

Appendix 2. Search Strategy

FILTERS: LAST 10 YEARS

PUBMED

Input

"Monitoring, Physiologic"[Mesh] OR "Vital Signs"[Mesh] OR monitoring [tiab] OR real-time[tiab] OR vital [tiab] OR vitals[tiab]

Outcome

"Clinical Deterioration"[Mesh] OR "Heart Arrest"[Mesh:NoExp] OR "Resuscitation"[Mesh] OR Sepsis [Mesh] OR Shock[mesh] OR Cardiac arrest[tiab] OR Cardiopulmonary Arrest[tiab] OR Deteriorat*[tiab] OR Heart arrest[tiab] OR medical emergency team*[tiab] OR organ failure[tiab] OR rapid response system* OR rapid response team*[tiab] OR resuscitation[tiab] OR shock [tiab] OR sepsis [tiab] OR (transfer*[tiab] AND (Higher level of care[tiab] OR ICU[tiab] OR intensive care[tiab]))

Method

Algorithms[MeSH] OR Decision Support Systems, Clinical [Mesh]OR "Models, Statistical"[Mesh] OR Regression analysis[MeSH] OR AI[tiab] OR Algorithm*[tiab] OR Artificial Intelligence[tiab] OR Decision Support System[tiab] OR decision tree*[tiab] OR Deep learning[tiab] OR Fuzzy logic* [tiab] OR Machine learning[tiab] OR Predictive analy*[tiab] OR Neural network*[tiab] OR Random forest*[tiab] OR Regression[tiab] OR Vector machine*[tiab]

Predicting

Forecasting [Mesh] OR Forecast*[tiab] OR Predict*[tiab] OR Prevent*[tiab]

Population

Hospital* [tiab] OR ward* [tiab] OR ICU* [tiab] OR intensive care [tiab] OR department [tiab] OR "emergency department" [tiab] OR "emergency room" [tiab] OR ER [tiab] OR "inpatient" [tiab] OR "admitted" [tiab]

EMBASE

Input

blood glucose monitoring/ OR blood pressure monitoring/ OR body temperature monitoring/ OR electrocardiography monitoring/ OR exp hemodynamic monitoring/ OR patient monitoring/ OR physiologic monitoring/ OR vital sign/ OR (vital OR vitals OR real time).ti,ab,kw

Outcome

(cardiac arrest* or cardiopulmonary arrest* or deteriorat* or medical emergency team* or rapid response team* or rapid response system* or heart arrest* or intensive care* or icu* or higher level of care* or resuscitation*).ti,ab,kw.

(cardiac arrest* or cardiopulmonary arrest* or deteriorat* or medical emergency team* or rapid response team* or rapid response system* or heart arrest* or intensive care* or icu* or higher level of care* or resuscitation*).ti,ab,kw.capillary leak syndrome/ OR cardiogenic shock/ OR hemorrhagic shock/ OR hypovolemic shock/ OR exp multiple organ failure/ OR exp sepsis/ OR septic shock/ OR shock/ OR toxic shock syndrome/ OR (cardiac arrest* OR cardiopulmonary arrest* OR deteriorat* OR medical emergency team* OR rapid response team* OR rapid response system* OR heart arrest OR intensive care OR icu OR higher level of care deterioration/ OR heart arrest/ OR rapid response team/ OR resuscitation/ OR resuscitation).ti,ab,kw

(capillary leak syndrome/ OR cardiogenic shock/ OR hemorrhagic shock/ OR hypovolemic shock/ OR exp multiple organ failure/ OR exp sepsis/ OR septic shock/ OR shock/ OR toxic shock syndrome/ OR OR deterioration/ OR heart arrest/ OR rapid response team/ OR resuscitation/).ti,ab,kw

(cardiac arrest* OR cardiopulmonary arrest* OR deteriorat* OR medical emergency team* OR rapid response team* OR rapid response system* OR heart arrest* OR intensive care* OR icu* OR higher level of care* OR resuscitation*).ti,ab,kw

Method

exp algorithm/ OR exp artificial intelligence/ OR computer model/ OR decision tree/ OR decision support system/OR exp machine learning/ OR exp regression analysis/ OR exp statistical model/ OR computer prediction/ OR (Algorithm* OR Artificial Intelligence OR Deep learning OR Fuzzy logic* OR AI OR machine learning OR neural network* OR random forest* OR regression OR vector machine OR decision tree OR decision support system).ti,ab,kw

Prediction

"prediction and forecasting"/ OR forecasting/ OR prediction/ OR (Predict* OR forecast*).ti,ab,kw.

Population

(hospital* OR ward* OR icu* OR intensive care OR department OR emergency department OR emergency room OR er OR inpatient OR admitted).ti,ab,kw

CINAHL

Input

(MH "Vital Signs+" OR MH "Monitoring, Physiologic" OR MH "Electrocardiography+" OR MH "Telemetry") OR (TI (Vital OR vitals OR monitoring OR real-time) OR AB (Vital OR vitals OR monitoring OR real-time)

Outcome

(MH "Heart Arrest+" OR MH "Resuscitation+" OR MH "Multiple Organ Dysfunction Syndrome+" OR MH "Sepsis+") OR TI (Cardiac arrest OR Cardiopulmonary Arrest OR Deteriorat* OR Heart arrest OR medical emergency team* OR organ failure OR resuscitation OR rapid response team* OR rapid response system* OR sepsis OR (transfer* AND (ICU OR intensive care OR higher level of care))) OR AB (resuscitation OR Deteriorat* OR rapid response team* OR medical emergency team* OR rapid response system* OR Cardiac arrest OR Heart arrest OR Cardiopulmonary Arrest OR organ failure OR sepsis OR (transfer* AND (ICU OR intensive care OR higher level of care)))

Method

(MH "Artificial Intelligence+" OR MH "Regression+" OR MH "Linear Regression+" OR MH "Logistic Regression+" OR MH "Multiple Regression+" OR MH "Models, Statistical" OR MH "Decision Support Systems, Clinical" OR MH "Algorithms") OR TI (Deep learning OR Fuzzy logic* OR Machine learning OR Neural network* OR Random forest* OR decision tree* OR Regression OR Vector machine* OR Predictive analy* OR Decision Support System) OR AB (Deep learning OR Fuzzy logic* OR Machine learning OR Neural network* OR Random forest* OR decision tree* OR Regression OR Vector machine* OR Predictive analy* OR Decision Support System)

Prediction

TI (Predict* OR Forecast* OR Prevent*) OR AB (Predict* OR Forecast* OR Prevent*)

Population

TI(hospital* OR ward* OR icu* OR intensive care OR department OR emergency department OR emergency room OR er OR inpatient OR admitted) OR AB(hospital* OR ward* OR icu* OR intensive care OR department OR emergency department OR emergency room OR er OR inpatient OR admitted)