

Eliminating Painful IV Starts

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Purpose:

The question guiding this project is to determine on how to implement an evidence-based project to reduce pain associated with peripheral intravenous (PIV) insertions on adult inpatients. The goal of this project is to evaluate whether analgesia or anesthesia prior to peripheral PIV insertion would decrease pain during this procedure AND if staff would accept this practice change.

Background:

PIV catheter insertions are a common and occasionally painful procedure. Studies have found that patients frequently describe this experience as uncomfortable or painful. Several methods have been studied to decrease pain during PIV insertion. Methods of choice include breathing techniques, topical cream (4% liposomal lidocaine), and intradermal injections (lidocaine). This hospital facility has a policy and procedure for pain management associated with PIV insertion that includes the use of local anesthesia. Unfortunately, use of these techniques was not a common practice for RNs on adult medicine units.

Methods:

To select a method for testing the elimination of painful PIV insertions, a literature review of the topic was conducted. A key reference identified was a study describing the challenges of changing RN practice related to offering lidocaine prior to PIV insertions. The three different methods of analgesia were presented at the unit staff meetings. The topical cream LMX-4 (4% liposomal lidocaine) was chosen. Baseline data was collected prior to the study. Over a four week period, RNs were asked that every patient receiving a PIV insertion received LMX-4 prior to the PIV insertion. After a patient received a PIV with LMX-4, two surveys were completed, one by the RN who started the PIV and one by the patient. Multiple strategies were employed throughout the project to increase stake holder buy-in and participation.

Results:

Baseline data was collected on 46 patients. Out of 46 patients, 52% of them stated that their IV insertions were painful and 65% of them interviewed said that they were willing to try LMX-4. During the 4 weeks LMX-4 trial, 26 patients received the LMX-4: 35% of the 26 patients stated they perceived pain; 58% stated that they did not. Seventy-three percent of the patients who received the LMX-4 stated that their discomfort was decreased after receiving the cream. Twenty-eight RNs completed the RN survey and 93% stated the method was easy.

Discussions:

Several barriers to change became evident over the course of this project. Physicians and Medical Students needed frequent reminders to add the LMX-4 orders to the pre-printed orders for admitted patients. More experienced nurses perceived that PIV insertions are not painful and do not require analgesia.

Conclusions:

Results from this project would support a change of practice. PIV insertions are one of the basic nursing practices which many RNs do not consider as painful. Changing this practice will require changes to the pre-printed orders for better compliance and ease of implementation. A unit based champion is critical to implementing a practice change that nurses do not perceive as necessary.

