



Regional Geriatric Program
of Eastern Ontario

Programme gériatrique régional
de l'Est de l'Ontario



Delirium and The Confusion Assessment Method

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Delirium



- **Why bother?**
 - **Common in acute care**
 - **Frequently missed in ER**
 - **Prevention or early recognition may help prevent complications, mortality or premature admission to LTC**
 - **Can affect length of stay**



Core Features of Delirium



- **Disturbance in consciousness**
- **Disturbance in thinking**
- **Rapid onset**
- **Fluctuating course**
- **Evidence of an external cause**

Disturbance in Consciousness



Can be manifested by:

- **Disruptions in sleep-wake cycle**
- **Alterations in level of consciousness**
 - **Continuum from alert to coma**
- **Alterations in attention**



Disturbance in Thinking



Confusion

- **Inability to think with one's customary clarity and coherence**
- **Term has been used since the nineteenth century**
- **Need to be clear as to the cause of the “confusion”**
- **“umbrella term”**

DSM- IV Criteria



- **Reduced awareness of environment**
- **Can't focus**
- **Impaired memory**
- **Disorientation / Hallucinations**
- **Develops over a short period of time**
- **Fluctuates**
- **Evidence that there may be multiple etiologies**

Do You Know Your DDD's???



Feature	Delirium	Dementia	Depression
Onset & Progression	Abrupt, Acute	Chronic Insidious	Variable
Awareness	↓ Perception of environment	Clear	Clear
Orientation	Impaired but Fluctuates	↑ impairment over time	“I don’t know” (I don’t care)
Memory	Recent & <u>immediate</u> impaired	Recent & <u>remote</u> impaired	<u>Selective</u> “patchy”



Course of Delirium



- **Acute onset**
 - **Change noted over the course of days to weeks**
- **Transient & fluctuating course**
 - **Helps to distinguish it from dementia**
- **Variable outcome**
 - **Can range from full recovery to death**



Assessing Delirium



Confusion Assessment Method

- **Four cardinal elements**
 - 1. Acute onset, fluctuating course**
 - 2. Inattention**
 - 3. Disorganized thinking**
 - 4. Altered level of consciousness**

CAM positive

- ***1 & 2 and either 3 or 4 are present*** *(Inouye et al, 1990)*

Using the CAM- Review



- **Consistent with DSM-IV**
- **Validated in acute care/other settings**
- **Sensitivity/specificity ($\sim \geq 90$)**
- **CAM ICU validated** (*Ely et al 2001*)
- **Used both as screening and diagnostic aid.**
- **Assess *presence* of delirium**
- **Does *not* measure severity**

CAM



1. **Acute change in mental status?**
2. **Disorganized thinking?**
3. **Altered level of consciousness?**
4. **Inattention/fluctuation?**
5. **Psychomotor agitation/retardation?**
6. **Perceptual disturbance?**
7. **Disorientation?**
8. **Sleep wake cycle altered?**
9. **Memory impairment?**

Most important



Least Important



Assessing Delirium



Neecham Confusion Scale

- **Developed for use by nurses**
- **Rapid assessment of early behavioral and physiological cues**
 - **Processing**
 - **Behavior**
 - **Physiological control**

Delirium Symptom Interview *(Albert et al, 1992)*

Delirium Rating Scale R-98 *(Trzepacz et al, 2001)*

Delirium Cognitive Evaluation



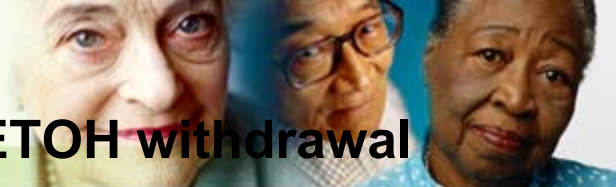
MMSE:

- **inaccurate tool to *diagnose* delirium as the patient:**
 - **fluctuates in a delirium**
 - **has poor attention/concentration**
- **helpful tool to demonstrate improvement in cognitive status when following patient.**

What do I do next?



- **Delirium needs urgent treatment**
 - **Alert physician & multi-disciplinary team as soon as appropriate:**
 - ***CAM on chart?***
 - ***Preprinted orders (when appropriate)***
 - ***Do you need MMSE?***
 - **Initiate appropriate orders.**
 - **Assess for potential contributing factors.**
- Use resources-handcards posters teaching, tools***



D

Dehydration, dementia, detoxification- ETOH withdrawal

E

electrolytes (abnormal Na⁺, K⁺),

L

Lungs, liver, heart, kidney, brain

i

Infections, UTI's, elimination

R

Restraints, restricted movement-immobility

i

Injury-including pain, Impaired hearing, vision, sleep,


U

Unfamiliar environment,

M

Medications, metabolic (BS)

Review for Common Causes of Delirium



Trigger Questions



- Look for:
 - Changes in behavior
 - Changes in function
 - Changes in cognition
 - Changes in medication
 - Evidence of physiological instability

Build program with resources and integrated assessment or screening tools



DELIRIUM: LOOK, SCREEN AND INTERVENE!



LOOK Assess All Patients

- Document baseline functioning
- Document baseline mental status
- Document behaviour changes



SCREEN For Risk Factors

- Sensory impairment: Vision, hearing
- Older age
- Cognitive impairment: eg. Dementia, CVA
- Dehydration
- Multiple medications
- Alcoholism/substance abuse
- Physiological instability eg. infections, ↓ renal functioning
- Sleep deprivation



INTERVENE

1. Describe symptoms
2. Communicate with Team
 - Delirium Work up Order Form
 - Physician Alert
3. Review/Reverse possible causes
4. Implement strategies

WHAT IS DELIRIUM

An acute change in mental status that develops over a short period of time.

- acute onset, fluctuating course
- inattentive or distracted
- disorganized thinking eg. rambling
- hyperalert or lethargic
- may have hallucinations
- ↓ recent & immediate memory

AVAILABLE RESOURCES

- MMSE
- CAM: Need presence of (1) & (2) & either (3) or (4)
 1. Abrupt change?
 2. Inattention, Can't focus? Distracted?
 3. Disorganized thinking? Incoherent, rambling, illogical?
 4. Altered level of consciousness? Hyper-alert to stupor?
- Specialized Consults



Memories Matter

We may not have made their memories
But we can offer measures
To clarify those treasures.

Kaleidoscope of Caregiving Strategies

Rule of Thumb Identify and reverse underlying etiology!

Nonpharmacological Support

- Mobilize, eg. walk to BR
- Enhance sleep, eg warm drink
- Use aids, eg. vision, hearing
- Provide bowel/bladder regime
- Encourage nutrition/ Hydration
- Family @ bedside
- Listening time
- D/C Invasive devices
- Educate- give brochure

Environmental Manipulation

- No/least restraints: try alternatives
- ↓ room changes, ↑ observation
- clocks, calendars
- Familiar objects
- Appropriate lighting - turn ↓ @ HS
- ↓ paging/noise @ HS

DO THIS:

Tenets of Care

- Know the person
- Relate effectively
- Retain abilities
- Manipulate environment

Communicate Concerns Immediately!

- Identify changes from baseline
- Use Delirium Work Up Form or Physician Alert
- Initiate consults as appropriate: Physicians, Medicine, Team Members, Geriatrics, Psychiatry, Neurology etc.

Establish Physiological Stability

- Review/correct O₂ sats, Ca, Na, albumin, creatinine/BUN, glucose, electrolytes, blood count, TSH
- Urinalysis/midstream
- Serum drug levels as appropriate
- Hydration
- Assess bowel/bladder regime

Pharmacological Awareness

- Review medication profile
- Be aware of ≥ 5 medications
- Danger Medications: Psychotropics, Sedatives, Narcotics, Hypnotics, Anticholinergics.
- Assess addition of new medications
- Provide "around the clock" pain control

Some References



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