

Supplement A: Search Terms

PubMed

(delirium[tiab] OR "Delirium"[Mesh] OR "ICU syndrome"[tiab] OR "Acute Brain Dysfunction"[tiab] OR "acute confusion"[tiab] OR CAM[tiab] OR "Confusion assessment method"[tiab] OR psychosis[tiab] OR "mental impairment"[tiab])

AND

(ICU OR "intensive care*" OR "Intensive Care Units"[Mesh] OR "critical care*" OR "Critical Care"[Mesh] OR "critically ill" OR CCU)

AND

("predict*" [tiab] OR "model*" [tiab] OR "Models, Statistical"[Mesh] OR "Neural Networks (Computer)" [Mesh] OR "risk model*" [tiab] OR "Statistical Model" [tiab] OR "Probabilistic Model" [tiab] OR "linear mod*" [tiab] OR "logistic*" [tiab] OR "risk as*" [tiab] OR "Logistic Models" [Mesh] OR "Risk assessment" [Mesh])

AND

English[lang]

AND

"loattrfull text"[sb]

AND

"2014/01/01"[PDat] : "2019/04/25"[PDat]

Embase

('intensive care unit'/exp OR 'gicu' OR 'gicus' OR 'icu`s' OR 'close attention unit' OR 'combined medical and surgical icu' OR 'combined surgical and medical icu' OR 'critical care unit' OR 'general icu' OR 'intensive care department' OR 'intensive care unit' OR 'intensive care units' OR 'intensive therapy unit' OR 'intensive treatment unit' OR 'medical-surgery icu' OR 'medical/surgical icu' OR 'medical/surgical icus' OR 'medico-surgical icu' OR 'mixed medical and surgical icu' OR 'mixed surgical and medical icu' OR 'respiratory care unit' OR 'respiratory care units' OR 'special care unit' OR 'surgery/medical icu' OR 'surgical-medical icus' OR 'surgical/medical icu' OR 'unit, intensive care' OR 'intensive care'/exp OR 'care, intensive' OR 'critical care' OR 'intensive care' OR 'intensive therapy' OR 'therapy, intensive' OR 'critically ill patient'/exp OR 'critically ill' OR 'critically ill patient')

AND

('delirium'/exp OR 'acute delirium' OR 'chronic delirium' OR 'delier' OR 'delire' OR 'deliria' OR 'delirious state' OR 'delirious syndrome' OR 'delirium' OR 'delirium acutum' OR 'intensive care psychosis'/exp OR 'icu psychosis' OR 'intensive care delirium' OR 'intensive care dementia' OR 'intensive care psychosis' OR 'acute confusion'/exp OR 'acute confusion' OR 'icu syndrome' OR 'acute brain dysfunction' OR 'confusion assessment method'/exp OR 'mental impairment')

AND

('prediction and forecasting'/exp OR 'prediction and forecasting' OR 'prediction'/exp OR 'prediction' OR 'model'/exp OR 'model' OR 'modeling' OR 'modelling' OR 'models, nursing' OR 'neural network'/exp OR 'statistical model'/exp OR 'likelihood functions' OR 'linear model' OR 'linear models' OR 'logistic models' OR 'models, econometric' OR 'models, statistical' OR 'statistical model' OR 'probabilistic neural network'/exp OR 'risk assessment'/exp OR 'assessment, safety' OR 'risk adjustment' OR 'risk analysis' OR 'risk assessment' OR 'risk evaluation' OR 'safety assessment' OR 'risk'/exp OR 'risk' OR 'risk hypothesis' OR 'prognostic model' or 'prognosis')

AND

(2014:py OR 2015:py OR 2016:py OR 2017:py OR 2018:py OR 2019:py)

Cochrane Central

#1 ((delirium OR 'ICU syndrome' OR 'Acute Brain Dysfunction' OR 'acute confusion' OR CAM OR 'Confusion assessment method' OR psychosis OR 'mental impairment')):ti,ab,kw (Word variations have been searched)

#2 ((ICU OR 'intensive care' OR 'critical care' OR 'critically ill' OR CCU)):ti,ab,kw (Word variations have been searched)

#3 ((predict OR model OR "risk model" OR "Statistical Model" OR "Probabilistic Model" OR "linear mod" OR logistic OR "risk ass" OR "prognostic mod*")):ti,ab,kw (Word variations have been searched)

#4 MeSH descriptor: [Delirium] explode all trees

#5 MeSH descriptor: [Critical Illness] explode all trees

#6 MeSH descriptor: [Critical Care] explode all trees

#7 MeSH descriptor: [Models, Biological] explode all trees

#8 MeSH descriptor: [Computer Simulation] explode all trees

#9 MeSH descriptor: [Models, Theoretical] explode all trees

#10 MeSH descriptor: [Bayes Theorem] explode all trees

#11 MeSH descriptor: [Decision Support Systems, Clinical] explode all trees

#12 MeSH descriptor: [Decision Support Techniques] explode all trees

#13 MeSH descriptor: [Neural Networks (Computer)] explode all trees

#14 (#4 OR #1) AND (#2 OR #5 OR #6) AND (#3 OR #7 OR 8 OR #9 OR #10 OR #11 OR #12 OR #13) with Cochrane Library publication date Between Jan 2009 and Dec 2019

Web of Science

TS=(delirium* OR ICU syndrome OR Acute Brain Dysfunction OR acute confusion OR CAM OR Confusion assessment method OR psychosis OR mental impairment)

AND

TS=(ICU OR intensive care* OR critical care* OR critically ill OR CCU)

AND

TS=(predict* OR model* OR risk model* OR Statistical Model OR Probabilistic Model OR linear mod* OR logistic* OR risk ass* OR prognostic)

AND

(LA=(English))

AND

2014-2019^a

^a. Selection made from web interface

CINAHL

((TI "delirium*") OR (AB "delirium*") OR (MH "Delirium") OR (MH "ICU Psychosis") OR
"ICU syndrome" OR "Acute Brain Dysfunction" OR "acute confusion" OR CAM OR
"Confusion assessment method" OR psychosis OR "mental impairment")

AND

(ICU OR "intensive care*" OR "critical care*" OR "critically ill" OR CCU)

AND

("predict*" OR "model*" OR (MH "Models, Biological") OR (MH "Models, Theoretical") OR
(MH "Computer Simulation") OR (MH "Cox Proportional Hazards Model") OR (MH "Risk
Assessment") OR "risk model*" OR "Statistical Model" OR "Probabilistic Model" OR "linear
mod*" OR "logistic*" OR "risk as*")

AND

English

AND

5 years