

Case Study

Approach to an Older Adult with Delirium: Pharmacist Perspective

A 77-year-old woman is admitted to a local assisted living program where she will receive help managing her insulin. She has a history of Alzheimer's disease, adult-onset diabetes mellitus, and recurrent urinary tract infections. Several days after her admission, the staff observe that she is very irritable. She has new urinary incontinence and feels that the staff are going to "trick" her. The nursing staff check vital signs and take a fingerstick glucose reading. They review an "ACE Card" just before calling the attending physician. *MPM*

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Acute Care for Elders (ACE) Program
 Aurora Health Care/
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Differentiating Delirium from Dementia:

	DELIRIUM	DEMENCIA
Onset	Acute	Insidious
Course	Fluctuating	Steadily Progressive
Consciousness/ Orientation	Clouded Disoriented	Clear until late stages
Attention/ Memory	Poor short-term memory; inattention	Poor short-term memory; no marked inattention
Psychosis	Commonly present	Less Common

Source: Meagher, D. Delirium: Optimising management. *BMJ* 2001; 322:144-9.

Evaluate for Precipitating Causes:

- Beers List medications, other anticholinergics or benzodiazepine (BZD).
- Addition of new medication or recent dose change.
- Withdrawal from discontinued medication (BZD, opiates, antidepressants, antipsychotics, etc.).
- Consider alcohol or other illicit drug withdrawal.
- Previous medication intolerances (ex: h/o hallucinations).
- Does timing of delirium onset correlate with administration or pharmacokinetic peak of a certain medication?
- Abnormal drug levels (i.e. digoxin, anti-epileptic drugs, theophylline etc.).
- Pain control/constipation/urinary retention.
- Infection/dehydration.
- Post-operative/procedure causes (anesthesia, sedatives).
- Many other clinical causes that may be determined by physician, in a hospital setting.

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Treatment Considerations: Pharmacist Perspective

- Recommend alternatives to Beers list medications.
- Start with lowest dose of new medications and titrate slowly.
- Assess home medication regimen for medications that may have been inadvertently stopped on admission.
- Avoid abruptly stopping specific medications (i.e. steroids, long-term opiates and benzodiazepine, certain antidepressants and antipsychotics, etc).
- Has the alcohol withdrawal protocol been initiated (if needed)?
- Assess administration time, dose, and cumulative number of PRN doses given – does delirium correlate?
- Stool softener present? Urinary retention issues?
- Evaluate UA, cultures, antibiotics, and fluid status. Recommend changes if appropriate.
- Evaluate current pain management plan and medication regimen.

If delirium persists:

- Reassess medications daily. Consider Lewy body dementia.
- Consider possibility of discontinuing non-essential medications (in collaboration with physician) and evaluate for improvement.

If Pharmacologic Treatment Necessary* (Requires MD order)

- Haloperidol 0.25 – 0.5mg PO/IV/IM every 30 min. until patient is awake and calm, but not oversedated. If ineffective may consider recommending low dose lorazepam or alternate antipsychotic. Avoid haloperidol in patients with Parkinson's disease.
- For Parkinson's disease patients: Quetiapine 12.5-25mg PO every 4 hr PRN, or low dose lorazepam** (0.25 – 0.5mg)
- Use lorazepam** for EtOH withdrawal.

* For acute care; medication on discharge.
 ** Of note: in some cases benzodiazepine use can potentiate delirium.

This ACE (Acute Care for the Elderly) Card™ on *Approach to an Older Adult with Delirium: Pharmacist Perspective* was developed by Dr. Michael Malone at Aurora Health Care in Milwaukee, WI. These geriatric care reminder cards will be published in *MPM* as resources to help clinicians manage common conditions that plague elderly patients. The complete series of cards can be ordered from Dr. Malone at Michael.Malone.MD@aurora.org. Michael Malone, MD, is the Medical Director of Senior Services at Aurora Health Care in Milwaukee, WI.