



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

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Background

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

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
- Calculate the dosage of intra-lipid emulsion (ILE) therapy for the reversal of LAST.

Guidelines

Institutional guidelines are consistent with the American Society of Regional Anesthesia and Pain Medicine's (ASRA) algorithm for the treatment of LAST.

Implementation

Pre-education survey distributed

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.

SURVEY QUESTIONS

I am confident in my nursing skills and have the knowledge I need to provide primary nursing care to a patient during lidocaine toxicity event.

I know the procedure and clinical guidelines for lidocaine toxicity management in the perioperative setting.

I am able to identify 3 signs of lidocaine toxicity.

I am able to locate the supplies used during a lidocaine toxicity event in PACU.

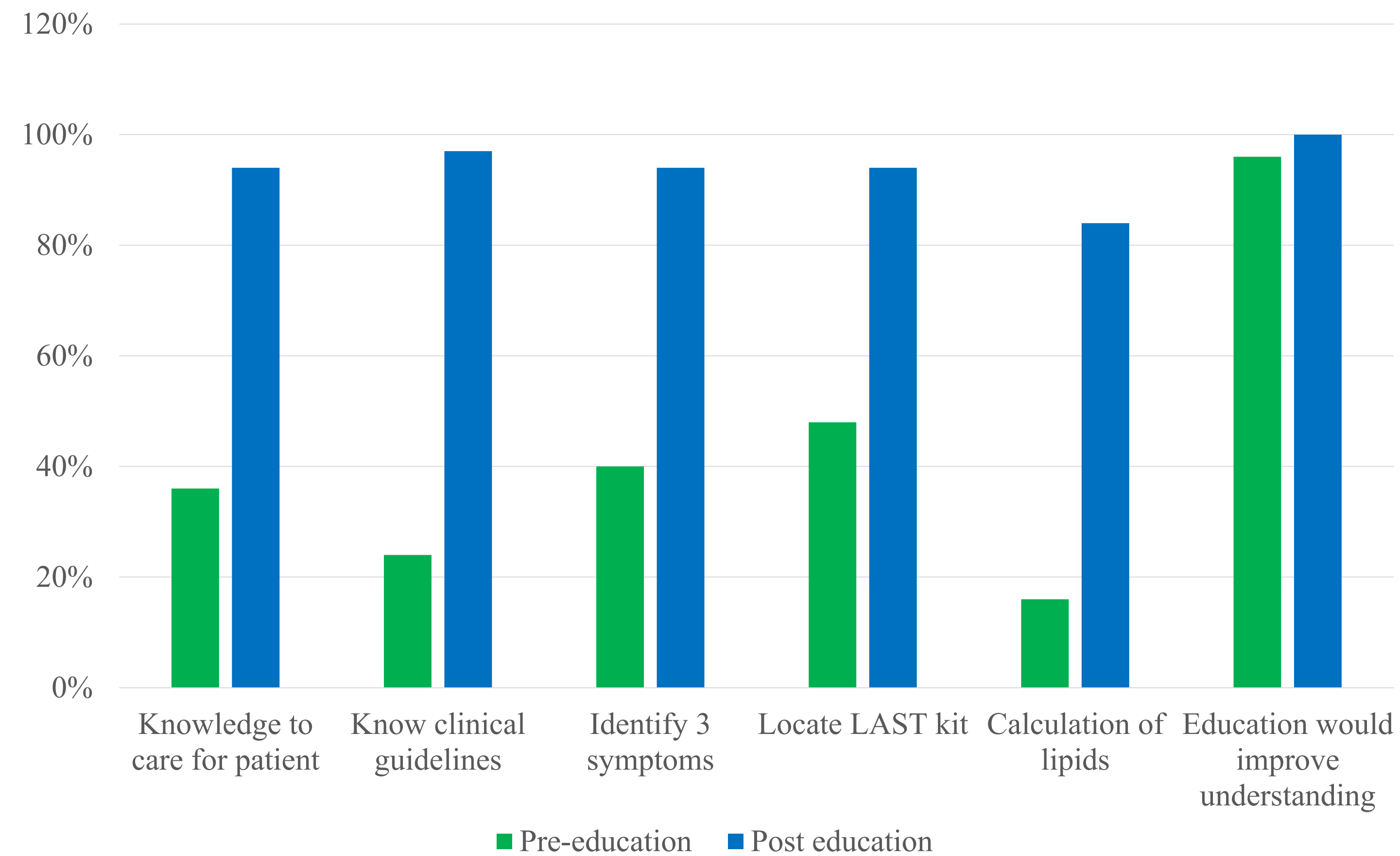
I know the dose of lipid infusion for lidocaine toxicity and I am able to verify the calculation for reversal of lidocaine toxicity.

Education regarding lidocaine toxicity would improve my understanding of how to provide nursing care and interventions during a lidocaine toxicity emergency.

Education delivered via staff in-service

Identify signs/symptoms of LAST, teach interventions, and explain where to locate LAST emergency kit

Results



Post education survey distributed

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 Practice

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.

Team Members

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