ICU Delirium:
Bringing Awareness To Best Practice in Assessment and Prevention
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**Purpose/ PICO Question**

**Purpose:**
- To raise awareness of ICU delirium and how to better assess and prevent delirium.
- To develop education for staff regarding best practices and guidelines

**Method and Materials**

**PICO Question:** What best practices can ICU nurses implement to decrease the incidence of delirium in critically ill patients?

**Population:** Acute Care Nurses

**Intervention:** Implementation of an ICU delirium education program (current staff and new graduate nurse residents)

**Comparison:** N/A

**Outcome:** Decreased incidence of delirium in the critically Ill, better awareness of ICU delirium, decreased length of hospital stay, and decreased hospital costs.

**Search terms used:**
- "Delirium" OR "Psychosis"
- "Critically Ill"
- "Prevention" OR "Nursing Intervention"

**Points to Remember**

- Types of delirium
  - Hyperactive
  - Hypoactive
  - Subsyndromal

- ICU Delirium can cause:
  - Increased morbidity and mortality
  - Longer hospital stays
  - Higher healthcare costs
  - Long-term cognitive and psychological effects
  - Depression
  - Loss of job
  - Difficulty with relationships

- Delirium Risk Factors
  - Over-sedation
  - Mechanical ventilation
  - Uncontrolled pain
  - Age >65
  - ETOH or Drug addiction and withdrawal
  - History of dementia
  - Use of benzodiazepines
  - Poor sleep hygiene

**ABCDE Bundle**

**A - Awakening:**

Successful Sedation Awakening Trial (SAT) includes:
- Absence of active seizures, ETOH withdrawal, agitation, paralytic agents, or myocardial infarct in last 24 hours
- Normal intracranial pressure (ICP)

Unsuccessful SAT includes:
- Anxiety, agitation, or pain
- RR >36/min, SpO2 <88% for >5 minutes, 2 or more signs of respiratory distress
- Acute arrhythmia

**B - Breathing:** Spontaneous Breathing Trials (SBT) at minimum every 24 hours

Successful SBT: Continue on current sedation and settings for consideration of extubation

Unsuccessful SBT: Place patient on previous settings and plans are discussed during rounds.

**C - Coordination/Choice of Medication:** SAT and SBT are coordinated between RN and RT and occur within 90 minutes of professional rounds
- Choice of analgiesa and sedation
- G4 hour and PRN pain and RASS assessments
- Pain management should be given priority over sedation
- Minimal sedation toward targeted RASS of 0 to -1
- Pain and sedation discussed on professional rounds
- Avoid benzodiazepines

- There is insufficient evidence and research proving pharmacological interventions are consistently effective in prevention and management of delirium

**D - Delirium:** Identification, Prevention, and Management
- Delirium assessment Q12 hours using CAM assessment tool
- Catheter removal, bed alarms, sleep hygiene, cognitive stimulation, family education and support, medication review, pain assessment, reorientation, early mobility

**E - Early physical mobility**

- Daily screening for early physical mobility
- Patient response to verbal stimulation/RASS score between -2 and +2
- FiO2 <0.60
- PEEP <10
- SpO2 >88% at rest
- No increases of vasopressors for >2 hours
- No evidence of MI in last 24 hours
- No arrhythmia requiring medication in past 12 hours
- No acute cerebral vascular accident
- Normal ICP
- Nurse performs ROM 3x a day and q2 hour repositioning

**Recommendations/ Next Steps**

- Develop, distribute, and display educational materials in staff areas and education fairs
- Individual ABCDE bundle in service with staff
- Participate in unit-based and hospital-wide education fairs
- Educate staff on recently updated guidelines (content and location on hospital intranet)
- Collaborate with Nurse Informatics to create ABCDE bundle flow sheet in Epic

**Stakeholders:** Clinical Outcome Specialists, Intensivists, Nursing Informatics, Unit Education Committee, Clinical Education & Development Department, Unit Practice Council

**Literature Review/Summary of Evidence**

**Author & Date**
- Dunne & et al (2014)
- Wechstedt & et al (2016)
- Nalbone & et al (2016)
- Nalbone & et al (2014)
- Segal & et al (2015)

**Evidence Type**
- Systematic review & meta-analysis
- Study, Retrospective
- Descriptive study, Retrospective
- Review
- Cross-sectional study
- Case series study
- Quasi-experimental

**Sample, Sample Size & Setting**
- ICU Delirium: Bringing Awareness to Best Practice in Assessment and Prevention
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**Study findings that help answer the EBP question**
- Patients with delirium who received pharmacological intervention had significant decreases in the incidence of delirium in ICU patients
- Delirium intervention was associated with increased awareness of delirium in ICU patients
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**Limitations**
- Individual factors with improved implementation of ICU delirium interventions are unclear
- Delirium interventions are unclear

**Evidence Level & Quality**
- Level I
- Level II
- Level III
- Level IV
- Level V
- Level VI

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- Karen A. Allicock, MS, RN (Clinical Educator)
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References available upon request