

## New Pain, Agitation, Delirium Guidelines

Critical Care Nursing, University of Tennessee Health Science Center, Memphis, TN, USA

Carol L. Thompson

### Abstract

In 2012 the Society of Critical Care Medicine revised its 2002 guidelines.

“Clinical Practice Guidelines for the Sustained Use of Sedatives and Analgesics in the Critically Ill Adult.” Revisions have been made based on current scientific literature that has been evaluated using the GRADE methodology. The growing understanding of the interrelationship between pain, agitation, and delirium of patients in the ICU forged the need to create a guideline that addressed these three aspects. Advances in the reliability and validity of assessment measures as well as outcome evidence of pharmacologic interventions have directed updated recommendations for patient care.

Optimal comfort during the ICU stay has been a consistent goal of critical care. Heavy sedation had been thought to meet this goal. However more recent evidence suggests that short and long term comfort are not maximized by this approach. Sedated patients still have recall of significant pain, and delirium effects can increase length of stay, financial costs, cognitive impairment, and mortality [1].

Significant advances in the evidence regarding measurement and management of pain, agitation, and delirium have been made in the decade since the last guidelines [2,3]. The latest guidelines were based on an evaluation of the science using the GRADE methodology. Psychometric and feasibility analysis of the common tools to individually assess pain, sedation, and delirium were compared based on the most current evidence. Comparisons of medications as well as route and titration effects have yielded new considerations in management.

Pain has both short and long term effects on patients in the ICU. Pain management continues to need significant

improvement. Patients in the hospital frequently (77%) recalled moderate to severe pain during their ICU stay[4]; and 6 months after discharge 38% report pain as their most traumatic memory of the ICU stay[5]. The most reliable and valid measures for assessment are self-report if the patient is able but the behavioral scales of Behavioral Pain Scale (BPS) and Critical Care Pain Observational Tool (CPOT) if the patient is not able to communicate. Opioids for non-neuropathic pain but adding gabapentin or carbamazepine if neuropathic pain is recommended.

Regular monitoring of agitation is recommended using the Richmond Agitation and Sedation Scale (RASS) or Sedation-Agitation Scale (SAS) instruments. When a patient develops agitation the first step would be to try to identify and treat the cause. Analgesics, frequent orientation, and environmental management for sleep are recommended before sedation. Light levels of sedation are recommended either by interruption approaches and/or titration of medications. Non-benzodiazepines are preferred for pharmacological management [6].

Delirium is experienced by up to 80% of mechanically ventilated patients in the ICU [7]. Delirium is associated with increased mortality, length of stay, and impairment. Pathophysiology is poorly understood at this time. Early mobilization reduces the incidence and duration of delirium [8]. Managing the environment to promote sleep is recommended. Regular monitoring of delirium is recommended using the Confusion Assessment Method for the ICU (CAM-ICU) or the ICU Delirium Screening Checklist (ICDSC).

Protocols integrating pain, agitation, and delirium assessment and interventions are recommended for best patient comes. The route and duration of medications can have a significant impact on short and long term outcomes. Use of an interdisciplinary team approach at individualizing and optimizing care is recommended. Further research is needed

for continual updating of these guidelines.

### REFERENCES

1. Shehabi Y, Riker RR, Bokesch PM, et al. SEDCOM (Safety and Efficacy of Dexmedetomidine Compared with Midazolam) Study Group: Delirium duration and mortality in lightly sedated, mechanically ventilated intensive care patients. *Crit Care Med* 2010;38:2311-2318.
2. Jacobi J, Fraser GL, Coursin DB, et al. Task force of the American College of Critical Care Medicine (ACCM) of the Society of Critical Care Medicine (SCCM), American Society of Health-System Pharmacist (ASHP), American College of Chest Physicians: Clinical practice guidelines for the sustained use of sedatives and analgesics in the critically ill adult. *Crit Care Med* 2002;30:119-141.
3. Barr J, Fraser GL, Puntillo K, et al. Clinical practice guidelines for the management of pain, agitation, and delirium in adult patients in the intensive care unit. *Crit Care Med* 2013;41(1):263-306.
4. Gelinas C. Management of pain in cardiac surgery ICU patients: Have we improved over time? *Intensive Crit Care Nurs* 2007;23:298-303.
5. Schelling G, Richter M, Roozendall B, et al. Exposure to high stress in the intensive care unit may have negative effects on health-related quality-of-life outcomes after cardiac surgery. *Crit Care Med* 2003;31:1971-1980.
6. Riker RR, Shehabi Y, Bokesch PM, et al. SEDCOM (Safety and Efficacy of Dexmedetomidine Compared with Midazolam) Study Group: Dexmedetomidine vs midazolam for sedation of critically ill patients: A randomized trial. *JAMA* 2009;301:489-499.
7. McNicoli L, Pisani MA, Zhang Y, et al. Delirium in the intensive care unit: Occurrence and clinical course in older patients. *J Am Geriatr Soc* 2003;51:591-598.
8. Needham DM, Korupolu R, Zanni JM, et al. Early physical medicine and rehabilitation for patients with acute respiratory failure: a quality improvement project. *Arch Phys Med Rehabil* 2010;91:53.