Hospital Story Topic

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Objectives & About Us

- Introduction to St. Joseph's (SJHSRI)
- Introduction to the RI ICU Collaborative
- Review ventilator bundles
- Review our ICU "team" work
- Case presentation

SJHSRI and RI ICU Collaborative

- SJHSRI introduction
- RI ICU Collaborative introduction
  - Every hospital in the state with an adult ICU is participating in this project which started September 2005.
  - Partnerships also with RIQI, Quality Partners, HARI, RI Blue Cross-Blue Shield, and United Healthcare.
  - Program initially coordinated by John Hopkins and Peter Provonost, MD

Team for Each ICU

- "Players":
  - Physician leader
  - Nurse leader
  - Staff nurse
  - Pharmacist
  - Senior Executive
  - Respiratory Therapy
  - Infectious Disease RN

Ventilator Bundle Elements

- Elevate the head of the bed
- Provide for peptic ulcer and venous thrombosis prophylaxis to ventilated patients
- Appropriately sedate ventilated patients
- Test daily if patients can be extubated
- Use continuous subglottic suctioning
- Implement mouth care and oral decontamination

Tests & What We Learned

- Ventilator bundle and sedation/analgesia
  - Policy and procedure existed but lacked the following:
    - Nursing needed re-education on protocol
      - Pain scale and Ramsay scale for physician desired level of treatment
      - Appropriate documentation with conversion to Meditech system
      - Verbal reporting at change of shift
    - Coordination of medication administration and awakening trials with respiratory
    - Pharmacy Participation
      - Monitoring of the patient for other dosing considerations
      - Assistance with dosing given patient's history, condition, etc.
- Safety culture education provided avenues for improvement as well

Barriers & How We Resolved

- Barriers:
  - Intensivists:
    - Individualized dosing considerations
    - Increased recognition of medication related effects
    - Implementation of rounds and timing
  - Nursing:
    - Keeping patients over-medicated for ease
    - Understanding the advantages of using a combination of medications appropriately
- Resolutions:
  - ICU Collaborative educational sessions
  - Culture of safety work allowed for collaboration and improvement in care

Measures – A Case Review

- 61 year old post-op TKR who developed a MRSA aspiration pneumonia who quickly progressed to ARDS
- Analgesia and sedation medication for ventilator management
  - Analgesia: Morphine
  - Sedation:
    - Lorazepam: intermittent to continuous infusion with PRN IV boluses (over course of 10 days)
    - Midazolam: infusion over 2 days did not adequately control
    - Propofol: infusion started, midazolam titrated off, and Lorazepam for PRN IV doses restarted. Propofol infusion continued for 5 days. Patient clinically improved.
    - Lorazepam: 4mg tablets ordered to be given via NG tube q1h hour with PRN IV doses still available. Slow tapering of doses via NG tube continued.
- Patient was removed from ventilator after 46 days, transferred out of ICU after 53 days, and discharged to rehab.

Advice for Others

- "Team" approach for ICU and especially the ventilated patient
  - Physician: leader
  - Nursing: bedside care and monitoring
  - Pharmacy: medication management
  - Respiratory: oxygenation
- Administration/"C" Suite
  - Leadership
  - Support

Wrap Up & Next Steps

- Summary: coordinated efforts have lead to improved narcotic/sedative management
- Questions?
- Next steps:
  - Awaiting revised SCCM guidelines for possible updates to our policy and procedure
  - Delirium portion needs to be updated (screening, medications, and nursing documentation)
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