

Systematic

Review

Artificial

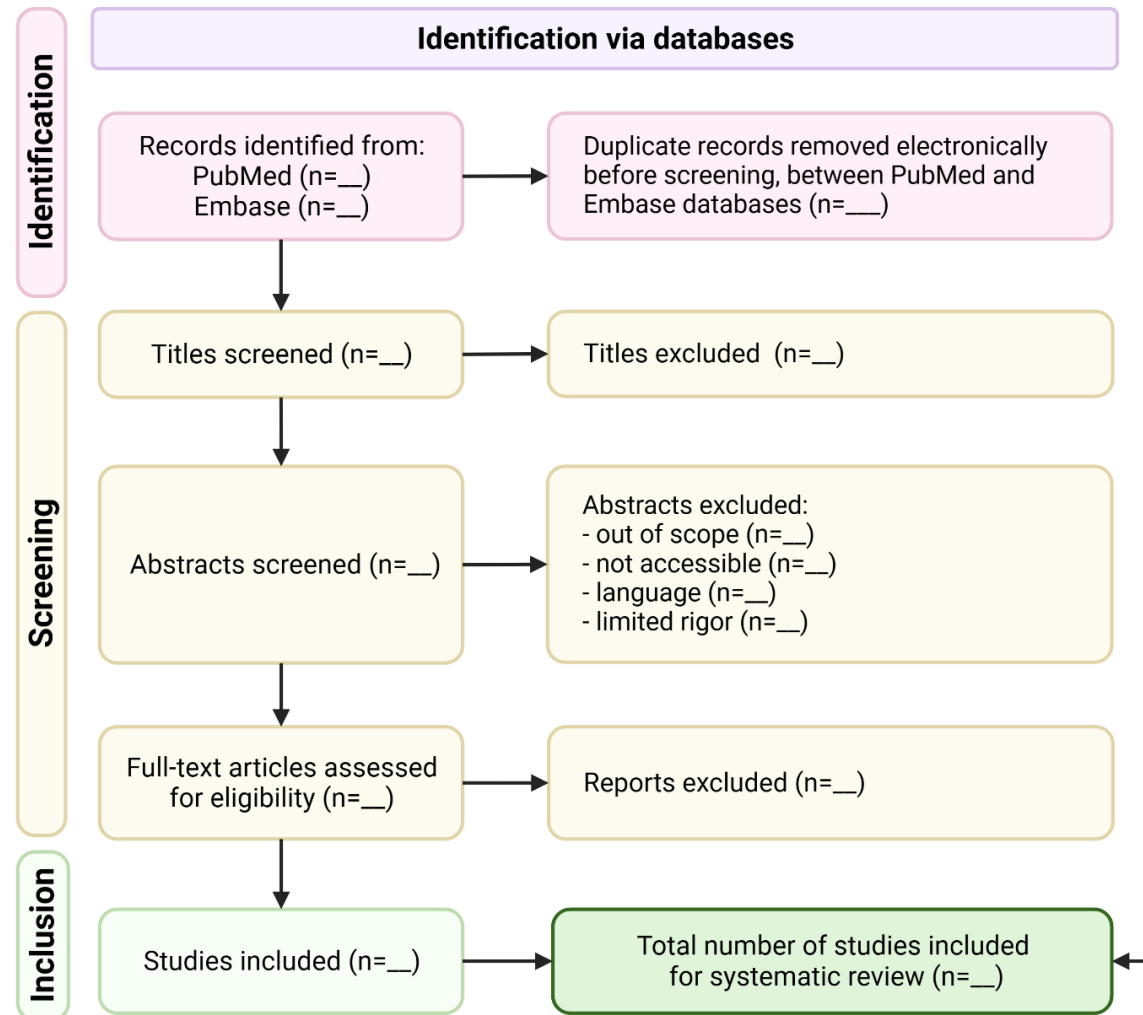
Intelligence

C&B

Department of Clinical
Epidemiology and Biostatistics



PRISMA flow diagram



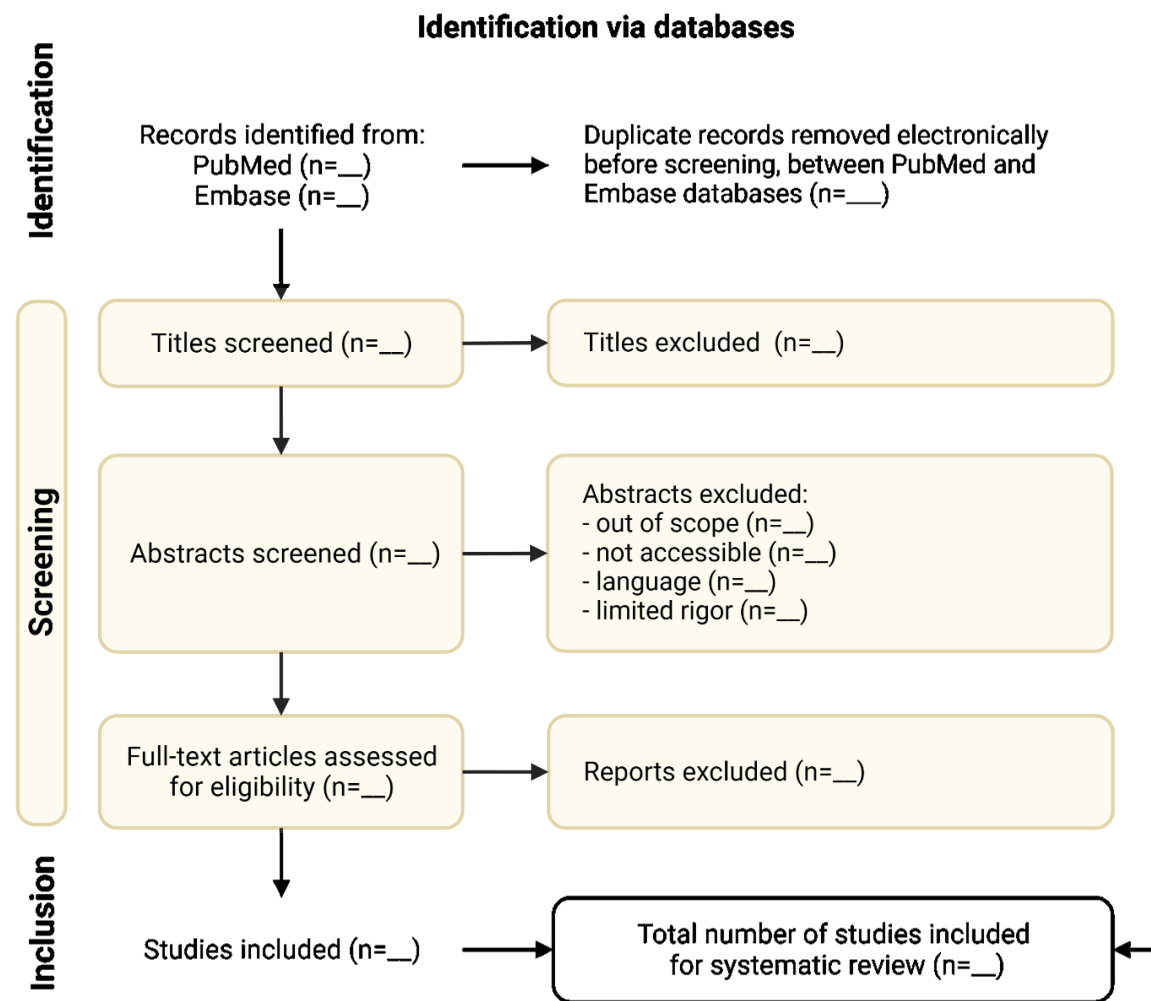
Identification : Searching with search term and deduplicating

Screening : by title and abstract

Eligibility : Full-Text Assessment

Inclusion : Finalize PRISMA flow

PRISMA flow diagram

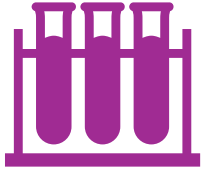


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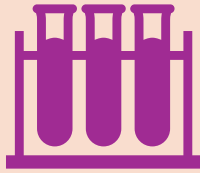
Test Prompt



Abstract Screening



Full-Text Screening



Test Prompt

Topic: Mesh position for hernia prophylaxis after midline laparotomy: A systematic review and network meta-analysis of randomized clinical trials



Abstract Screening

P (Population)

Adults who underwent abdominal surgery with midline incision (includes (emergent) midline laparotomy), NOT secondary abdominal fascia closure or laparoscopic incisions.

I&C (Intervention & Comparator)

Comparisons of any pair of mesh techniques (which are but not limited to 1. Onlay mesh 2. Retrorectus mesh 3. Preperitoneal mesh, 4 Intraperitoneal mesh), or between any mesh techniques and primary suture closures (or no mesh); ****EXCLUDE**** comparison between primary suture closures.

O (Outcome)

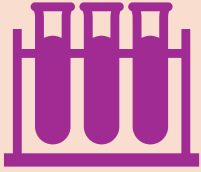
Include at least one of the primary (incisional hernia that is only occurred at incision wound, ****EXCLUDE**** ostomy wound, such as parastomal, obturator hernia) or secondary outcomes (wound infection, seroma, hematoma, dehiscence, acute postoperative pain, chronic pain, abdominal closure time, and mesh removal rate)

S (Study Design)

Randomized controlled trial



Full-Text Screening



Test Prompt

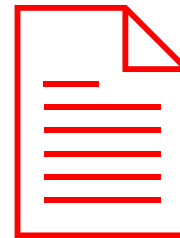
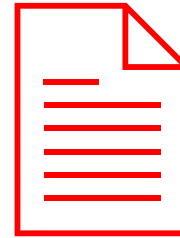
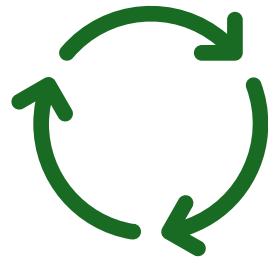
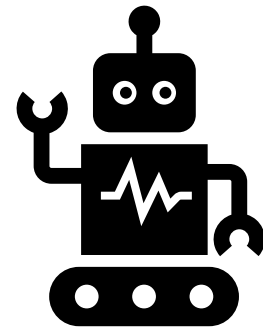


Abstract Screening

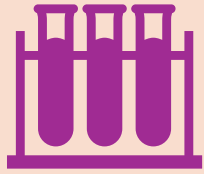


Full-Text Screening

P
I
C
O



Select known 2-3
included papers
and 2-3 excluded
paper



Test Prompt



Abstract Screening



Full-Text Screening

From

{PICO}

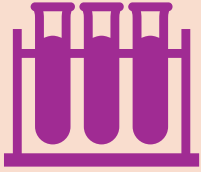
Read this paper

{Title}

{Abstract}

And judge this title abstract match
with P I C O above with reason in
sequence.

P	I&C	O	S	LLM
TRUE	TRUE	TRUE	TRUE	Include
TRUE	FALSE	TRUE	TRUE	Exclude



Test Prompt



Abstract Screening



Full-Text Screening

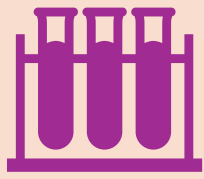
Detailed Screening Results

Paper Title	P	I&C	O	S	LLM	Truth	Type
AI-Driven Innovations for Early Sepsis Detection by Combining Predictive Accuracy With Blood Count Analysis in an Emergency Setting: Retrospective Study	TRUE	TRUE	TRUE	TRUE	Include	Exclude	FP
AI-Enabled Public Surveillance Cameras for Rapid Emergency Medical Service Activation in Out-of-Hospital Cardiac Arrests	TRUE	TRUE	TRUE	TRUE	Include	Include	TP
Anti-Amyloid Therapies for Alzheimer's Disease and Amyloid-Related Imaging Abnormalities: Implications for the Emergency Medicine Clinician	TRUE	FALSE	TRUE	TRUE	Exclude	Exclude	TN
Applications of Artificial Intelligence in Out-of-Hospital Cardiac Arrest: A Systematic Review	TRUE	TRUE	TRUE	TRUE	Include	Include	TP

Confusion Matrix

	Actual Condition	
	Include	Exclude
	TP: 2	FP: 1
Predicted	FN: 0	TN: 1

[Abstract](#)



Test Prompt



Abstract Screening



Full-Text Screening

Detailed Screening Results

Paper Title	P	I&C	O	S	LLM	Truth	Type	Details
AI-Driven Innovations for Early Sepsis Detection by Combining Predictive Accuracy With Blood Count Analysis in an Emergency Setting: Retrospective Study	TRUE	TRUE	TRUE	TRUE	Include	Exclude	FP	Reasons Abstract

Final reason : All PICOS criteria (Population, Intervention & Comparator, Outcome, and Study Design) are met or potentially met based on the abstract, aligning with the inclusion criteria for the systematic review.

P: Reason: The study population consists of patients in an ICU setting and outpatients, which aligns with the broad "patient" criterion.

Intermediate Answer (Population described?):

The study population includes ICU patients with suspected pneumonia-induced sepsis and stable outpatients as controls. It also mentions vulnerable populations like older adults, ICU patients, and those with compromised immune systems.

Intermediate Answer (Matches criteria?):

Yes, this population matches the P criterion of "Emergency medical services or patient" as it clearly involves patients in a critical care setting and outpatients.

I&C: Reason: The study clearly describes the use of AI and machine learning models as the intervention.

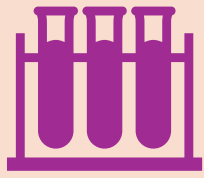
Intermediate Answer (I&C described?):

The intervention is an AI-clinical decision support system (AI-CDSS) that uses machine learning models and complete blood count with differential (CBC+DIFF) data for early sepsis detection. While a specific comparator group is not explicitly detailed as a separate intervention, the models are assessed for predictive accuracy, implying a comparison against existing diagnostic capabilities or outcomes.

Intermediate Answer (Match criteria?):

Confusion Matrix

		Actual Condition	
		Include	Exclude
Predicted	Include	TP: 2	FP: 1
	Exclude	FN: 0	TN: 1



Test Prompt



Abstract Screening



Full-Text Screening

Detailed Screening Results

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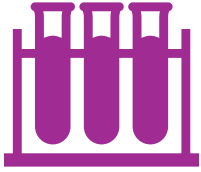
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Intermediate Answer (Match criteria?):

Confusion Matrix

	Actual Condition	
	Include	Exclude
Predicted	TP: 2	FP: 1
	FN: 0	TN: 1



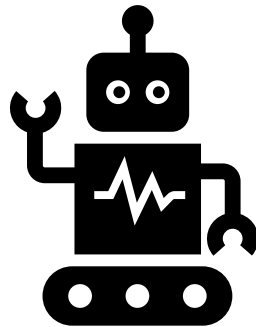
Test Prompt



Abstract Screening



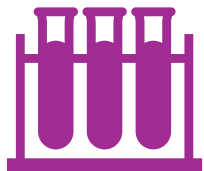
Full-Text Screening



Exclude

Include





Test Prompt



Abstract Screening



Full-Text Screening

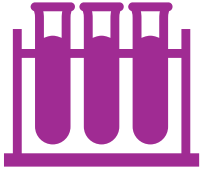
Filter by Text

Filter by Decision

[All \(60\)](#)[Included \(26\)](#)[Excluded \(34\)](#)[Export Filtered as CSV](#)

Displaying 1-20 of 60 results for this screening run.

Title / Author	P	I&C	O	S	Final Decision	Details
AI-Driven Diagnostic Assistance in Medical Inquiry: Reinforcement Learning Algorithm Development and Validation X. Zou; W. He; Y. Huang; Y. Ouyang; Z. Zhang; Y. Wu; Y. Wu; L. Feng; S. Wu; M. Yang; X. Chen; Y. Zheng; R. Jiang; T. Chen (2024)	T	T	F	T	Exclude	Reasons Abstract
AI-Driven Innovations for Early Sepsis Detection by Combining Predictive Accuracy With Blood Count Analysis in an Emergency Setting: Retrospective Study T. H. Lin; H. Y. Chung; M. J. Jian; C. K. Chang; H. H. Lin; C. T. Yen; S. H. Tang; P. C. Pan; C. L. Perng; F. Y. Chang; C. W. Chen; H. S. Shang (2025)	T	T	T	T	Include	Reasons Abstract
AI-driven triage in emergency departments: A review of benefits, challenges, and future directions A. D. G. et al. (2025)	T	T	T	F	Exclude	Reasons Abstract



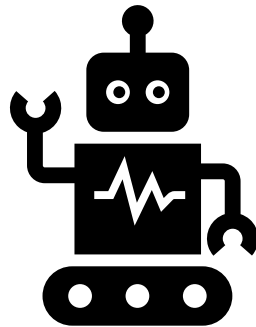
Test Prompt



Abstract Screening

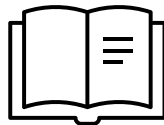
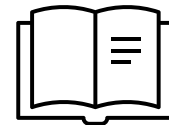
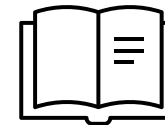
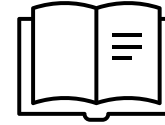
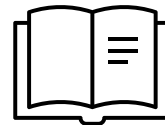
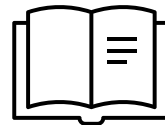
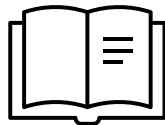


Full-Text Screening



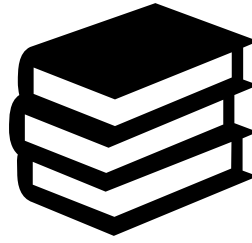
Exclude

Include



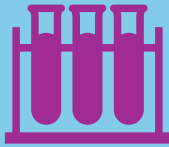


Search term



Candidate papers

2-3 known included papers
2-3 known excluded papers



Test Prompt

Test prompt with few selected paper (known included paper and known excluded paper)

ALL candidate papers



Abstract Screening

Apply revised prompt to all papers (use title and abstract)

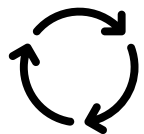


Full-Text Screening

Apply revised prompt to all papers (Full-text) which was selected from abstract screening part

Final exclude papers

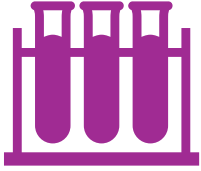
Final include papers



Best revised prompt

Exclude papers

Include papers



Test Prompt

Test prompt with few selected paper (known included paper and known excluded paper)



Abstract Screening

Apply revised prompt to all papers (use title and abstract)



Full-Text Screening

Apply revised prompt to all papers (Full-text) which was selected from abstract screening part