

Opioid Complications and Alternatives in Acute Care

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Learning Objectives

- Discuss the role of opioids in acute delirium
- Introduce a new pain assessment tool
- Review post-operative pain control and safety
- Discuss alternative therapies for pain
- Present RADEO project results
- Review new Joint Commission on Hospital Accreditation Standards

Delirium and Opioids

- Mary is 81 year old female admitted to the hospital after a fall with severe right hip pain
- PMH
 - Osteoporosis
 - HTN
 - Early cognitive decline / dementia
- Admission with right sub-trochanteric femur fracture, no other injuries.
- The following day, she is found screaming at the nurse and having delusions about her mother needing help.
- **Is she a good candidate for opioid based pain control?**

Delirium and Opioids

- Definition – acute onset decline in cerebral function
- Hallmarks – Inattention, alteration in arousal (agitation, somnolence or both), decline in cognition
- Opioids are associated with delirium
 - Opioids and metabolites can cause CNS excitation or depression
 - Pain, constipation, respiratory insufficiency are associated with delirium
- Delirium is associated with increased morbidity and mortality

Delirium and Opioids

- Prevention and Root causes
 - Sleep deprivation
 - Change in decibels during night hours is more important than the maximum level
 - Disorientation
 - Reorient patient frequently, involve family if possible
 - Immobility, dehydration
 - Early mobilization and nutrition support
 - Visual and hearing impairment
 - Provide adaptive support for elderly

Delirium and Opioids

- Assessment
 - All patient's on opioids should be assessed regularly for delirium along with respiratory depression, bowel effects and high risk conditions.
- Treatment (ABCDEs)
 - Awakening and Breathing Coordination
 - Spontaneous Awakening trials and Spontaneous Breathing trials
 - Choice of Sedative Agent
 - Limit Benzodiazepines
 - Delirium monitoring and management
 - Non-pharmacologic and pharmacologic interventions
 - Early Mobilization and Exercise

Assessing Safety in Pain

- Serial Sedations
 - RASS, POSS
 - Before and After Opioid Administration
 - Safe use of Opioids
- Functional goals
 - Individualized goals
 - ADLs, IADLs, Vocational, etc.
 - Patient sets objective goals

Assessing Safety in Pain

- Pain Scale
 - 1-10 assessment of pain
 - Subjective measure from patient
- The Critical-Care Pain Observation Tool
 - 0-8 assessment of pain
 - More objective, measured by staff
 - Validated in verbal patient, non-verbal patient, and delirious patients

Assessing Safety in Pain

The Critical-Care Pain Observation Tool

- Four observed behaviors
 - 0-2 pts per indicator
- Facial Expressions, Body Movements, Compliance with Ventilator/Vocalizations, Muscle Tension
- Score ≥ 3 indicate pain treatment needs to be reassessed
 - Sensitivity = 86%
 - Specificity = 78%

Assessing Safety in Pain

- Critical Care Pain Observation Tool (CPOT)
 - The patient must be observed at rest for one minute to obtain a baseline value of the CPOT.
 - Then, the patient should be observed during nociceptive procedures known to be painful (e.g. turning, wound care) to detect any changes in the patient's behaviors to pain.
 - The patient should be evaluated before and at the peak effect of an analgesic agent to assess whether the treatment was effective or not in relieving pain.
 - For the rating of the CPOT, the patient should be attributed the highest score observed for each item during the observation period.
 - The patient should be attributed a score for each behavior included in the CPOT and muscle tension should be evaluated last, especially when the patient is at rest because the stimulation of touch alone (when performing passive flexion and extension of the arm) may lead to behavioral reactions.

Peri-operative Pain Control

- **High Risk Period**
 - Pain treatment changes hands quickly
 - Surgeon/Anesthesiologist, PACU nurse, floor nurse, hospitalist
 - Pressures not intuitive to patient care cause opportunities for risk
- Highest use of Narcan during inpatient stay is first 24hrs after surgery. (ED #1 overall)
 - High risk conditions, metabolism, varied analgesia
 - Surgical stressors reduced
 - Mental stressors change
 - Preconceived notion that patient needs rest

Peri-operative Pain Control

- **How do we keep this safe?**
 - Standardized assessments of pain
 - CPOT in PACU
 - Understand stressors and stress relievers
 - Health, Personality, Coping mechanisms
 - Understand system stressors
 - Designate pop-off valves
 - Pre-select high risk patients before PACU
 - Recovery plan for most high risk

Peri-operative Pain Control

- **How do we keep this safe?**
 - Standardized Assessment/Communication
 - Pain score
 - RASS/CPOT
 - Criterion Based Discharge
 - SBAR checkouts
 - Advanced staffing models and bed modeling
 - Limit physical stressors
 - Utilize alternate anesthesia models when appropriate
 - Regional anesthesia
 - Conscious sedation
 - Address psychological stressors
 - Anxiety, schizotypal personality, Catastrophizing

Peri-operative Pain Control

- **How do we keep this safe?**
 - Identify Risk
 - Chronic disease
 - OSA, Liver disease, Kidney disease
 - Chronic pain, Addictive behavior
 - Intervene Effectively
 - Anesthetic choice and exposure time
 - Pain consult service
 - Effective placement post-operatively

Multimodal Pain Therapy

- Utilize options from “multiple” categories.
 - Pharmacologic/Non-pharmacologic
- Primary goal – improved pain control
 - Secondary goal – reduce need for opioids
 - Avoid potential adverse events
 - Reduce dependence
 - Consider use in patients using more than 50 MMEs
- Especially important in opioid naïve
 - Consider when stepping down chronic pain therapy

Alternate Pain Therapy

- Pharmacologic

- NSAIDs/Tylenol
- Gabapentin/Pregabalin
- Ketamine
- SSRI/TCA
- Local anesthetic infiltration
- Tizanidine/Baclofen
- Topical lidocaine/capsacin

- Non-pharmacologic

- Music Therapy
- Acupuncture
- Dry Needling
- Massage
- Therapeutic Touch
- Tai Chi
- Physical Therapy
- Osteopathic Manipulation

Reducing Adverse Drug Events from Opioids (RADEO)

- DATA
 - Cohort of 5 hospitals
 - Each asked to implement and measure 2 of 4 Process measures
 - Patient/family education, High risk screening of patients, documentation of serial sedation assessments, documentation of pain assessments
 - All assessed and measured 2 outcomes measures
 - Minor and Major Adverse Drug Events
 - ADE improvement on intervention units was noted in all reporting hospitals, but improvement varied greatly.
 - Data generated was stripped of individual information at the hospital level because this was a quality improvement project, not research with IRB granted approval or patient consent

RADEO

- DATA (Continued)
 - Process improvement difficult to demonstrate
 - Outcome improvement limited by low overall event rate
 - Sites reported
 - Overall quality improvement processes were improved
 - Staff awareness and Administration support for opioid safety increased
 - Quality improvement continues in all hospitals

RADEO 2

- Developing Modalities in Pain treatment
 - Limb block to prevent narcotics during admission
 - Dry needling in the hospital
 - Ketamine injections to replace opioid doses
- National Patient Education Tools
 - Second iteration has led to development of several tools for patient education including pamphlets, videos, phone apps and improved communication processes.
 - We hope to make these more readily available after the second cohort completes their work later this year.

Joint Commission Review

(Disclaimer)

- R3 Report
 - RADEO Guide (SHM)
- Leadership Team
 - Has key goals to accomplish related to other standards
- Pain scores not required
 - “to provide individualized care in settings responsive to specific patient needs.”

Joint Commission Review

- Leadership Team

- Goals

- Actively engage medical staff and hospital leadership in improving pain assessment and management, including strategies to decrease opioid use and minimize risks associated with opioid use
 - Provide at least one non-pharmacological pain treatment modality
 - Facilitate access to prescription drug monitoring programs
 - Improve pain assessment by concentrating more on how pain is affecting patients' physical function
 - Engage patients in treatment decisions about their pain management
 - Address patient education and engagement, including storage and disposal of opioids to prevent these medications from being stolen or misused by others
 - Facilitate referral of patients addicted to opioids to treatment programs

Citations

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