Delirium: Acute brain failure characterized by inattention and fluctuating course. This can be superimposed on chronic brain failure (dementia). Approximately 7-10% of elderly ED patients will experience delirium during their stay. 

Why should we care? Delirious elders diagnosed in the ED have a higher 30 day mortality*, are more likely to require ICU admission‡, and have a 1 year mortality rate of 10-36%, similar to sepsis or AMI³. Patients discharge home with unidentified delirium have 3 times the six month mortality⁵. 

Remember: Delirium has a fluctuating course, and repeat testing may be necessary. Studies have shown that a statistically significantly number of patients who initially tested normal, were found to be delirious at repeat testing 3 hours later." 

Consider Possible Etiologies of Delirium 

Infections: Namey UTI and PNA 
Medications 
Electrolyte Imbalance 
Intoxication / Withdrawal 

CBC UA Cr 
Anticholinergics Sedative / Hypnotic Opioids New Medications 
CMP 
Consider E/ECH level Consider tox screen Drug levels 

Other Causes 
Meningitis Encephalitis SAH Non-Convulsive Status Epilepticus CVA Hypoxemia Hypercapnia Pain MI Acute Hepatitis Hypo/Hyper Thyroid Low Vitamin B12 Low Folate Toxins 

Treatment 
Optimize Environment First⁷ 

Environment 
Frequently reassure and reorient the patient 
Encourage mobility as tolerated under supervision 
Use easily visible calendars, clocks, and caregiver identifications 
Provide appropriate sensory stimulation: quiet room, adequate light, one task at a time, and noise-reduction strategies 
Carefully explain all activities and communicate clearly 
Encourage family and friends to stay at the bedside and allow them to bring familiar objects from home 
If possible, maintain consistency of caregivers and minimize relocations 
Provide adequate nutrition and pain control 

Medication 
If medication is needed, avoid benzodiazepines 

<table>
<thead>
<tr>
<th>Drug</th>
<th>Route</th>
<th>1st Dose</th>
<th>Interval</th>
<th>2nd Dose</th>
<th>Max Dose per 12 Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Olanzapine</td>
<td>IM</td>
<td>2.5 mg</td>
<td>2 hrs</td>
<td>2.5 mg</td>
<td>10 mg</td>
</tr>
<tr>
<td></td>
<td>Oral / ODT</td>
<td>2.5 - 5 mg</td>
<td>12 hrs</td>
<td>2.5 - 5 mg</td>
<td>10 mg</td>
</tr>
<tr>
<td>Risperidone</td>
<td>Oral / ODT</td>
<td>0.25 - 0.5 mg</td>
<td>1 hr</td>
<td>0.25 - 0.5 mg</td>
<td>2 mg</td>
</tr>
<tr>
<td>Haldol</td>
<td>Oral / Solution</td>
<td>0.5 - 1 mg</td>
<td>2 - 3 hrs</td>
<td>0.5 - 1 mg</td>
<td>3 mg</td>
</tr>
<tr>
<td></td>
<td>IM</td>
<td>0.25 - 0.5 mg</td>
<td>0.5 - 1 hr</td>
<td>0.25 - 0.5 mg</td>
<td>3 mg</td>
</tr>
</tbody>
</table>

(*monitor for Torsades) 

A Cochrane review of 3 small studies did not show a significant difference between low dose (<3mg a day) Haloperidol, Risperidone, and Olanzapine with respect to efficacy or frequency of adverse drug reactions, although there does appear to be a higher adjusted risk of death with typical antipsychotics vs atypical antipsychotics when followed out to 180 days. Underlying dementia appears to increase risk of adverse events.
Disposition

Admit
The majority of those with delirium are probably being admitted for the condition that caused the delirium.

If an etiology for the patient’s acute brain failure is not discovered in the ED, admit for further observation.

Discharge criteria
(expert opinion)
There is a reasonable explanation for the delirium.
There is a treatment plan in place.
There is a mechanism for 24 hour support and prompt provider re-evaluation.
If possible, there should be a discussion with the out of hospital treating provider.

Determination of Delirium in the ED

Delirium Triage Screen: Highly Sensitive

Does the patient have an altered level of consciousness?
Use the Richmond Agitation-Sedation Scale

YES

DTS Positive
Confirm with bCAM

NO

Is the patient inattentive?
*“Can you spell the word LUNCH backwards?”*
Or
*“Can you name the months backwards from December to July?”*

0 or 1 Error

STOP
ED Delirium Triage
Screen Negative

Richmond Agitation and Sedation Scale (RASS)

<table>
<thead>
<tr>
<th>Score</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>+4</td>
<td>Combative</td>
</tr>
<tr>
<td>+3</td>
<td>Very Agitated</td>
</tr>
<tr>
<td>+2</td>
<td>Agitated</td>
</tr>
<tr>
<td>+1</td>
<td>Restless</td>
</tr>
<tr>
<td>0</td>
<td>Alert &amp; calm</td>
</tr>
<tr>
<td>-1</td>
<td>Drowsy</td>
</tr>
<tr>
<td>-2</td>
<td>Light sedation</td>
</tr>
<tr>
<td>-3</td>
<td>Moderate sedation</td>
</tr>
<tr>
<td>-4</td>
<td>Deep sedation</td>
</tr>
<tr>
<td>-5</td>
<td>Unarousable</td>
</tr>
</tbody>
</table>

Note: The higher the score, the more sedated the patient is.

Figure 1
This guideline was ratified by the emergency department faculty at Maine Medical Center in September 2018. It reflects our expert opinion and is not necessarily applicable to all institutions. It is intended to be a reference for clinicians caring for patients and is not intended to replace providers’ clinical judgment.


