Supplementary material

**APPENDIX**

**Appendix 1**. Search terms

|  |
| --- |
| OVID (Medline and EMBASE)  |
| Clinical decision support systems  |
| 1. Clinical? decision? support? systems\*
 |
| 1. Algor#thm
 |
| 1. Diagnos\*
 |
| 1. Diagnos\* adj(accuracy or differential\* or decision\* or tool\*)
 |
| 1. Predict\*
 |
| 1. Clinical? adj(pathway? or tool? or decision?)
 |
| 1. Triage.mp
 |
|  |
| Pre-Hospital  |
| 1. Pre-hospital\*
 |
| 1. Pre?hospital\*
 |
| 1. Emergency care.mp
 |
| 1. Point of care test\*
 |
| 1. Point-of-care systems/
 |
| 1. Early?diagnosis.mp
 |
| 1. Out?of?hospital\*
 |
| 1. Emergency Medical Services/
 |
|  |
| Myocardial infarction  |
| 1. exp.Acute coronary syndrome\*
 |
| 1. acs.mp
 |
| 1. coronary adj(event\* or disease\* or arter\*)
 |
| 1. myocard\* infarct\*
 |
| 1. myocard\* isch?emia.mp
 |
| 1. STEMI.mp
 |
| 1. ST elevation adj(acute coro\* syndrome or myocard\* infarc\*)
 |
| 1. NSTEMI.mp
 |
| 1. Non-ST elevation adj(acute coro\* syndrome or myocard\* infarc\*)
 |
| 1. Steacs.mp
 |
| 1. Nsteacs.mp
 |
| 1. Heart adj(attack or pain or arrest)
 |
| 1. Heart arrest\*
 |
| 1. Chest pain.mp
 |
| 1. Unstable angina.mp
 |
| 1. UA.mp
 |
| 1. Cardiac\*
 |
| 1. Ischaem\*
 |

|  |
| --- |
| Web of Science search terms  |
|  |
| 1. TS=(“acute coronary syndrome\*” OR “acs” OR “coronary adj(event\* OR disease\* OR arter\*)” OR “myocard\* infarct\*” OR “myocard\* isch?emia” OR “STEMI” OR “STEACS” OR “ST elevation adj(acute coro\* syndrome OR myocard\* infarc\*)” OR “NSTEMI” OR “Non-ST elevation adj(acute coro\* syndrome OR myocard\* infarc\*)” OR “NSTEACS” OR “heart attack”)
 |
| AND  |
| 1. TS=(“Clinical? decision? support? systems\*” OR “Algor$thm” OR “Diagnos\* adj(accuracy OR differential\* OR decision\* OR tool\*)” OR “Predict\* adj(tool? OR pathway?)” OR “Clinical? adj(pathway? OR tool? or decision?))”
 |
| AND  |
| 1. TS=(“Pre-hospital\*” OR “Pre?hospital\*” OR “Emergency care” OR “Point of care test\*” OR “Point-of-care systems/” OR “Early?diagnosis” OR “Out?of?hospital\*” OR “Emergency Medical Services/”)
 |
|  |
| REFINE: English language, WEB of Science Core Collection, Research areas ( CARDIOVASCULAR SYSTEMS CARDIOLOGY, HEALTH CARE SCIENCES SERVICES, EMERGENCY MEDICINE, GENERAL INTERNAL MEDICINE, CRITICAL CARE MEDICINE, AUTOMATION CONTROL SYSTEMS)  |

|  |
| --- |
|  CINAHL Search terms  |
|  |
| Myocardial Infarction |
| 1. TX Acute coronary syndrome\*
 |
| 1. TX acs
 |
| 1. TX coronary N1 event\* or disease\* or arter\*
 |
| 1. TX myocard\* infarct\*
 |
| 1. TX myocard\* isch?emia
 |
| 1. TX stemi
 |
| 1. TX st elevation N1 acute coro\* syndrome or myocard\* infarc\*
 |
| 1. TX nstemi
 |
| 1. TX non st elevation N1 acute coro\* syndrome or myocard\* infarc\*
 |
| 1. TX steacs
 |
| 1. TX nsteacs
 |
| 1. TX Heart N1 attack or pain
 |
| 1. TX Chest pain
 |
| 1. TX Cardiac\*
 |
| 1. TX Isch#em\*
 |
|  |
| Pre-hospital  |
| 1. TX Prehospital\*
 |
| 1. TX Pre#hospital\*
 |
| 1. TX Emergency#care
 |
| 1. MH point-of-care Testing
 |
| 1. TX Early$diagnosis
 |
| 1. TX Out$of$hospital\*
 |
| 1. MH Emergency Medical Services
 |
|  |
| Clinical decision support systems  |
| 1. MH Decision Support Systems, Clinical
 |
| 1. MH Algorithms
 |
| 1. Algor#thm
 |
| 1. TX Diagnos\* w1 accuracy or differential\* or decision\* or tool\*
 |
| 1. TX Predict\* n1 tool\* OR pathway\*
 |
| 1. TX Clinical? n1 pathway\* or tool\* or decision\*
 |

|  |
| --- |
| Cochrane Search Terms  |
|  |
| Myocardial Infarction |
| 1. “Acute (coronary or cardiac) syndrome?”
 |
| 1. “Acs”
 |
| 1. “coronary NEAR(event? or disease? or arter\*)”
 |
| 1. “myocard\* infarct\*”
 |
| 1. “myocard\* isch\*emia”
 |
| 1. “stemi”
 |
| 1. “st elevation NEAR (acute coro\* syndrome or myocard\* infarc\*)”
 |
| 1. “Nstemi”
 |
| 1. “Non st elevation NEAR(acute coro\* syndrome? or myocard\* infarc\*)”
 |
| 1. “Steacs”
 |
| 1. “Nsteacs”
 |
| 1. “Heart NEAR(attack or pain)”
 |
| 1. “Chest pain”
 |
| 1. “Cardiac\*”
 |
| 1. “Ischaem\* heart disease\*”
 |
|  |
| Pre-Hospital  |
| 1. “Pre-hospital\*”
 |
| 1. “Emergency care”
 |
| 1. “Point of care test\*”
 |
| 1. “Point-of-care system?”
 |
| 1. “Early diagnosi\*”
 |
| 1. “Out of hospital”
 |
| 1. “Emergency Medical Services”
 |
|  |
| Clinical decision support systems  |
| 1. “Clinical decision support systems?”
 |
| 1. “Computeri?ed decision support systems?”
 |
| 1. “Algor\*thm”
 |
| 1. “Diagnos\*”
 |
| 1. “Diagnos\* NEAR(accuracy or differential\* or decision\* or tool\*)”
 |
| 1. “Predict\*”
 |
| 1. “Predict \* NEAR (pathway? or tool? or decision?)”
 |
| 1. “Clinical? NEAR (pathway? or tool? or decision?)”
 |
| 1. “Triage”
 |

**Appendix 2.**

|  |
| --- |
| Data Extraction form template.  |
| 1. Study number
 |
| 1. Date of extraction
 |
| 1. Extractor name
 |
| 1. Title
 |
| 1. First Author
 |
| 1. Publication type
 |
| 1. Study type
 |
| 1. Language
 |
| 1. Study Year
 |
| 1. Location
 |
| 1. Setting
 |
| 1. Funding
 |
| 1. Participant location
 |
| 1. Study length
 |
| 1. Age greater than 18?
 |
| 1. Pre-hospital?
 |
| 1. Clinical decision support systems involved Examination/Vital signs?
 |
| 1. Clinical decision support systems involved Biomarkers?
 |
| 1. Clinical decision support systems involved ECG
 |
| 1. Clinical decision support systems involved patient history
 |
| 1. Name of clinical decision support systems involved
 |
| 1. Decision maker (GP/Paramedic/Computer etc.)
 |
| 1. Myocardial infarction definition
 |
| 1. Type of ACS examined (e.g. STEMI/NSTEMI/all ACS)
 |
| 1. Enrolment period
 |
| 1. Sampling Method
 |
| 1. Length of time for outcome study
 |
| 1. Number of Participants
 |
| 1. Number lost to follow-up
 |
| 1. Mean age
 |
| 1. Gender percentage
 |
| 1. Outcome 1 type
 |
| 1. Outcome 1 percentage
 |
| 1. Outcome 1 number
 |
| 1. Outcome 2 type
 |
| 1. Outcome 2 percentage
 |
| 1. Outcome 2 number
 |
| 1. Independent predictors
 |
| 1. Sensitivity
 |
| 1. Specificity
 |
| 1. Positive Predictive Value
 |
| 1. Negative predictive Value
 |
| 1. c-Statistic
 |
| 1. Validation?
 |
| 1. Notes
 |
| 1. Quality of Evidence (QUADAS)
 |
| 1. Include in study?
 |
| 1. Reasoning if not
 |