Assessment of Pain, Agitation, Sedation and Delirium

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Objectives

- Review the benefits of implementing validated assessment tools for pain, agitation, sedation and delirium
- Discuss the bedside limitations of validated assessment tools

Assessment of Pain

- Behavioral Pain Scale
- Critical Care Pain Observation Tool
- Non-Verbal Pain Scale
- Numerical Rating Scale

Utilization of pain scales:
- Allows for better use of analgesic agents and sedatives
- Decreases the duration of mechanical ventilation
- Reduces the number of nosocomial infections

Behavioral Pain Scale (BPS)

- Benefits
  - Easy 4-point Scale
  - Valid and Reliable Tool
- Limitations
  - Presence of Pain Only
  - Moderate to Severe Pain Only
  - Only Ventilated Patients
  - Intact Upper Limbs

Critical Care Pain Observation Tool

- Benefits:
  - Valid and Reliable Tool
  - Intubated and Extubated Patients

Non-Verbal Pain Scale (NVPS)

- Benefits
  - Some Objective Data
  - Valid and Reliable Tool
- Limitations
  - Presence of Pain Only
  - Moderate to Severe Pain
  - Ventilated Patient
Numerical Rating Scale

- **Benefits**
  - Easy
  - Intensity measure
  - "Gold Standard"

- **Limitations**
  - Exhusted patients
  - Often exaggerated
  - No universal spectrum

Assessment of Agitation and Sedation

- **Richmond Agitation-Sedation Scale**
- **Sedation Agitation Scale**

**Utilization of agitation and Sedation Scores:**
- Improved quality of sedation
- Decreased length of mechanical ventilation
- Decreased ICU length of stay

Richmond Agitation-Sedation Scale

<table>
<thead>
<tr>
<th>Score</th>
<th>Characteristic</th>
<th>Expected patient's behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No agitation</td>
<td>Between eyes and mouth, no body motion</td>
</tr>
<tr>
<td>1</td>
<td>Very relaxed</td>
<td>Between eyes and mouth, no body motion</td>
</tr>
<tr>
<td>2</td>
<td>Agitated</td>
<td>Between eyes and mouth, some body motion</td>
</tr>
<tr>
<td>3</td>
<td>Very agitated</td>
<td>Between eyes and mouth, some body motion</td>
</tr>
<tr>
<td>4</td>
<td>Extremely agitated</td>
<td>Significant body motion</td>
</tr>
<tr>
<td>5</td>
<td>Sedated</td>
<td>Between eyes and mouth, no body motion</td>
</tr>
<tr>
<td>6</td>
<td>Very sedated</td>
<td>Between eyes and mouth, no body motion</td>
</tr>
<tr>
<td>7</td>
<td>Deep sedation</td>
<td>Between eyes and mouth, no body motion</td>
</tr>
<tr>
<td>8</td>
<td>Unconscious</td>
<td>No response to input, physical stimulation</td>
</tr>
</tbody>
</table>

**Benefits:**
- Valid and Reliable Tool
- Easy to use (Numerical Scale)
- Consistent

**Limitations:**
- Not appropriate for those with auditory or visual impairments
- Requires verbal and physical stimulation

Sedation Agitation Scale

- **Benefits:**
  - Valid and Reliable Tool
  - Easy to use (Numerical Scale)

- **Limitations:**
  - Not appropriate for those with auditory or visual impairments
  - Requires verbal and physical stimulation
  - Lower validity scores (Compared to RASS)

Assessment of Delirium

- **Confusion Assessment Method for the Intensive Care Unit (CAM-ICU)**

<table>
<thead>
<tr>
<th>Score</th>
<th>Characteristic</th>
<th>Expected patient's behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No delirium</td>
<td>Between eyes and mouth, no body motion</td>
</tr>
<tr>
<td>1</td>
<td>Delirium</td>
<td>Between eyes and mouth, some body motion</td>
</tr>
<tr>
<td>2</td>
<td>Very delirium</td>
<td>Significant body motion</td>
</tr>
<tr>
<td>3</td>
<td>Extremely delirium</td>
<td>Significant body motion</td>
</tr>
<tr>
<td>4</td>
<td>Deep delirium</td>
<td>Between eyes and mouth, no body motion</td>
</tr>
<tr>
<td>5</td>
<td>Unconscious</td>
<td>No response to input, physical stimulation</td>
</tr>
</tbody>
</table>

**Benefits:**
- DSM-IV
- Ventilated and intubated
- Widely used

**Limitations:**
- Single day assessment
- No severity scale

Confusion Assessment Method for the Intensive Care Unit (CAM-ICU)

**Benefits:**
- DSM-IV
- Ventilated and intubated
- Widely used

**Limitations:**
- Single day assessment
- No severity scale
Intensive Care Delirium Screening Checklist

- Benefits
  - DSM-IV
  - Ventilated and nonventilated
  - Continuity with PASS
  - Able to score presence and severity
  - Observations over time
- Limitations
  - Up to 5 min to complete
  - Content validation not established

> 6 is positive for delirium

Key Points

- Pain: Numerical Rating Scale is "gold standard" followed by Behavioral Pain Score and Critical-Care Pain Observation Tool as the most valid and reliable sedation assessment tools
- Agitation and Sedation: The Richmond Agitation-Sedation Scale and Sedation-Agitation Scale are the most valid and reliable sedation assessment tools
- Delirium: Confusion Assessment Method for the Intensive Care Unit and Intensive Care Unit Delirium Screening Checklist are the most valid and reliable assessment tools for delirium
- Utilization of Assessment Tools for Assessment of Pain, Agitation, Sedation and Delirium helps to: Decrease the duration of mechanical ventilation, reduce Infection rates, decrease hospital and ICU LOS, improve quality of sedation, and improves use of analgesic agents and sedatives.

Review Question

Benefits of implementing validated assessment tools for pain, agitation, sedation and delirium include all of the following except:

A) Ability to adjust therapy to established clinical goals
B) Ability to optimize patient comfort and safety
C) Potential increase in length of mechanical ventilation
D) Ability to accurately communicate between ICU caregivers