ICU Liberation Bundle – Element D

Assessing, Preventing, and Managing Delirium.

Introduction

The "D" element of the ICU Liberation Bundle consists of assessing, preventing, and managing delirium.

Delirium is experienced by 50% to 80% of mechanically ventilated patients and 20% to 50% of patients with lower-severity illness, resulting in prolonged hospitalization and duration of mechanical ventilation and increased costs (Hsieh et al., 2013). Long-term effects include increased risk of mortality and long-term cognitive impairment. The etiology of delirium is often multifactorial. There is limited evidence to support pharmacologic interventions. Thus, our most powerful interprofessional tools are daily prevention using nonpharmacologic interventions and early recognition.

Assessment

Delirium should be routinely monitored in all ICU patients using validated and reliable delirium screening tools. It is recommended that screening be performed at least once a shift and more frequently for any changes in mental status.

- Confusion Assessment Method for the ICU (CAM-ICU)
- Intensive Care Delirium Screening Checklist (ICDSC)

Intervention

Strategies for delirium treatment include all the nonpharmacologic interventions outlined for prevention (below). When a patient has delirium, the first step is to identify the potential etiology. A useful mnemonic to evaluate of the cause of delirium is THINK: Stop, THINK, and lastly medicate.

T Toxic situations
H Hypoxemia
I Infection/sepsis
N Non-pharmacologic Interventions
K Electrolyte Problems

This framework directs our attention to identifying etiology first, before moving toward pharmacologic strategies. If all potential risk factors have been addressed and/or removed and all aetiologies have been considered and treated, consider initiation of pharmacologic therapies.

Consider using dexmedetomidine for delirium in mechanically ventilated adults when agitation precludes weaning ventilatory support.

- Reduce/avoid deliriogenic drugs and provide daily sedation breaks when safe
- Improve wakefulness (reduce sedation)

Prevention

Prevention of delirium focuses on implementation of nonpharmacologic strategies to minimize delirium risk factors with integration of all elements of the ICU Liberation Bundle. Additionally, daily ICU care should focus on optimizing comfort and mobility, promoting sleep, and maintaining day-night cycles and patients' normal routines as much as possible. There are no data to support the routine use of antipsychotics for the prevention of ICU delirium in adults.

Key strategies for delirium prevention include:

Nonpharmacologic: Employ a multicomponent strategy, including:

- Daily and regular orientation to the environment
- Engaging patients with familiar items from home and family interaction
- Removing urinary catheters and invasive devices as early as possible
- Reducing visual or hearing impairment by providing hearing aids and glasses as needed
- Early rehabilitation with daily mobility goals
- Optimizing nutrition and hydration
- Promoting sleep at night and clustering patient care activities during the daytime
- Exposure to sunlight during the daytime and dimming lights and minimizing noise at night
- ICU diaries

Additional tools:

- ICU Liberation A-F Bundle Overview Videos – Click on Element D on the left-hand side
    - ICU Liberation A-F Bundle Overview (sccm.org)

Recommendations

- Ensure pain is assessed often and treated adequately to prevent or minimize delirium.
- As part of unit culture, prevent delirium for all patients, starting at admission.
- Assess for delirium throughout the shift, using a unit standard validated tool and unit standard documentation process.
- Report delirium during daily interdisciplinary rounds, considering any medications or environmental factors that may be contributing to delirium.

<Space for QR codes or links to HA documents>

Resources

1. Society of Critical Care Medicine (n.d.) ICU Liberation Bundles. ICU Liberation Bundle (A-F) | SCCM | SCCM

2. Devlin, J. W., Skrobik, Y., Gélinas, C., et al. (2018). Clinical Practice Guidelines for the Prevention and Management of Pain, Agitation/Sedation, Delirium, Immobility, and Sleep Disruption in Adult Patients in the ICU. Critical Care Medicine. 46(9):825-873. https://doi.org/10.1097/CCM.0000000000003299

3. Holden, D.N., Retelski, J. (2019). The ICU Liberation Bundle: an emphasis on nonpharmacologic intervention. *Critical Connections*. https://www.sccm.org/Communications/Critical-Connections/Archives/2019/The-ICU-Liberation-Bundle-An-Emphasis-on-Nonpharm

4. Hsieh, S. J., Ely, E. W., & Gong, M. N. (2013). Can intensive care unit delirium be prevented and reduced? Lessons learned and future directions. *Annals of the American Thoracic Society*, *10*(6), 648–656. https://doi.org/10.1513/AnnalsATS.201307-232FR

5. ICUDelirium.org (2025). Terminology and mnemonics. https://www.icudelirium.org/medical-professionals/terminology-mnemonics