

Supplementary appendix

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1. SEARCH STRATEGIES FOR EACH DATABASE

Ovid MEDLINE

1	exp Infant, Newborn/
2	(neonat* or newborn* or new born* or baby or babies or premature or preterm or infant* or low birth weight or LBW or VLBW or ELBW or NICU*).ti,ab,kw.
3	1 or 2
4	exp Sepsis/
5	(sepsis or septic* or bacter?emia).ti,ab,kw.
6	4 or 5
7	Decision Support Techniques/ or Neonatal Screening/
8	((predict* or diagnos* or screen* or identif* or manag*) adj5 (model* or rule* or scor* or tool* or algorithm* or decision tree* or pathway* or calculator*)).ti,ab,kw.
9	7 or 8
10	3 and 6 and 9

Ovid Embase

1	newborn/
2	(neonat* or newborn* or new born* or baby or babies or premature or preterm or infant* or low birth weight or LBW or VLBW or ELBW or NICU*).ti,ab,kw.
3	1 or 2
4	exp sepsis/
5	(sepsis or septic* or bacter?emia).ti,ab,kw.
6	4 or 5
7	exp decision support system/ or newborn screening/
8	((predict* or diagnos* or screen* or identif* or manag*) adj5 (model* or rule* or scor* or tool* or algorithm* or decision tree* or pathway* or calculator*)).ti,ab,kw.
9	7 or 8
10	3 and 6 and 9

Scopus

TITLE-ABS-KEY((neonat* OR newborn* OR "new born*" OR baby OR babies OR premature OR preterm OR infant* OR "low birth weight" OR lbw OR vlbw OR elbw OR nicu*) AND (sepsis OR septic* OR bacter?emia) AND ((predict* OR diagnos* OR screen* OR identif* OR manag*) W/5 (model* OR rule* OR scor* OR tool* OR algorithm* OR "decision tree*" OR pathway* OR calculator*)))

Web of Science

TS=((neonat* OR newborn* OR "new born*" OR baby OR babies OR premature OR preterm OR infant* OR "low birth weight" OR lbw OR vlbw OR elbw OR nicu*) AND (sepsis OR septic* OR bacter?emia) AND ((predict* OR diagnos* OR screen* OR identif* OR manag*) NEAR/5 (model* OR rule* OR scor* OR tool* OR algorithm* OR "decision tree*" OR pathway* OR calculator*)))

Globus Index Medicus

((mh:("Infant, Newborn")) OR (tw:(neonat* OR newborn* OR "new born*" OR baby OR babies OR premature OR preterm OR infant* OR "low birth weight" OR lbw OR vlbw OR elbw OR nicu*))) AND ((mh:("Sepsis")) OR (tw:(sepsis OR septic* OR bacter*emia))) AND ((mh:("Decision Support Systems, Clinical" OR "Neonatal Screening")) OR (tw:(model* OR rule* OR scor* OR tool* OR algorithm* OR "decision tree*" OR pathway* OR calculator*)))

Cochrane Library

1	MeSH descriptor: [Infant, Newborn] explode all trees
2	(neonat* or newborn* or "new born*" or baby or babies or premature or preterm or infant* or "low birth weight" or LBW or VLBW or ELBW or NICU*):ti,ab,kw
3	#1 or #2
4	MeSH descriptor: [Sepsis] explode all trees
5	(sepsis or septic* or bacter*emia):ti,ab,kw
6	#4 or #5
7	MeSH descriptor: [Decision Support Systems, Clinical] explode all trees
8	MeSH descriptor: [Neonatal Screening] explode all trees
9	((predict* or diagnos* or screen* or identif* or manag* or estimat*) NEAR/5 (model* or rule* or scor* or tool* or algorithm* or "decision tree*" or pathway* or calculator*)):ti,ab,kw
10	#7 or #8 or #9
11	#3 and #6 and #10

2. DRAFT DATA EXTRACTION FORM

Study Details and Characteristics		
Study ID (Author, year)		
Source of data (e.g. RCT)		
Country		
Context (e.g. NICU)		
Participants	Number	
	Characteristics	
Objectives		
Study Results		
Name of prediction model		
Type of model		
Outcome definition		
Predictors used	Symptoms and signs	
	Risk factors	
	Laboratory tests	
Underlying evidence	Model performance (e.g. specificity and sensitivity)	
	Acceptability	
	Mortality	
	Antibiotic prescriptions	
	Other evidence	