Pediatric Sedation in a Community Hospital Setting; Acknowledging a Need for Change and Moving Forward Through a Multidisciplinary Approach

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Background
- Sedation is a continuum of care. Pediatric patients bring unique considerations for diagnostic testing and imaging in the community, a low volume high risk population. Creating a process whereby providers develop expertise and education in the care of pediatric patients and families ensures cooperation for accurate test results and less repeat of procedures related to inadequate sedation or sedation failure.

Purpose
- Create a process where by safe and effective sedation could be provided in a community hospital setting
- Review of current processes by a team of multidisciplinary providers
- Establishment of an expert core group of practitioners
- Ongoing evaluation of patient outcomes based on standard procedures

Goals of Sedation in Pediatrics
- Consideration of Age and Developmental Level
- Minimize discomfort and pain
- Control Anxiety
- Minimize psychological trauma
- Control behavior and movement for safe completion of procedure
- Return to a safe stage for discharge

To Sedate or Not To Sedate
- Experience with children
- Level of pediatric experience
- Physiological and developmental differences in pediatrics
- What type of sedation
- Effective and safe dosing
- Approach to the child
- Where should it be done
- Travel time
- Community versus tertiary center

Medications: What is appropriate in a Community Setting?
- Chloral Hydrate
- Versed – Intranasal, PO, IV
- Recovery with expected side effects
- Recovery with adverse events
- Evidence to support correct dosing, administration, and timing of procedure related to pharmacokinetics

Assessment of Current Pediatric Sedation Process
- Previous Situation – Nurse administered sedation
- Current Situation – Anesthesiology administered sedation
- Questions:
  - Need for sedation?
  - Provider?
  - Education?
  - Which medication?
- Outcomes?

Clinical Questions
- What is the best method of care for children in need of echocardiogram?
- Is sedation necessary and if so what is needed to ensure the best care and the best outcomes?
- What is the best medication and appropriate dose to achieve safe and adequate sedation?

Members of the Pediatric Sedation Work Group
- Cardiology
- Pediatrics
- Director of Nursing
- Pediatric Nurse
- Radiology Nurse
- Emergency Department Clinical Educator
- Echocardiography Technician
- Doctor of Nursing Practice Student

Theoretical Framework
- Assess – need for change in practice
- Link – problem interventions and outcomes
- Synthesize – best evidence
- Design – practice change
- Implement and Evaluate - change in practice
- Integrate and maintain – change in practice

What Was Accomplished?
- Core Group of Nurses
- Scheduling Guideline and Screening Process for Pediatric Minimal and Moderate Sedation Non – Anesthesia
- Pediatric Minimal and Moderate Sedation Non-Anesthesia Guidelines
- PEDS Minimal or Moderate Sedation Order Set (RO-16) Physician’s Orders

Parameters for Success
- Patient Satisfaction Survey
- Demographic
- Age, Weight, ASA status, Procedure Type
- Procedures Specific
- Medication & Dose Administered
- Delay in procedure Sedation or Scheduling Related
- Complications/Adverse Events
- Oxygen Desaturation
- Respiratory Problems/Apnea
- Vomiting
- Arrest
- Unexpected admission related to sedation Complication

References

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