**Supplemental Table 2. Actual Search Strategies**

**OVID**

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| Database(s): **Ovid MEDLINE(R) 1946 to Present and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) Daily, EBM Reviews - Cochrane Central Register of Controlled Trials**November 2020**, EBM Reviews - Cochrane Database of Systematic Reviews**2005 to December 31, 2020**, Embase**1980 to 2021 Week 01 |
| **#** | **Searches** |
| 1 | (EHR or EMR or HIT or DSS or CDSS or "electronic medical record\*" or "electronic health record\*" or "decision support" or "information system\*" or "information technology").ti,ab,hw,kw. or (automate\* or automation or computer\* or electronic or technolog\* or alert\*).ti. |
| 2 | "Electronic Health Records"/ or "Hospital Information Systems"/ or Decision Support Systems, Clinical/ or Medical Informatics Applications/ |
| 3 | or/1-2 |
| 4 | (prevent\* or monitor\* or surveil\* or observ\* or detect\* or alarm\* or identif\* or declin\* or deteriorat\* or decompensat\* or worsen\* or surveillance or criteria or risk or prognos\* or death or mortality or disease or status or diagnos\* or predict\* or "vital signs" or physiologic\* or alert\* or assess\* or progression).ti,ab,hw,kw. |
| 5 | "Disease Progression"/ or "deterioration"/ |
| 6 | exp \*Vital Signs/ |
| 7 | Glasgow Coma Scale/ or \*consciousness/ or unconsciousness/ |
| 8 | \*Point-of-Care Systems/ |
| 9 | \*"Early Diagnosis"/ or \*early warning score/ |
| 10 | computer assisted diagnosis/ |
| 11 | \*Hospital Mortality/ |
| 12 | \*"Primary Prevention"/ |
| 13 | "Monitoring, Physiologic"/ or physiologic monitoring/ |
| 14 | \*"Clinical Alarms"/ or \*alarm monitor/ |
| 15 | \*"Reminder Systems"/ or \*reminder system/ |
| 16 | \*Prognosis/ |
| 17 | \*Health Status/ |
| 18 | \*"Risk Assessment"/ |
| 19 | \*"Quality of Health Care"/ |
| 20 | or/5-19 |
| 21 | exp Telemedicine/ or exp teleconsultation/ or exp \*Remote Consultation/ |
| 22 | (ediagnos\* or ehealth or mconsult\* or mdiagnos\* or "remote decision\*" or "remote diagnos\*" or "remote interpret\*" or "tele consult\*" or "tele diagnos\*" or "tele monitor\*" or telemonitor\* or telediagnos\* or "tele-intensiv\*" or "virtual monitor\*" or "virtual diagnos\*" or "virtual interpret\*" or "virtual monitor\*").ti,ab,hw,kw. or (pager\* or smart\*).ti. |
| 23 | or/21-22 |
| 24 | 20 or 23 |
| 25 | Emergency Service, Hospital/ |
| 26 | \*Emergency Medicine/ |
| 27 | \*emergency medical services/ |
| 28 | \*hospital emergency service/ |
| 29 | \*emergency ward/ |
| 30 | \*Evidence-Based Emergency Medicine/ |
| 31 | \*trauma centers/ |
| 32 | "Critical Illness"/ or \*critical illness/ or Patient Acuity/ or general condition deterioration/ |
| 33 | Critical Care/ or intensive care/ or \*Critical Care Nursing/ |
| 34 | "Intensive Care Units"/ |
| 35 | "Hospital Rapid Response Team"/ |
| 36 | \*"Sepsis"/ or Sepsis/di |
| 37 | \*Ventilators, Mechanical/ |
| 38 | \*Respiration, Artificial/ |
| 39 | (((emergenc\* or ED or trauma) adj1 (room\* or ward or wards or unit or units or department\* or center or treatment\*or visit\*)) or (sepsis or septic or ED or acute or hospital\* or "COVID-19" or "SARS-COV-2" or "adverse event\*" or "failure to rescue" or incident or incidents) or (trauma adj1 (cent\* or care)) or ("acute care" or "critical care" or "intensive care" or ICU or "e-ICU" or "tele-ICU" or triag\*) or ("rapid response" or "response team" or (response adj1 system\*))).ti. |
| 40 | or/25-39 |
| 41 | 3 and 4 and 24 and 40 |
| 42 | 41 not ((case\* adj3 (report\* or series or stud\*)).ti,ab,hw,kw. or case report/ or exp case study/) |
| 43 | (conference abstract or conference review or editorial or erratum or note or addresses or autobiography or bibliography or biography or blogs or comment or dictionary or directory or interactive tutorial or interview or lectures or legal cases or legislation or news or newspaper article or patient education handout or periodical index or portraits or published erratum or video-audio media or webcasts).mp. or conference abstract.st. |
| 44 | 42 not 43 |
| 45 | 44 not ((exp animals/ or exp nonhuman/) not exp humans/) |
| 46 | limit 45 to english language [Limit not valid in CDSR; records were retained] |
| 47 | limit 46 to yr="1990 -Current" |
| 48 | remove duplicates from 47 |

 **SCOPUS**

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| --- | --- |
| 1 | TITLE ( ehr OR emr OR "electronic medical record\*" OR "electronic health record\*" OR "decision support" OR "decision support" OR "information system\*" OR "information technology" OR automate\* OR automation OR computer\* OR electronic OR technolog\* OR alert\* ) |
| 2 | TITLE (monitor\* or surveil\* or detect\* or alarm\* or declin\* or deteriorat\* or decompensat\* or worsen\* or surveillance or "vital signs" or physiologic\* or alert\* or prognos\* or progression) |
| 3 | TITLE ( trauma W/1 ( cent\* OR care ) ) |
| 4 | TITLE ( emergenc\* OR ed ) AND ( room\* OR ward OR wards OR unit OR units OR department\* OR center OR treatment\*or AND visit\* ) |
| 5 | TITLE (ed OR "failure to rescue" OR "rapid response" OR "response team" OR "acute care" OR "critical care" OR "intensive care" OR icu OR "e-ICU" OR "tele-ICU" OR triag\*)  |
| 6 | 3 or 4 or 5 |
| 7 | 1 and 2 and 6 |
| 8 | TITLE-ABS-KEY ( case\* W/3 ( report\* OR series OR stud\* ) ) |
| 9 | 7 not 8 |
| 10 | INDEX(embase) OR INDEX(medline) OR PMID(0\* OR 1\* OR 2\* OR 3\* OR 4\* OR 5\* OR 6\* OR 7\* OR 8\* OR 9\*) |
| 11 | 9 not 10 |
| 12 | DOCTYPE(ed) OR DOCTYPE(bk) OR DOCTYPE(er) OR DOCTYPE(no) OR DOCTYPE(sh) OR DOCTYPE(ch) |
| 13 | 11 not 12 |
| 14 | LANGUAGE(english) |
| 16 | 13 and 14 |
| 17 | PUBYEAR AFT 1989 |
| 18 | 16 and 17 |
| 19 | ( TITLE-ABS-KEY ( ( alpaca OR alpacas OR amphibian OR amphibians OR animal OR animals OR antelope OR armadillo OR armadillos OR avian OR baboon OR baboons OR beagle OR beagles OR bee OR bees OR bird OR birds OR bison OR bovine OR buffalo OR buffaloes OR buffalos OR "c elegans" OR "Caenorhabditis elegans" OR camel OR camels OR canine OR canines OR carp OR cats OR cattle OR chick OR chicken OR chickens OR chicks OR chimp OR chimpanze OR chimpanzees OR chimps OR cow OR cows OR "D melanogaster" OR "dairy calf" OR "dairy calves" OR deer OR dog OR dogs OR donkey OR donkeys OR drosophila OR "Drosophila melanogaster" OR duck OR duckling OR ducklings OR ducks OR equid OR equids OR equine OR equines OR feline OR felines OR ferret OR ferrets OR finch OR finches OR fish OR flatworm OR flatworms OR fox OR foxes OR frog OR frogs OR "fruit flies" OR "fruit fly" OR "G mellonella" OR "Galleria mellonella" OR geese OR gerbil OR gerbils OR goat OR goats OR goose OR gorilla OR gorillas OR hamster OR hamsters OR hare OR hares OR heifer OR heifers OR horse OR horses OR insect OR insects OR jellyfish OR kangaroo OR kangaroos OR kitten OR kittens OR lagomorph OR lagomorphs OR lamb OR lambs OR llama OR llamas OR macaque OR macaques OR macaw OR macaws OR marmoset OR marmosets OR mice OR minipig OR minipigs OR mink OR minks OR monkey OR monkeys OR mouse OR mule OR mules OR nematode OR nematodes OR octopus OR octopuses OR orangutan OR "orang-utan" OR orangutans OR "orang-utans" OR oxen OR parrot OR parrots OR pig OR pigeon OR pigeons OR piglet OR piglets OR pigs OR porcine OR primate OR primates OR quail OR rabbit OR rabbits OR rat OR rats OR reptile OR reptiles OR rodent OR rodents OR ruminant OR ruminants OR salmon OR sheep OR shrimp OR slug OR slugs OR swine OR tamarin OR tamarins OR toad OR toads OR trout OR urchin OR urchins OR vole OR voles OR waxworm OR waxworms OR worm OR worms OR xenopus OR "zebra fish" OR zebrafish ) AND NOT ( human OR humans OR patient OR patients ) ) ) |
| 20 | 18 not 19 |