



ELSEVIER

Contents lists available at ScienceDirect

## International Emergency Nursing

journal homepage: [www.elsevier.com/locate/aaen](http://www.elsevier.com/locate/aaen)

## Review

## Quality and impact of nurse-initiated analgesia in the emergency department: A systematic review

Wayne Varndell<sup>a,b,\*</sup>, Margaret Fry<sup>b,c</sup>, Doug Elliott<sup>b</sup><sup>a</sup> Clinical Nurse Consultant, Prince of Wales Hospital Emergency Department, Randwick, NSW 2031, Australia<sup>b</sup> Faculty of Health, University of Technology Sydney, Ultimo, NSW 2007, Australia<sup>c</sup> Level 7 Kolling Building, Royal North Shore Hospital, St Leonards, NSW 2065, Australia

## ARTICLE INFO

## Keywords:

Pain  
 Analgesics  
 Acute pain  
 Pain management  
 Emergency department

## ABSTRACT

**Aim:** This paper reports a systematic literature review evaluating the impact and quality of pain management associated with nurse initiated analgesia in patients presenting to the emergency department (ED).

**Background:** Pain is a major presenting complaint for individuals attending the ED. Timely access to effective analgesia continues to be a global concern in the ED setting; emergency nurses are optimally positioned to improve detection and management of pain.

**Design:** Systematic review.

**Databases and data treatment:** Four databases – CINAHL, EMBASE, Medline, ProQuest – the Cochrane Library and the National Institute of Clinical Excellence were searched from date of inception to December 2017; with no language restrictions applied. Studies were identified using predetermined inclusion criteria. Data were extracted and summarised and underwent evaluation using published valid criteria.

**Results:** Twelve articles met inclusion, comprising a wide range of analgesics and administration routes to manage mild to severe pain. Overall study quality was high; 7 studies included a form of comparison group. Patient outcome measures included time to analgesia (n = 12; 100%), change in pain score (n = 6; 50.0%); adverse events (n = 6; 50.0%); patient satisfaction (n = 5; 41.7%) and documenting pain assessment (n = 2; 16.7%).

**Conclusion:** Nurse-initiated analgesia was associated with safe, timely and effective pain relief.

## 1. Introduction

There are over 7.5 million patient presentations to emergency departments (ED) in Australia each year [1], of which pain is the most frequent symptom; occurring in over 85% of all presentations [2]. Detection and management of pain is an essential component of quality patient care [3]. Despite this high prevalence, detection, assessment and management of pain is often neglected, resulting in an increased risk of poor physiological and psychological consequences for patients and sub-optimal performance of the health system [4]. EDs are continually challenged to maintain the delivery of timely, effective and safe care.

Patients presenting to ED often need timely treatment, potentially including the administration of medications to relieve their symptoms, such as pain. Pain management is an often overlooked aspect of acute care, with patients forced to wait extended periods of time without pain assessment or being offered analgesia [5]. Time to administration of medications is often seen as a quality of care indicator [6]. Emergency

nurses are the first and continuing point of care for patients presenting to the ED, and are therefore optimally positioned to respond in a timely manner to manage a patient in pain [7].

## 2. Background and objective

Nurse-initiated medications, including analgesia, has been one of the most important strategies implemented in EDs to facilitate timely care, and early symptom management [8]. Nurse-initiated medication, is a form of non-medical prescribing whereby a nurse using their clinical judgement of a presenting patient's condition, signs and symptoms, can administer pre-approved (i.e. policy or protocol) medications to patients without medical authorisation [9]. Traditionally, patients would have to wait until assessed by a physician for analgesia to be prescribed and then administered; a process that contributes to significant delay in pain relief and prolongs human suffering [10]. Consequently, nurse-initiated analgesia (NIA) has increased in the ED setting to provide early access to pain relief, using a range of analgesic

\* Corresponding author at: Clinical Nurse Consultant, Prince of Wales Hospital Emergency Department, Randwick, NSW 2031, Australia.

E-mail addresses: [Wayne.Varndell@health.nsw.gov.au](mailto:Wayne.Varndell@health.nsw.gov.au) (W. Varndell), [Margaret.Fry@uts.edu.au](mailto:Margaret.Fry@uts.edu.au) (M. Fry), [Doug.Elliott@uts.edu.au](mailto:Doug.Elliott@uts.edu.au) (D. Elliott).

<https://doi.org/10.1016/j.ienj.2018.05.003>

Received 17 January 2018; Received in revised form 27 April 2018; Accepted 28 May 2018  
 1755-599X/ © 2018 Elsevier Ltd. All rights reserved.

agents [11]. Since their earlier adoption from nurse-initiated narcotic protocols established in post-anaesthetic care in South Australia [12], the use of NIA protocols has expanded across Australia [6], and several countries including Canada [13], Hong Kong [14,15], Iran [16], Netherlands [17], Sweden [18] and the USA [19,20].

Two previous reviews examined the impact of medications initiated by emergency nurses that included analgesia. The first in 2014 reported that while NIA potentially improved pain management, no descriptions or quantification of the impact or effectiveness was provided to support this claim [21]. The second review from 2017 reported a meta-analysis limited to three small experimental studies involving differing analgesics, protocols and patient groups [22]. Issues with heterogeneity were noted and further literature has been published since this review. No systematic review has directly evaluated the quality and impact of NIA in the ED setting. We therefore conducted a systematic review on the quality and impact of NIA in adult patients presenting to the ED in acute pain.

### 3. Method

This was a systematic literature review of published research on the quality and impact of NIA in adult patients presenting to the ED in acute pain, guided by The Cochrane Collaboration systematic review method [23]. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) checklist [24] was used to identify essential components of the review, and guide reporting of the study methods and results (Fig. 1).

Analysis of the results focused on evaluating the quality and impact of NIA using published criteria for interpretation and appraising the characteristics and methodological quality of studies.

**Table 1**

Total of hits for every keyword combination that was used to search databases.

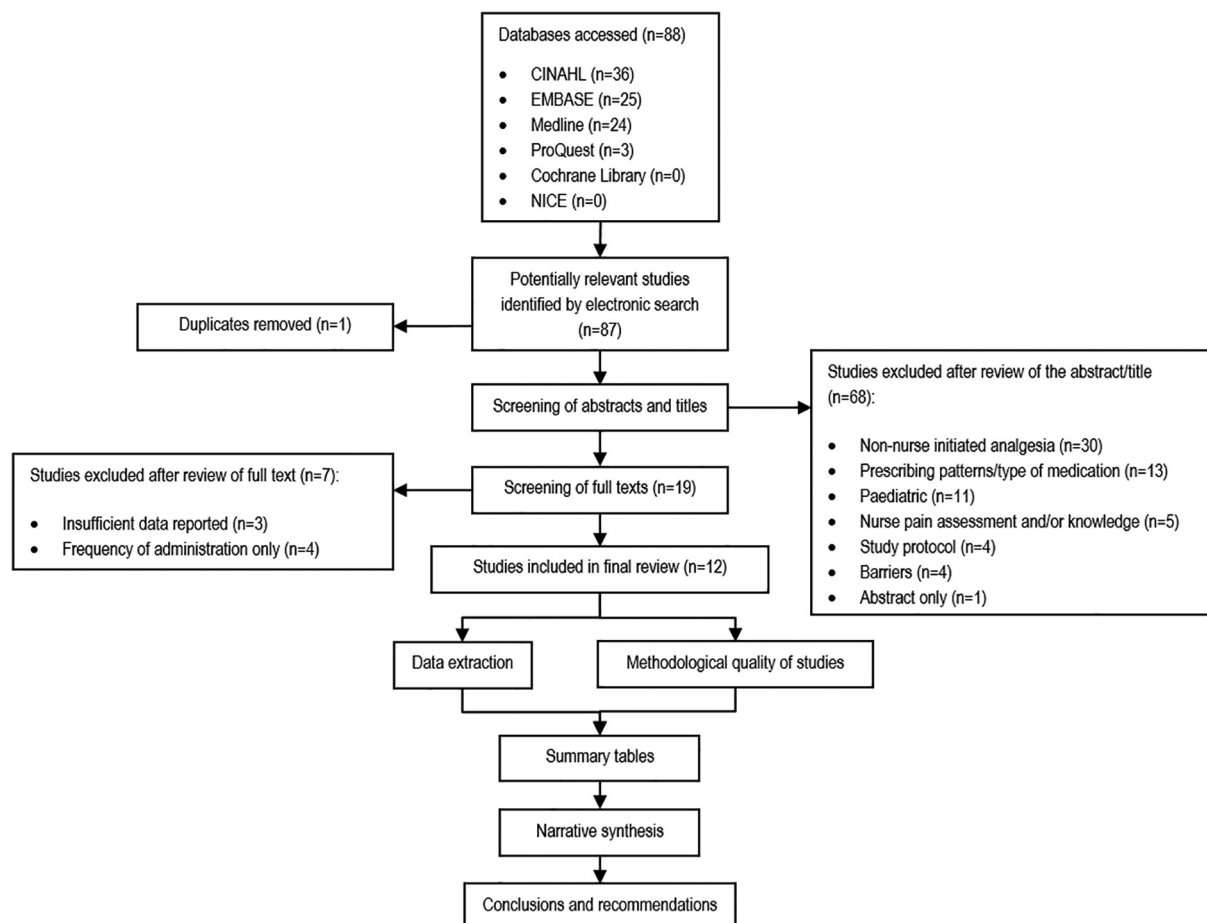
Entry Terms		CINAHL	EMBASE	Medline	ProQuest
NURSE INITIATED	AND analgesia	9	7	5	2
	AND pain relief	1	2	3	0
	AND medication	11	6	7	1
Nurse administered	AND analgesia	6	3	3	0
	AND pain relief	2	3	2	0
	AND medication	7	4	4	0
Total hits		36	25	24	3

#### 3.1. Databases and data treatment

A systematic literature search was conducted using the following databases: CINAHL, EMBASE, Medline, and ProQuest. The database search was limited to scholarly articles or peer-reviewed journals. No language restrictions were applied. Search strategies were customised for each database due to the different range of search interfaces. Several search terms were used to identify potential studies concerning NIA in patients ( $\geq 16$  years) presenting to the ED in pain: ‘nurse initiated AND analgesia OR pain relief’, ‘nurse administered AND analgesia OR pain relief’, ‘nurse AND pain relief’, and ‘nurse initiated AND medication’ (Table 1). The reference lists of selected studies were hand-searched.

##### 3.1.1. Eligibility criteria

Studies meeting all the following criteria were included in the review:



**Fig. 1.** PRISMA flowchart of the search and systematic review process.

Download English Version:

<https://daneshyari.com/en/article/8944057>

Download Persian Version:

<https://daneshyari.com/article/8944057>

[Daneshyari.com](https://daneshyari.com)