# Nurse-initiating medications: medication knowledge and practice in an Australian emergency department

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**Background** The autonomy to nurse-initiate analgesia and selected medications is fundamental in the emergency department (ED). Nurse-initiating practice enhances patient care and clinical outcomes by improving pain assessment, it provides safe pain management, and reduces time to analgesia ED, and possibly ease doctors' workload. However, the practice might be fraught due to feelings of reluctance and/or possible medication knowledge deficit, which extent is unclear and unknown respectively. The research sought to address these research questions: (1) How frequently do nurses initiate medications (2) how much knowledge do the nurses have of the nurse-initiated medications; and (3) what factors hamper or promote nurse-initiating practice?

**Methods** Mixed methods using a questionnaire to assess nurse-initiating frequency and medication knowledge, and face-to-face semi-structured interviews to explore the nurse-initiating practice. Knowledge scoring was based on knowledge of generic name, brand name, class, mechanism of action, indications, contraindications, side-effects, dose, and route (max score = 9) of five medications: oxycodone, metoclopramide, fentanyl, adult diphtheria tetanus vaccine, and oxybuprocaine. Interview data were analysed using Braun and Clarke's thematic analysis technique.

**Results** There were 80 out of 106 nurses who completed the questionnaire. The frequency of nurse-initiating activity ranged from 0 to 36 times per week (median = 5) depending on ED area worked and contracted hours. The percentage who achieved the maximum medication knowledge was modest: oxycodone (66.4%), metoclopramide (60%), fentanyl (33.3%), adult diphtheria tetanus vaccine (32.8%), and oxybuprocaine (19%). Knowledge was not significantly different between nurses from different nursing and nurse-initiating experience brackets, and between nurses who frequently nurse-initiate and those who do not. This suggests that there may be nurses who nurse-initiate when their knowledge is incomplete and there are also nurses who may not nurse-initiate in spite of their knowledge.

There were 24 out of 49 interviews because data saturation was reached. Themes were: patient-centredness, safety, education, and confidence over time. There was no indication that reluctance hampered nurse-initiating activity; rather nurse-initiating practice was driven by the benefits it affords patients such as comfort and quality of care. Nurses exercised the principles of caution and safety through patient assessment and adhering to scope of practice to protect themselves and their patients from harm. Although knowledge is incomplete when tested, knowledge was sought when required to nurse-initiate. Nurses commended the annual renewal of competency, as well as access to medication information when needed. Lastly, confidence was seen as an initial limitation to nurse-initiating; however was seen to improve with experience and support received from colleagues.