

Appendix 1: Search strategies to identify articles on uterine artery Doppler ultrasonography used to predict pre-eclampsia and intrauterine growth restriction

Note: The search strategy consisted of MeSH (medical subject heading) or keyword terms related to the disease and population (pre-eclampsia, intrauterine growth restriction and pregnant women) combined with methodologic filters for identification of studies on diagnostic tests and etiology¹⁻³ to cover the greater topics “prediction of pre-eclampsia” and “prediction of intrauterine growth restriction.”

Pre-eclampsia

MEDLINE

1. preeclamp* OR eclamp* OR pre-eclamp* OR (pre AND eclamp*) OR (pregnan* AND hypertens*)
2. (“eclampsia” [MeSH] OR “gestosis, EPH” [MeSH] OR (“hypertension” [MeSH] AND “pregnancy” [MeSH]))
3. “sensitivity and specificity” [MeSH] OR predict* OR diagnose* OR diagnosi* OR diagnost* OR accura*
4. (1 OR 2) AND 3 – for diagnosis
5. ((((((“cohort studies” [mh] OR “case-control studies” [MeSH]) OR “risk” [mh]) OR “epidemiologic factors” [MeSH]) OR (“odds” [tw] AND “ratio” [tw])) OR (“relative” [tw] AND “risk” [tw])) OR (“case” [tw] AND “control” [tw]))
6. (1 OR 2) AND 5 – for etiology

EMBASE

1. exp “eclampsia AND preeclampsia”/
2. exp pregnancy/
3. exp hypertension/
4. 2 AND 3
5. 1 OR 4
6. (preeclamp\$ or eclamp\$ or pre-eclamp\$ or (pre and eclamp\$) or (pregnan\$ and hypertens\$)).mp.
7. (sensitiv\$ or detect\$ or accura\$ or specific\$ or reliab\$ or positive or negative or diagnos\$).mp. or di.fs.
8. 5 OR 6
9. 7 AND 8
10. cohort analysis/
11. exp risk/
12. (odds\$ adj ratio\$).mp.
13. (relative adj risk).mp.
14. case control study/
15. (case\$ adj control\$).mp.
16. (causa\$ or predispos\$).mp.
17. OR/10-16
18. 5 OR 6
19. 17 AND 18

Cochrane Library

1. (preeclamp*) or (eclamp*) or (pre-eclamp*) or (pre AND eclamp*) or (pregnan* AND hypertens*) in all fields in all products
2. MeSH descriptor **Eclampsia** explode all trees in MeSH products
3. MeSH descriptor **Hypertension** explode all trees in MeSH products
4. MeSH descriptor **Pregnancy** explode all trees in MeSH products
5. (#2 OR #3 OR #4)
6. MeSH descriptor **Sensitivity and Specificity** explode all trees in MeSH products
7. (predict* OR diagnose* OR diagnosi* OR diagnost* OR accura*) in all fields in all products
8. (6 OR 7)
9. ((1 OR 5) AND 8)
10. MeSH descriptor **Cohort Studies** explode all trees in MeSH products
11. MeSH descriptor **Case-Control Studies** explode all trees in MeSH products
12. MeSH descriptor **Risk** explode all trees in MeSH products
13. MeSH descriptor **Epidemiologic Factors** explode all trees in MeSH products
14. (odds AND ratio) OR (relative AND risk) OR (case AND control) in all fields in all products
15. (10 OR 11 OR 12 OR 13 OR 14)
16. ((1 OR 5) AND 15)

Fetal growth restriction**MEDLINE**

1. (“small-for-gestational age”) OR (small-for-gestational age) OR (lbw) OR (small for gestational age) OR (sgr) OR (small for date*) OR (small for gestation*) OR (fgr) OR (iugr) OR (intrauterine growth retard*) OR (intrauterine growth restrict*) OR (fetal growth retard*) OR (fetal growth restrict*) OR (growth restrict*) OR (growth retard*) OR (“placental insufficiency” [MeSH]) OR (“fetal growth retardation” [MeSH]) OR (“infant, low birth weight” [MeSH])) OR (low birth weight)
2. (“pregnant women” [MeSH] OR “pregnancy” [MeSH] OR “pregnancy outcome” [MeSH]) OR (pregnan*)
3. “sensitivity and specificity” [MeSH] OR predict* OR diagnose* OR diagnosi* OR diagnost* OR accura*
4. 1 AND 2 AND 3
5. (((((“cohort studies” [mh] OR “case-control studies” [MeSH]) OR “risk” [mh]) OR “epidemiologic factors” [MeSH]) OR (“odds” [tw] AND “ratio*” [tw])) OR (“relative” [tw] AND “risk” [tw])) OR (“case” [tw] AND “control*” [tw])
6. 1 AND 2 AND 5

EMBASE

1. exp fetus growth/
2. low birth weight.mp. OR exp low birth weight/
3. exp intrauterine growth retardation/
4. intrauterine growth retard\$.mp.
5. growth retard\$.mp.
6. fetal growth retard\$.mp.
7. intrauterine growth restrict\$.mp.
8. fetal growth restrict\$.mp.
9. growth restrict\$.mp.
10. exp small for date infant/
11. small for gestational age.mp.
12. small for date\$.mp.
13. small for gestation\$.mp.
14. fgr.mp.
15. iugr.mp.
16. sga.mp.
17. or/1-16
18. exp pregnancy/
19. exp pregnant woman/
20. pregnancy outcome.mp.
21. pregnan\$.mp.
22. pregnant wom\$.mp.
23. exp placenta insufficiency/
24. or/18-23
25. (sensitiv\$ OR detect\$ OR accura\$ OR specific\$ OR reliab\$ OR positive OR negative OR diagnos\$).mp. OR di.fs.
26. 17 AND 24 AND 25
27. cohort analysis/
28. exp risk/
29. (odds\$ adj ratio\$).mp.
30. (relative adj risk).mp.
31. case control study/
32. (case\$ adj control\$).mp.
33. (causa\$ or predispos\$).mp.
34. OR/27-33
35. 17 AND 24 AND 34

Cochrane Library

1. **small for gestational age** in all fields in all products
2. **sga** in all fields in all products
3. **small for date** in all fields in all products
4. **fgr** in all fields in all products
5. **lbw** in all fields in all products
6. **iugr** in all fields in all products
7. **intrauterine growth retard*** in all fields in all products
8. **fetal growth retardation** in all fields in all products
9. **fetal growth retard*** in all fields in all products

10. **growth restrict*** in all fields in all products
11. **growth retard*** in all fields in all products
12. **low birth weight** in all fields in all products
13. MeSH descriptor **Placental Insufficiency** explode all trees in MeSH products
14. **placental insufficiency** in all fields in all products
15. (1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7 OR 8 OR 9 OR 10 OR 11 OR 12 OR 13 OR 14)
16. **pregnancy** in all fields in all products
17. MeSH descriptor **Pregnant Women** explode all trees in MeSH products
18. MeSH descriptor **Pregnancy** explode all trees in MeSH products
19. MeSH descriptor **Pregnancy Outcome** explode all trees in MeSH products
20. (16 OR 17 OR 18 OR 19)
21. MeSH descriptor **Sensitivity and Specificity** explode all trees in MeSH products
22. **predict* OR diagnose* OR diagnosi* OR diagnost*** in all fields in all products
23. (21 OR 22)
24. (15 AND 20 AND 23)
25. MeSH descriptor **Cohort Studies** explode all trees in MeSH products
26. MeSH descriptor **Case-Control Studies** explode all trees in MeSH products
27. MeSH descriptor **Risk** explode all trees in MeSH products
28. MeSH descriptor **Epidemiologic Factors** explode all trees in MeSH products
29. (odds AND ratio) OR (relative AND risk) OR (case AND control) in all fields in all products
30. (25 OR 26 OR 27 OR 28 OR 29)
31. (15 AND 20 AND 30)

Uterine artery Doppler ultrasonography

Reference Manager 11.0

[Doppler* OR *ultraso*] AND [*uterine* OR *utero*]

References

1. Bachmann LM, Coray R, Estermann P, Ter Riet G. Identifying diagnostic studies in MEDLINE: reducing the number needed to read. *J Am Med Inform Assoc* 2002;9:653-8.
2. Haynes RB, Wilczynski N, McKibbon KA, Walker CJ, Sinclair JC. Developing optimal search strategies for detecting clinically sound studies in MEDLINE. *J Am Med Inform Assoc* 1994;1:447-58.
3. Finding evidence in PubMed. [Website of Harvey Cushing/John Hay Whitney Medical Library, Yale University School of Medicine] Available: www.info.med.yale.edu/library/reference/publications/pubmed/ (accessed 2008 Jan 16).