Appendix 1: Search Strategy

1. (sepsis or septic shock or septic\*).ab,ti,kf.

2. exp Hospitalization/ or Inpatients/ or Child, Hospitalized/ or Adolescent, Hospitalized/ or exp Patient Readmission/ or exp Patient Admission/ or Patient Discharge/ or Length of Stay/ or (hospital or inpatient\* or in-patient\* or intensive care or critical care\* or PICU or NICU or ICU or readmis\* or readmit\* or hospitali\*).ti,ab,kf. or Emergencies/ or exp Emergency Medical Services/ or Emergency Medicine/ or exp Emergency Treatment/ or (emergenc\* or ED or A&E or casualty department\*).ti,ab,kf.

3. (child\* or adolescent\* or infan\*).mp. not (exp Infant, Premature/ or exp Infant, Low Birth Weight/ or exp Obstetric Labor, Premature/ or (preterm or prematur\* or low birth weight or low gestational age neonate\* or ELGAN\* or ELBW or LBW).mp. or ((limit\* adj2 viability) or (margin\* adj2 viability)).mp.)

4. ((animals not humans).sh. or ((comment or editorial or meta-analysis or practice-guideline or review or letter) not "randomized controlled trial").pt. or (random sampl$ or random digit$ or random effect$ or random survey or random regression).ti,ab.) not "randomized controlled trial".pt.

5. (1 and 2 and 3) not 4

6. limit 5 to (yr="2004 - 2020" and english language)

7. limit 6 to "all adult (19 plus years)"

8. 6 not 7

9. (sepsis or septic shock or septic\*).ab,ti,kw.

10. exp Hospitalization/ or exp Child hospitalization/ or exp Hospital Readmission/ or exp Hospital Admission/ or "Length of Stay"/ or (Hospital adj3 (admission\* or admit\* or stay)).ti,ab,kw. or (inpatient\* or in-patient\* or intensive care or PICU or NICU or ICU or readmis\* or readmit\* or hospitali\* or "in hospital").ti,ab,kw. or Emergency Ward/ or Emergency Treatment/ or Emergency Care/ or Emergency Health Service/ or Emergency Medicine/ or Emergency/ or (emergenc\* or ED A&E casualty department\*).ti,ab,kw.

11. (baby$ or babies$ or newborn$ or infan$ or neonat$ or preschool$ or pre-school$ or child$ or pediatr$ or paediatr$ or teen$ or adolescen$).mp. not (prematurity/ or (extremely preterm or extremely low birth weight or (low gestational age neonate\* or ELGAN\*) or extremely premature or extreme prematurity or very preterm or very premature or ELBW).mp. or ((limit\* adj2 viability) or (margin\* adj2 viability)).ti,ab,kw.)

12. 9 and 10 and 11

13. 12 not (animal$ not human$).sh,hw.

14. limit 13 to (embase and english)

15. limit 14 to yr="2004 - 2020"

16. limit 15 to (adult <18 to 64 years> or aged <65+ years>)

17. 15 not 16

18. (sepsis or septic shock or septic\*).ab,ti,kw.

19. ((Hospital adj3 (admission\* or admit\* or stay)) or inpatient\* or in-patient\* or intensive care or critical care\* or PICU or NICU or ICU or readmis\* or readmit\* or hospitali\* or "in hospital" or (emergenc\* or ED or A&E or casualty department\*)).ti,ab,kw.

20. ((child\* or adolescent\* or infan\*) not (preterm or prematur\* or low birth weight or low gestational age neonate\* or ELGAN\* or ELBW or LBW or ((limit\* adj2 viability) or (margin\* adj2 viability)))).mp.

21. 18 and 19 and 20

22. limit 21 to yr="2004 - 2020"

23. 22 not adult.mp.

24. 8 use medall

25. 17 use emczd

26. 23 use cctr

27. or/24-26

28. limit 27 to yr="2004 - 2014"

29. limit 27 to yr="2015 - 2020"

30. 27 not (28 or 29)

31. remove duplicates from 28

32. remove duplicates from 29