning than BADLs.
- IADLs include preparing meals; communicating by telephone, writing, or computer; managing finances and daily drug regimens; cleaning; doing laundry, food shopping, and other errands; traveling as a pedestrian or by public transportation; and driving.
- Driving is particularly complex, requiring integration of visual, physical, and cognitive tasks.

# Difficulty recalling

- Patients may not accurately remember past illnesses, hospitalizations, operations, and drug use; clinicians may have to obtain these data elsewhere (eg, from family members, a home health aide, or medical records).

# Fear

- Older adults may be reluctant to report symptoms because they fear hospitalization, which they may associate with dying.

# Age-related disorders and problems

- Depression (common among older adults who are vulnerable and sick), the cumulative losses of old age, and discomfort due to a disorder may make older adults less apt to provide health-related information to clinicians.

- Patients with impaired cognition may have difficulty describing problems, impeding the physician’s evaluation.

# Physical Examination of the Older Adult

- The physical examination of the older adult should include all major systems but with particular attention to areas of concern identified during the history.
- Observing patients and their movements (eg, walking into the examination room, sitting in or rising from a chair, getting on and off an examination table, taking off or putting on socks and shoes) can provide valuable information about their function.
- Their personal hygiene (eg, state of dress, cleanliness, odor) may provide information about mental status and the ability to care for themselves.

- Clinicians should describe the general appearance of patients (eg, comfortable, restless, undernourished, inattentive, pale, dyspneic, cyanotic).

- If they are examined at bedside, use of protective padding or a protective mattress, bedside rails (partial or full), restraints, a urinary catheter, or an adult diaper should be noted.

# Vital Signs

- Weight should be recorded at each visit.
- Height is recorded annually to check for height loss due to osteoporosis.
- Temperature is recorded.
- Hypothermia can be missed if the thermometer cannot measure temperatures more than a few degrees lower than normal.
- Absence of fever does not exclude infection.

- Pulses and blood pressure (BP) are checked in both arms.
- Pulse is taken for 30 seconds, and any irregularity is noted.
- Because many factors can alter BP, it is measured several times after patients have rested > 5 minutes.
- BP may be overestimated in older patients because their arteries are stiff.
- This rare condition, called pseudohypertension, should be suspected if dizziness develops after antihypertensives are begun or doses are increased to treat persistently elevated systolic BP.

- All older patients are checked for orthostatic hypotension because it is common.
- BP is measured with patients in the supine position, then after they have been standing for 3 to 5 minutes.
- If systolic BP falls ≥ 20 mm Hg after patients stand, or any symptoms of hypotension are detected, orthostatic hypotension is diagnosed. Caution is required when testing hypovolemic patients.

- A respiratory rate for older adults differs based on health and living situation.

- The normal respiratory rate for older adults living independently is 12 to 18 breaths per minute, whereas the rate for those needing long-term care is 16 to 25 breaths per minute.

# Skin and Nails

- Initial observation includes color (normal rubor, pale, cyanotic). Examination includes a search for premalignant and malignant lesions, tissue ischemia, and pressure injuries.

## Stage 1 Pressure Injury (Buttocks)


This photo of a stage 1 pressure injury shows redness but no break in the skin.

# Stage 2 Pressure Injury

This patient has a stage 2 pressure injury on the upper right buttock (arrow). There is loss of epidermis and an erythematous base. Subcutaneous tissue is not exposed. Note surrounding areas of stage 1 pressure injury (for an example, see arrowhead) with nonblanching erythema over intact epidermis.

## Stage 3 Pressure Injury (Foot)

This photo of a stage 3 pressure injury shows full thickness skin loss but no exposure of muscle or bone.

# Stage 3 Pressure Injury (Base of Spine)

This photo of a stage 3 pressure injury shows subcutaneous tissue but no muscle or bone.

## Stage 4 Pressure Injury (Knee)


This photo of a stage 4 pressure injury shows visible deep structures, such as tendon and joint.

# A thickened, yellow toenail indicates onychomycosis , a fungal infection.

**Onychomycosis of the Great Toes**

This photo shows onychomycosis of the great toenails. The right toenail shows classic distolateral (a distal subungual) onychomycosis (DLO), whereas the left toenail likely began as DLO and progressed to dermatophytoma (dense collection of hyphae that appears as a

# Toenail borders that curve in and down indicate ingrown toenail (onychocryptosis).

**Ingrown Toenail**

This photo shows ingrown toenails with redness and swelling affecting the 1st and 3rd toes.

# Whitish nails that scale easily, sometimes with a pitted surface, indicate psoriasis.

**Psoriasis Plaque**

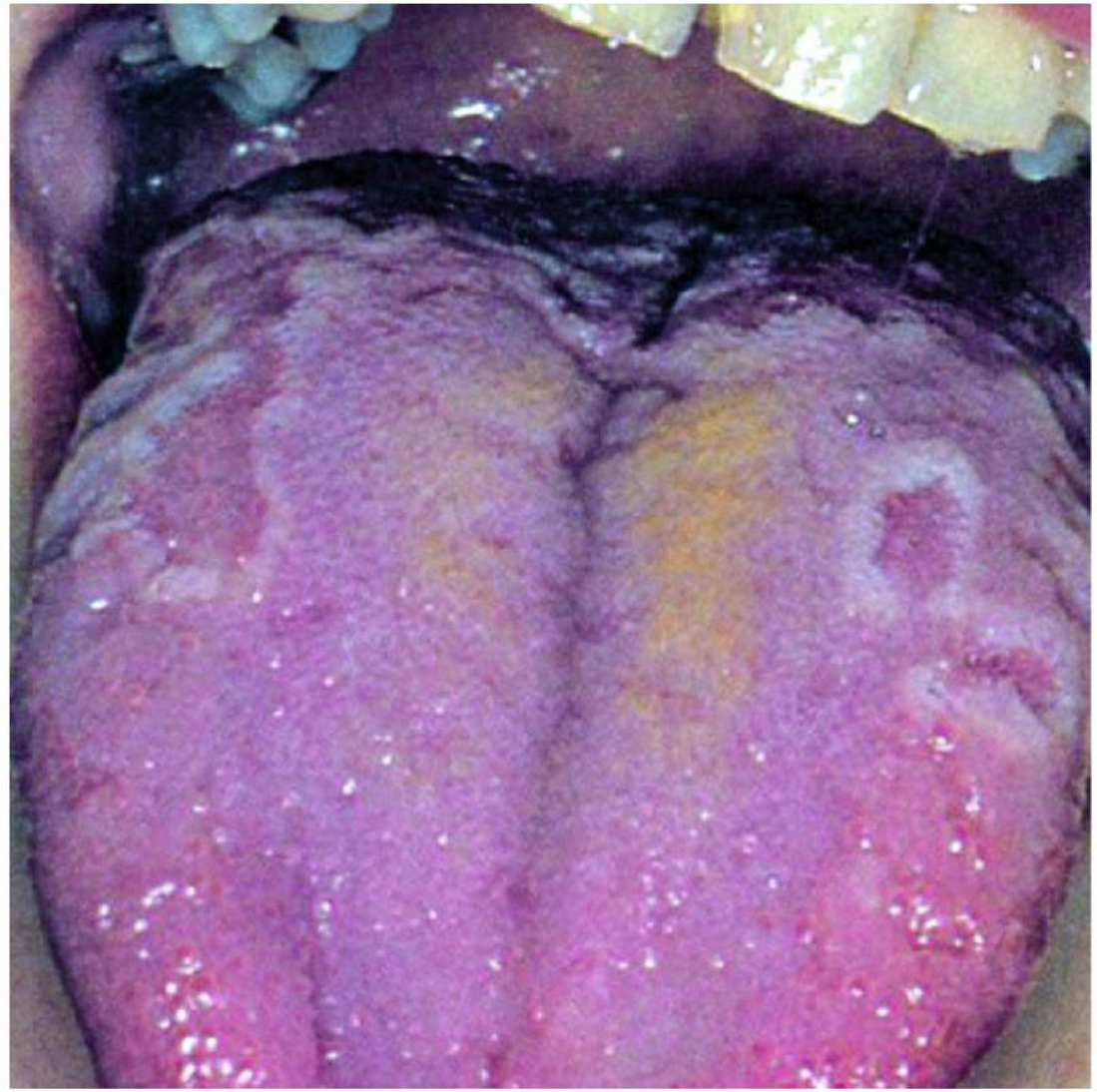
Plaques are elevated, palpable lesions > 10 mm in diameter. Psoriasis (pictured) typically manifests as plaques covered with thick, silvery, shiny scales.

# Mouth

- The mouth is examined for bleeding or swollen gums, loose or broken teeth, fungal infections, and signs of cancer (eg, leukoplakia, erythroplakia, ulceration, mass).

- The dorsal and ventral surfaces of the tongue are examined.
- Common age-related changes include varicose veins on the ventral surface, benign migratory glossitis ( geographic tongue ), and atrophied papillae on the sides of the tongue.

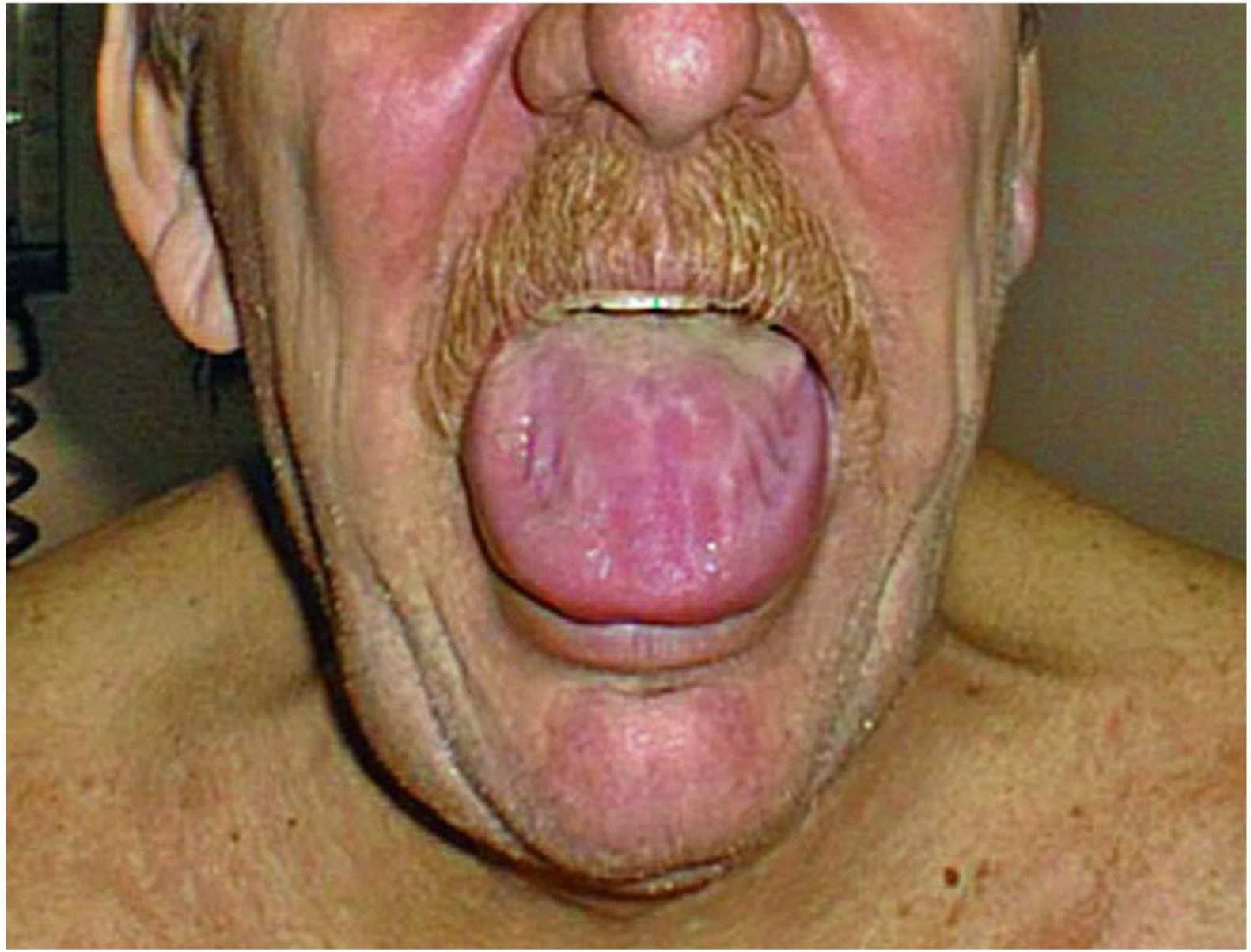
## Geographic Tongue



This photo shows some elevated white borders surrounding smooth, red areas of atrophy and loss of papillae. Other areas have a rough white or yellow surface (psoriaform changes). The lesions occur in multiple locations on the tongue and may coalesce to form a maplike appearance.

- In edentulous patients, the tongue may enlarge to facilitate chewing; however, enlargement may also indicate amyloidosis or hypothyroidism.

# Macroglossia



This photo shows a patient with systemic amyloidosis and macroglossia. The tongue protrudes at the corners of the mouth and indentation from the upper teeth can be seen on the dorsal surface.

# Myxedema in Hypothyroidism

- Painful, inflamed, fissured lesions at the lip commissures (angular cheilitis) may be noted in edentulous patients who do not wear dentures; these lesions are usually accompanied by a fungal infection.

# Angular Cheilitis

Angular cheilitis (perlèche) produces painful cracks at the corners of the mouth. Erythema and crusting at the labial angles also is seen in this photo.