PURPOSE

For pain, agitation and delirium in ICU patients.

PROCEDURE STATEMENTS

1. Pain

A. Pain assessments should routine be performed in verbal and non-verbal ICU patients
B. Clinical Pain Observation Tool (CPOT) should be the assessment tools of choice for non-verbal patients, as this corresponds to nursing cares in the ICU
C. CPOT ≥ 3 suggests significant pain and requires treatment
D. All IV narcotics are equally effective when titrated to effect and choice should depend on individual patient and their comorbidities
E. Use of non-narcotic adjuncts may be considered based on patient
F. Pain should be reassessed at 30 minutes after intervention
G. Treat pain first before using sedative medications
H. The utilization of drip versus IVP narcotic medications is patient dependent, but evidence does support a shorter length of mechanical ventilation if pain is adequately controlled with IVP instead of drip formulations.

2. Sedation (applies to intubated and non-intubated patients)

A. Preferred sedation assessment tool is the Richmond Agitation-Sedation Scale
B. Targeted sedation will be performed with a target of -2 to 0
C. If patient under sedated (RASS > 0) assess and treat for pain first then use sedatives
D. Non-benzodiazepine sedatives (Propofol, Precedex, Haldol) should be first line therapy unless patient is in ETOH or benzodiazepine withdrawal
E. If over sedated (RASS < -2) hold sedation and **restart at 50%** of starting dose once target is reached

F. Once patient is stable and at goal sedation level (RASS -2 to 0) daily Spontaneous Breathing Trials will be performed in conjunction with daily Spontaneous Awakening Trials.

### 3. Delirium

A. Delirium should be assessed every shift by nursing or physician provider

B. Preferred assessment tools are Confusion Assessment Method (CAM-ICU) or the Intensive Care Delirium Screening Checklist (ICDSC)

C. Delirium is present if CAM-ICU is positive or ICDSC > to 4

D. **If positive, ensure adequate pain treatment first**

E. Use of reorientation, hearing aids, and eyeglasses should be emphasized

F. Pharmacologic treatment should avoid benzodiazepines unless delirium is due to ETOH or benzodiazepine withdrawal.

G. Avoid antipsychotics if patient has prolonger QT (> 450 ms) or other risk factors for torsades de pointes

H. All patients will be enrolled in early mobility as their comorbidities and clinical status allows

### Related References:

Clinical Practice Guidelines for the Management of Pain, Agitation and Delirium SCCM 2013

Icudelirium.org

Routine Use of Pain Control

Routine use of pain assessments for all verbal and non-verbal patients
- Clinical Pain Observation Tool (CPOT)

Pain controlled
- CPOT < 3
  - Proceed to sedation protocol

Pain not controlled
- CPOT ≥ 3
  - Initiate treatment
    - Narcotics are first line medications
      - First line
        - Fentanyl 25-50 mcg IVP
      - Second line
        - Dilaudid 0.2-1 mg IVP
        - Morphine 2-4 mg IVP
    - Drips may be considered for pain not controlled with intermittent dosing (>3 dosed per hour)

    Consider adjuncts
    - NSAIDS
    - Gabapentin, Pregabalin

Rib fractures
- Thoracic epidural
- Continuous intercostal nerve block

Reassess pain in 30 minutes

YES
- Proceed to sedation protocol

NO
Trauma Center Practice Management Guideline
Iowa Methodist Medical Center — Des Moines

Critical-Care Pain Observation Tool (CPOT)

INDICATOR

Facial Expression
- No muscular tension observed
- Presence of frowning, brow lowering, orbit tightening, or levator contraction
- All of the above facial movements plus eyelid tightly close
- Does not move at all (does not necessarily mean absence of pain)

Body Movements
- Muscle tension
- Evaluation by passive flexion and extension of upper extremities

SCORE

DESCRIPTION

0 Relaxed, neutral
1 Tense
2 Grimacing

0 Absence of movements
1 Protection
2 Restlessness

0 Relaxed
tolerating ventilator or movement
1 Coughing, but tolerating
2 Fighting ventilator

0 Talking in normal tone or no sound
1 Sighing, moaning
2 Crying out, sobbing

0-8 Total Range
Targeted Sedation for Intubated Patients

**Targeted sedation for intubated patients**
- RASS -2 to 0

**At Goal RASS (-2 to 0)**
- Monitor for change

**Over-sedated (RASS -3 to-5)**
- Hold sedation until RASS -2 to 0
- Restart Sedation at 50% of starting dose

**Under-sedated (RASS 1 to 5)**
- Treat pain per algorithm first

**Propofol** 5 - 30 mcg/kg/min
**Precedex** 0.2 - 1 mcg/kg/hr
- Delirious
- Weaning
**Versed** 1 - 3 mg IVP
- ETOH withdrawal
- Propofol intolerance
- History of Benzodiazepine use

**Daily Spontaneous Breathing Trial**
- No significant agitation
- No cardiac arrhythmia
- RR < 35
- 02 stats > 88%

**FAILS**
- Significant agitation
- Cardiac arrhythmia
- RR > 35
- OX Stats < 88%

**Daily Spontaneous Awakening Trial**
- Active Seizures
- ETOH withdrawal
- Uncontrolled agitation
- Use of paralytics
- Myocardial ischemia
- Increased CP
- Hemodynamic instability
- Acute respiratory distress syndrome

**PASSES**
- No significant agitation
- No cardiac arrhythmia
- RR < 35
- 02 stats > 88%

**Stop Sedation**

**Proceed to Delirium Protocol**

**Restart sedation at 50% starting dose**
## The Richmond Agitation-Sedation Scale

### ADULT Practice Management Guideline

**Effective:** 04/2014

**Contact:** Trauma Center Medical Director/Trauma Nurse Practitioner

**Last Reviewed:** 04/2014

<table>
<thead>
<tr>
<th>Score</th>
<th>Behavior</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Combative</td>
<td>Combative, violent, immediate danger to staff</td>
</tr>
<tr>
<td>3</td>
<td>Very agitated</td>
<td>Pulls or removes tube(s) or catheter(s); aggressive</td>
</tr>
<tr>
<td>2</td>
<td>Agitated</td>
<td>Frequent non-purposeful movement; fights ventilator</td>
</tr>
<tr>
<td>1</td>
<td>Restless</td>
<td>Anxious, apprehensive, but movements not aggressive or vigorous</td>
</tr>
<tr>
<td>0</td>
<td>Alert and calm</td>
<td>Not fully alert, but has sustained awakening to voice (eye opening and contact &gt; 10 seconds)</td>
</tr>
<tr>
<td>-1</td>
<td>Drowsy</td>
<td>Briefly awakens to voice (eye opening and contact &lt; 10 seconds)</td>
</tr>
<tr>
<td>-2</td>
<td>Light sedation</td>
<td>Movement or eye opening to voice (but no eye contact)</td>
</tr>
<tr>
<td>-3</td>
<td>Moderate sedation</td>
<td>No response to voice, but movement or eye opening to physical stimulation</td>
</tr>
<tr>
<td>-4</td>
<td>Deep</td>
<td>No response to voice or physical stimulation</td>
</tr>
<tr>
<td>-5</td>
<td>Unarousable</td>
<td></td>
</tr>
</tbody>
</table>

Pun BT, Ely EW. Primary Psychiatry, Vol. 11, No. 11, 2004
Assessing Delirium (CAM-ICU)

Assess Delirium each shift
CAM-ICU

CAM-ICU Positive

Pain adequately treated?

YES

NO
Return to Pain Algorithm

CAM – ICU Negative

Continue to monitor

Pharmacologic
- Avoidance of benzodiazepines unless ETOSH or benzodiazepine withdrawal
- Change sedative medication to Precedex
- Consider use of antipsychotics unless patient has history or risk factors for torsades de pointes or prolonged QT (>450 ms)
- Recommended antipsychotics
  - Haldol
  - Seroquel
  - Geodon
* Prior to starting, obtain baseline EKG and serial EKGs at least q. 3 days

Non-pharmacologic
- Reorientation
- Sleep enhancement
- Hearing aids
- Eyeglasses

Physical and Occupational Therapy consultations for early mobility
- Mechanical ventilation is not a contraindication
**Step 2 Delirium Assessment**

**Acute Change or Fluctuating Course of Mental Status**
- Is there an acute change from mental status baseline?  
  OR  
- Has the patient’s mental status fluctuated during the past 24 hours?

**Inattention**
- “Squeeze my hand when I say the letter ‘A’.
  Read the following sequence of letters: S A V E H A A R T
  ERRORS: No squeeze with ‘A’ and Squeeze on letter other than ‘A’.  
- If unable to complete Letters → Pictures

**Altered Level of Consciousness**
- Current RASS level (think back for sedation assessment in Step 1)
  RASS = Zero

**Disorganized Thinking**
1. Will a stone float on water?  
2. Are there fish in the sea?  
3. Does one pound weight more than two?  
4. Can you use a hammer to pound a nail?

**Command:**
- “Hold up this many fingers” (Hold up 2 fingers)
- “Now do the same thing with the other hand” (Do not demonstrate)
  OR  
- “Add one more finger” (If patient unable to move both arms)
## Intensive Care Delirium Screening Checklist

**ADULT Practice Management Guideline**

**Effective:** 06/2014

**Contact:** Trauma Center Medical Director/ Trauma Nurse Practitioner

**Last Reviewed:** 06/2014

### PATIENT EVALUATION

<table>
<thead>
<tr>
<th>DAY 1</th>
<th>DAY 2</th>
<th>DAY 3</th>
<th>DAY 4</th>
<th>DAY 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

**If A or B do not complete patient evaluation for the period**

- Inattention
- Disorientation
- Hallucination – Delusion – Psychosis
- Psychomotor agitation or retardation
- Inappropriate speech or mood
- Sleep/Wake cycle disturbance
- Symptom fluctuation

**TOTAL SCORE (0-8)**

<table>
<thead>
<tr>
<th>Level of consciousness *</th>
<th>A: No response</th>
<th>B: Response to intense and repeated stimulation (loud voice and pain)</th>
<th>C: Response to mild or moderate stimulation</th>
<th>D: Normal wakefulness</th>
<th>E: Exaggerated response to normal stimulation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Score</td>
<td>None</td>
<td>None</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

### SCORING SYSTEM:

The scale is completed based on information collected from each entire 8-hour shift or from the previous 24 hours. Obvious manifestation of an item = 1 point. No manifestation of an item or no assessment possible = 0 point.

The score of each item is entered in the corresponding empty box and is 0 or 1.

1. **Altered level of consciousness:**
   A) No response or B) the need for vigorous stimulation in order to obtain any response signified a severe alteration in the level of consciousness precluding evaluation. If there is a coma (A) or stupor (B) most of the time period then a days (-) is entered and there is no further evaluation during that period.
   C) Drowsiness or requirement of a mild to moderate stimulation for a response implies an altered level of consciousness and scores 1 point.
   D) Wakefulness or sleeping state that could easily be aroused is considered normal and scores no point.
   E) Hyper vigilance is rated as a normal level of consciousness and scores 1 point.

2. **Inattention:** Difficulty in following a conversation or instructions. Easily distracted by external stimuli. Difficulty in shifting focuses. Any of these scores 1 point.

3. **Disorientation:** Any obvious mistake in time, place or person scores 1 point.

4. **Hallucination, delusion or psychosis:** The unequivocal clinical manifestation of hallucination or of behavior probably due to hallucination (e.g. trying to catch a non-existent object) or delusion. Gross impairment in reality testing. Any of these scores 1 point.

5. **Psychomotor agitation or retardation:** Hyperactivity requiring the use of additional sedative drugs or restraints in order to control potential dangerousness (e.g. pulling out IV lines, hitting staff). Hypoactivity or clinically noticeable psychomotor slowing. Any of these scores 1 point.

6. **Inappropriate speech or mood:** Inappropriate, disorganized or incoherent speech. Inappropriate display of emotion related to events or situation. Any of these scores 1 point.

7. **Sleep/Wake cycle disturbance:** Sleeping less than 4 hours or waking frequently at night (do not consider wakefulness initiated by medical staff or loud environment.) Sleeping during most of the day. Any of these scores 1 point.

8. **Symptom fluctuation:** Fluctuation of the manifestation of any item or symptom over 24 hours (e.g. from one shift to another) scores 1 point.