QUIZ

Cognitive Impairment in the Elderly

(Developed by Cleveland Clinic Emergency Medicine Programme – Thanks to Dr. Fred Hustey)

1. Which three choices are features of delirium?

A. *Acute change in mental status with fluctuating course*
B. *Chronic short term memory impairment*
C. *Difficulty focusing attention*
D. *Altered level of alertness*
E. *Benign course*

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2. A 72-year-old man presents to the emergency department with a two-day history of altered mental status. His wife tells you, "sometimes he doesn't seem so bad but other times he is really out of it". On physical exam, he is afebrile with stable vital signs. He is somewhat anxious but oriented to person, place, and year. He seems easily distracted and has trouble focusing on the interview. You perform a comprehensive evaluation that consists of a head CT, lumbar puncture, ECG, chest x-ray, and a comprehensive set of labs including a metabolic and infectious workout -- all of which are unremarkable.

What is the next step in the management of this patient?

A. *Administer broad spectrum antibiotics to treat for potential sepsis*
B. *Admit to the hospital for further evaluation*
C. *Discharge home after arranging for adequate home support and follow up*
D. *Administer a dose of diazepam for anxiety and reassess*

3. A 76-year-old woman is brought to the emergency department by police after being found wandering in the street. On physical examination, she is dishevelled but pleasant. She is cooperative and attentive to questions. Further mental status examination reveals short-term memory loss, and she is unable to draw the face of a clock.

Given the information above, which one is the most likely diagnosis?

A. *Delirium*
B. Dementia
C. Depression

4. Approximately what proportion of older patients with delirium is recognized by ED physicians?

A. *10%*
B. *33%*
C. *50%*
D. *66%*
E. *75%*

5. An 85-year-old woman is brought to the emergency department by her family due to progressive loss of short-term memory. After a thorough evaluation, you advise the family that the most likely diagnosis is dementia. The patient and family would like more information prior to leaving the emergency department.

Which two of the following statements are correct regarding this patient's diagnosis?

A. *The most likely etiology for this patient's dementia is Alzheimer's disease*
B. *Therapies are available for Alzheimer's disease that can prolong functional independence*
C. *No types of dementia are potentially curable.*

6. Approximately how many older patients who are found to have cognitive impairment exclusive of delirium (probable dementia) in the ED have been previously diagnosed with dementia?

A. *30%*
B. *50%*
C. *70%*
D. *85%*

7. Mr. Jackson is an 89-year-old man who presented to the emergency department with delirium. He was not recognized as delirious by the ED physician: he appeared well with stable vital signs. After a brief and unremarkable evaluation, he was discharged home.

Which statement best describes Mr. Jackson's 90-day mortality risk based on the presence of his delirium?

A. *Hospitalizing him would not have reduced his risk*
B. *If his delirium had been recognized by the ED physician, his risk may have been reduced.*
C. *The delirium should not factor into his risk of mortality since he appeared well and had a thorough ED evaluation before discharge*

8. A 71-year-old man is brought to the emergency department by his family with a five-day history of fluctuating confusion. On physical examination, you note an alert patient who appears to be mildly confused with some difficulty focusing on the interview. After a detailed evaluation, you determine that this patient has delirium.

Which two conditions should be met before considering discharging this patient home from the ED?

I *A single etiology for the delirium has been identified that can be easily treated in the outpatient setting.*
II *The patient has adequate home support*
III *No etiology has been found after an extensive ED workup, and the patient appears stable.*
IV *Arrangements for short-term nursing home placement have been made.*

A. I and II
B. II and III
C. III and IV
D. I and IV

9. Which choice is not a potentially reversible causes of dementia?

A. *Vitamin B_{12} deficiency*
B. *Hyponatremia*
C. *Hypothyroidism*
D. *Normal pressure hydrocephalus*

10. An 81-year-old man is brought to the emergency department with a several month history is progressive short-term memory loss. His family notes that he has been falling over the past few weeks and has had difficulty with his balance. On physical examination, you note an alert, attentive, and cooperative patient. His Mini Mental Status Exam Score is in the impaired range. Further neurologic examination reveals the presence of ataxia and broad-based gait. Sensation and strength testing is unremarkable. You also note the patient is wearing a diaper: the family says it's because he has difficulty controlling his bladder.

Which two are the most likely causes of this patient's short term-memory impairment?

I *Normal pressure hydrocephalus*
II *Vitamin B_{12} deficiency*
III *Chronic subdural hematomas*
IV *Delirium*

A. I and II
B. I and III
C. I and IV
D. II and IV

Suggested Readings

1. Wilber ST. “Altered Mental Status in Older Emergency Department Patients.” Emergency Medicine Clinics of North America 24(2): 299-316 (May 2006) Link
2. Kakuma R, du Fort GG, Arsenault L, et al. “Delirium in Older Emergency Department Patients Discharged Home: Effect on Survival.” Journal of the American Geriatrics Society 51(4): 443-50 (April 2003) Link
3. Goldmacher DS, Whitehouse PJ. “Evaluation of Dementia” New England Journal of Medicine. 335(5): 330-6 (Aug 1, 1996) Link
4. Sanders AB. “Missed Delirium in Older Emergency Department Patients: A Quality-of-Care Problem”. Annals of Emergency Medicine. 39(3): 338-41 (Mar 2002) Link
5. Lewis LM, Miller DK, Morley JE, et al. “Unrecognized Delirium in ED Geriatric Patients” American Journal of Emergency Medicine 13(2): 142-5 (Mar 1995) Link
6. Hustey FM, Meldon SW, Smith MD, et al. “The Effect of Mental Status Screening on the Care of Elderly Emergency Department Patients.” Annals of Emergency Medicine 41(5): 678-84 (May 2003) Link