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OBJECTIVE:

To examine the efficacy of POCUS technique for the placement arterial and venous central catheters in Emergency Department and Critical Care.

METHODS:

A literature review was performed. The database used were: PubMed, Scopus and CINAHL. The search was conducted from January to February 2025. Ten studies were selected and analyzed. These studies were conducted from 2022-2024 in ED in a population of adults from 18-100 years

STUDY SELECTION PROCESS

The study selection process was carried out in:

- first phase** involved an initial selection according to title and abstract, excluding those articles that were not available in English and studies not related to the study topic.
- second phase** involved a more exhaustive analysis of the complete texts of the studies selected in the previous phase, with the selection of those that fulfilled the established inclusion criteria.

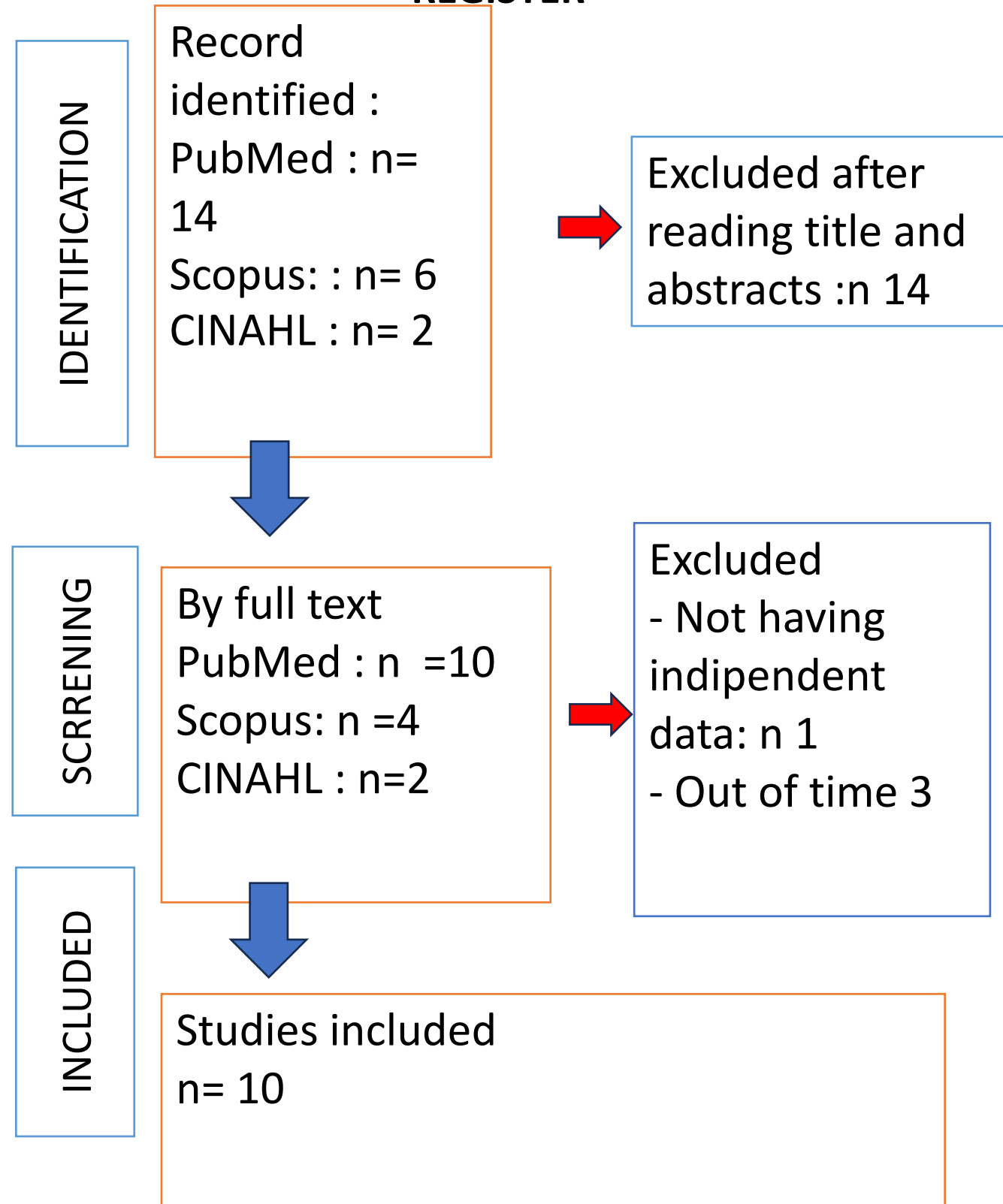
SUCCESSION RATE :

In the most of text the success reached above 85%. Four of ten articles examined the success rate in the first attempt of US central cannulation. Ten of ten studies showed the complication associated with the moment of puncture . The incidence of complications has highly variable incidence rates from 0-30%.

CONCLUSIONS:

In ED the POCUS guided incannulation of central access increased both of possibility of general success and satisfaction of patients . Especially this technique shows a lower rates of complications than the traditional technique without ultrasound guide.

IDENTIFICATION OF STUDIES IN DATABASE AND REGISTER



DISCUSSION:

The aim of this review was to show the efficacy of US-guided central cannulation carried out in ED. The higher success rate, lower pain, lower complication were showed in most of studies. This review contains some limitations, first of all , most of observational studies have a low evidence level, in addition to being carried out in different countries, with different health system and different traing profiles. Another limitation was the variability of cannulized patients in relation to the considerable heterogeneity and the difficult accesses

Affiliazioni

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