Clinical Identification of…

Delirium

KIEL ADAM MORRIS, DO
BROADLAWNS GERIATRICS

Customary Financial Disclosure Slide

- **I don't have any conflicts of interest to disclose whatsoever, including (but not limited to) financial relationships.**

My lofty goals for the next 15 minutes…

- convey **importance** of the topic
- **define** delirium & dementia
- review **clinical presentation**
- review **evaluation** of delirium
- review **etiologies** to consider
- address **treatment** of delirium
- review **prevention** strategies
- end with a **case** if time allows

Significance *– why discuss delirium?*

- **It's common**, so we're all probably going to see this at some point.
  - Clinic setting.
  - Hospital setting.
  - Long-Term Care setting.
  - Our personal lives.
- It **can happen to anyone**, not just geriatric patients.
- But it's *particularly* **prevalent in geriatric populations**.
  - Nearly 30% at some point during a hospitalization (*Francis, J. Delirium in Older Patients. JGS*)
    - Consequently *may* lead to a **false positive impression of dementia**.
- Delirium often **subtle & vague sign of serious underlying problem**.

How do we define *Delirium?*

- Complicated, but consolidating elements from UpToDate, United Health Partnership, and DSM-V, delirium is…
  - ***…an acute decline from baseline attention/cognition associated with psychomotor agitation that is clinically-provoked and (often) reversible.***
- It can certainly be considered a syndrome without a clearly defined unifying pathophysiology.
- Perhaps useful to think of delirium as a state of acute cognitive imbalance, which is clearly much more easily induced in elderly patients particularly those with dementia.

So then, how do we define *Dementia?*

- **Chronic** decline in multiple domains of baseline cognition (*memory, learning, attention, language, executive function*) to a degree that interferes with individual function (*ADLs/IADLs*) and is not *fully* explained by alternative or concurrent diagnoses (*e.g. ADHD, Depression, etc*).

Distinguishing Delirium & Dementia

Delirium		*Dementia*
Abrupt *Hours-days*	**Onset** **Timing**	Gradual *Months-years*
Impaired	**Attention / Orientation**	Preserved in early stages
Fluctuating	**Lvl of Awareness**	Normal
Incoherent Disorganized	**Language** **Speech**	Disease & Stage Dependent
Variable Fluctuating	**Memory Impairment**	Short-Term, early Long-Term, later

Signs & Symptoms

- In addition to delirium criteria discussed before →
  - Family may say pt is "not herself" or "out of it".
  - Alternatively, may be agitated/restless.
  - Fluctuating course; *may appear lucid or "normal".*
    - ***Careful not to let this fool you on morning rounds!***

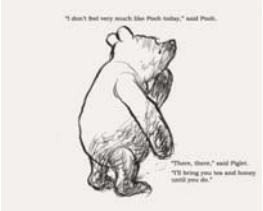
Table 1 – Common signs and symptoms of delirium

- Disturbed attention and awareness
- Reduced level of alertness or arousal
- Acute onset and fluctuating course
- Fragmented sleep
- Disordered thought process
- Disorientation to time and place
- Executive dysfunction
- Memory impairment
- Visuospatial deficits
- Abnormalities of language
- Psychomotor agitation or retardation
- Reality distortion, including illusions, hallucinations, and delusions
- Labile affect
- Asterixis
- Frontal release signs

Delirium may be the only sign of serious illness in the elderly!

CC: "Ma ain't quite herself for 3 days."

- **Take this chief complaint seriously!**
- **Obtain a good history** of what's been going on.
  - Ask about specific elements of "ain't quite herself."
  - Ask about physical symptoms they've noticed.
  - Ask about significant environmental changes.
- **Perform a thorough physical**, including neuro exam.
- Assess using **clinical tools** specific to delirium, e.g. ***bCAM*** (next slide).
- Directed **testing**, e.g. labs, imaging, LP, etc.



*B*rief *C*onfusion *A*ssessment *M*ethod

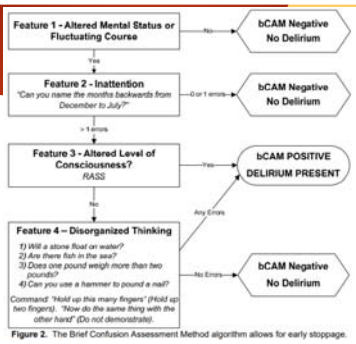


Figure 2. The Brief Confusion Assessment Method algorithm allows for early stoppage.

Richmond Agitation-Sedation Scale

Differential Diagnosis Mnemonics…

I	Infection
W	Withdrawal
A	Acute metabolic
T	Traumatic injury
C	CNS lesion
H	Hypoxia
D	Deficiency of vitamins
E	Endocrine
A	Acute vascular
T	Toxins (including medications)
H	Heavy metals

Drugs
Epilepsy/ Electrolyte imbalance
Liver failure/ Low oxygen (MI, PE)
Infection
RRetention (urinary/ faecal)
Intracranial
Uraemia
Metabolism

Pain
Infection
Nutrition
Constipation
Hydration
Medication
Electrolytes

Drugs may cause or prolong delirium.

- **Analgesics** – NSAIDs, Opioids
- **Antibiotics** – e.g. fluoroquinolones
- **Anti-cholinergics**
- **Anti-convulsants**
- **Anti-depressants**, e.g. mirtazapine
- **Anti-Hypertensives**
- **Anti-spasmodics (MSK)** – e.g. cyclobenzaprine
- **Anti-spasmodics (GI)** – e.g. dicyclomine
- **Cortocosteroids**
- **Hypnotics** – Barbs & Benzos

Prevention is not always possible, but we can try!

*How do we **treat** delirium?*
Fix the glitch!

Thank you! ☺

Questions?

Sources

- UpToDate: "Diagnosis of delirium and confusional states"
- UpToDate: "Prevention, treatment, and prognosis of delirium…"
- United Health Network: "Delirium Prevention and Management"