Compass SHARP in Practice Podcast Series

Compass SHARP

COMPASS HEALTHCARE COLLABORATIVE
Sustainable Healthcare Transformation

Postoperative Delirium: Part 1

Hosted By: Donald Stader, MD, FACEP, FASAM, with guest Dr. Jennifer Hah, MD (anesthesiologist, pain, and addiction medicine specialist)

Q&A Highlights

Q: Why is delirium after surgery important?
A: Delirium after surgery is concerning because it often signals post-operative complications like infection, metabolic issues, or medication effects. It increases morbidity and mortality (7–10% 30-day vs. ~1% without delirium), length of hospital stay, and may contribute to long-term cognitive decline, making prevention a key priority.

Q: What exactly is delirium, and what causes it?
A: Delirium is an acute, fluctuating cognitive disturbance after surgery, likely driven by neuroinflammation, blood-brain barrier changes, and brain cell dysfunction. Older adults and those with comorbidities are at higher risk.

Q: What are key risk factors for delirium?
A: Postoperative delirium risk is highest in major or emergency surgeries, especially in older or medically complex patients. Sensory deficits, cognitive impairment, smoking, poor functional status, and infection further increase risk. High preoperative pain also raises the likelihood of delirium by up to threefold.

Q: How can we proactively prevent delirium preoperatively?
A: Delirium prevention includes limiting unnecessary medications, avoiding long fluid fasting, and performing a comprehensive geriatric assessment to address functional, psychological, and social needs. Early pain control—such as using regional anesthesia before surgery—also helps reduce risk.

Q: What interventions during surgery reduce delirium risk?
A: Delirium risk can be reduced during surgery by avoiding overly deep anesthesia, using multimodal opioid-sparing analgesia (including NSAIDs, acetaminophen, and regional techniques), considering dexmedetomidine for its neuroprotective effects, and minimizing benzodiazepines or gabapentinoids in high-risk patients.

Q: What post-operative strategies help prevent delirium?
A: After surgery, delirium risk can be reduced with non-pharmacologic measures like frequent reorientation, consistent staffing, natural light, clocks/calendars, and involving family. Ensuring good sleep, hydration, nutrition, early mobility, and access to hearing aids or glasses also helps. Multi-component approaches are most effective, cutting delirium risk by about half. Medications like melatonin or ramelteon may support sleep, but antipsychotics should be used only when necessary.

Quick Takeaways

- Delirium is common, serious, and often the first sign of post-op complications.
- Older, sicker patients and certain surgical procedures carry the highest risk.
- Pain control, avoiding polypharmacy, and multimodal analgesia are central to prevention.
- Both intraoperative and post-operative strategies—particularly non-pharmacologic, multi-component interventions—reduce delirium risk.
- Early identification and proactive management can improve outcomes and potentially lower long-term cognitive decline.

This episode explores delirium after surgery, highlighting risk factors, pathophysiology, and multi-component strategies before, during, and after surgery to prevent delirium and improve patient outcomes.

Resources

Provider Resources:

- Opioid Medication Dictionary
- Non Opioid Medication Dictionary
- Medication Quick Guide
- Multimodal Analgesia for Surgical Practice
- Guidelines on Limiting Opioid Use in the Perioperative Setting