Delirium and Falls

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CNC Aged Care
RNSH
**Falls Risk Screening Tool – Ontario STRATIFY**

**NORTHERN SYDNEY CENTRAL COAST HEALTH**

**Falls Risk Screening - Ontario STRATIFY**

Please read instructions for use

Date: ...

<table>
<thead>
<tr>
<th>Item</th>
<th>Falls Risk Screening Assessment</th>
<th>Value</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. History of falls.</td>
<td>Did the patient present to hospital with a fall or have they fallen since admission?</td>
<td>Yes to any = 6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>If not, has the patient fallen within the last 2 months?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Mental status</td>
<td>Is the patient confused? (i.e., unable to make purposeful decisions, disorganised thinking and memory impairment).</td>
<td>Yes to any = 14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is the patient disorientated? (i.e., lacking awareness, being mistaken about time, place or person).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Is the patient agitated? (i.e., fearful, affect, frequent movements, and anxious)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Vision</td>
<td>Does the patient require eyeglasses continually?</td>
<td>Yes to any = 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does the patient report blurred vision?</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Does the patient have glaucoma, cataracts or macular degeneration?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Toileting.</td>
<td>Are there any alterations in urination? (i.e., frequency urgency, incontinence, nocturia).</td>
<td>Yes = 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Transfer score (TS) (means from bed to chair and back).</td>
<td>□ Unable no sitting balance; mechanical lift.</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Major help — one strong skilled helper or two normal people; physical — can sit.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Minor help one person easily or needs supervision for safety.</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Independent use of aids to be independent is allowed.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>6. Mobility score (MS).</td>
<td>□ Immobile.</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Wheelchair independent including corners, etc.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Walks with help of one person (verbal or physical).</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Independent (but may use any aid, e.g., cane).</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Action:**

Total score and follow risk recommendations as per level of risk

<table>
<thead>
<tr>
<th>Total Score</th>
<th>Low risk (Score totalled)</th>
<th>Medium risk</th>
<th>High risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>0</td>
<td>6-16</td>
<td>17-30</td>
</tr>
</tbody>
</table>

With acknowledgement to SWAHS & GSAHS.
Literature - delirium

- **Delirium in older persons** (Inouye 2006. *NEJM.* 354:11)
  - Common, life threatening, potentially preventable and reversible
    - In hosp prevalence 14-24%; incidence 6-56%
    - Correlates with lower quality of hospital care

- **Delirium in elderly general medical inpatients: a prospective study** (Isel 2007 *Int Med* J.37(12):806)
  - >49% of all USA hospital bed days on care for delirium
    - Melbourne study all patients eligible >65 (n=104) – general med ward
    - Prevalent del 18%; incident 2%
    - Pre existing cognitive impairment strong predictor

- ‘In particular, the prevention of, or appropriate management of delirium can save up to $2.5 million per 1000 cases’ (Lipski, P. 2007. White Paper on Geriatric Medical Services on The NSW Central Coast 2007).
Disturbance of consciousness, attention, cognition, and perception that develops over a short period of time (usually hours or days) and tends to fluctuate during the course of the day

• Hyperalert
• Hypoalert
• Mixed


PREDISPOSING CAUSES OF DELIRIUM

- **Brain disease** - dementia, stroke, past severe head injury
- **Use of brain-active drugs** - sedatives, anticholinergics
- **Impairments of special senses** - sight, hearing
- **Multiple severe illnesses**
- **Malnutrition**

PRECIPITATING CAUSES OF DELIRIUM

- **Iatrogenic** - unpleasant environmental change, invasive procedures, new medications, trauma, dehydration, ongoing malnutrition, elimination malfunction
- **Illnesses** - infections, intracranial pathologies, impaired organ function, abnormal metabolite function, pain, drug withdrawal

1. Say to your patient -
   “I am going to name 3 objects. Please remember what they are because I am going to ask you to name them again in a few minutes”.
   “Please say the 3 items after me”. (Say clearly & slowly – 1 second for each word)
   APPLE          TABLE        PENNY
   Keep giving trials for the 3 words until the patient has said all 3 (up to 6 trials)

2. Then ask the patient to name the current
   –   day
   –   month
   –   year
   Give 1 point for each correct answer

3. Say – “Now what were the 3 objects I asked you to remember?”
   Give 1 point for each correct answer

Total ... / 6  (≤ 4 = impairment - needs further investigation)
## CONFUSION ASSESSMENT METHOD (CAM)

Consider the diagnosis of delirium if features 1 and 2 **and either** feature 3 or 4 are present.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acute and/or fluctuating course</td>
<td>Is there evidence of an acute change in mental status from the patient’s baseline? Did the (abnormal) behaviour fluctuate during the day, that is, come and go, or increase and decrease in severity?</td>
</tr>
<tr>
<td>2. Inattention</td>
<td>Did the patient have difficulty focussing attention during the interview, e.g. being easily distractible, or having difficulty keeping track of what was being said?</td>
</tr>
<tr>
<td>3. Disorganised thinking</td>
<td>Was the patient’s thinking disorganised or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from one subject to another?</td>
</tr>
<tr>
<td>4. Altered level of consciousness</td>
<td>Overall, how would you rate this patient’s level of consciousness?</td>
</tr>
</tbody>
</table>

- No
- Yes
- Uncertain (please specify) ………………

- Delirium symptoms present
- Delirium symptoms NOT present
- N/A

**DATE:** ……………………………………

**Signature of assessor & designation:** …………………………………………………………………

**Medical Officer’s signature:** ………………………………………………………………………..

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## Prevention of Delirium

Inouye et al. 1999 *NEJM* 340(9):669-676.

<table>
<thead>
<tr>
<th>Cognitive Impairment</th>
<th>Orientation, therapeutic activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep deprivation</td>
<td>Pain relief, non-pharmacological sleep enhancement protocol</td>
</tr>
<tr>
<td>Immobility</td>
<td>early mobilisation, minimal use of immobilising equipment</td>
</tr>
<tr>
<td>Sensory impairment</td>
<td>vision &amp; hearing protocols</td>
</tr>
<tr>
<td>Dehydration</td>
<td>volume repletion</td>
</tr>
</tbody>
</table>
Delirium

- Is a medical emergency
- Incidence of up to 56% in hospitalized elderly
- Independent predictor of adverse outcomes
  - increased falls
  - incontinence
  - pressure sores
  - increased LOS in acute care
  - decreased functional levels
  - increased mortality

## Pre-morbid Risk Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Tick &amp; Add Score</th>
<th>Precipitating Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Impairment</td>
<td></td>
<td>WARNING: these factors increase risk</td>
</tr>
<tr>
<td>Severe Illness</td>
<td>1</td>
<td>• Mechanical restraint</td>
</tr>
<tr>
<td>Cognitive Impairment</td>
<td>2</td>
<td>• Malnutrition</td>
</tr>
<tr>
<td>Dehydration</td>
<td>1</td>
<td>• 3 new medications added in 24hrs</td>
</tr>
</tbody>
</table>

Score: 0 = Low Risk  1 – 2 = Medium Risk  ≥3 = High Risk of Delirium  Score

### Delirium Risk

- Low
- Medium
- High

If change in behaviour RECOMMENDED INVESTIGATIONS

- CAM*
- History (incl family)
- Medical Review
- Physical Exam
- Medication Review
- Bloods
- MSU

Dellirium diagnosed  □ Yes  □ No

### Delirium Prevention and Management Protocol

#### Cognition
- Establish cognitive baseline AMTS or MMSE
- Completed Communication & Care Cues form
- In bed notes (Poolas Algorithm)
- Interpreters, language aids
- Delirium brochure to family & sitter

#### Vision & Hearing
- Clean glasses
- Working hearing aid

#### Drugs
- Pharmacy review done
- Use antipsychotics with caution
- Hypnotics or ETOH withdrawal schedule
- Regular pain relief

#### Hydration
- Review hydration
- Review food/dentures
- Avoid IDC’s & constipation

#### Sleep
- Quiet & comfort – usual settling routine
- Avoid unnecessary hypnotics
- Offer snack & avoid caffeine

#### Nutrition & Elimination
- Consult & Monitor
- Consult Geriatrician
- Test & review cognition often

**Signatures:**

- Medical Officer: __________________________ Date: ___________
- Nursing: __________________________ Date: ___________