The D’s of Geriatrics

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Objectives

Following completion

- Recognize the differentiating symptoms/signs of delirium, dementia, depression.
- Appropriate use of medications in the elderly.
- Discuss risks and benefits of frequently used medications in the elderly.

Conflict of interests

- None

Where’s the Growth Curve?

- No growth curve
- If you have seen one 80 year old then you have seen one eighty year old
- Age leads to individualism and uniqueness
- Same age, same comorbidities does not convey similarity in general

Dementia, Depression and Delirium

- Syndromes are distinct conceptually
- Clinically symptoms often overlap, mimic each other
- Often misdiagnosed

Depression

- Commonly overlooked diagnosis
- Associated with multiple chronic illnesses
- Associated with life style changes/changes in paradigms
- Second high incidence of suicide rates are in people > 85 yrs (19.4%

  Vs 19.6% among adults 45-64 yrs)
- Atypical presentation
- Elderly often fail to discuss symptoms of depression secondary to assuming it is normal with aging/may affect family and friends view of them/may affect their independence

Dementia

- Commonly overlooked diagnosis
- Slow onset and progression
- Easily masked by individuals affected
- Frequently misdiagnosed
- Strongest risk factor-age
- Incidence 11.6% 2000, 8.8% 2012
- Prevalence affected by chronic disease, level of education and age

Delirium

- Incidence varies in regards to setting
  - ICU with mechanical ventilation 60-80%
  - Medical inpatient 3-29%
  - Long-term care and postacute care 1-60%

  - Delirium in the hospitalized patient associated with increase in mortality regardless of cause, 14.5%-37%
  - Hypoactive delirium has a worse prognosis

Distinguish the difference

- Dementia is not an acute diagnosis
- Cannot be evaluated in illness including uncontrolled diabetes, uncontrolled hypertension, infection, metabolic abnormality, uncontrolled depression, etc.
- Slow progressive onset
- Often overlooked by family, friends and primary care
- Memory loss, loss in executive function/complex attention, language, learning. Procedural memory tends to be preserved where episodic memory is lost
- A change in prior level of function

Distinguishing the difference

- Depression is onset over brief period of time
- Often associated with history of mental illness
- May be associated with personal loss
- Can occur with dementia
- Social withdrawal
- Change in appetite
- Vague physical complaints
- Anxiety

Distinguishing the difference

- Delirium is transient
- Sudden onset
- Fluctuating level of consciousness
- Significant deficits in attention and concentration
- May be agitated or somnolent
- Often associated with medical illness, change in environment, change in medication

Distinguishing the difference

- Individuals with dementia are at high risk for delirium
- Depressive symptoms are common in neurodegenerative disorders
- Patients with delirium are at higher risk for cognitive decline when occurring in the face of dementia.

Comparison of the D's

	Dementia	Depression	Delirium
Onset	Months to years	Weeks to months	Hours to days
Cognition/Impairment	Recall Language Praxis	Concentration-subjective	Attention
Behavior	Anything!	Sad, Anxious Sleep, appetite issues	Agitated or somnolent
Cause	Neurodegenerative disease	Mood disorder	Medical condition

Treatment

	Treatment
Dementia	Socialization, stimulation, exercise, cholinesterase inhibitors, memantine
Depression	Antidepressants, psychotherapy, ECT
Delirium	Treat illness, correct metabolic issue, light therapy, avoid benzodiazipines

Polypharmacy

- Multiple medication-necessary or unnecessary
- Adverse drug events
  - Risk is 15% with two medications
  - Risk increases to 58% with 5 meds
  - Risk increases to 82% with >7 meds
  - Nearly 33% of hospital admissions in >75 year olds due to ADEs.

Drugs-Pearls

- PPIs-study 16,ooo patients 148 developed AKI vs 76,000 no PPI 67 events AKI. Similar findings for CKD, CV disease. 30-50% taking PPI had no indication for medication
- Statins in the elderly-do not routinely prescribe for people above 70 who do not have known coronary, cerebral vascular or peripheral vascular disease or life expectancy <5 years.
- Multivitamins, calcium supplements highest incidence of reported choking events in the elderly.
- ASA-not significantly beneficial for primary prevention CV events
- Ciprofloxacin-avoid with reduced kidney function secondary to risk of tendon rupture
- Docusate-avoid use. No significant clinical benefit when compared to placebo.

Drugs-back to the basics

- Paroxetene-avoid. More sedating, inhibits hempatic cytochrome P-450
- Benzodiazepines-increased risk of cognitive impairment, delirium, falls, fractures
- Digoxin-avoid other than dyspnea in CHF requiring multiple hospitalizations
- Megestrol-significant increase in thrombosis/thromboembolism

Available Tools

- Beers List-Potentially inappropriate, medications with clear indications
- STOPP/START-Screening Tool of Older Person's Prescriptions, Screening Tool to Alert doctors to Right Treatment
- Apps for devices-drug to drug interactions, dose adjustments in the elderly