Pediatric Pain Management in the Emergency Department: The Triage Nurses' Perspective

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CE Earn Up to 7.5 CE Hours. See page 460.

Introduction: Understanding triage nurses' perspectives of pain management is essential for timely pain care for children in the emergency department. Objectives of this study were to describe the triage pain treatment protocols used, knowledge of pain management modalities, and barriers and attitudes towards implementation of pain treatment protocols.

Methods: A paper-based survey was administered to all triage nurses at three Canadian pediatric emergency departments, between December 2011 and January 2012.

Results: The response rate was 86% (n=126/147). The mean respondent age was 40 years (standard deviation [SD] 9.3) with 8.6 years (SD 7.7) of triage experience. General triage emergency department (GTED) nurses rated adequacy of triage pain treatment lower than pediatric-only triage emergency department (PTED) nurses ($P < .001$). GTED nurses reported a longer acceptable delay between triage time and administration of analgesia than PTED nurses ($P < .002$). Most nurses rated more comfort with a protocol involving administration of acetaminophen (97mm, interquartile range [IQR] 92, 99) or ibuprofen (97mm, IQR 93, 100) than for oral morphine (67mm, IQR 35, 94) or oxycodone (57mm, IQR 15, 81). The top three reported barriers to triage-initiated pain protocols were monitoring capability, time, and access to medications. Willingness to implement a triage-initiated pain protocol was rated as 81mm (IQR 71, 96).

Discussion: Triage nurses are willing to implement pain protocols for children in the emergency department, but differences in comfort and experience exist between PTED and GTED nurses. Provision of triage initiated pain protocols and associated education may empower nurses to improve care for children in pain in the emergency department.

Key words: Triage; Pediatrics; Pain; Protocol; Analgesia; Emergency department

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The World Health Organization has declared that pediatric pain treatment is a public health concern of major significance.[1] Studies indicate that inadequate pain management during medical care can have numerous detrimental effects, including an extended length of stay, slower healing, and emotional trauma and suffering.[2–5] Furthermore, negative effects may extend into adulthood and can include fear of medical events or health care consultations, avoidance or overuse of medical care, and heightened sensitivity to subsequent medical care.[2–4] Pain is the most common reason for seeking health care, accounting for up to 80% of all ED visits.[6–8] Patients may have pain from an underlying illness or injury, as well as from necessary medical procedures such as venipuncture or fracture reduction.[8,9] A large multicenter study found that only 60% of patients with moderate to severe pain receive any analgesia in the emergency department.[10] Unfortunately, oligoanalgesia (under-treatment of pain) remains a well-documented problem in the ED setting.[11]

Triage has been recognized as a site to effect large improvements in overall pain treatment in the emergency department.[12] The assessment of pain and provision of analgesia early in a patient's stay are key to decreasing the pain experienced within the emergency department and improving patient satisfaction.[12–14] Several centers have implemented pain protocols that allow for triage nurse–initiated analgesia. Studies of these centers have found statistically significant improvements in overall analgesia provision, time to analgesia, and patient satisfaction.[15–20]

Understanding and considering triage nurses' perspectives comprise a vital step when planning the implementation of a new nursing initiative. By understanding their perspectives, we can then ensure triage nurse buy-in and participation when actualizing a new pain protocol.[16,17] The objectives of this study were to describe comfort with triage pain treatment protocols used, knowledge of pain management modalities, and perceived barriers and attitudes toward implementation of pain treatment protocols at triage.

Methods

STUDY DESIGN

This study was a descriptive, cross-sectional survey of all triage nurses at 3 Canadian pediatric emergency departments—2 emergency departments with pediatric-only triage and 1 emergency department with combined pediatric and adult triage. The site with combined pediatric and adult triage has a stand-alone pediatric emergency department served by a shared triage. A paper-based survey was administered on 2 occasions from December 2011 to January 2012.[21]

ETHICS APPROVAL

This study was approved by the research ethics board at each participating site prior to its implementation. This process included approval for the novel survey tool and study methodology, as well as the distribution of gift cards to participants. An information letter was included at the start of each survey, and consent was implied by completion of the survey.

SELECTION OF PARTICIPANTS

Participants were recruited from the emergency departments at the Stollery Children's Hospital (SCH, Edmonton, Alberta, Canada), IWK Health Centre (IWK, Halifax, Nova Scotia, Canada), and Children's Hospital of Eastern Ontario (CHEO, Ottawa, Ontario, Canada). In 2011 the annual pediatric census was 29,197 for the SCH emergency department; 28,000 for IWK; and 65,949 for CHEO. At the time of survey administration, there were 147 triage nurses (87 at SCH, 28 at IWK, and 32 at CHEO) eligible for participation in our study.

METHODS OF MEASUREMENT

A novel survey tool was developed in accordance with published guidelines.[22] An expert panel—with representation from pediatrics, emergency medicine, and nursing—informed survey development by participating in the item generation and reduction phases, as well as ensuring face and content validity. The survey was piloted with a group of 6 nurses to further ensure face and content validity, as well as sensibility.[22]

Completion of the survey required approximately 10 minutes. Participants were asked questions regarding their demographic characteristics (eg, age, sex, and training) and experience with pain protocols and management of pain; they also rated their comfort with, and feasibility of, providing various pharmacologic and non-pharmacologic pain treatments. Respondents were asked about their willingness to implement a triage-initiated pain protocol, as well as perceived barriers and facilitators. Respondents received a nominal ($10) coffee gift card.

Responses were entered into an electronic database by a trained data entry clerk, and 20% of these were verified by the study coordinator to ensure accurate data entry. The primary site for data storage and analysis was the Department of Pediatrics at the University of Alberta, Edmonton, Alberta, Canada.

PRIMARY DATA ANALYSIS

Mean, median, standard deviation, and interquartile range (IQR) were used to describe continuous data (eg, age) and frequencies and proportions to describe categorical data (eg, sex). One-way analysis of variance and the Kruskal-Wallis test were used to compare means among the 3 emergency