

Small Change, Big Impact: Improving the Post Anesthesia Care Experience for Pediatric Ventriculoperitoneal Shunt Patients

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Abstract Background Information: Postoperative VP shunt x-ray series performed in PACU can be a stressful time for patients and staff, specifically with patients on our institution's sensory pathway. The x-ray series includes several images that are obtained using different patient positioning and a portable x-ray machine that can be intimidating to pediatric patients due to its loud noises and bright lights which can lead to pain, anxiety and overstimulation. PACU RNs noticed that they were having to give more narcotics while the x-rays were being performed.

Objectives of Project: The purpose of this clinical practice change was to evaluate the impact of having postoperative VP shunt x-rays done in the operating room while the patient was still sedated to decrease stimuli for neuro patients. A secondary goal was to decrease narcotic administration for neuro patients to assist with more accurate neuro exams.

Process of Implementation: June 2025, PACU Workflow Chairperson presented a proposal to surgical services management and our Anesthesia Medical Director to have the VP shunt x-rays completed in the operating room (OR) while the patient was still sedated, prior to transport to PACU. We identified the need to get surgeon and OR buy. With support from anesthesia, management, and the neurosurgery service we were able to implement new guidelines.

Statement of Successful Practice: Post implementation, PACU nursing staff were surveyed regarding the VP shunt patients. A total of 10 surveys were collected by PACU RNs over a 4-week period; 100% of PACU RNs reported improved pain management and decreased post operative stimuli in PACU. Of note, 40% of the patients per RN report were sensory patients. There was reported less narcotic administration and more accurate neurological exams. A discovery on the VP shunt series obtained in the OR also led to immediate intervention.

Implications for Advancing the Practice of Perianesthesia Nursing: Obtaining VP shunt series x-rays in the OR while the patient was sedated improved the immediate post operative period for the patients. PACU RNs have identified the improvement of patient comfort as well as a decrease in time to identify patient complications. Coordinating with surgeons, anesthesia, management, OR staff, and radiology to make this possible has positively impacted our patients and staff.