Clearing the Mind: A Nursing Assessment tool for the recognition and monitoring of delirium

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Overview

• Introduction to delirium
• The need for a nursing assessment tool
• Search strategies
• Overview of the tools used in practice
• The Nu-DESC tool
• Implementation Phase
• Results
• Summary
• Acknowledgements
Introduction to Delirium

• Common and under diagnosed problem
• Symptoms generally vary, are usually worse at night
  (McLafferty, 2007, Roth-Roemer et al, 1997)
• Impairs memory, orientation and attention span
• 3 types – Hypoactive, Hyperactive, Mixed
• Early recognition and treatment of delirium is key in reducing the duration and severity
  (Gagnon et al, 2006, Lemiengre et al, 2006)
The need for a nursing assessment tool

- No current nursing assessment tool used on the wards at Peter Mac
- Delirium occurs in up to 85% of patients with advanced cancer
- Assessment scales provide a baseline to measure the effectiveness of interventions
- Regular assessment and monitoring can allow for interventions to be put into place early
- If recognised and treated will lead to a better quality of life for the patient
Search Strategies

• Databases used - Medline, CINAHL, Pubmed and PsycINFO
• Key words – Delirium, Cancer, Neoplasms, Terminal, Hospital, assessment tools
• Hand searched reference lists
• Web of Science – to see if key articles had been cited in any other article
• Emailed authors
Overview of the tools used in practice

<table>
<thead>
<tr>
<th>Tool</th>
<th>Positives</th>
<th>Negatives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mini Mental State Exam (MMSE)</td>
<td>Quantifies patients level of cognition (Morrison, 2003)</td>
<td>Must speak English and have 8th grade education level (Morrison, 2003, Smith et al, 1995)</td>
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<td>Repeated administration may produce a learning effect (Morrison, 2003, Smith et al, 1995)</td>
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<td></td>
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<td>Could miss patients with little cognitive impairment but large behavioral disturbances</td>
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<tr>
<td>Tool</td>
<td>Positives</td>
<td>Negatives</td>
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<tr>
<td>Confusion Assessment Method (CAM)</td>
<td>Easy to administer (Smith et al, 2005)</td>
<td>Not considered to be useful in severity rating (Smith et al, 2005)</td>
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<td></td>
<td>Excellent in diagnostic validity (Smith et al, 2005)</td>
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<tr>
<td>Confusion Rating Scale (CRS)</td>
<td>Simple and quick to administer (Gaudreau et al, 2005, Smith et al, 2005)</td>
<td>Not previously validated (Gaudreau et al, 2005)</td>
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<td></td>
<td>Does not recognize hypoactive delirium (Gaudreau et al, 2005)</td>
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<tr>
<td>Tool</td>
<td>Positives</td>
<td>Negatives</td>
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<tr>
<td>NEECHAM Confusion Scale</td>
<td>Intended for nurses (McLafferty, 2007)</td>
<td>Developed to measure cognitive impairment (McLafferty, 2007)</td>
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<tr>
<td>Delirium Rating Scale (DRS)</td>
<td>Easy to administer (McLafferty, 2007)</td>
<td>Ability to measure severity of symptoms is not known (Smith et al, 2005, McLafferty, 2007)</td>
</tr>
<tr>
<td>Memorial Delirium Assessment Scale (MDAS)</td>
<td>Developed to measure the severity of delirium (McLafferty, 2007)</td>
<td>Takes 10mins to administer (Smith et al, 2005, McLafferty, 2007)</td>
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<td>Not intended for diagnosis (McLafferty, 2007)</td>
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The Nursing Delirium Screening Scale (Nu-DESC)

- Based on the Confusion Rating Scale
- Adds in a fifth item that looks at psychomotor retardation
- Quick and simple to administer
- Allows for continuous symptom assessment
- Validity of the tool was established after it was tested against the CAM, DSM-1V criteria and MDAS
Study 1:


- 134 patients
- Setting – Inpatient oncology unit
- Secondary analysis of validation study
Study 2:


- 173 patients
- Setting – Surgical recovery room
- Compared the CAM, Nu-DESC and DDS to the gold standard DSM-1V
<table>
<thead>
<tr>
<th>Features and descriptions</th>
<th>Symptoms Rating (0-2)</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Time Period</td>
</tr>
<tr>
<td></td>
<td>Midnight - 8 AM</td>
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<tr>
<td></td>
<td>8 AM - 4 PM</td>
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<tr>
<td></td>
<td>4 PM - Midnight</td>
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<tr>
<td>I. Disorientation</td>
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<td>Verbal or behavioural manifestation of not being oriented to time or place or misperceiving persons in the environment</td>
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<td>II. Inappropriate behaviour</td>
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<tr>
<td>Behaviour inappropriate to place and/or for the person; e.g., pulling at tubes or dressings, attempting to get out of bed when that is contraindicated, and the like.</td>
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<tr>
<td>III. Inappropriate communication</td>
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<tr>
<td>Communication inappropriate to place and/or for the person; e.g., incoherence, noncommunicativeness, nonsensical or unintelligible speech.</td>
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<td>IV. Illusions/Hallucinations</td>
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<td>Seeing or hearing things that are not there; distortions of visual objects.</td>
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<td>V. Psychomotor retardation</td>
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<td>Delayed responsiveness, few or no spontaneous actions/words; e.g., when the patient is prodded, reaction is deferred and/or the patient is unarousable.</td>
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<td>Total score</td>
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Implementation Phase

- Permission to use the tool was obtained from the authors
- Application was submitted and accepted by the expedited review committee
- In services were held on the ward in double staffing time and for the night staff
- Worked to also increase the knowledge and assessment skills of nursing staff on the ward
- Six week trial of the Nu-DESC tool was conducted on Ward 7
Results

- 20 Patients in total
- 17 NSCLC
  - 10 Squamous cell carcinoma
  - 5 Adenocarcinoma
  - 2 Large cell
- 3 SCLC
  - 2 Limited
  - 1 Extensive
- 3/20 Patients were positive for delirium – 2 had known brain mets and 1 was hypercalcemic
Results

- 6 patients were currently having or had recently completed radical treatment
- 14 were admitted for palliative radiotherapy or symptom control
- 17 patients were d/c home, 2 were d/c to an inpatient palliative care unit, 1 patient died while on ward 7
Results

• The Nu-DESC tool proved to be accurate in monitoring the fluctuating nature of delirium
• There were no false positives or false negatives among the group
• Results were reported to medical staff within 24 hours
• Nursing interventions were put into place within 24 hours of a positive result
Results

• From the nursing staff followed up to date all found the Nu-DESC to be simple and fast to use
• Staff reported that it increased their knowledge and awareness of delirium
• Steps are now been taken to extend the trail until the end of the year and also include the head and neck patients
Summary

- Delirium is a common and under diagnosed problem
- The Nu-DESC is a fast, simple and accurate tool
- Regular assessment and monitoring will allow interventions to be put into place, improving the patients quality of life and ensuring both patient and staff safety
Acknowledgements

- Donna Milne and Robyn Faulkner
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