RESEARCH, EVIDENCE-BASED PRACTICE, OR QUALITY IMPROVEMENT ABSTRACTS

SAVING THE BEST FOR LAST: IDENTIFYING AND INTERVENING IN LOCAL ANESTHETIC TOXICITY EMERGENCY

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Background Information: Local anesthetic systemic toxicity (LAST) is a rare, but serious complication to local anesthesia that can be potentially fatal. Prompt recognition and intervention is critical for the best patient outcome, however, there is a lack of ability to recognize the signs and symptoms of LAST, along with a lack of knowledge of interventions in the post anesthesia care unit (PACU).

Objectives of Project: Clinical nurses will be able to: identify the procedure and clinical guidelines for LAST management, recognize 3 signs of LAST, locate supplies used during a LAST event, and calculate the dosage of intra-lipid emulsion (ILE) therapy for the reversal of LAST.

Process of Implementation: Institutional guidelines are consistent with the American Society of Regional Anesthesia and Pain Medicine's (ASRA) algorithm for the treatment of LAST. A pre-education survey was distributed to 25 RNs to identify educational barriers. An educational in-service was implemented to all RNs to identify signs/symptoms of LAST, teach interventions, and explain where to locate LAST emergency kit. A post-education survey was then distributed to see if their knowledge had improved. Pre-implementation, 36% of PACU RNs had the knowledge to care for patient during LAST, 24% knew procedure and clinical guidelines, 40% were able to identify 3 symptoms, 48% were able to locate LAST emergency kit, 16% knew how to calculate/verify dose of lipids, and 96% thought that education would improve their understanding. Post-implementation, 94% of PACU RNs had the knowledge to care for patient during LAST, 97% knew procedure and clinical guidelines, 94% were able to identify 3 symptoms, 94% were able to locate LAST emergency kit, 84% knew how to calculate/verify dose of lipids, and 100% thought that education provided improved their understanding.

Statement of Successful Practice: The pre-education survey established that there was an admitted lack of knowledge by nursing staff on LAST emergencies. After education, there was a significant increase of knowledge in nursing practice and interventions.

Implications for Advancing the Practice of Peri-Anesthesia Nursing: Management of LAST complications is imperative for safe and efficient PACU nursing care. Annual competency assessment and mock drills will be implemented to keep up skills. The LAST competency is also being added into the orientation pathway for new hires.

PEDIATRIC PERIOPERATIVE EDUCATION: ARE WE DOING ENOUGH AT GEISINGER HEALTH SYSTEM TO PREPARE OUR PEDIATRIC PATIENTS AND THEIR FAMILIES FOR SURGERY?

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Introduction: This EBP poster explores pediatric and family anxiety in association with surgical procedures. Review and reflection of current practices at Geisinger Health System compared to top performing children's hospitals in the U.S. Concluding with best practice recommendations for practice change.

Identification of the problem: Multiple levels of anxiety are associated with pediatric exposure in the perioperative setting. Perioperative anxiety can negatively impact induction, postoperative recovery as well as create transient and long-term detrimental effects on the child's health and development.

EBP Question/Purpose: The purpose of the evidenced-based review was to explore current perioperative anxiety reduction practices within Geisinger Health System in comparison with the top ten children's hospital as reported by U.S. News & World Report.

Methods/Evidence: A systematic comparison of current standard practices at Geisinger Health System and the top ten children's hospitals were reviewed in detail. Meta-analysis of scholarly journals concerning diversional techniques for pediatric patients in the peri-anesthesia setting were also utilized. The Johns Hopkins Model of Evidence-based Practice was utilized to evaluate the literature. The comparative studies levels II, III, IV, and V were included to support the findings

Significance of Findings/Outcomes: Evidence and comparison suggest significant gaps within Geisinger Health System's perioperative process. Throughout this review, conversations were already underway on how to improve the pediatric pre-surgical stay. Interdisciplinary and patient experience peers were amongst this group at Geisinger Health System for potential improvements

Implications for perianesthesia nurses and future research: This project reflects a vital need for continuous improvements for a positive pediatric patient experience within Geisinger Health System. Additions to Geisinger's current practices that happened during this review included: usage of iPads, the web-based publication "Preparing your Child for Surgery," Autism pathway project initiative, and planning process for motorized child-driven cars to be used from the preoperative area into the operating room. Looking to the future, Geisinger would benefit by aiming education and care to both parent and child. Education is key to patient-centered, safe care.

Note: All abstracts are printed as received from the authors.