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Pre-Hospital Parental Administration of Analgesia

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Dear Sir,

Pain is the most common presenting symptom in the emergency setting, with up to 70% of patients attending the Emergency Department (ED) having pain as part of their primary complaint.[1]

Acute paediatric pain management is often suboptimal in the emergency setting. [2, 3] There is a paucity of published literature on parental administration of analgesia to children, prior to their arrival at ED. Acute pain management in children has not commanded the same level of research interest in contrast to the adult population, and recent studies have prioritised the need for high-level evidence and further research.[4] The objective of this study was to describe the prevalence of pre-hospital analgesic administration by parents/guardians of children ≤16 years presenting to ED, with acutely painful conditions.

A prospective cross-sectional study was conducted across two ED's in the South of Ireland (Cork University Hospital and Mercy University Hospital) with a collective annual attendance of approximately 100,000 patients. A consecutive sample of 400 parents/guardians of children aged between 6 months and 16 years, who were self-referred to ED with acutely painful conditions, were included. Data collected included patient demographics, pain score and analgesia administration. Data was analysed with SPSS software using descriptive and inferential statistics.

189/400 (47%) children received analgesia from their parents/guardians pre-ED arrival. Factors independently associated with increased parental administration of analgesia were: pain score ≥5/10 53.4% (95%CI 48%-59%) vs ≤4/10 29% (95%CI 21%-38%, x^2 test p=0.004, OR=1.804); children with siblings 50 % (95%CI 43%-58%) vs without siblings 35.3% (95%CI 29%-42%, x^2 test p=0.03, OR=1.811) and presenting <48 hours from onset of pain 50.1% (95%CI 45%-55%) vs

presenting ≥48 hours 30.5% (95%CI 19%-42%, x^2 test p=0.005, OR=0.436). No correlation was seen between analgesia administration and age (p=0.804), gender (p=0.114), cause of pain (p=0.079) or site of pain (p=0.098).

Of the 400 participants, 211 (53%) received no analgesia pre-ED arrival. Reasons for parents not administering analgesia included: 62/211 (29.4%) did not think the child needed it, 39/211(18.5%) accident did not happen at home, 34/211 (16.1%) did not want to mask the presence of the pain, 20/211 (9.5%) believed the hospital should give medications, and 18/211 (8.5%) afraid it would be wrong/harmful.

Of the 400 participants in this study only 3% did not have any pain-relieving agents at home i.e. 97% had one or more analgesic agent available. The most commonly administered analgesic agent was Paracetamol (58%), followed by Ibuprofen (38%). Other medications used include Buscopan and Solpadine.

This study has demonstrated that over 50% of children presenting to the ED, with acutely painful conditions, did not receive adequate or timely pain relief, pre-ED arrival, causing avoidable suffering. Children were more likely to receive pain relief from parents/guardians if they: have siblings, had a pain score ≥5, presented to ED <48 hours after onset of pain. Parental misconceptions surrounding pain management are a major barrier to them administering pain relief. Further education for parents is required to dispel some of these misconceptions surrounding analgesia and improve care to this population.

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