Delirium Algorithm

Date: ___________________ Patient Name: ___________________

Date of Admission: ___________________ Location: ___________________
Attending Physician: ___________________ Algorithm Initiated by: ___________________

Criteria for Screening

The purpose of this algorithm is to identify those patients who are at risk for delirium or currently present with the clinical features of the illness. Any patient who presents with 2 or more risk factors or displays symptoms of delirium should be screened (Appendix A). Use of this algorithm will lead to the selection of appropriate interventions designed to prevent, detect or treat delirium.

1. Proceed with Confusion Assessment Method screening tool (Inouye, et al. 1990) (Appendix B)
2. Follow up screening indicated
   Date: ___________________ e.g., within 72 hrs.
3. Based on risk factors and/or screening assessment select and implement the appropriate delirium care protocols
   - Sleep enhancement
   - Perceptual and cognitive enhancement
   - Fluid enhancement
   - Mobility enhancement
   - Addressing psychomotor agitation

Physicians note:
If further information or advice is needed contact the geriatric medicine or psychiatry consultation team.
Appendix A

### Clinical Features of Delirium
- Acute onset
- Fluctuating course
- Inattention
- Disorganized thinking
- Disorientation
- Altered level of consciousness
- Memory impairment
- Perceptual disturbances
- Altered sleep-wake cycle
- Psychomotor agitation/retardation

### Additional Risk Factors for Delirium
- Poor functional status
- Untreated pain
- Malnutrition
- Falls
- Novel environment
- Urinary retention
- Few social supports
- Physical restraints
- Constipation
- Use of a bladder catheter
- Hyper/hypothermia
- Trauma
- Any iatrogenic event (i.e. any resulting illness or harmful occurrence that was not a natural consequence of the patient’s underlying illness)

### Specific Drugs
- **Benzodiazepines:** diazepam, flurazepam, lorazepam
- **Anticholinergic agents:** dimenhydrinate, amitriptyline, benztropine, oxybutinin, diphenhydramine
- **Narcotics:** morphine, codeine, oxycodone.
- **Antihypertensives:** Methyldopa
- **Miscellaneous:** digitalis, corticosteroids, cimetidine
Appendix B

The Confusion Assessment Method Instrument (CAM)

Instructions:
If you are the primary care provider, you may have the necessary data to complete the CAM as a result of the usual assessment and interactions completed during daily care. Other members of the team may wish to complete some formal cognitive testing, for example, the MMSE, (Folstein, Folstein & Mc Hugh, 1975) prior to completing the CAM, as a way of structuring an interaction for completing the assessment. Please answer the following questions based on what you observed during the interaction with the patient. For questions 2 through 8, please note if there was any fluctuation in the behaviour, that is, did the behaviour tend to come and go or increase and decrease in severity? For questions 1 and 9, you may need to review the chart to supplement your assessment.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
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<tbody>
<tr>
<td>1. Acute Onset</td>
<td>Is there evidence of an acute change in the mental status from the patient’s baseline?</td>
<td></td>
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<tr>
<td>2. Inattention</td>
<td>Did the patient have difficulty focusing attention, for example, being easily distractible, or having difficulty keeping track of what was being said?</td>
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<tr>
<td>3. Disorganized Thinking</td>
<td>Was the patient’s thinking disorganized or incoherent, such as rambling or irrelevant conversation, unclear or illogical flow of ideas, or unpredictable switching from subject to subject?</td>
<td></td>
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<tr>
<td>4. Altered Level of Consciousness</td>
<td>a) Overall, how would you rate this patient’s level of consciousness?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ alert (normal)</td>
<td>□ stupor (difficult to arouse)</td>
</tr>
<tr>
<td></td>
<td>□ vigilant (hyperalert, overly sensitive to environmental stimuli)</td>
<td>□ coma (unarousable)</td>
</tr>
<tr>
<td></td>
<td>□ lethargic (drowsy, easily aroused)</td>
<td>□ uncertain</td>
</tr>
<tr>
<td></td>
<td>b) (If other than alert) did this behaviour fluctuate during the interview?</td>
<td></td>
</tr>
<tr>
<td>5. Disorientation</td>
<td>Was the patient disorientated at any time during the interview, such as thinking that he or she was somewhere other than the hospital, using the wrong bed or misjudging the time of day?</td>
<td></td>
</tr>
<tr>
<td>6. Memory Impairment</td>
<td>Did the patient demonstrate any memory problems during the interview, such as inability to remember events in the hospital or difficulty remembering instructions?</td>
<td></td>
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<tr>
<td>7. Perceptual Disturbances</td>
<td>Did the patient have any evidence of perceptual disturbances, for example, hallucinations, illusions, or misinterpretations (such as thinking something was moving when it was not)?</td>
<td></td>
</tr>
<tr>
<td>8. Psychomotor Agitation</td>
<td>a) Did the patient have an unusually increased level of motor activity, such as restlessness, picking at bedclothes, tapping fingers, or making frequent sudden changes of position?</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychomotor Retardation</td>
<td>b) Did the patient have an unusually decreased level of motor activity, such as sluggish, staring into space, staying in one position for a long time or moving very slowly?</td>
</tr>
<tr>
<td>9. Altered Sleep-Wake Cycle</td>
<td>Did the patient have evidence of disturbance of the sleep-wake cycle, such as excessive daytime sleepiness with insomnia at night?</td>
<td></td>
</tr>
</tbody>
</table>

SCORING: Consider delirium if feature 1 and 2 are present, and either 3 or 4 (anything other than normal) are present.

Appendix C

Delirium Risk Factor Alert

Date:

Please be advised:

The patient ____________________________, has been identified as having risk factors for delirium (See Delirium Algorithm for details)

**Minimizing risk factors can help prevent delirium!**

Unless contraindicated by medical treatment:

- Use of eyeglasses and hearing aides
- Calm and quiet environment with indirect lighting
- Position patient near window if possible
- Minimize room changes
- Promote fluid intake
- Promote mobility
- Encourage family/caregiver involvement
- Follow the Least Restraint Policy

Treat medical illness promptly

**Use medications judiciously, especially sedatives, analgesics and anticholinergics**

For more details on prevention of delirium please see the Delirium Care Protocols as listed in the Delirium Algorithm.