MODULE #3: DELIRIUM, DEMENTIA, & DEPRESSION RELATED TO GERIATRIC FALLS

- Greg Shannon, MSN, RN
- University of Toledo/Wright State University
- Fall 2016
Leaning Objectives...

• State basic epidemiology of dementia
• Recognize early symptoms of dementia
• Implement basic treatment approaches for dementia, delirium, and depression
Cognition – those mental activities involved in the acquisition, processing, storing, retrieving, and application of information.

Processes involved - awareness, remembering, reasoning, decision making, and understanding & using language.

Cognition is function of the nervous system...so physical changes that affect this system can affect cognition.

Depending on the cause – can be minor or major, chronic or acute, and permanent or reversible (Pearson, 2015).
Cognitive tasks occur within the cerebrum (largest upper region of the brain) (hydroassoc.org; 2016).

Neurons – single cells that carry & process information.

Neurotransmitters – chemical substances released from neuron and allows impulse to flow from one neuron to the next. Many cognitive disorders involve abnormalities in neurotransmitter function (Pearson, 2015).

Cognitive deficits interfere with patient independence in everyday activities.
Why assess for cognitive impairment in geriatric patients?

- Cognitive impairment can have a number of possible causes so all must be checked and some eliminated.
- Medication side-effects, metabolic and endocrine issues.
- Delirium due to a prolonged illness or even ICU admission.
- Most elderly patients with dementia go undiagnosed. Chodosh et al. (2014) discovered that physicians were unaware of cognitive impairment in more than 40% of their cognitively impaired patients.
Psychosis – abnormal mental state. Patient has altered thoughts, feelings, perceptions, and/or including behaviors. Psychosis can include the following:

1. Delusions – a false belief (ex. believing the hospital staff are FBI agents).
2. Hallucinations – imagined sensory experiences (hearing voices, seeing animals that aren’t present).
3. Illusions – are distorted perceptions of actual sights or sounds (example – the curtain blowing from the window might be an angel).
Our aging population...

- In 2020, each day, 10,000 American baby-boomers will turn 65 (Quigley, 2014).
- Double aging – term used in the literature indicating that not only are seniors growing in numbers, they are also living longer.
- In the past 10 years, adults >65 have increased by 26% (nih.gov; 2016).
- Estimated that almost half of adults who are hospitalized are 65 years of age or older (ncbi.nlm.nih.gov/books; 2008).
When older people are admitted to hospitals, “it is not unusual for these patients to present some form of cognitive decline, commonly dementia or delirium” (Nilsson, Lindkvist, Rsmussen, & Edvardsson, 2012).

5% of people older than 65 and 20% older than 80 years old suffer from some sort of dementia syndrome.

Alzheimer’s disease is the most common form of dementia.

By 2050, 15 million Americans will have dementia and currently there are 5.3 million Americans living with Alzheimer’s disease (www.nih.gov; 2016).
Epidemiology of Dementia...

- No single cause...it’s a progressive, irreversible loss of cognitive function caused by several diseases or disorders (Pearson, 2015).
- Not a normal part of aging. This is often misunderstood among healthcare workers.
- Brain divided into 4 lobes.
- Damage to frontal lobe results in inhibition of information processing (linked to impulsiveness and hyperactivity).
- Parietal lobe – auditory, visual, and somatic input.
Temporal lobe – auditory receptive area; damage results in impaired memory for verbal material and inability to remember non-verbal materials (face recognition).

Occipital lobe – damage results in delayed process of visual information (via optic nerves).

Many forms of dementia: Alzheimer’s disease, mild cognitive dementia, dementia with Lewy bodies, vascular dementia, and frontotemporal dementia.
Alzheimer’s Disease (AD)....

- Most common form of neurocognitive disorder – accounting for 60-80% of all dementia cases (Pearson, 2015).
- Estimated >5.4 million in US, or 1 in 8 over 65 years (Alzheimer’s association 2016).
- 2 types: familial inheritance pattern, early onset (<60) also called early-onset. And sporadic (>65) – no clear pattern, called late-onset.
Characteristics of Alzheimer’s Disease....

- Findings of AD relate to changes in the brain's structure and function:
  - Amyloid plaques
  - Neurofibrillary tangles
  - Loss of connections between neurons
  - And neuron death
Mild Cognitive Impairment (MCI)....

- MCI is the second state of Alzheimer’s Disease.
- Patient has issues with memory, language, or other cognitive functions and family members notice, but can still perform ADL’s.
- Often undiagnosed d/t patient can still function.
- 10-20% of people >65 have MCI. Treatment: ongoing monitoring, some physicians use cholinesterase inhibitors.
- Worsening of symptoms could indicate progression to dementia (Lewis, Dirksen, Heitkemper, & Bucher, 2014).
Interventions...

- Intervention recommendations from the literature....for pts with chronic cognitive decline or dx of dementia:
  - Therapeutic communication strategies.
  - Strategies to reduce internal & external stressors.
  - Involve family/caregiver in nursing plan of care.
  - Strategies to promote patient safety.
  - Monitor ADLs.
- Provide nonpharmacological intervention first, but collaborate with physician regarding pharmacological interventions (Joose, Palmer, & Lang, 2013).
Delirium...

- Defined as a state of temporary but acute mental confusion (Lewis, Dirksen, Heitkemper, & Bucher, 2014).
- 15-53% of hospitalized adults experience delirium postoperatively.
- The disturbance develops quickly...a few hours to a few days.
- Hard to pinpoint single cause. Usually interaction of underlying medical conditions with a precipitating event (ex. sleeping medication). Pneumonia and UTI most common causes in elderly.
What can I do at the bedside....r/t delirium?

- Intervention recommendations from the literature....for pts with delirium:
  - Prevention, early recognition, and tx. Care focuses on eliminating precipitating factors. Address issues r/t polypharmacy, nutritional deficits, pain, and incontinence.
  - Early signs: inability to concentrate, irritability, insomnia, loss of appetite, restlessness, and confusion.
  - Protect pt (restraints), decrease stimulation, family involvement, reorientation, behavioral interventions, relaxation techniques, & music therapy (Lewis, Dirksen, Heitkemper, & Bucher, 2014).
Delirium...

- Find & Fix the Causes (Mnemonic)
  D-dementia or dehydration
  E-electrolytes or emotional stress
  L-liver>heart>kidney>brain
  I-infection or ICU
  R-Rx (Meds) – most common: sedative-hypnotics, opioids,
  I-injury or immobility
  U-untreated pain or unfamiliar surroundings
  M-metabolic disturbance

(Lewis, Dirksen, Heitkemper, & Bucher, 2014)
Depression...

- Disorder characterized by a sad or despondent mood or loss of interest in usual activities.
- Common among older adults, but not a normal part of aging.
- Signs include: social isolation, sleep disturbances, loss of appetite, memory problems, and irritability.
- Assess for suicide risk by using direct questions r/t self-harm (suicide ideation) (Pearson, 2015).
Polypharmacy issue in geriatrics can complicate treatment of depression.

No diagnostic tests to determine depression. Based on clinical assessment/medical hx.

Geriatric Depression Scale useful in screening older adults for depression and determining evaluation.

Pearson, 2015
Questions...???

- Thank you for participating....Greg.


