

The Use of EMLA Cream for the Prevention of Pain in Pediatric IV Starts

Kathy M. Degenstein-Gartman, RN, BSN

University of Texas at El Paso - SON Graduate Student

Problem:

Children are historically under-treated for procedural pain in the starting of intravenous (IV) access. This is especially true in our facility where no child receives anesthesia for the insertion of an IV cannula. This study addresses the use of EMLA cream to prevent pain pediatric IV starts.

Evidence:

The evidence was gathered using a review of the literature on the Cochrane Database of Systematic Reviews and the Cumulative Index of Nursing and Allied Health Literature (CINHAL). Keywords used to gather the evidence were pediatrics, IV cannulation, pediatric procedural pain, EMLA cream, lidocaine, best practice, and evidence based practice. Appraisal of evidence was made by using the rating system for the Hierarchy of Evidence as found in Melnyk & Fineout-Overholt (2005).

Strategy:

Appraisal of the evidence found an overwhelming amount of evidence for the use of EMLA cream in the prevention of pain for the use of pediatric IV starts.

Practice Change:

Practice change was proposed by the development of policy and changes to the physician's orders and the presentation of the evidence to the Pediatric Committee members for approval for implementation.

Evaluation:

Presentation was made to the Pediatric Committee on February 21, 2007. The approval of the presentation was tabled pending review of the evidence by the Pediatricians. Once passed the project will be evaluated using the FLACC scale for infants 0-3 years, the Faces of Pain for children 3-8 years, and the 0-10 Pain Scale for 8-16 years. An efficacy of >95% will be considered success in the use of the EMLA cream to prevent pain during pediatric IV starts.

Bibliography:

Tadio, A., Soin, H., Schuh, S., Scolnik, D. (2005). Liposomal lidocaine to improve procedural success rates and reduce procedural pain among children: a randomized controlled trial. *Canadian Medical Association Journal*, 172(13), 1691-1695.

Luhmann, J., Hurt, S., Shootman, M., Kennedy R. (2005). A comparison of buffered lidocaine versus ELA-Max before peripheral intravenous catheter insertion in children. *Pediatrics*, 113(3), e217-e220.

Kleiber, C., Sorenson, M., Whiteside, K., Gronstal, B., Tannous, R. (2002). Topical anesthetics for intravenous insertion in children: A randomized equivalency study. *Pediatrics*, 110(4), 758-761.