

EMERGENCY NURSE PRACTITIONER IMPACT

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Please find following a summary of a literature search and relevant results. All articles can be provided in full - email library@monashhealth.org for a list of the articles you require.

QUESTION

What evidence is available regarding nurse practitioner or nurse practitioner led services in the emergency department and the impact on patient access, waiting times, service delivery, or patient outcomes?

RESULTS

PEER-REVIEWED LITERATURE – MOST RECENT FIRST

Articles are grouped by study type:

- Systematic reviews
- Randomised controlled trials
- Observational studies
- Case studies
- Qualitative studies

Each article summary contains excerpts from the abstract and an online link.

SYSTEMATIC REVIEWS

Vella, S. P., et al. (2024). **The effectiveness of allied health and nurse practitioner models-of-care in managing musculoskeletal conditions in the emergency department: a systematic review and meta-analysis.** *BMC emergency medicine*, 24(1), 13. [Click for full-text.](#)

There is limited research to judge the effectiveness of allied health and nursing models of care for the management of musculoskeletal conditions in ED.

Jennings, N., et al. (2015). **The impact of nurse practitioner services on cost, quality of care, satisfaction and waiting times in the emergency department: a systematic review.** *International journal of nursing studies*, 52(1), 421–435. [Click for full-text.](#)

This systematic review has shown that emergency nurse practitioner service has a positive impact on quality of care, patient satisfaction and waiting times. There was insufficient evidence to draw conclusions regarding outcomes of a cost benefit analysis.

Elder, E., et al. (2015). **Review article: systematic review of three key strategies designed to improve patient flow through the emergency department.** *Emergency medicine Australasia : EMA*, 27(5), 394–404. [Click for full-text.](#)

Advanced practice nursing roles, physician-assisted triage and medical assessment units are models of care that can positively impact ED throughput. They have been shown to decrease ED LOS and

DNW rates. Confounding factors, such as site specific staffing requirements, patient acuity and rest-of-hospital processes, can also impact on patient throughput through the ED.

RANDOMISED CONTROLLED TRIALS

Jennings, N., et al. (2015). **Evaluating emergency nurse practitioner service effectiveness on achieving timely analgesia: a pragmatic randomized controlled trial.** *Academic emergency medicine*, 22(6), 676–684. [Click for full-text.](#)

Nurse practitioner service effectiveness was demonstrated through superior performance in achieving timely analgesia for ED patients.

Jennings, N., et al. (2015). **Emergency NP model of care in an Australian emergency department.** *Journal for nurse practitioners*, 11(8), 774-781. [Click for full-text.](#)

Patients were randomly assigned to standard emergency department care or nurse practitioner care. The outcome measures reported were comparisons on key service indicators. There were 260 patients enrolled in the study, 128 receiving standard emergency department medical care and 130 receiving nurse practitioner care. There were no significant differences between the 2 groups regarding waiting times, length of stay, numbers of patients who left, patient representations within 48 hours, and the use of evidence-based guidelines.

OBSERVATIONAL STUDIES

Salter, M. et al. (2023). **Determination of emergency nurse practitioner and plastic surgery trainee disposition decision agreement for plastic surgery emergency department presentations: A prospective study.** *Emergency medicine Australasia*, 35(5), 739–745. [Click for full-text.](#)

Disposition decisions by ENP and PST were the same in most cases and had a high overall level of agreement. This may lead to greater autonomy of ENP care and reduced ED length of stay and occupancy.

Wand, T. (2023). **Integrating nurse practitioner-led mental health care in emergency departments.** *Journal for nurse practitioners*, 19(4), 104557. [Click for full-text.](#)

A nurse practitioner–led mental health liaison team has multiple benefits for patients and ED and psychiatry staff. Based on 5 key principles, this model of care is transferable to a range of emergency contexts.

Dwyer, T., et al. (2021). **Predictive factors of the general public's willingness to be seen and seek treatment from a nurse practitioner in Australia: a cross-sectional national survey.** *Human resources for health*, 19(1), 21. [Click for full-text.](#)

Despite limited awareness of the NP role, a large proportion of the Australian population, across different demographic groups, are willing to be seen and treated by an NP. Expansion of this role to support medical services in areas of need could improve healthcare delivery.

Snelling, P. J., et al. (2021). **Nurse practitioner administered point-of-care ultrasound compared with X-ray for children with clinically non-angulated distal forearm fractures in the ED: a diagnostic study.** *Emergency medicine journal*, 38(2), 139–145. [Request full-text.](#)

NP-administered POCUS had clinically acceptable diagnostic accuracy for paediatric patients presenting with non-angulated distal forearm injuries.

Middleton, S., et al. (2019). **Are service and patient indicators different in the presence or absence of nurse practitioners? The EDPRAC cohort study of Australian emergency departments.** *BMJ open*, 9(7), e024529. [Click for full-text.](#)

EDs with NPs had statistically significantly lower performance for service indicators. However, these findings should be treated with caution. NPs are relatively new in the ED workforce and low NP numbers, staffing patterns and still-evolving roles may limit their impact on service indicators.

Plath, S.J., et al. (2019). **Nurse practitioners in the emergency department: establishing a successful service.** *Collegian*, 26(4), 457-462. [Click for full-text.](#)

Establishment of a NP model has been successful at addressing the needs of low [acuity patients](#) in the emergency department as evidenced by reduced waiting times, length of stay and customer satisfaction. We attribute this success to the following three key factors: targeting a patient population, commitment to the service and adaptability.

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Lutza., M., et al. (2018). **Highlighting the invisible work of emergency nurse practitioners.** *Journal for nurse practitioners*, 14(1), 26-31. [Click for full-text.](#)

ED re-representation rates are lower when an ENP provides a secondary consultation.

Jennings, N., et al. (2015). **Time to analgesia for care delivered by nurse practitioners in the emergency department – a retrospective chart audit.** *International emergency nursing*, 23(2), 71–74. [Click for full-text.](#)

The majority of patients assessed by nurse practitioners received analgesia within 30 minutes after assessment. However, opportunities for substantial improvement in such times along with documentation of pain scores were identified.

Lee, G. A., et al. (2014). **The accuracy of adult limb radiograph interpretation by emergency nurse practitioners: A prospective comparative study.** *International journal of nursing studies*, 51(4), 549–554. [Click for full-text.](#)

This study validates the clinical and diagnostic skills of emergency nurse practitioners assessed in the interpretation of isolated adult limb injury radiographs.

CASE STUDIES

Fox, A., et al. (2018). **Nursing service innovation: A case study examining emergency nurse practitioner service sustainability.** *Journal of advanced nursing*, 74(2), 454–464. [Click for full-text.](#)

In this study, emergency nurse practitioner services did not meet factors that support health service sustainability. Multidisciplinary team members were confident that emergency nurse practitioner services were safe and helped to meet population health needs. Organizational support for integration of nurse practitioner services was marginal and led to poor understanding of service capability and underuse.

QUALITATIVE STUDIES

Ruiz L. M. (2020). **Multidisciplinary team attitudes to an advanced nurse practitioner service in an emergency department.** *Emergency nurse*, 28(1), 33–42. [Click for full-text.](#)

Overall, the MDT believes the ANP service will improve patient care, waiting times, team divisions and patients' experiences in the ED if the roles and responsibilities are clearly defined and communicated. In addition, the service should receive enough funding to ensure its sustainability and appropriate supervision by a senior doctor should be made available.

Wand, T., et al. (2020). **Patient and clinician experiences with an emergency department-based mental health liaison nurse service in a metropolitan setting.** *International journal of mental health nursing*, 29(6), 1202–1217. [Click for full-text.](#)

Integrating a nurse practitioner-led MHLN team within the ED has demonstrated multiple benefits for patients, ED staff, and overall service provision. Incorporating a specialist mental health nursing service within the ED builds confidence in ED clinicians. Members of the psychiatry team also acknowledge the value of aligning the clinical governance of the MHLN team within the ED and the reduced workload this model of care has on their service provision to ED, freeing them up to concentrate on their broader general hospital role.

Craswell, A., & Dwyer, T. (2019). **Reasons for choosing or refusing care from a nurse practitioner: Results from a national population-based survey.** *Journal of advanced nursing*, 75(12), 3668–3676. [Click for full-text.](#)

Most respondents were willing to be seen by a nurse practitioner for all or most of their healthcare needs. Lack of understanding of their scope of practice and role in the wider healthcare team, particularly in emergency situations, was reflected in responses.

Gill, S. D., et al. (2019). **Consumer preferences regarding physiotherapy practitioners and nurse practitioners in emergency departments - a qualitative investigation.** *Journal of interprofessional care*, 33(2), 209–215. [Request full-text.](#)

Although consumers accept the rationale for employing NPs and PPs, preferences vary regarding who they want as their primary clinician. Some consumers do not mind who provides care as long as they receive the care they need; others believe doctors provide superior care and preferred a

doctor; a third group indicated that not everyone who presents to an ED needs to see a doctor and specialized care would be provided by NPs and PPs for certain conditions.

Wand, T., et al. (2016). **Evaluating a new model of nurse-led emergency department mental health care in Australia; perspectives of key informants.** *International emergency nursing*, 24, 16–21. [Click for full-text.](#)

A nurse practitioner-led extended hours MHLN service embedded within the ED team structure provides prompt and effective access to specialised mental health care for people with 'undifferentiated health problems' and removes a significant workload from nursing and medical staff.

Wand, T., et al. (2015). **Evaluation of a nurse practitioner-led extended hours mental health liaison nurse service based in the emergency department.** *Australian health*, 39(1), 1–8. [Request full-text.](#)

An NP-led extended hours MHLN team based in the ED provides prompt and effective access to specialised mental health care for people with 'undifferentiated health problems', and removes a significant workload from nursing and medical staff. Embedding the NP-led MHLN service within the ED structure was pivotal to the success and sustainability of this model of care.

Lutze, M., et al. (2014). **Patient perceptions of emergency department fast track: a prospective pilot study comparing two models of care.** *Australasian emergency nursing journal*, 17(3), 112–118. [Click for full-text.](#)

Most patients were satisfied with ED fast track, irrespective of model of care. Patient satisfaction was greater in the group of patients using the nurse practitioner model of care.

APPENDIX

SEARCH METHODOLOGY

A systematic search was conducted for literature. The results were screened by librarians using [Covidence](#).

SEARCH LIMITS

- English-language
- Published within the last 10 years
- Australian studies only

DATABASES SEARCHED

- Medline – index of peer reviewed articles across health sciences and medicine.
- Embase – index of biomed and pharmacological peer reviewed journal articles.
- Emcare – index of nursing, allied health, critical-care medicine and more.
- Cochrane Library – collection of databases containing high-quality independent evidence.
- CINAHL – scholarly journals, theses, and grey literature for nursing & AH.

ADDITIONAL SEARCHING

- Forward and backward citation searching was undertaken for the following studies:
 - Jennings, N., et al. (2015). **The impact of nurse practitioner services on cost, quality of care, satisfaction and waiting times in the emergency department: a systematic review.** *International journal of nursing studies*, 52(1), 421–435. [Click for full-text.](#)

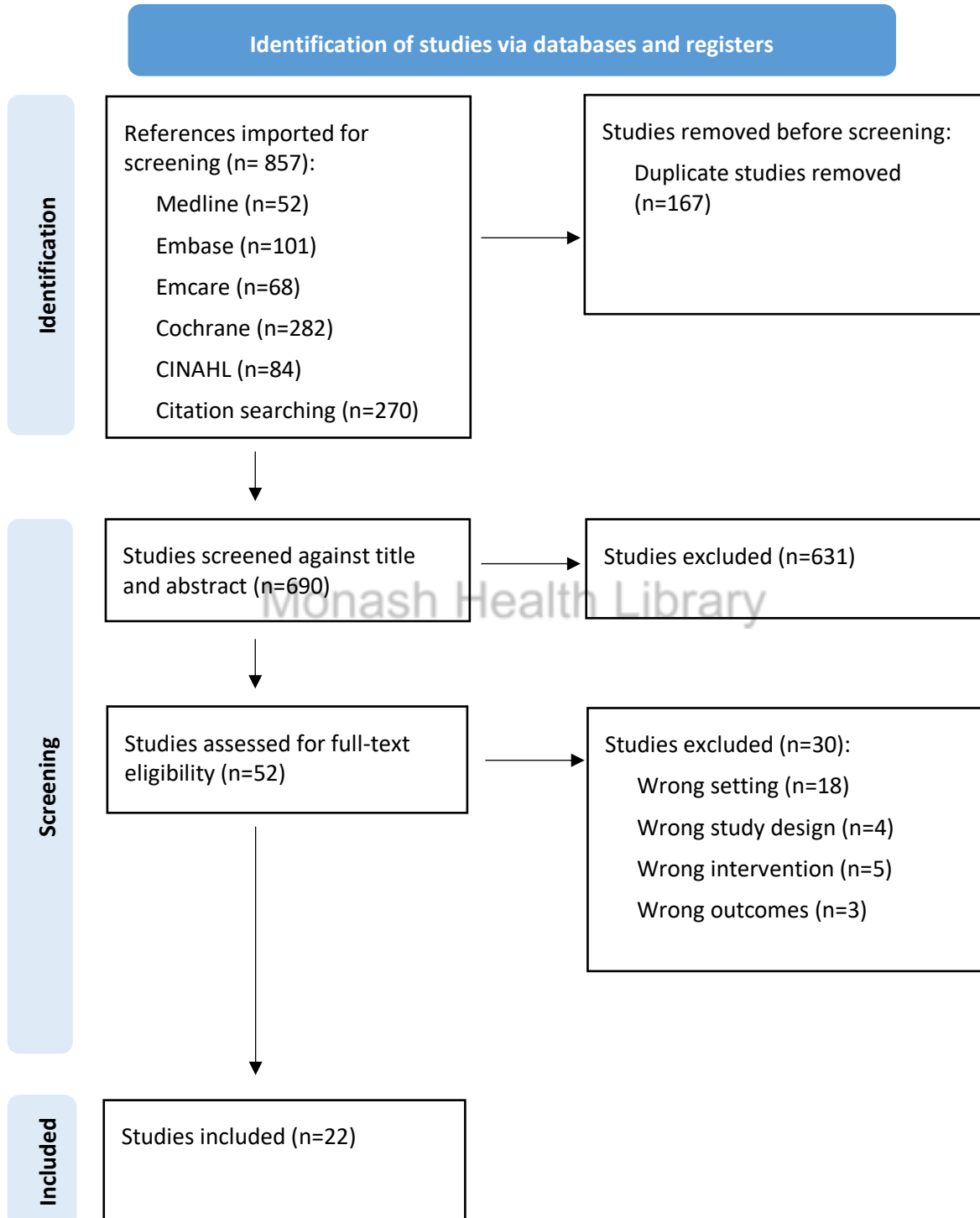
MEDLINE SEARCH STRATEGY

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1	Nurse Practitioner*.tw,kf.	15459
2	exp Nurse Practitioners/	19584
3	1 or 2	26640
4	((Emergency or casualty) adj2 (medicine or medical or service* or department* or ward* or unit* or room* or health service* or healthcare or health care or personnel or nurs* or center* or centre* or team*)).tw,kf.	220846
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6	((accident adj3 emergency) or ("A&E" or "A & E")).tw,kf.	51713
7	Emergency Service, Hospital/ or Trauma Centers/ or Emergency Medical Services/ or Advanced Trauma Life Support Care/ or Emergency Nursing/ or Emergency Ward/	155919
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