10 Key Considerations: Implementing Sedation & Agitation Strategies

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Disclosures

Honoraria from Hospira, Inc.
#1: It takes a TEAM
Interdisciplinary Care in the ICU

- Respiratory
- Nursing
- PT/OT
- Pharmacists
- Physicians
Success is Dependent on Passing the Baton
#2: Do not Compartmentalize
Conditions affect one another

- Pain
- Agitation
- Delirium
Early Exercise in the ICU

Early physical and occupational therapy in mechanically ventilated, critically ill patients: a randomised controlled trial

Schweickert WD, Mark C Pohlman, Anne S Pohlman, Celerina Nigos, Amy J Pawlik, Cheryl L Esbrook, Linda Spears, Megan Miller, Mietka Franczyk, Deanna Deprizio, Gregory A Schmidt, Amy Bowman, Rhonda Barr, Kathryn E McCallister, Jesse B Hall, John P Kress

• Early exercise = progressive mobility
• Study design: paired SAT/SBT protocol with PT/OT from earliest days of mechanical ventilation

Wake Up, Breathe, and Move

#3: One size does not fit all
Brace Yourselves

- Prescriptive nature of guidelines changing
- Strategies rather than agents
- Results in a lot of flexibility
  - Pros
  - Cons
- Expect variation (that is still compliant)
#4: Review Current Practice
Perform a Gap Analysis

- Review current protocols and policies
- Interview the bedside staff to see what is really done
- Send out a survey for more feedback
- Make a chart comparing current practice with recommendations
- Celebrate matches
- Target gaps
#5: Keep it Personal
SECOND OPINION

WHAT WOULD HELP MRS. JOHNSON TO BREATHE EASIER?

LESS CIGARETTES?

LUNG LAVAGE?

INHALERS?

EYE CONTACT WOULD BE A GOOD START!
...seems like it was in a huge, empty gray space, sort of like a monstrous underground parking garage with no cars, only me, floating or seeming to float, on something...

-SB
#6: Think outside the ICU
Results of early exercise

Return to independent functional status at d/c
- 59% in intervention group
- 35% in control group (p=.02)

Long-term cognitive performance

• Duration of delirium was an independent predictor of cognitive impairment
  – An increase from 1 day of delirium to 5 days was associated with nearly a 5-point decline in cognitive battery scores

• Patient testimony
  ‘One quite literally loses one’s grip on what is true and what is false because the true and the false are mixed together in a mess of experience.’

#7: Optimize Your Assessment Data
Ways to improve communication

• Protocols
• Checklists
• Scripts
• Pamphlets for patients/families
Brain Road Map for Rounds
(Script for Interdisciplinary Communication)

Skipping any of these steps could leave the clinical team wanting more information!

<table>
<thead>
<tr>
<th>Investigate (Ask these questions)</th>
<th>Report (only takes 10 seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Where is the patient going?</td>
<td>Target level of consciousness (RASS, SAS)</td>
</tr>
<tr>
<td>Where is the patient now?</td>
<td>Actual level of consciousness (RASS, SAS)</td>
</tr>
<tr>
<td></td>
<td>Delirium assessment (CAM-ICU, ICDSC)</td>
</tr>
<tr>
<td></td>
<td>Pain Assessment (CPOT, BPS)</td>
</tr>
<tr>
<td>How did they get there?</td>
<td>Drug exposures</td>
</tr>
</tbody>
</table>
Benefits of ABCDE Protocol

- Awakening & Breathing Trial Coordination
- Choice of sedatives & analgesics
- Liberation from ventilator
- Earlier ICU & Hospital discharge
- Return to normal brain function
- Independent functional status
- Survival
- Daily Delirium monitoring
- Early mobility Exercise

#8: Use minimally effective Dose
Setting Targets

Targeting sedation level using Sedation-Agitation Scale

• Trying to achieve a balance
• TIGHT TITRATION

Adjust target depending on current need

• Per patient
• Different over the course of Illness/Treatment
Nurse-Driven Sedation Protocol

- RCT of RN-driven protocol vs non-protocol sedation care in 321 MICU patients requiring mechanical ventilation
- The protocol:
  - Assess pain first
  - Correct other etiologies for agitation
  - Use a sedation score to titrate sedatives
  - Use intermittent sedation first
  - Actively down-titrated sedation even when patient was at “goal”

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Protocol-Directed Sedation (n = 162)</th>
<th>Non-Protocol-Directed Sedation (n = 159)</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration of mechanical ventilation</td>
<td>89.1 ± 133.6</td>
<td>124.0 ± 153.6</td>
<td>.003</td>
</tr>
<tr>
<td>Length of ICU stay (days)</td>
<td>5.7 ± 5.9</td>
<td>7.5 ± 6.5</td>
<td>.013</td>
</tr>
<tr>
<td>Length of hospital stay (days)</td>
<td>14.0 ± 17.3</td>
<td>19.9 ± 24.2</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Mortality, No. (%)</td>
<td>49 (30.3)</td>
<td>57 (35.9)</td>
<td>.342</td>
</tr>
<tr>
<td>Acquired organ system derangements</td>
<td>2.8 ± 1.4</td>
<td>2.9 ± 1.5</td>
<td>.737</td>
</tr>
<tr>
<td>Reintubation, No. (%)</td>
<td>14 (8.6)</td>
<td>21 (13.2)</td>
<td>.213</td>
</tr>
<tr>
<td>Tracheostomy, No. (%)</td>
<td>10 (6.2)</td>
<td>21 (13.2)</td>
<td>.038</td>
</tr>
</tbody>
</table>

ICU, intensive care unit.

Pharmacist-Driven Sedation Protocol

- 156 MICU patients prescribed continuous sedation
- Protocol encouraged 25% down-titration when patients more sedated than goal
- Before/after design evaluating impact of pharmacist promoting protocol on at least a daily basis

Daily Interruption of Sedation

Efficacy and safety of a paired sedation and ventilator weaning protocol for mechanically ventilated patients in intensive care (Awakening and Breathing Controlled trial): a randomised controlled trial


Lancet 2008; 371: 126-34

Wake Up and Breathe


Sessler CN. Crit Care Med 2004
#9: Do not re-invent the wheel
Utilize Resources

• Network and learn from success stories
• Review websites
• You Tube videos (Dale Needham’s work at Hopkins)
• AACN’s Practice Alerts
• AACN’s PEARL – ABCDE Bundle
Quality Improvement Project: Implementing ABCDE

• Multidisciplinary team focused on reducing heavy sedation, using SAT-SBT protocol and increasing MICU staffing to include full-time physical and occupational therapists with new consultation guidelines

• Results:
  – Delirium decreased
  – Sedation use decreased
  – Physical mobility improvement
  – Decrease hospital length of stay
  – Increased MICU admissions

Delirium is confusion that comes on very fast, sometimes in just a few hours. When someone becomes delirious, it means that they can not think clearly, have trouble paying attention and are not aware of what is going on around them. Sometimes they may even see or hear things that are not really there but seem very real to them.
#10: Stay tuned to the literature
How to get the team engaged?

• Interdisciplinary education
• Journal Clubs
• Professional Meetings
• Continuing Education Projects
• Consider regular calendar of QI assessment
  – ABCDE = 4 topics (1/quarter)
How can we improve our baton passes?
Questions?

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