

NO LAUGHING MATTER: INSTITUTING AND SUSTAINING NURSE COMPETENCY IN NITROUS OXIDE ADMINISTRATION FOR THE PEDIATRIC POPULATION

Team Leader: Maria Heinje, MSN, RN-BC

Providence Sacred Heart Medical Center & Children's Hospital, Spokane, Washington

Team Members: Gavin Cregan, BSN, CPN, Dr. David A. Burns, MDA, Annella Bauer, BSN, ANM, Barb Heimbigner, RN-BC, Nurse Educator, Debbie Jacobs, MSN, CPN, Nurse Educator

BACKGROUND:

Having a variety of therapeutic tools designed for the unique cases that arise in a children's hospital is essential to excellent patient care. Our hospital recently trained a team of specialized nurses to administer nitrous oxide as an additional anxiolytic tool in the perianesthesia area. Typically nurses play a significant role in the recognition and de-escalation of procedural anxiety for children and their families throughout the perianesthesia process. Although nitrous oxide (also known as 'laughing gas') has been successfully administered in dental offices for decades, this sedation technique is relatively new in the hospital or clinic setting. Frequently midazolam and other longer acting anxiolytic agents are employed requiring lengthy recovery and potential paroxysmal reaction. An advantage to nitrous oxide is that the drug can be titrated to effect and is rapidly eliminated from the body when discontinued.

OBJECTIVES:

Providence Sacred Heart Children's Hospital wanted to improve comfort and reduce anxiety for pediatric clients undergoing procedural preparation in a safe, timely and effective manner. Accordingly, a team of competent nurses were educated and supervised in the safe delivery of nitrous oxide to minimize anxiety in this population.

PROCESS:

A taskforce developed and implemented an educational program to train pediatric nurses in the administration of nitrous oxide to appropriately screened children and adolescents needing minor procedures (intravenous access, bladder-urethral catheter insertion, lumbar puncture, etc.). The clinical educator then collected and presented quality and safety data to the hospital sedation committee for review and standardization of practice. Each nurse was observed, evaluated and signed off by the anesthesiologist on five cases before independently sedating clients. This specialized team became the preceptors as additional nurses learned the skill. Staff demonstrates continued competency through skills review and monitored quality assurance data that stimulates ongoing improvement.

STATEMENT OF SUCCESSFUL PRACTICE:

Training of registered nurses in the safe administration of nitrous oxide can minimize procedural anxiety thus providing perianesthesia staff another proven resource in treating many pediatric clients.

IMPLICATIONS FOR ADVANCING THE PRACTICE OF PERIANESTHESIA NURSING:

This project improved patient and staff satisfaction with procedural sedation by expanding the role of nurses in the perianesthesia setting.