DELIRIUM PATHWAY for Screening and Management of Acute Brain Dysfunction

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Delirium is a clinical syndrome of brain dysfunction that can be assessed using valid and reliable screening tools.[1-3]

The **Pediatric CAM-ICU Series**[4] (**PEDs CAM-ICU**) combines the **Preschool psCAM** (**newborn – developmentally 5 years of age**)[5,6] and **Pediatric pCAM** (**developmentally ≥ 5 years of age**).[7]

DELIRIUM is **PRESENT** when **Feature 1** (acute change/fluctuating mental status) **AND** **Feature 2** (inattention) are present **PLUS EITHER** **Feature 3** (RASS ≠ 0) **OR** **Feature 4** (Dysregulated Brain)[8,9]

ASSESS LOC with RASS (per unit standard)

RASS – 4/5

STOP COMA

- Cannot assess **DELIRIUM** or **PAIN**
- Consider risk of sedation
- Reassess for **Delirium** once **RASS ≥ -3**

RASS ≥ -3

PROCEED with DELIRIUM SCREEN

- Use **Pediatric CAM-ICU series**
- **PCICU/PICU**: Once every shift or concern
- **PCARD/Other:** Once every shift or concern

Peds CAM-ICU - → **DELIRIUM ABSENT**

Peds CAM-ICU + → **DELIRIUM PRESENT**

GENERAL MANAGEMENT and PREVENTION

- **FOCUS** on **A2F bundle** (**Table 2**)[11-20]
- **ASSESS, ADDRESS** and **REASSESS PAIN**
- **FOLLOW** unit-specific **SEDATION PROTOCOL**
- **SET TARGET RASS**
- **INSTITUTE** preventative measures (‡)[21]

Remember: Pain often presents with agitation, and if not treated can lead to unnecessary sedation exposure.

DELIRIUM MANAGEMENT → PROCEED TO BRAIN MAPS (Table 1)[21] and then FOLLOW *SUBTYPE MANAGEMENT*

HYPOACTIVE DELIRIUM: RASS 0 to -3

RE-ASSESS the **TARGET RASS** and **DISCUSS** the **risk/benefit** of **sedation**

- **CONSIDER** less deliriogenic sedation if low TARGET RASS required
- **Remember:** coma/deep sedation from any sedative/opioid regimen may ↑risk of Delirium → BENZODIAZEPINE is NOT the only CULPRIT.[22]
- **Consider** more aggressive approach to improve **SLEEP HYGIENE**
  - SEDATION is **NOT** SLEEP

→ **OBTAIN** **Psychiatry Consultation** if **delirium persists** despite rigorous implementation of **BRAIN MAPS** management considerations.

- **An Atypical Antipsychotic** may help manage ***refractory*** hypoactive delirium manifestations such as apathy/withdrawal from environment.

Remember: Antipsychotic use may be associated with **WORSE** outcomes.[24,25]

→ **If** persistent delirium or NO improvement of symptoms **within 48 hours of antipsychotic initiation** →

1) Re-ASSESS **BRAIN MAPS** and implement new strategy if applicable.
2) **Re-engage Psychiatry** or **implement the following:**
   - **DISCONTINUE antipsychotic** as it cannot mitigate risk from over-sedation or is not efficacious to decrease manifestations at this time.
   - Work on sedation exposure, reorientation, family presence.

→ **If** delirium resolves, **STOP antipsychotic** within **5 days** of resolution.

HYPERACTIVE DELIRIUM: RASS +1/+2

- **Consider *patient safety***: Do you need peer or family assistance?

Consider "why" patient has agitation. Remember that agitation is a **SYMPTOM** that can be caused by *pain, anxiety, fear, IWS, or delirium.*

Implement the **SENSORY PYRAMID** [23]

- **Consider** more intentional approach to improve **SLEEP HYGIENE: Consider** Melatonin, Gabapentin
  - SEDATION is **NOT** SLEEP

→ **OBTAIN** **Psychiatry Consultation** if **delirium persists** despite rigorous implementation of **BRAIN MAPS** management considerations.

- **Haloperidol or Atypical Antipsychotic** may help manage ***refractory*** hyperactive delirium manifestations such as inadequate patient-ventilator synchrony, refuses comfort measures, unawareness of surroundings/caregivers.

SEVERE HYPERACTIVE: RASS +3 /+4

→ **Threat to Safety Imminent:**

1) Treat PAIN, provide SEDATION ***acutely***
2) Consider **BRAIN MAPS** management considerations

→ **OBTAIN** **Psychiatry Consultation**

- **Consider** initiation of ***Haloperidol*** *or* ***Atypical Antipsychotic*** to manage ***refractory*** ~~hyperactive~~ delirium manifestations such as combativeness, harm to self.

Remember: Antipsychotic use may be associated with **WORSE** outcomes.[24,25]

→ **If** persistent delirium or NO improvement of symptoms **within 48 hours of antipsychotic initiation** →

1) Re-ASSESS **BRAIN MAPS** and implement new strategy if applicable.
2) **Re-engage Psychiatry** or **implement the following:**
   - **DISCONTINUE antipsychotic** as it is not currently efficacious to decrease delirium manifestations.
   - **Consider Iatrogenic Withdrawal Syndrome, prior trauma, mental health (depression, anxiety, ADHD, autism)**
   - Consider Anesthesia consult for management of a difficult-to-sedate patient.

→ **If** delirium resolves, **STOP antipsychotic** within **5 days** of resolution.

(◆) **PANDEM Clinical Guidelines** [10]

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