

# The impact of prone positioning on the incidence of pressure injuries in adult intensive care unit patients: A meta-review of systematic reviews

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## 1. Introduction

- Although clearly advantageous for oxygenation, a high frequency of pressure injuries (PIs) has been reported in patients with ARDS nursed in the prone position for 16 hours.
- Numerous systematic reviews have examined the impact of prone positioning on outcomes, including PI.
- The objective of this meta-review was to synthesise the evidence on the effect of prone positioning on the incidence and location of PIs in adult intensive care unit patients.

## 2. Review Question

- What is the effect of prone positioning on the incidence and prevalence of PIs in adult ICU patients?

## 3. Methods

- We used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines to guide the conduct and reporting of the meta-review.
- Five databases were searched; data were extracted by three authors and adjudicated by a fourth.
- The AMSTAR-2 tool was used to quality appraise the selected articles.

## 4. Results

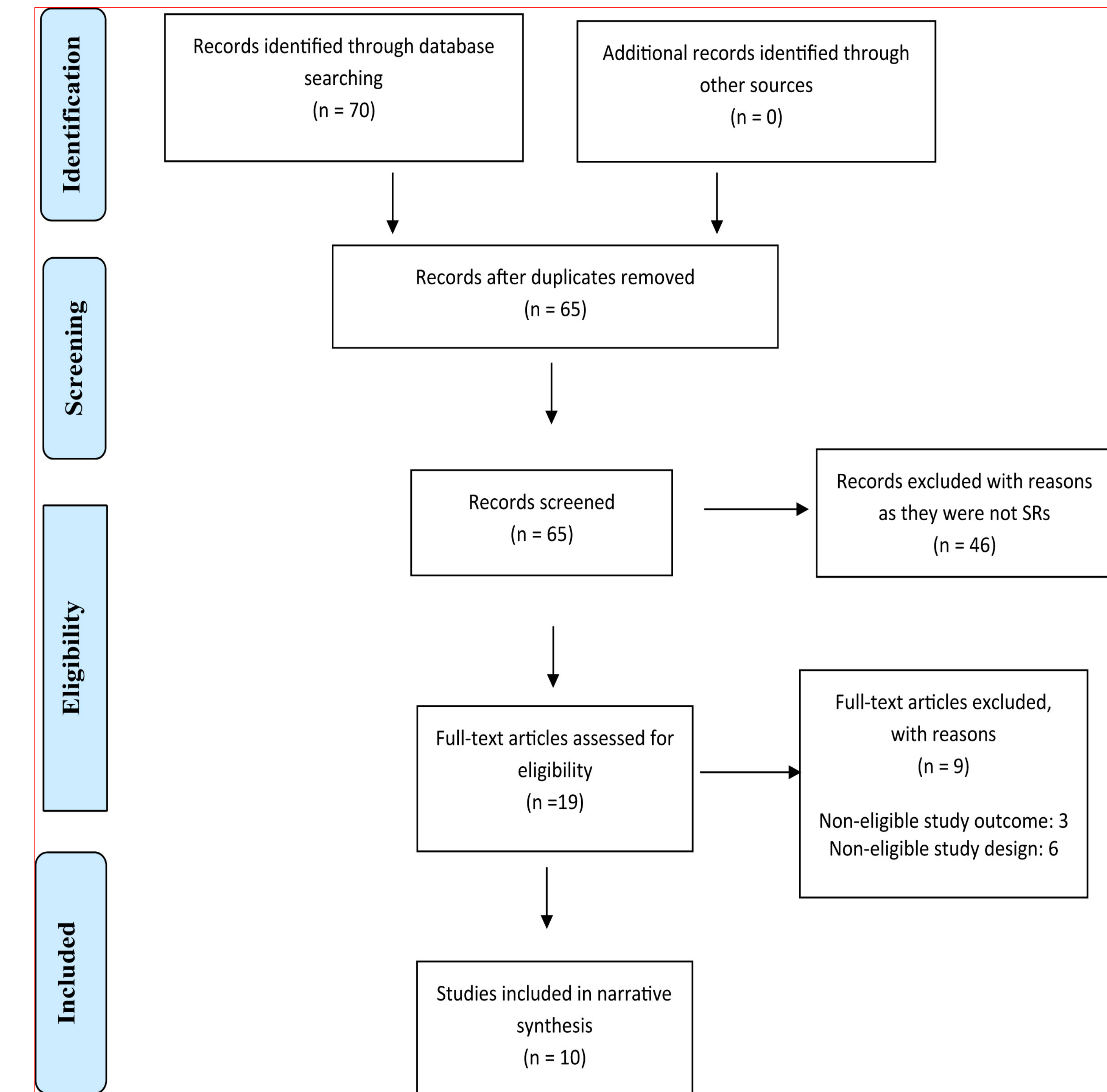
- Ten systematic reviews met the inclusion criteria.
- Three reviews were assessed as high quality, six as moderate quality, and one as low quality.
- From participants enrolled (N = 15,979) in the review studies, the cumulative incidence of prone position PI ranged from 25.7% to 48.5%.

## Key Messages

**26% to 49% of adult ICU patients placed in the prone position develop a PI, irrespective of the duration of proning.**

**We must regularly assess ICU patients' skin and PI risk when they are in the prone position & proactively implement PI prevention strategies.**

## PRISMA Flow Chart



## Reference

Patton D, Latimer S, Avsar P, Walker RM, Moore Z, Gillespie BM, O'Connor T, Nugent L, Budri A, Brien NO, Chaboyer W. The effect of prone positioning on pressure injury incidence in adult intensive care unit patients: A meta-review of systematic reviews. *Aust Crit Care.* 2021 Dec 13:S1036-7314(21)00161-2. doi: 10.1016/j.aucc.2021.10.003. Epub ahead of print. PMID: 34916149.