Cochrane Library

Cochrane Database of Systematic Reviews

Amniotomy plus intravenous oxytocin for induction of labour (Review)

Howarth G, Botha DJ

Howarth G, Botha DJ.
Amniotomy plus intravenous oxytocin for induction of labour.
Cochrane Database of Systematic Reviews 2001, Issue 3. Art. No.: CD003250.
DOI: 10.1002/14651858.CD003250.

www.cochranelibrary.com

WILEY

TABLE OF CONTENTS

ABSTRACT 1
PLAIN LANGUAGE SUMMARY 2
BACKGROUND 3
OBJECTIVES 3
METHODS 3
RESULTS 4
DISCUSSION 6
AUTHORS' CONCLUSIONS 6
ACKNOWLEDGEMENTS 6
REFERENCES 7
CHARACTERISTICS OF STUDIES 10
DATA AND ANALYSES 23
Analysis 1.3. Comparison 1 IV (intravenous) oxytocin and amniotomy versus placebo/no treatment: all women, Outcome 3 Caesarean section. 23
Analysis 1.4. Comparison 1 IV (intravenous) oxytocin and amniotomy versus placebo/no treatment: all women, Outcome 4 Serious neonatal morbidity or perinatal death. 23
Analysis 1.10. Comparison 1 IV (intravenous) oxytocin and amniotomy versus placebo/no treatment: all women, Outcome 10 Epidural analgesia. 24
Analysis 1.12. Comparison 1 IV (intravenous) oxytocin and amniotomy versus placebo/no treatment: all women, Outcome 12 Meconium stained liquor. 24
Analysis 1.25. Comparison 1 IV (intravenous) oxytocin and amniotomy versus placebo/no treatment: all women, Outcome 25 Woman not satisfied. 24
Analysis 5.1. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 1 Vaginal delivery not achieved within 24 hours. 26
Analysis 5.2. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 2 Uterine hyperstimulation with FHR changes. 26
Analysis 5.3. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 3 Caesarean section. 26
Analysis 5.4. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 4 Serious neonatal morbidity or perinatal death. 27
Analysis 5.5. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 5 Serious maternal morbidity or death. 27
Analysis 5.6. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 6 Cervix unfavourable/unchanged after 12 -24 hours. 28
Analysis 5.7. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 7 Oxytocin augmentation. 28
Analysis 5.8. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 8 Uterine hyperstimulation without FHR changes. 28
Analysis 5.9. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 9 Uterine rupture. 29
Analysis 5.10. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 10 Epidural analgesia/opioid analgesia. 29
Analysis 5.11. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 11 Instrumental vaginal delivery. 29
Analysis 5.12. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 12 Meconium stained liquor. 30
Analysis 5.13. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 13 Apgar score <7 at 5 minutes. 30
Analysis 5.14. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 14 Neonatal intensive care unit admission. 30
Analysis 5.16. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 16 Perinatal death. 31
Analysis 5.19. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 19 Nausea. 31
Analysis 5.20. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 20 Vomiting. 31
Analysis 5.21. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 21 Diarrhoea. 31
Analysis 5.23. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 23 Post partum haemorrhage. 32
Analysis 5.25. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 25 Woman not satisfied. 32
Analysis 5.27. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 27 Chorioamnionitis. 32

Analysis 5.28. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 28 Retained placenta. 33
Analysis 5.29. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 29 Precipitate labour. 33
Analysis 6.1. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 1 Vaginal delivery not achieved within 24 hours. 34
Analysis 6.3. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 3 Caesarean section. 34
Analysis 6.5. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 5 Serious maternal morbidity or death. 35
Analysis 6.6. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 6 Cervix unfavourable/unchanged after 12 -24 hours. 35
Analysis 6.7. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 7 Oxytocin augmentation. 35
Analysis 6.8. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 8 Uterine hyperstimulation without FHR changes. 35
Analysis 6.9. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 9 Uterine rupture. 36
Analysis 6.10. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 10 Epidural analgesia/opioid analgesia. 36
Analysis 6.11. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 11 Instrumental vaginal delivery. 36
Analysis 6.13. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 13 Apgar score <7 at 5 minutes. 37
Analysis 6.14. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 14 Neonatal intensive care unit admission. 37
Analysis 6.23. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 23 Post partum haemorrhage. 37
Analysis 6.29. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 29 Precipitate labour. 38
Analysis 7.2. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 2 Uterine hyperstimulation with FHR changes. 39
Analysis 7.3. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 3 Caesarean section. 39
Analysis 7.4. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 4 Serious neonatal morbidity or perinatal death. 39
Analysis 7.6. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 6 Cervix unfavourable/unchanged after 12 -24 hours. 40
Analysis 7.7. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 7 Oxytocin augmentation. 40
Analysis 7.8. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 8 Uterine hyperstimulation without FHR changes. 40
Analysis 7.10. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 10 Epidural analgesia/opioid analgesia. 40
Analysis 7.11. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 11 Instrumental vaginal delivery. 41
Analysis 7.12. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 12 Meconium stained liquor. 41
Analysis 7.13. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 13 Apgar score <7 at 5 minutes. 41
Analysis 7.14. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 14 Neonatal intensive care admission. 42
Analysis 7.19. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 19 Nausea. 42
Analysis 7.23. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 23 Post partum haemorrhage. 42
Analysis 7.25. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 25 Woman not satisfied. 43

Analysis 7.28. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 28 Retained placenta. 43
Analysis 8.2. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 2 Uterine hyperstimulation with FHR changes. 44
Analysis 8.3. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 3 Caesarean section. 44
Analysis 8.4. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 4 Serious neonatal morbidity or perinatal death. 44
Analysis 8.5. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 5 Serious maternal morbidity or death. 45
Analysis 8.10. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 10 Epidural analgesia/opioid analgesia. 45
Analysis 8.11. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 11 Instrumental vaginal delivery. 45
Analysis 8.19. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 19 Nausea. 45
Analysis 8.20. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 20 Vomiting. 46
Analysis 8.21. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 21 Diarrhoea. 46
Analysis 9.3. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 3 Caesarean section. 47
Analysis 9.6. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 6 Cervix unfavourable/unchanged after 12 -24 hours. 47
Analysis 9.8. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 8 Uterine hyperstimulation without FHR changes. 47
Analysis 9.11. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 11 Instrumental vaginal delivery. 48
Analysis 9.12. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 12 Meconium stained liquor. 48
Analysis 9.14. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 14 Neonatal intensive care admission. 48
Analysis 9.19. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 19 Nausea. 49
Analysis 9.28. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 28 Retained placenta. 49
Analysis 10.3. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 3 Caesarean section. 50
Analysis 10.5. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 5 Serious maternal morbidity or death. 50
Analysis 10.7. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 7 Oxytocin augmentation. 50
Analysis 10.8. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 8 Uterine hyperstimulation without FHR changes. 51
Analysis 10.11. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 11 Instrumental vaginal delivery. 51
Analysis 10.23. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 23 Post partum haemorrhage. 51
Analysis 10.29. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 29 Precipitate labour. 51
Analysis 11.3. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 3 Caesarean section. 52
Analysis 11.5. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 5 Serious maternal morbidity or death. 53
Analysis 11.7. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 7 Oxytocin augmentation. 53
Analysis 11.8. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 8 Uterine hyperstimulation without FHR changes. 53

Analysis 11.11. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 11 Instrumental vaginal delivery. 53
Analysis 11.23. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 23 Post partum haemorrhage. 54
Analysis 11.29. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 29 Precipitate labour. 54
Analysis 12.2. Comparison 12 IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section), Outcome 2 Uterine hyperstimulation with FHR changes. 55
Analysis 12.3. Comparison 12 IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section), Outcome 3 Caesarean section. 55
Analysis 12.7. Comparison 12 IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section), Outcome 7 Oxytocin augmentation. 55
Analysis 12.11. Comparison 12 IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section), Outcome 11 Instrumental vaginal delivery. 56
Analysis 12.23. Comparison 12 IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section), Outcome 23 Post partum haemorrhage. 56
Analysis 12.25. Comparison 12 IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section), Outcome 25 Women not satisfied. 56
Analysis 13.2. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 2 Uterine hyperstimulation with FHR changes. 57
Analysis 13.3. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 3 Caesarean section. 57
Analysis 13.4. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 4 Serious neonatal morbidity or perinatal death. 58
Analysis 13.8. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 8 Uterine hyperstimulation without FHR changes. 58
Analysis 13.11. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 11 Instrumental vaginal delivery. 58
Analysis 13.23. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 23 Post partum haemorrhage. 58
Analysis 13.25. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 25 Woman not satisfied. 59
Analysis 14.1. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 1 Vaginal delivery not achieved in 24 hours. 60
Analysis 14.3. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 3 Caesarean section. 60
Analysis 14.6. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 6 Cervix unfavourable/unchanged after 12-24 hours. 60
Analysis 14.9. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 9 Uterine rupture. 60
Analysis 14.10. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 10 Epidural analgesia. 61
Analysis 14.11. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 11 Instrumental vaginal delivery. 61
Analysis 14.13. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 13 Apgar score < 7 at 5 minutes. 61
Analysis 14.14. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 14 Neonatal intensive care unit admission. 62
Analysis 15.1. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 1 Vaginal delivery not achieved in 24 hours. 62
Analysis 15.3. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 3 Caesarean section. 63
Analysis 15.6. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 6 Cervix unfavourable/unchanged after 12-24 hours. 63
Analysis 15.9. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 9 Uterine rupture. 63

Analysis 15.10. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 10 Epidural analgesia. 63
Analysis 15.11. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 11 Instrumental vaginal delivery. 64
Analysis 15.13. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 13 Apgar score < 7 at 5 minutes. 64
Analysis 15.14. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 14 Neonatal intensive care unit admission. 64
Analysis 16.1. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 1 Vaginal delivery not achieved in 24 hours. 65
Analysis 16.3. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 3 Caesarean section. 65
Analysis 16.6. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 6 Cervix unfavourable/unchanged after 12-24 hours. 66
Analysis 16.9. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 9 Uterine rupture. 66
Analysis 16.10. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 10 Epidural analgesia. 66
Analysis 16.11. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 11 Instrumental vaginal delivery. 67
Analysis 16.13. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 13 Apgar score < 7 at 5 minutes. 67
Analysis 16.14. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 14 Neonatal intensive care unit admission. 67
Analysis 17.1. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 1 Vaginal delivery not achieved within 24 hours. 68
Analysis 17.2. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 2 Uterine hyperstimulation with FHR changes. 68
Analysis 17.3. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 3 Caesarean section. 69
Analysis 17.7. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 7 Oxytocin augmentation. 69
Analysis 17.8. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 8 Uterine hyperstimulation without FHR changes. 69
Analysis 17.11. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 11 Instrumental vaginal delivery. 69
Analysis 17.12. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 12 Meconium stained liquor. 70
Analysis 17.25. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 25 Woman not satisfied. 70
Analysis 18.1. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 1 Vaginal delivery not achieved within 24 hours. 71
Analysis 18.2. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 2 Uterine hyperstimulation with FHR changes. 71
Analysis 18.3. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 3 Caesarean section. 71
Analysis 18.7. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 7 Oxytocin augmentation. 72
Analysis 18.8. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 8 Uterine hyperstimulation without FHR changes. 72
Analysis 18.11. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 11 Instrumental vaginal delivery. 72
Analysis 18.12. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 12 Meconium stained liquor. 73
Analysis 18.25. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 25 Women not satisfied. 73
Analysis 19.3. Comparison 19 IV oxytocin and amniotomy versus oxytocin alone: all women, Outcome 3 Caesarean section. 74

Analysis 19.8. Comparison 19 IV oxytocin and amniotomy versus oxytocin alone: all women, Outcome 8 Uterine hyperstimulation without FHR changes. 74
Analysis 19.10. Comparison 19 IV oxytocin and amniotomy versus oxytocin alone: all women, Outcome 10 Epidural analgesia. 74
Analysis 19.12. Comparison 19 IV oxytocin and amniotomy versus oxytocin alone: all women, Outcome 12 Mecomium stained liquor. 74
Analysis 19.13. Comparison 19 IV oxytocin and amniotomy versus oxytocin alone: all women, Outcome 13 Apgar score <7 at 5 minutes. 75
Analysis 20.3. Comparison 20 IV oxytocin and amniotomy versus oxytocin alone: all women, intact membranes, variable or undefined cervix, Outcome 3 Caesarean section. 75
Analysis 20.8. Comparison 20 IV oxytocin and amniotomy versus oxytocin alone: all women, intact membranes, variable or undefined cervix, Outcome 8 Uterine hyperstimulation without FHR changes. 76
Analysis 20.10. Comparison 20 IV oxytocin and amniotomy versus oxytocin alone: all women, intact membranes, variable or undefined cervix, Outcome 10 Epidural analgesia. 76
Analysis 20.12. Comparison 20 IV oxytocin and amniotomy versus oxytocin alone: all women, intact membranes, variable or undefined cervix, Outcome 12 Mecomium stained liquor. 76
Analysis 20.13. Comparison 20 IV oxytocin and amniotomy versus oxytocin alone: all women, intact membranes, variable or undefined cervix, Outcome 13 Apgar score <7 at 5 minutes. 77
Analysis 21.1. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 1 Vaginal delivery not achieved within 24 hours. 77
Analysis 21.3. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 3 Caesarean section. 78
Analysis 21.10. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 10 Epidural analgesia/opioid analgesia. 78
Analysis 21.11. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 11 Instrumental vaginal delivery. 78
Analysis 21.16. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 16 Perinatal death. 78
Analysis 21.23. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 23 Post partum haemorrhage. 79
Analysis 21.30. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 30 Puerpural pyrexia. 79
Analysis 22.1. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 1 Vaginal delivery not achieved within 24 hours. 80
Analysis 22.3. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 3 Caesarean section. 80
Analysis 22.10. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 10 Epidural analgesia/opioid analgesia. 80
Analysis 22.11. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 11 Instrumental vaginal delivery. 81
Analysis 22.16. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 16 Perinatal death. 81
Analysis 22.23. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 23 Post partum haemorrhage. 81
Analysis 22.30. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 30 Puerpural pyrexia. 82
Analysis 23.1. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 1 Vaginal delivery not achieved within 24 hours. 82
Analysis 23.3. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 3 Caesarean section. 83
Analysis 23.10. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 10 Epidural analgesia/opioid analgesia. 83
Analysis 23.11. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 11 Instrumental vaginal delivery. 83
Analysis 23.16. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 16 Perinatal death. 83
Analysis 23.23. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 23 Post partum haemorrhage. 84

Analysis 23.30. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 30 Puerpural pyrexia. 84
Analysis 24.1. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 1 Vaginal delivery not achieved within 24 hours. 85
Analysis 24.3. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 3 Caesarean section. 85
Analysis 24.10. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 10 Epidural analgesia/opioid analgesia. 85
Analysis 24.11. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 11 Instrumental vaginal delivery. 86
Analysis 24.16. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 16 Perinatal death. 86
Analysis 24.23. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 23 Post partum haemorrhage. 86
Analysis 24.30. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 30 Puerpural pyrexia. 87
Analysis 25.1. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 1 Vaginal delivery not achieved within 24 hours. 87
Analysis 25.3. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 3 Caesarean section. 88
Analysis 25.10. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 10 Epidural analgesia/opioid analgesia. 88
Analysis 25.11. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 11 Instrumental vaginal delivery. 88
Analysis 25.16. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 16 Perinatal death. 88
Analysis 25.23. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 23 Post partum haemorrhage. 89
Analysis 25.30. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 30 Puerpural pyrexia. 89
Analysis 26.1. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 1 Vaginal delivery not achieved within 24 hours. 90
Analysis 26.3. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 3 Caesarean section. 90
Analysis 26.10. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 10 Epidural analgesia/opioid analgesia. 90
Analysis 26.11. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 11 Instrumental vaginal delivery. 91
Analysis 26.16. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 16 Perinatal death. 91
Analysis 26.23. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 23 Post partum haemorrhage. 91
Analysis 26.30. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 30 Puerpural pyrexia. 92
WHAT'S NEW 92
HISTORY 92
CONTRIBUTIONS OF AUTHORS 92
DECLARATIONS OF INTEREST 92
SOURCES OF SUPPORT 92
NOTES 92
INDEX TERMS 93

[Intervention Review]

Amniotomy plus intravenous oxytocin for induction of labour

Graham Howarth[1], Danie J Botha[2]

[1]Medical Protection Society, Pretoria, South Africa. [2]Greenacres Hospital, Port Elizabeth, South Africa

Contact: Frances J Kellie, Cochrane Pregnancy and Childbirth Group, Department of Women's and Children's Health, The University of Liverpool, First Floor, Liverpool Women's NHS Foundation Trust, Crown Street, Liverpool, L8 7SS, UK. f.kellie@liverpool.ac.uk.

Editorial group: Cochrane Pregnancy and Childbirth Group.
Publication status and date: Edited (no change to conclusions), published in Issue 2, 2013.

Citation: Howarth G, Botha DJ. Amniotomy plus intravenous oxytocin for induction of labour. *Cochrane Database of Systematic Reviews* 2001, Issue 3. Art. No.: CD003250. DOI: 10.1002/14651858.CD003250.

ABSTRACT

Background

Induction of labour is a common obstetric intervention. Amniotomy alone for induction of labour is reviewed separately and oxytocin alone for induction of labour is being prepared for inclusion in The Cochrane Library. This review will address the use of the combination of these two methods for induction of labour in the third trimester. This is one of a series of reviews of methods of cervical ripening and labour induction using standardised methodology.

Objectives

To determine, from the best available evidence, the efficacy and safety of amniotomy and intravenous oxytocin for third trimester induction of labour.

Search methods

We searched the Cochrane Pregnancy and Childbirth Group's Trials Register, the Cochrane Controlled Trials Register and reference lists of articles were searched. Date of last search: May 2001. We updated the search of the Cochrane Pregnancy and Childbirth Group's Trials Register on 21 September 2009 and added the results to the awaiting classification section of the review.

Selection criteria

Clinical trials comparing amniotomy plus intravenous oxytocin used for third trimester cervical ripening or labour induction with placebo/no treatment or other methods listed above it on a predefined list of labour induction methods.

Data collection and analysis

Trial quality assessment and data extraction were done by both reviewers. A strategy was developed to deal with the large volume and complexity of trial data relating to labour induction. This involved a two-stage method of data extraction. The initial data extraction was done centrally, and incorporated into a series of primary reviews arranged by methods of induction of labour, following a standardised methodology. The data is to be extracted from the primary reviews into a series of secondary reviews, arranged by category of woman.

Main results

Seventeen trials involving 2566 women were included. Amniotomy and intravenous oxytocin were found to result in fewer women being undelivered vaginally at 24 hours than amniotomy alone (relative risk (RR) 0.03, 95% confidence intervals (CI) 0.001-0.49). This finding was based on the results of a single study of 100 women. As regards secondary results amniotomy and intravenous oxytocin resulted in significantly fewer instrumental vaginal deliveries than placebo (RR 0.18, CI 0.05-0.58). Amniotomy and intravenous oxytocin resulted in more postpartum haemorrhage than vaginal prostaglandins (RR 5.5, CI 1.26-24.07). Significantly more women were also dissatisfied with amniotomy and intravenous oxytocin when compared with vaginal prostaglandins, RR 53, CI 3.32-846.51.

Authors' conclusions

Data on the effectiveness and safety of amniotomy and intravenous oxytocin are lacking. No recommendations for clinical practice can be made on the basis of this review. Amniotomy and intravenous oxytocin is a combination of two methods of induction of labour and both methods are utilised in clinical practice. If their use is to be continued it is important to compare the effectiveness and safety of these methods, and to define under which clinical circumstances one may be preferable to another.

[Note: The three citations in the awaiting classification section of the review may alter the conclusions of the review once assessed.]

PLAIN LANGUAGE SUMMARY

Amniotomy plus intravenous oxytocin for induction of labour

Intravenous oxytocin and amniotomy compares well with other forms used in the third trimester (full term) to bring on labour.

Sometimes it is necessary to help get labour started. There are several methods used and they either ripen the cervix or make the uterus start contracting. Oxytocin is a drug used to stimulate contractions of the uterus. Amniotomy (breaking the waters) helps bring on contractions. The review of trials found that oxytocin combined with amniotomy compares well with other forms of labour induction. However, adverse risks of amniotomy include pain and discomfort, bleeding, possible infection in the uterus and a decreased heart rate in the baby. The risk of infection following amniotomy is particularly important in areas where HIV is prevalent.

BACKGROUND

Induction of labour is a common obstetric intervention which is usually undertaken for a clinical indication, however rightly or wrongly, it may also be undertaken for other reasons, such as a woman's request or clinician's convenience. This review is one of a series of reviews of methods of labour induction using a standardised protocol. For more detailed information on the rationale for this methodological approach, please refer to the currently published 'generic' protocol (Hofmeyr 2000). The generic protocol describes how a number of standardised reviews will be combined to compare various methods of preparing the cervix of the uterus and inducing labour.

Amniotomy alone for induction of labour and intravenous oxytocin alone for cervical ripening and induction of labour are reviewed separately (Bricker 2001; Tan 2001). This review will address the two in combination. Concomitant administration is regarded when the two are initiated within two hours of each other, irrespective of which is initiated first.

OBJECTIVES

To determine, from the best available evidence, the efficacy and safety of amniotomy plus oxytocin for third trimester induction of labour.

METHODS

Criteria for considering studies for this review

Types of studies

Clinical trials comparing amniotomy plus oxytocin for labour induction, with placebo/no treatment or other methods; random allocation to treatment and comparison groups, reasonable measures to ensure allocation concealment; violations of allocated management not sufficient to materially affect outcomes.

Types of participants

Women due for third trimester induction of labour, with a viable fetus. Sub-group analyses were performed for women regarding parity and subgroups of these for those with favourable, unfavourable or undefined cervices, as well as previous lower segment caesarean section.

Types of interventions

Amniotomy plus oxytocin compared with placebo/no treatment or other methods of induction of labour listed above it on a predefined list of methods of labour induction - See Hofmeyr 2000.

Primary comparisons:

1. intravenous oxytocin and amniotomy versus placebo/no treatment;
2. intravenous oxytocin and amniotomy versus intra vaginal prostaglandins;
3. intravenous oxytocin and amniotomy versus intra cervical prostaglandins;
4. intravenous oxytocin and amniotomy versus oxytocin;
5. intravenous oxytocin and amniotomy versus amniotomy.

In the studies of oxytocin and amniotomy versus prostaglandins, the prostaglandins used were PGE2(1-2mg) in a gel preparation; vaginal pessaries(3mg); PGE2 tablets(3mg); PGE2 in methyl hydroxyethyl cellulose gel(400ug); and PGF2 alpha(50mg).

The oxytocin dosage used varied between studies with a most common maximum dosage of 32 mU/min (16 mU/min-40 mU/min), flow rate doubled half hourly, with 5% Dextrose in Water used as administration fluid.

Amniotomy and intravenous oxytocin were considered as concomitant if the amniotomy was performed within two hours from the start of the oxytocin infusion or vice versa. This time interval was determined before evaluation of studies for inclusion into the review was commenced and was agreed upon by both reviewers. In most studies the two interventions were commenced simultaneously but in five studies this was not specified (Saleh 1975; Thompson 1987; Martin 1978; Ratnam 1974; Kennedy 1978). In two studies failure to rupture the membranes occurred (Maclennan 1989, two women; Orhue 1995, nine women). Amniotomy was, however, successful after oxytocin administration for one to two hours prior to amniotomy.

Types of outcome measures

Clinically relevant outcomes for trials of methods of cervical ripening/labour induction have been prespecified by two authors of labour induction reviews (Justus Hofmeyr and Zarko Alfirevic). Differences were settled by discussion.

Five primary outcomes were chosen as being most representative of the clinically important measures of effectiveness and complications. Sub-group analyses were limited to the primary outcomes:
(1) vaginal delivery not achieved within 24 hours;
(2) uterine hyperstimulation with fetal heart rate (FHR) changes;
(3) caesarean section;
(4) serious neonatal morbidity or perinatal death (e.g. seizures, birth asphyxia defined by trialists, neonatal encephalopathy, disability in childhood);
(5) serious maternal morbidity or death (e.g. uterine rupture, admission to intensive care unit, septicaemia.

Secondary outcomes relate to measures of effectiveness, complications and satisfaction:

Measures of effectiveness:
(6) cervix unfavourable/unchanged after 12-24 hours;
(7) oxytocin augmentation.

Complications:
(8) uterine hyperstimulation without FHR changes;
(9) uterine rupture;
(10) epidural analgesia;
(11) instrumental vaginal delivery;
(12) meconium stained liquor;
(13) Apgar score < 7 at 5 minutes;
(14) neonatal intensive care unit admission;
(15) neonatal encephalopathy;
(16) perinatal death;
(17) disability in childhood;
(18) maternal side effects (all);
(19) maternal nausea;
(20) maternal vomiting;

(21) maternal diarrhoea;
(22) other maternal side-effects;
(23) postpartum haemorrhage (as defined by the trial authors);
(24) serious maternal complications (e.g. intensive care unit admission, septicaemia but excluding uterine rupture);
(25) maternal death.

Measures of satisfaction:
(26) woman not satisfied;
(27) caregiver not satisfied.

While all the above outcomes were sought, only those with data appear in the analysis tables.

The terminology of uterine hyperstimulation is problematic (Curtis 1987). In the reviews we will use the term 'uterine hyperstimulation without FHR changes 'to include uterine tachysystole (> 5 contractions per 10 minutes for at least 20 minutes) and uterine hypersystole/hypertonus (a contraction lasting at least two minutes) and 'uterine hyperstimulation with FHR changes' to denote uterine hyperstimulation syndrome (tachysystole or hypersystole with fetal heart rate changes such as persistent decelerations, tachycardia or decreased short term variability).

Outcomes were included in the analysis: if reasonable measures were taken to minimise observer bias; missing data were insufficient to materially influence conclusions and data were available for analysis according to original allocation.

Search methods for identification of studies

Electronic searches

We searched the Cochrane Pregnancy and Childbirth Group's Trials Register by contacting the Trials Search Co-ordinator (May 2001). We updated this search on 21 September 2009 and added the results to Studies awaiting classification.

The Cochrane Pregnancy and Childbirth Group's Trials Register is maintained by the Trials Search Co-ordinator and contains trials identified from:

1. quarterly searches of the Cochrane Central Register of Controlled Trials (CENTRAL);
2. weekly searches of MEDLINE;
3. handsearches of 30 journals and the proceedings of major conferences;
4. weekly current awareness alerts for a further 44 journals plus monthly BioMed Central email alerts.

Details of the search strategies for CENTRAL and MEDLINE, the list of handsearched journals and conference proceedings, and the list of journals reviewed via the current awareness service can be found in the 'Specialized Register' section within the editorial information about the Cochrane Pregnancy and Childbirth Group.

Trials identified through the searching activities described above are each assigned to a review topic (or topics). The Trials Search Co-ordinator searches the register for each review using the topic list rather than keywords.

Searching other resources

The original search was performed simultaneously for all reviews of methods of inducing labour, as outlined in the generic protocol for these reviews (Hofmeyr 2000).

We search the reference lists of trial reports and reviews.

We did not apply any language restrictions.

Data collection and analysis

Trials under consideration were evaluated for methodological quality and appropriateness for inclusion according to the prestated selection criteria, without consideration of their results. Allocation concealment was scored as A: adequate (e.g. double blind, placebo controlled; envelopes administered centrally) B: unclear (e.g. numbered sealed envelopes not administered centrally) C: inadequate e.g. alternation). Individual outcome data were included in the analysis if they met the presented criteria in 'Types of outcome measures'. Included trial data were processed as described in Clarke 2000.

Data were extracted from the sources and entered onto the Review Manager computer software (RevMan 2000), checked for accuracy, and analysed as above using the RevMan software. For dichotomous data, relative risks and 95% confidence intervals were calculated, and in the absence of heterogeneity, results were pooled using a fixed effects model. The predefined criteria for sensitivity analysis were: trial quality assessment and interval between amniotomy and commencement of oxytocin.

Primary analysis was limited to the prespecified outcomes and sub-group analyses. In the event of differences in unspecified outcomes or sub-groups being found, these were analysed post hoc, but clearly identified as such to avoid drawing unjustified conclusions.

RESULTS

Description of studies

See 'Characteristics of included studies'.

Intravenous oxytocin and amniotomy were compared with placebo/expectant management in one study (Martin 1978, 184 women).

Comparisons were made with vaginal prostaglandin in ten studies (Orhue 1995; Dommisse 1987; Thompson 1987; Maclennan 1980; Parazzini 1998; Lamont 1991; Maclennan 1989; Kennedy 1982;Taylor 1993; Melchior 1989; 1169 women).

Comparisons were made with intracervical prostaglandin in one study (Kennedy 1978, 90 women).

Comparisons were made with oxytocin alone in two studies (Ratnam 1974, Mercer 1995, 416 women).

Comparisons were made with amniotomy alone in three studies (Saleh 1975, Patterson 1971, Moldin 1996, 707 women).

(Three reports from an updated search in September 2009 have been added to Studies awaiting classification.)

Risk of bias in included studies

The majority of the included studies were of good quality: Seven studies scored A: (Lamont 1991; Maclennan 1980; Mercer 1995; Moldin 1996; Orhue 1995; Parazzini 1998; Taylor 1993; with the rest of the studies scoring B: (Dommisse 1987; Kennedy 1978; Kennedy 1982; Patterson 1971; Ratnam 1974; Saleh 1975; Thompson 1987; Maclennan 1989; Martin 1978; Melchior 1989).

Allocation sequence generation was unclear in seven studies (Kennedy 1978 'randomly allocated'; Kennedy 1982 'randomly allocated'; Lamont 1991 'random' stratified by parity; Patterson 1971; Saleh 1975 'randomly'; Thompson 1987 'randomised'; Melchior 1989, ' randomised in table of four').

Random number tables were used in five studies (Dommisse 1987; Maclennan 1989; Maclennan 1980; Martin 1978; Orhue 1995).
Computer generated sequence was used in four studies (Mercer 1995; Moldin 1996; Taylor 1993; Parazzini 1998). In one study, allocation sequence was generated by lot drawing (Ratnam 1974).

Effects of interventions

Seventeen trials involving 2566 women were included.

Amniotomy and intravenous oxytocin versus placebo or no treatment - all women.

(i) Primary outcomes:
One study (Martin 1978), with 184 participants, evaluated serious neonatal morbidity or mortality. There was no serious neonatal morbidity or mortality in the amniotomy and intravenous oxytocin group and 1(1.08%) case in the placebo group, relative risk (RR) 0.33, confidence interval (CI) 0.01-8.08. Although statistically there is no difference between the groups, the data should be interpreted with caution as this is a rare outcome and the confidence intervals are wide.

(ii) Other outcomes:
A significant reduction in the amount of meconium stained liquor was found in the oxytocin and amniotomy group with 3 (3.3%) cases in the amniotomy and oxytocin group and 13 (14.2%) cases in the expectant group, RR 0.23, CI 0.068-0.783.

Amniotomy and intravenous oxytocin versus vaginal prostaglandins - all women.

(i) Primary outcomes:
One study (Taylor 1993) that included 42 participants, all of who had had previous caesarean sections, found that there was no difference in vaginal delivery not achieved in 24 hours. In the amniotomy and intravenous oxytocin group there were 9 (42.85%) women that had not delivered vaginally within 24 hours and in the vaginal prostaglandin group there were 10 (47.61%) cases, RR 0.9, CI 0.46-1.75. Ten studies (Dommisse 1987; Kennedy 1982; Lamont 1991; Maclennan 1989; Maclennan 1980; Melchior 1989; Orhue 1995; Parazzini 1998; Taylor 1993; Thompson 1987) with 1140 participants, found no significant difference between the two groups as regards caesarean sections performed. Caesarean section was performed on 78 (13.6%) women in the amniotomy and intravenous oxytocin group and on 73 (12.9%) women in the vaginal prostaglandin group, RR 1.06, CI 0.79-1.42. In four studies (Kennedy 1982; Maclennan 1989; Maclennan 1980; Parazzini 1998) with 739 women, there were no differences between the two groups as regards uterine hyperstimulation with fetal heart rate changes (3.4% versus 5.8%, RR 0.82, CI 0.47-1.45). Five studies (Kennedy 1982; Lamont 1991; Maclennan 1989; Maclennan 1980; Melchior 1989), that included 612 participants reported no difference in serious neonatal morbidity or mortality in either group, RR 1, CI 0.2-4.86. Two studies (Maclennan 1989; Orhue 1995) that included 378 women reported no serious maternal morbidity or death, RR 0.97, CI 0.06-15.29.

(ii) Other outcomes:
Three studies (Parazzini 1998; Taylor 1993; Thompson 1987), that included 414 participants, found that there was no difference between the two groups when evaluated for unchanged cervical status, with 29 (13.85%) cases in the amniotomy and intravenous oxytocin group reported as having an unchanged cervical status, compared with 39 (19.02%) cases in the vaginal prostaglandin group, RR 0.73, CI 0,47-1.12.

Two studies (Kennedy 1982; Orhue 1995) that included 160 women, found that there were statistically more postpartum haemorrhages in the amniotomy and intravenous oxytocin group with 11 (13.75%) cases compared with two (2.5%) cases in the vaginal prostaglandin group, RR 5.5, CI 1.26-24.07. One study (Kennedy 1982) of 50 parturients reported that 26 (52%) women were not satisfied with amniotomy and intravenous oxytocin compared with no women reporting dissatisfaction with vaginal prostaglandins. Although based on a single study, this is a statistically significant difference, RR 53, CI 3.32-846. Nine studies (Kennedy 1982; Lamont 1991; Maclennan 1989; Maclennan 1980; Melchior 1989; Orhue 1995; Parazzini 1998; Taylor 1993; Thompson 1987) that included 1086 women, found that there was no difference in the number of instrumental vaginal deliveries in the amniotomy and intravenous oxytocin group with 83 (15.12%) compared with 89(16,57%) in the vaginal prostaglandin group, RR 0.92, CI 0.70-1.19. Two studies (Maclennan 1989; Parazzini 1998) that included 638 women, found no difference in the reporting of nausea, in the amniotomy and intravenous oxytocin group there were 12(3.67%) cases compared with 11(3.53%) cases in the vaginal prostaglandin group, RR 1.04, CI 0.47-2.32.

Amniotomy and intravenous oxytocin versus cervical prostaglandins - all women.

(i) Primary outcomes:
All the findings are based on a single study (Kennedy 1978) with 60 participants. There was no significant difference between the two groups in women requiring caesarean section. One (3.3%) caesarean section was performed in the amniotomy and intravenous oxytocin group compared with four (13.3%) in the cervical prostaglandin group, RR 0.25, CI 0.03-2.1 The same study reported no cases of uterine hyperstimulation and fetal heart rate changes in either group, RR 1, CI 0.02-48.8. The impression that there are no differences between the two groups as regards these two outcomes must be interpreted with caution as the findings are based on data from a single study, with 60 participants.

(ii) Other outcomes:
The study reported the absence of meconium stained liquor in either groups. One woman in each group reported that she was not satisfied with the method of induction, RR 1, CI 0.07-15.3.

Amniotomy and intravenous oxytocin versus oxytocin alone - all women.

(i) Primary outcomes:
Two studies (Mercer 1995; Ratnam 1974) that included 511 participants, found that there was no difference in caesarean section between these two groups with 27 (17.3%) caesarean sections performed in the amniotomy and intravenous oxytocin group, compared with 25 (16.3%) in the oxytocin alone group, RR 1.05, CI 0.64-1.7.

(ii) Other outcomes:
One study (Mercer 1995) of 209 women reported 25 (23.6%) parturients in the amniotomy and intravenous oxytocin group had meconium stained liquor, compared with 15 (14.6%) in the oxytocin only group, RR 1.62, CI 0.91-2.89.

Amniotomy and intravenous oxytocin versus amniotomy alone - all women.

(i) Primary outcomes:
Two studies (Moldin 1996; Saleh 1975), with 296 participants, found that there were significantly fewer women with vaginal delivery not achieved within 24 hours in the amniotomy and intravenous oxytocin group compared with the amniotomy alone group. There were three cases (2.1%) in the amniotomy and intravenous oxytocin group compared to 24 cases (16.3%) in the amniotomy alone group, RR 0.125, CI 0.038-0.406. There was no statistically significant difference between the two groups as regards caesarean section (Patterson 1971; Saleh 1975) with five (1.97%) performed in the amniotomy and intravenous oxytocin group and 11 (4.28%) in the amniotomy alone group, RR 0.45, CI 0.16-1.3. However, the power of this study to detect meaningful differences was low.

(ii) Other outcomes:
Two studies (Patterson 1971; Saleh 1975) that included 510 participants found that there were statistically significantly fewer instrumental vaginal deliveries in the amniotomy and intravenous oxytocin group 57 (22.35%) compared with 88 (34.51%) performed in the amniotomy alone group, RR 0.65, CI 0.49-0.85.

DISCUSSION

Despite the fact that amniotomy and intravenous oxytocin appear to be widely used for induction of labour, surprisingly little research has been done in this area. Due to the paucity of information, firm conclusions cannot be drawn on the use of amniotomy and intravenous oxytocin for the induction of labour.

No single study addressed all the primary outcomes and no conclusions can be made as regards primary outcomes. Two studies that included 550 women, reported more postpartum haemorrhage in the amniotomy and intravenous oxytocin group compared with women induced with vaginal prostaglandins. One study that included 100 women, reported more women were not satisfied with amniotomy and intravenous oxytocin than vaginal prostaglandins. While interesting, the small sample sizes preclude a definitive conclusion.

This review did not evaluate comparisons between different methods of oxytocin administration and dosages and these studies have therefore been excluded (Mercer 1991; Arulkumaran 1987; Thomas 1974; Calder 1975; Chua 1991; Orhue 1993a; Orhue 1993b; Orhue 1994; Pavlou 1978; Pavlou 1978; Reid 1995; Steer 1985). It is however important to evaluate this in a separate review as the success of oxytocin induction may be dependant on the method of oxytocin administration, as it has not been standardised in the studies included in this review.

AUTHORS' CONCLUSIONS

Implications for practice

Although amniotomy and intravenous oxytocin have been used widely in obstetric practice, the available literature does not clearly support or refute the value of using the combination instead of the separate methods individually.

Data on the effectiveness and safety of amniotomy and intravenous oxytocin are lacking. No recommendations for clinical practice can be made on the basis of this review. Cognizance however must be taken of the possibility of increased perinatal transmission of HIV following amniotomy (Biggar 1996) particularly in areas where the prevalence of HIV may be high and due to limited resources or other reasons HIV status of the woman is unknown.

Implications for research

Despite the paucity of data, there is probably little role for further research into the use of the combination of amniotomy and intravenous oxytocin as a primary method of induction. In clinical settings where resources are limited, amniotomy alone may be the favoured method of induction.

Amniotomy may also be the favoured method of induction in women not keen on pharmacological intervention or in cases where avoiding uterine stimulation may be advantageous. Under these circumstances we concur with Bricker and Luckas (Bricker 2001) that it is reasonable to recommend that further research into the method of amniotomy alone for the induction of labour is needed, and would urge researchers to evaluate this method in the context of different time intervals between the primary (amniotomy) and secondary intervention (addition of a pharmaceutical agent and with reference to this review, the use of intravenous oxytocin).

This research should include assessment of women and caregiver satisfaction and economic analysis. The suggestion from this review that oxytocin may be associated with greater risk of postpartum haemorrhage than prostaglandin, warrants further research.

[Note: The three citations in the awaiting classification section of the review may alter the conclusions of the review once assessed.]

ACKNOWLEDGEMENTS

Justus Hofmeyr, Zarko Alfirevic, Tony Kelly, Sonja Henderson

REFERENCES

References to studies included in this review

Dommisse 1987 *{published data only}*

Dommisse J, Wild JM. Assessment of a new prostaglandin E2 gel in labour induction. *S Afr Med J* 1987;**71**:506-7.

Kennedy 1978 *{published data only}*

Kennedy JH, Quinn MA, Howie PW, Calder AA. Single shot prostaglandin gel for labor induction. *Prostaglandins* 1978;**15**:169-73.

Kennedy 1982 *{published data only}*

Kennedy JH, Stewart P, Barlow DH, Hillan E, Calder AA. Induction of labour: a comparison of a single prostaglandin E2 vaginal tablet with amniotomy and intravenous oxytocin. *Br J Obstet Gynaecol* 1982;**89**:704-7.

Lamont 1991 *{published data only}*

Lamont RF, Neave S, Baker AC, Steer PJ. Intrauterine pressures in labours induced by amniotomy and oxytocin or vaginal prostaglandin gel compared with spontaneous labour. *Br J Obstet Gynaecol* 1991;**98**:441-7.

Maclennan 1980 *{published data only}*

MacLennan AH, Green RC. The effect of intravaginal prostaglandin F2alpha on labour after spontaneous and artificial rupture of the membranes. *Aust NZ J Obstet Gynaecol* 1980;**20**:87-90.

Maclennan 1989 *{published data only}*

MacLennan AH, Fraser I, Jakubowicz DL, Murray-Arthur F, Quinn MA, Trudinger BJ. Labour induction with PGE2 vaginal gel: results of an Australian multicentre randomised trial. Proceedings of 1st European Congress on Prostaglandins in Reproduction; 1988 July 6-9; Vienna, Austria. 1988:119.

* MacLennan AH, Fraser I, Jakubowicz DL, Murray-Arthur F, Quinn MA, Trudinger BJ. Labour induction with low dose PGE2 vaginal gel: result of an Australian multicentre randomized trial. *Aust NZ J Obstet-Gynaecol* 1989;**29**:124-8.

Martin 1978 *{published data only}*

Martin DH, Thompson W, Pinkerton JHM, Watson JD. A randomized controlled trial of selective planned delivery. *Br J Obstet Gynaecol* 1978;**85**:109-13.

Melchior 1989 *{published data only}*

Melchior J, Bernard N, Andre-David F. Artificial inducement of labor, at term, for medical reasons. Comparison between two labor inducement techniques: pitocin + artificial rupture of the membranes at an early stage vs E2 vaginal gel. An open controlled randomized study [translation]. *Rev Fr Gynecol Obstet* 1989;**84**:747-52.

Mercer 1995 *{published data only}*

Mercer BM, McNanley T, O'Brien JM, Randal L, Sibai BM. Early vs late amniotomy for labor induction: a randomized trial. *Am J Obstet Gynecol* 1995;**173**:1321-5.

Moldin 1996 *{published data only}*

Moldin PG, Sundell G. Induction of labour: a randomised clinical trial of amniotomy vs amniotomy with oxytocin infusion. *Br J Obstet Gynaecol* 1996;**103**:306-12.

Orhue 1995 *{published data only}*

Orhue, AAE. Induction of labour at term in primigravidae with low Bishop's score: a comparison of three methods. *Eur J Obstet-Gynecol Reprod Biol* 1995;**58**:119-25.

Parazzini 1998 *{published data only}*

Parazzini F, Benedetto C, Danti L, Zanini A, Facchinetti F, Ettore G, et al. A randomized comparison of vaginal prostaglandin E2 with oxytocin plus amniotomy for induction of labour in women with intermediately ripe cervices. *Eur J Obstet Gynecol Reprod Biol* 1998;**81**:15-20.

Patterson 1971 *{published data only}*

* Patterson WM. Amniotomy, with or without simultaneous oxytocin infusion. *J Obstet Gynaecol Br Cmmwlth* 1971;**78**:310-6.

Ratnam 1974 *{published data only}*

* Ratnam SS, Khew KS, Chen C, Lim TC. Oral prostaglandin E2 in induction of labour. *Aust NZ J Obstet Gynaecol* 1974;**14**:26-30.

Saleh 1975 *{published data only}*

* Saleh YZ. Surgical induction of labour with and without oxytocin infusion. A prospective study. *Aust NZ J Obstet Gynaecol* 1975;**15**:80-3.

Taylor 1993 *{published data only}*

* Taylor AVG, Sellers S, Ah-Moye M, MacKenzie IZ. A prospective random allocation trial to compare vaginal prostaglandin E2 with intravenous oxytocin for labour induction in women previously delivered by caesarean section. *Journal of Obstetrics and Gynaecology* 1993;**13**:333-6.

Thompson 1987 *{published data only}*

* Thompson JH. Induction of labour: a comparison between intravaginal prostaglandin E2 gel and oxytocin infusion with low amniotomy. Proceedings of 21st International Congress of International Confederation of Midwives; 1987; The Hague, Netherlands. 1987.

References to studies excluded from this review

Arulkumaran 1987 *{published data only}*

Arulkumaran S, Ingemarsson I, Ratnam SS. Oxytocin titration to achieve preset active contraction area values does not improve the outcome of induced labour. *Br J Obstet Gynaecol* 1987;**94**:242-48.

Augensen 1987 *{unpublished data only}*

Augensen K, Bergsjo P, Eikeland T, Askvik K, Carlsen J. Induction of labour in prolonged pregnancy. A prospective, randomized study. Proceedings of 10th European Congress of Perinatal Medicine; 1986 Aug 12-16; Leipzig, Germany. 1986:242.

* Augensen K, Bergsjo P, Eikeland T, Askvik K, Carlsen J. Randomised comparison of early vs late induction of labour in post-term pregnancy. *BMJ* 1987;**294**:1192-5.

Bakos 1987 *{published data only}*

Bakos O, Backstrom T. Induction of labor: a prospective, randomized study into amniotomy and oxytocin as induction methods in a total unselected population. *Acta Obstet Gynecol Scand* 1987;**66**:537-41.

Breart 1982 *{published data only}*

Breart G, Goujard J, Maillard F, Chavigny C, Rumeau-Rouquette C, Sureau C. Comparison of two obstetrical policies with regard to artificial induction of labour at term. A randomised trial [translation]. *J Gynecol Obstet Biol Reprod (Paris)* 1982;**11**:107-12.

Breart 1991 *{published data only}*

Breart G, Du Mazaubrun C, Maillard F, Garel M. Comparison of two policies of management of labour for primiparous women: effects of early rupture of membranes and use of oxytocin. Results of randomized controlled trial. Proceedings of International Conference on Primary Care, Obstetrics and Perinatal Health; 1991; Utrecht, Netherlands. 1991:49.

Bremme 1984 *{published data only}*

Bremme K, Eneroth P, Samuelson K. Estriol and cholic acid in maternal serum in induced labor. *Gynecol Obstet Invest* 1984;**17**:120-6.

Calder 1975 *{published data only}*

Calder AA, Embrey MP. Comparison of intravenous oxytocin and prostaglandin E2 for induction of labour using automatic and non-automatic infusion techniques. *Br J Obstet Gynaecol* 1975;**82**:728-33.

Cameron 1985 *{published data only}*

Cameron A. High Bishop score and labour induction. In: Wood C editor(s). The role of prostaglandins in labour. London: RSM Services Limited, 1985:61-7.

Cameron 1988 *{published data only (unpublished sought but not used)}*

Cameron AD, Calder AA, Walker JJ. Randomised comparison of PGE2 vaginal gel vs amniotomy and intravenous oxytocin in favourable induction. Proceedings of 11th European Congress of Perinatal Medicine; 1988; Rome, Italy. 1988:157.

Casey 1993 *{published data only}*

Casey C, Kehoe J, Mylotte MJ. Vaginal prostaglandins for the ripe cervix. *Int J Gynecol Obstet* 1993;**44**:21-6.

Chia 1993 *{published data only}*

Chia YT, Arulkumaran S, Soon SB, Norshida S, Ratnam SS. Induction of labour: does internal tocography result in better obstetric outcome than external tocography. *Aust NZ J Obstet Gynaecol* 1993;**33**(2):159-61.

Chua 1991 *{published data only}*

Chua S, Arulkumaran S, Kurup A, Tay D, Ratnam SS. Oxytocin titration for induction of labour: a prospective randomized study of 15 vs 30 minute dose increment schedules. *Aust NZ J Obstet Gynaecol* 1991;**31**:134-7.

Cole 1975 *{published data only}*

Cole RA, Howie PW, MacNaughton MC. Elective induction of labour. A randomised prospective trial. *Lancet* 1975;**1**:767-70.

D'Souza 1986 *{published data only}*

D'Souza SW, Lieberman B, Cadman J, Richards B. Oxytocin induction of labour: hyponatraemia and neonatal jaundice. *Eur J Obstet Gynecol Reprod Biol* 1986;**22**:309-17.

Engleman 1979 *{published data only}*

Engleman SR, Hilland MA, Howie PW, McIlwaine GM, McNay MB. An analysis of the economic implications of elective induction of labour at term. *Community Medicine* 1979;**1**:191-8.

Gihwala 1987 *{published data only}*

* Gihwala N. A comparison of prostaglandin E2 and oxytocin for the induction of labour - a randomised trial. Proceedings of 23rd Congress of Obstetrics and Gynaecology; 1986 September 23-26; South Africa. 1986:52.

Gihwala N, Moodley J, Hansen J, Naicker SN. Prostaglandin E2 vaginal gel - a new formulation for the induction of labour. *S Afr Med J* 1987;**72**:615-7.

Goeree 1995 *{published data only}*

Goeree R, Hannah M, Hewson S. Cost-effectiveness of induction of labour vs serial antenatal monitoring in the Canadian Multicentre Postterm Pregnancy Trial. *Can Med Assoc J* 1995;**152**:1445-50.

Heden 1991 *{published data only}*

Heden L, Ingemarsson I, Ahlstrom H, Solum T. Induction of labor vs conservative management in prolonged pregnancy: controlled study. *Int J Feto Maternal Med* 1991;**4**(4):148-52.

Henry 1969 *{published data only}*

Henry GR. A controlled trial of surgical induction of labour and amnioscopy in the management of prolonged pregnancy. *J Obstet Gynaecol Br Cmmwlth* 1969;**76**:795-8.

Katz 1983 *{published data only}*

Katz Z, Yemini M, Lancet M, Mogilner BM, Ben-Hur H, Caspi B. Non-aggressive management of post-date pregnancies. *Eur J Obstet Gynecol Reprod Biol* 1983;**15**:71-9.

Leijon 1979 *{published data only}*

Leijon I, Finnstrom O, Hedenskog S, Ryden G, Tylleskar J. Spontaneous labour and elective induction - a prospective randomised study. Behavioural assessment and neurological examination in the newborn period. *Acta Paediatr Scand* 1979;**68**:553-60.

Leijon 1980 *{published data only}*

Leijon I, Finnstrom O, Hedenskog S, Ryden G, Tylleskar J. Spontaneous labor and elective induction - a prospective randomized study. II Bilirubin levels in the neonatal period. *Acta Obstet Gynecol Scand* 1980;**59**:103-6.

Lo 1994 *{published data only}*

* Lo L, Ho MW, Leung P. Comparison of prostaglandin E2 vaginal tablet with amniotomy and intravenous oxytocin for induction of labour. *Aust NZ J Obstet Gynaecol* 1994;**34**(2):149-53.

Lo L, Ho MW, Leung P. Comparison of prostaglandin E2 vaginal tablet with amniotomy and intravenous oxytocin for induction of labour. The Second International Scientific Meeting of the Royal College of Obstetricians and Gynaecologists; 1993; Hong Kong. 1993:155.

Lykkesfeldt 1979 *{published data only}*

Lykkesfeldt G, Osler M. A comparison of three methods for inducing labor: oral prostaglandin E2, buccal desaminooxytocin, intravenous oxytocin. *Acta Obstet Gynecol Scand* 1979;**58**:321-5.

Mahmood 1992 *{published data only}*

Mahmood TA, Reyner A, Smith NC. A prospective randomized study of induction of labour with favourable cervix at term: a comparison between PGE2 gel single dose vs forewater amniotomy and delayed oxytocin infusion. Proceedings of 26th British Congress of Obstetrics and Gynaecology; 1992 July 7-10; Manchester, UK. 1992:403.

Mancuso 1996 *{published data only}*

Mancuso S, Ferrazzani S, De Carolis S, Carducci B, De Santis L, Caruso A. Term and postterm low-risk pregnancies: management schemes for the reduction of high rates of cesarean section. *Minerva Ginecol* 1996;**48**:95-8.

Mercer 1991 *{published data only}*

Mercer B, Pilgram P, Sibai B. Low dose oxytocin vs a routine induction protocol for the induction of labor. Proceedings of 10th Annual Meeting of Society of Perinatal Obstetricians; 1990 Jan 23-27; Houston, Texas, USA. 1990:21.

* Mercer B, Pilgrim P, Sibai B. Labor induction with continuous low-dose oxytocin infusion: a randomized trial. *Obstet Gynecol* 1991;**77**:659-63.

Misra 1994 *{published data only}*

Misra M, Vavre S. Labour induction with intracervical prostaglandin E2 gel and intravenous oxytocin in women with a very unfavourable cervix. *Aust NZ J Obstet Gynaecol* 1994;**34**:511-5.

Nilsson 1984 *{published data only}*

Nilsson B, Bremme K. Prediction of start of contractions in labor induced with oral prostaglandin E2 or oxytocin: a life table analysis approach. *Int J Gynecol Obstet* 1984;**22**:145-50.

Orhue 1993a *{published data only}*

Orhue A. A randomized trial of 45 minutes and 15 minutes incremental oxytocin infusion regimes for the induction of labour in women of high parity. *Br J Obstet Gynaecol* 1993;**100**:126-9.

Orhue 1993b *{published data only}*

Orhue AAE. A randomized trial of 30-min and 15-min oxytocin infusion regimen for induction of labor at term in women of low parity. *Int J Gynecol Obstet* 1993;**40**:219-25.

Orhue 1994 *{published data only}*

Orhue AAE. Incremental increases in oxytocin infusion regimens for induction of labor at term in primigravidas: a randomized controlled trial. *Obstet Gynecol* 1994;**83**:229-3.

Pavlou 1978 *{published data only}*

Pavlou C, Barker GH, Roberts A, Chamberlain GVP. Pulsed oxytocin infusion in the induction of labour. *Br J Obstet Gynaecol* 1978;**85**:96-100.

Reid 1995 *{published data only}*

Reid G, Helewa M. Pulsatile vs continuous oxytocin infusion for induction of labour. Proceedings of 49th Annual Clinical Meeting of the Society of Obstetricians and Gynaecologists of Canada;1993 June 22-26; Ottawa, Ontario, Canada. 1993:14.

* Reid GJ, Helewa ME. A trial of pulsatile vs continuous oxytocin administration for the induction of labor. *J Perinatol* 1995;**15**:364-66.

Sande 1983 *{published data only}*

Sande HA, Tuveng J, Fonstelien T. A prospective randomized study of induction of labor. *Int J Gynecol Obstet* 1983;**21**:333-6.

Secher 1981 *{published data only}*

Secher NJ, Lange AP, Hassing Nielsen F, Thomson Pedersen G, Westergaard JG. Induction of labor with and without primary amniotomy. A randomized study of prostaglandin E2 tablets and intravenous oxytocin. *Acta Obstet Gynecol Scand* 1981;**60**:237-41.

Sellers 1988 *{published data only}*

Sellers SM, Ah-Moye M, MacKenzie IZ. Comparison of vaginal prostaglandin E2 and intravenous oxytocin for induction of labour in women previously delivered by caesarean section. Proceedings of 1st European Congress on Prostaglandins in Reproduction; 1988 July 6-9; Vienna, Austria. 1988:128.

Sivasuriya 1978 *{published data only}*

Sivasuriya M, Tan KL, Salmon YM, Karim SMM. Neonatal serum bilirubin levels in spontaneous and induced labour. *Br J Obstet Gynaecol* 1978;**85**:619-3.

Steer 1976 *{published data only}*

Steer PJ, Little DJ, Lewis NL, Kelly MCME, Beard RW. The effect of membrane rupture on fetal heart rate in induced labour. *Br J Obstet Gynaecol* 1976;**83**:454-59.

Steer 1985 *{published data only}*

Steer PJ, Carter MC, Choong K, Hanson M, Gordon AJ, Pradhan P. A multicentre prospective randomized controlled trial of induction of labour with an automatic closed-loop feedback controlled oxytocin infusion system. *Br J Obstet Gynaecol* 1985;**92**:1127-33.

Suikkari 1983 *{published data only}*

Suikkari AM, Jalkanen M, Heiskala H, Koskela O. Prolonged pregnancy: induction or observation. *Acta Obstet Gynecol Scand Suppl* 1983;**116**:58.

Thomas 1974 *{published data only}*

Thomas G, Blackwell RJ. A controlled trial of the Cardiff automatic infusion system in the management of induced labour. *Br J Clin Pract* 1974;**28**:203-6.

Tylleskar 1978 *{published data only}*

Tylleskar J, Finnstrom O, Hedenskog S, Leijon I, Ryden G. Spontaneous delivery-elective induction for convenience, a comparative study [Abstract no 345]. Proceedings of 6th European Congress of Perinatal Medicine; 1978 Aug 29-Sept 1; Vienna, Austria. 1978.

Tylleskar 1979 *{published data only}*

Tylleskar J, Finnstrom O, Leijon I, Hedenskog S, Ryden G. Spontaneous labor and elective induction - a prospective randomized study. I Effects on mother and fetus. *Acta Obstet Gynecol Scand* 1979;**58**:513-8.

Varma 1981 *{published data only}*

Varma R, Norman J, Cowell L. Induction of labour with vaginal prostaglandin E2 pessaries. *J Obstet Gynaecol* 1981;**2**:65-70.

Ward 1991 *{published data only}*

Ward SJ. Induction of labour using prostaglandin gel in patients with a favourable cervix. Proceedings of 2nd European Congress on Prostaglandins in Reproduction; 1991 April 30-May 3; The Hague, Netherlands. 1991:143.

Westergaard 1983 *{published data only}*

Westergaard JG, Lange AP, Pedersen GT, Secher NJ. Oral oxytocics for induction of labor. *Acta Obstet Gynecol Scand* 1983;**62**:103-10.

Witter 1987 *{published data only}*

Witter FR, Weitz CM. A randomized trial of induction at 42 weeks gestation vs expectant management for postdates pregnancies. *Am J Perinatol* 1987;**4**:206-11.

Witter 1989 *{published data only}*

Witter FR, Weitz CM. Cervical examination prior to induction in postdate pregnancies. *Surg Gynecol Obstet* 1989;**168**:214-6.

References to studies awaiting assessment

Chanrachakul 2003 *{published data only}*

Chanrachakul B, Herabutya Y. Postterm with favorable cervix: is induction necessary?. *European Journal of Obstetrics & Gynecology and Reproductive Biology* 2003;**106**:154-7.

Chua 1988 *{published data only}*

Chua SM, Lee KW, Phua SM. Comparative study between prostaglandin E2 vaginal tablet and intravenous oxytocin in induction of labour. *Singapore Medical Journal* 1988;**29**(4):379-82.

Selo-Ojeme 2007 *{published data only}*

Selo-Ojeme D. A randomised controlled trial of amniotomy and immediate oxytocin infusion versus amniotomy and delayed oxytocin infusion for induction of labour at term. Current Controlled Trials (www.controlled-trials.com/) (accessed 30 October 2007).

Additional references

Biggar 1996

Biggar RJ, Miotti PG, Taha TE. Perinatal intervention trial in Africa: effect of a birth canal cleansing intervention to prevent HIV transmission. *Lancet* 1996;**347**(June 15):1647-50.

Bricker 2001

Bricker L, Luckas M. Amiotomy alone for induction of labour (Cochrane Review). *The Cochrane Library* 2001, Issue 2.

Clarke 2000

Clarke M, Oxman AD, editors. Cochrane Reviewers' Handbook 4.1 [updated June 2000]. In: Review Manager (RevMan) [Computer program]. Version 4.1 Oxford, England: The Cochrane Collaboration, 2000.

Curtis 1987

Curtis P, Evans S, Resnick J. Uterine hyperstimulation. The need for standard terminology. *J Reprod Med* 1987;**32**:91-5.

Hofmeyr 2000

Hofmeyr GJ, Alfirevic Z, Kelly T, Kavanagh J, Thomas J, Brocklehurst P, Neilson JP. Methods for cervical ripening and labour induction in late pregnancy: generic protocol (Cochrane Review). *The Cochrane Library, Issue 2, 2000*.

RevMan 2000 [Computer program]

The Cochrane Collaboration. Review Manager (RevMan) [Computer Program]. Version 4.1 for Windows. Oxford, England: The Cochrane Collaboration, 2000.

Tan 2001

Tan B, Kelly AJ. Intravenous oxytocin alone for cervical ripening and induction of labour (Cochrane Review). *The Cochrane Library* 2001, Issue 3.

* Indicates the major publication for the study

CHARACTERISTICS OF STUDIES

Characteristics of included studies *[ordered by study ID]*

Dommisse 1987

Methods	Study design: parallel with possible crossover. Written consent. Setting: University Hospital.
Participants	Participants: 50. Inclusion criteria: Intact membranes; Bishop score >5; gestation 37 weeks or more; acceptable indication for induction. Exclusion criteria: Previous caesarean section; vaginal bleeding; ruptured membranes; patients in labour before admission; history of asthma, glaucoma.
Interventions	Intervention 1: Amniotomy + intravenous oxytocin (2U in 1000 ml 5% dextrose in water; titration dose 2mU/min, dose doubled every 30 min till max 16 mU/min). Intervention 2: PGE2 gel (Prepidil gel-Upjohn Limited) Dosage: 1 mg in posterior fornix, reassessed in 6 hours; if not 3cm dilatation, 2 mg inserted. If not in labour after 12 hours, cross-over to intervention 1.
Outcomes	Included outcomes: Caesarean section.
Notes	Crossover unclear. Prepidil used only intravaginally, not intracervical. Adequate allocation generation.

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Unclear risk	B - Unclear

Kennedy 1978

Methods	Random allocation to one of three groups. Crossover design. Amniotomy performed in control and study group but not in all study group participants. Favourable cervical score.
Participants	Participants: 90 patients (60 patients' data relevant to review). Primigravid and multigravid. Inclusion criteria: Gestational age >36 weeks; Bishop score >4.
Interventions	Intervention 1: Amniotomy + intravenous oxytocin (dose range;1-32 mu/min) (Intervention 2: Amniotomy + oral PGE2 (Prostin E2; Upjohn), 0.5mg hourly. If not adequate progression after 6 hours, intravenous oxytocin). Intervention 3: Endocervical PGE2 400 microgram single application; AROM after 3 hours - if not adequate progression after 6 hours, intravenous oxytocin.
Outcomes	Included outcomes: Vaginal delivery not achieved in 24 hours; uterine hyperstimulation with FHR changes; caesarean section; uterine hyperstimulation without FHR changes; instrumental vaginal delivery; meconium stained liquor; women not satisfied.
Notes	Allocation sequence generation unclear.

Risk of bias

Bias	Authors' judgement	Support for judgement

Kennedy 1978 *(Continued)*

Allocation concealment?	Unclear risk	B - Unclear

Kennedy 1982

Methods	Study design: Parallel study. Randomization into two arms.
Participants	Participants: 100 patients. Multigravid patients of low parity. Inclusion criteria: Singleton pregnancies; cephalic presentations; gestation 38-42 weeks; parity 1-2; Bishop score >4.
Interventions	Intervention 1: Amniotomy + intravenous oxytocin (controlled semi- automatic infusion system; max dose 32 mU/min). Intervention 2: PGE2 3mg in posterior fornix; amniotomy after 6 hours or sooner if regular uterine activity and cervical dilatation >3cm. If not adequate progression in second group, intravenous oxytocin was added (augmentation).
Outcomes	Included outcomes: Uterine hyperstimulation with FHR changes; caesarean section; perinatal death; uterine hyperstimulation without FHR changes; epidural/narcotic analgesia; instrumental vaginal delivery (forceps); post partum haemorrhage; women not satisfied.
Notes	Allocation sequence generation unclear.

Risk of bias

Bias	**Authors' judgement**	**Support for judgement**
Allocation concealment?	Unclear risk	B - Unclear

Lamont 1991

Methods	Study design: Parallel study. Patients in induction group randomized into two groups with stratification to ensure similar numbers of nulliparous and parous women in each group. Patient fall out did occur due to wrong intervention/lost data.
Participants	Participants: 93 (84 patients' data relevant to review). Inclusion criteria: Singleton pregnancies; cephalic presentations; gestation >36 weeks; live fetus; Bishop score >4. Exclusion criteria: Previous caesarean section; parity 4 or more.
Interventions	Intervention 1: Intravenous oxytocin + amniotomy (dose 2 mU/min rate adjustment according to attendants discretion; max dose 32 mU/min) Intervention 2: PGE2 gel (Prostin gel- Upjohn) 1 mg intravaginal; repeated after 4 hours if not established labour (max 3 applications).
Outcomes	Included outcomes: Caesarean section; neonatal/perinatal death; instrumental vaginal delivery; Apgar score <7 at 5 minutes.
Notes	Main outcome of study: intra uterine pressure differences between spontaneous and induced labours. Regarding the main outcome fall out did occur but analysis of induction method valid.

Lamont 1991 *(Continued)*

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Low risk	A - Adequate

Maclennan 1980

Methods	Two trials reported as one, comparing PG F2 alpha and intravenous oxytocin in subgroups of patients with spontaneous rupture of membranes without onset of labour and artificial amniotomy.
Participants	Participants: 83 (23 + 60). Inclusion criteria: Singleton pregnancies; cephalic presentations; maternal height >150 cm. Exclusion criteria: Previous uterine surgery; history of asthma; signs of labour.
Interventions	Intervention 1: Intravenous oxytocin (dose 3.33 mU/min, increasing dose every 15 min; max 40 mU/min). Subgroups: (a) Spontaneous rupture of membranes without labour (PROM). (b) Artificial rupture of membranes (amniotomy). Intervention 2: Intravaginal PG F2alpha (mixed with 700 mg tylose granules). Subgroups: (a) Spontaneous rupture of membranes without labour (PROM). (b) Artificial rupture of membranes (amniotomy). If patients in study group was not in labour in 4 hours, intravenous oxytocin was given.
Outcomes	Included outcomes: Uterine hyperstimulation with FHR changes; caesarean section; serious neonatal morbidity/perinatal death; uterine hyperstimulation without FHR changes; epidural analgesia; instrumental vaginal delivery; perinatal death; maternal side effects: vomiting, diarrhoea, chorioamnionitis. Other outcomes: Patient satisfaction.
Notes	Only means of gestation given, uncertainty whether all patients were third trimester inductions. Crossover to oxytocin was done only 4 hours post insertion of PG if not established labour, thus inducing labour, not augmentation.

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Low risk	A - Adequate

Maclennan 1989

Methods	Multicentre open label trial. Parallel randomized design. 2 arms: PGE2 gel (1-2 mg) compared to amniotomy and intravenous oxytocin. Setting: 6 teaching hospitals.
Participants	Participants: 320 Women, near term pregnancies. Multigravid and primigravid inclusions. Exclusion criteria: Evidence of labour; ruptured membranes; previous attempts at labour induction in this pregnancy; previous caesarean section; contraindication for labour or vaginal delivery; vaginal bleeding; known hypersensitivity to PG; glaucoma; asthma.
Interventions	Intervention 1: Amniotomy and intravenous oxytocin (dose: 1mU/min; 15-30 min escalating doses; max 16mU/min.

Maclennan 1989 *(Continued)*

	Intervention 2: PGE2 (Prepidil gel-Upjohn) posterior vaginal fornix. Repeated after 6 hours if not spontaneous ROM. As soon as established labour, artificial rupture of membranes. If not in established labour within 12 hours, intravenous oxytocin + amniotomy (depending on treating physician).
Outcomes	Included outcomes: Uterine hyperstimulation with FHR changes; epidural analgesia; instrumental vaginal delivery; nausea; vomiting; caesarean section; perinatal deaths; maternal death.
Notes	Study too small to detect maternal death/perinatal death. Protocol violations: Exclusions after randomization- 1 from each group (spontaneous labour before induction); 4 patients received other treatment than randomized to; 2 patients included with previous caesarean sections; 3 twin pregnancies; 3 breech presentations. Some patients in PGE2 group received oxytocin before 12 hours. Protocol violations not regarded as significant as to data interpretation. Uneven totals randomised to two groups.

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Unclear risk	B - Unclear

Martin 1978

Methods	Prospective, randomized trial. Study design: parallel study. Crossover did occur in expectant group. 2 arms: planned delivery versus expectant management. Induction at 39 weeks gestation; control awaiting spontaneous labour till 42 weeks, then induction.
Participants	264 uncomplicated pregnancies randomized, 184 analysed. Inclusion criteria: 38 weeks gestation according to accurate gestational dating; uncomplicated pregnancies. Patient fall out did occur but reasons given.
Interventions	Intervention 1: Planned delivery: Amniotomy + intravenous oxytocin (started at 2.5 mU/min; doubled at 30 min intervals until a satisfactory uterine response. Intervention 2: Awaiting spontaneous onset of labour till 42 weeks gestation. If necessary, augmentation of labour by amniotomy + intravenous oxytocin.
Outcomes	Outcomes included: Caesarean section; perinatal death; analgesia; meconium stained liquor; women not satisfied.
Notes	Multiple exclusions which may have had effect on outcome regarding risk of expectant management beyond 40 weeks gestation. The way in which patients were monitored during labour differed in the two groups: ('When possible, these patients also were monitored') - control.

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Unclear risk	B - Unclear

Melchior 1989

Methods	Patients randomized into two groups, comparing artificial rupture of membranes and intravenous oxytocin with vaginal prostaglandin.
Participants	Participants: 50. Inclusion criteria: Primiparous as well as multiparous women; gestational age more than 36 weeks; alive fetus. Exclusion criteria: not mentioned.
Interventions	Intervention 1: PG E2 vaginal gel, 1 mg administered vaginally and repeated in 6 hours (dose 1-2 mg, depending on previous response). Intervention 2: Amniotomy and intravenous oxytocin, amniotomy was performed within 30 minutes after starting the oxytocin infusion (starting dose 2 mU/min; maximum dose 30 mU/min).
Outcomes	Included outcomes: Caesarean section; serious neonatal morbidity/perinatal death; uterine hyperstimulation without FHR changes; epidural analgesia; instrumental vaginal delivery; Apgar score < 8 at 5 minutes.
Notes	French study.

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Unclear risk	B - Unclear

Mercer 1995

Methods	Patients randomized into two groups of timing of amniotomy with subgroup interval oxytocin dose increments of 30 min compared to 60 min.
Participants	Participants: 209. Inclusion criteria: Intact membranes; gestation >36 weeks (37-42). Exclusion criteria: Patients with intrauterine infection; prior cervical ripening with PG.
Interventions	Intervention 1: Early amniotomy and two dose interval groups of intravenous oxytocin (30 min/ 60 min). Intervention 2: Amniotomy at 5 cm cervical dilatation and two groups of intravenous oxytocin dose intervals (30 min/60 min).
Outcomes	Included outcomes: Caesarean section; uterine hyperstimulation without FHR changes; epidural analgesia; meconium stained liquor; Apgar score <7 at 5 minutes. Other outcomes: ROM till delivery; chorioamnionitis; time to delivery; time to active phase.
Notes	Intravenous oxytocin stopped when in established labour; outcomes only reported for vaginal deliveries.

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Low risk	A - Adequate

Moldin 1996

Methods	Patients randomized into two groups comparing the combination of intravenous oxytocin and amniotomy with amniotomy alone.
Participants	Participants: 196 Inclusion criteria: Singleton pregnancies, cephalic presentations, intact membranes, >36 weeks gestation, Bishop score > 6.
Interventions	Intervention 1: Amniotomy and intravenous oxytocin started within one hour (3 mU/min and increasing by 3 mU/min every 30 min). Intervention 2: Amniotomy done and patient observed for 24 hours, if not in labour, intravenous oxytocin was started.
Outcomes	Included outcomes: Vaginal delivery not achieved in 24 hours.
Notes	12 % of patients in group A and 10 % of patients in group B received intracervical PGE2 prior to amniotomy.

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Low risk	A - Adequate

Orhue 1995

Methods	Study design: Parallel study, with crossover between two arms. University hospital setting. Patients randomised into 3 arms.
Participants	Primigravid patients only. Participants: 94 (64 patients' data included in review). Duration of study: 18 months. Inclusion criteria: Singleton pregnancies; cephalic presentations; primiparous; gestation >36 weeks (37-42); Bishop score >3; adequate pelvis on clinical assessment; minimal maternal height 155cm. Exclusion criteria: Known or suspected fetal anomalies; previous caesarean section; recent IOL attempt; dead fetus; scarred uterus; maternal age >35 years; placenta praevia, abruptio placentae; haemoglobinopathies, anaemia; polyhydramnios; hypersensitivity to PG (glaucoma, asthma)
Interventions	Intervention 1: Amniotomy + intravenous oxytocin (5mU/ml of 5% dextrose at 2mU/min. Dose doubled every 30 min to max 32 mU/min or until regular contractions). Intervention 2: Vaginal PGE2 pessary (Prostin E2, Upjohn). 3 mg in posterior fornix, subsequent doses of 3mg at 6 and 12 hours depending on cervical dilatation, number of uterine contractions. (Intervention 3: Overnight extra-amniotic Foley catheter with 30 ml bulb(17FG). If not in spontaneous labour the next morning, amniotomy + intravenous oxytocin begun).
Outcomes	Included outcomes: Caesarean section; serious maternal morbidity/death; oxytocin augmentation; uterine hyperstimulation without FHR changes; instrumental vaginal delivery; post partum haemorrhage. Other (included): Precipitate labour (3 hours).
Notes	4 Patients in PGE2 group excluded after randomization due to failed induction of labour (no change in cervical status after 12 hours). Reanalysis possible for caesarean section as outcome.

Orhue 1995 *(Continued)*

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Low risk	A - Adequate

Parazzini 1998

Methods	Multicenter study, parallel with cross over. Central telephonic randomization into two arms.
Participants	Participants: 320. Multigravid and primigravid patients. Inclusion criteria: Singleton pregnancies; cephalic presentations; intact membranes; gestation >36 weeks (>40 weeks); Bishop score >4 (5-7); parity 0-3; less than six uterine contractions/hour. Exclusion criteria: Previous caesarean section; diabetes; hypertension/PET; ruptured membranes.
Interventions	Intervention 1: Intravenous oxytocin followed in 1 hour by amniotomy (dose 1 mU/m min; rate doubled every 30 min to max 32 mU/min. Intervention 2: Vaginal PGE2 (Prepidil gel, Upjohn 2mg); two doses at six hourly intervals. Crossover did occur after 12 hours if patients were not in established labour.
Outcomes	Included outcomes: Caesarean section. Uterine hyperstimulation; instrumental vaginal delivery; neonatal intensive care admission; nausea; fever.
Notes	

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Low risk	A - Adequate

Patterson 1971

Methods	Study design: Parallel study. Two arms with crossover if labour not established after 24 hours. Patients excluded after initial randomization due to obstetrical factors.
Participants	Participants: Initial randomization: 441 41 patients excluded thereafter. Primigravid and multigravid patients. Reason for induction: Medical conditions (PET, Eclampsia, Rhesus disease, other); obstetrical (pro-longed pregnancy, malpresentations, multiple pregnancy, antepartum haemorrhage, disproportion, other). No information analyses given of patients with previous caesarean sections. No information given on gestational age (assumed to be third trimester inductions).
Interventions	Intervention 1: Amniotomy + intravenous oxytocin (0.5 IU/1000 ml dextrose and water; increased half hourly to 20 drops per minute. Thereafter 2 IU/1000 ml and 4 IU/1000 ml respectively, max 60 drops/min).

Patterson 1971 *(Continued)*

	Intervention 2: Amniotomy. If not in labour by 24 hours; Intravenous oxytocin added.
Outcomes	Included outcomes: Caesarean section; instrumental vaginal delivery; post partum haemorrhage. Other outcomes: Patients not in labour after 24 hours (given as mean; sedatives required during labour (given as number of doses required); bacteriological investigations (groups not specified).
Notes	Intra uterine deaths/ intrapartum deaths included in data but subgroup analyses not possible.

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Unclear risk	B - Unclear

Ratnam 1974

Methods	Randomised study, parallel design. Patients randomised into 4 groups. Indications for induction include pre eclampsia and may therefore be pre term inductions.
Participants	Participants: 207. (100 Patients data included in review). Inclusion criteria: No evidence of chronic or acute fetal distress. Exclusion criteria: Malpresentations; uncertain dates; suspected cephalo-pelvic disproportion.
Interventions	Intervention 1: Amniotomy + intravenous oxytocin ('physiological dose' increased every 30 min until satisfactory contractions, then dose maintained). Intervention 2: Intravenous oxytocin (dose as in 1). Intervention 3: Oral PGE2 (0.5 mg capsules, repeated hourly until labour established; dosage doubled every hour with max single dose 2,0 mg, + amniotomy. Intervention 4: Oral PGE2 (dose as in 3).
Outcomes	Included outcomes: Caesarean section; cervix unfavourable/unchanged after 12-24 hours. Other outcomes: (data not given with subgroup analyses): Hypertension, diarrhoea, post partum haemorrhage, perinatal death.
Notes	All patients delivered within 24 hours. Patients with intact membranes also underwent caesarean sections with no information why regarded as failed induction without opting for second attempt next day.

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Unclear risk	B - Unclear

Saleh 1975

Methods	Prospective, randomized trial with 2 arms. Study design: parallel.
Participants	Participants: 100 patients

Saleh 1975 *(Continued)*

	Inclusion criteria: Primigravid, age 15-25; at or near term; not in labour; membranes intact; live singleton pregnancies; longitudinal lie; cephalic presentation; engaged presenting part; favourable cervix. Exclusion criteria: Severe PET/antepartum haemorrhage.
Interventions	Intervention 1: Amniotomy followed by intravenous oxytocin. Dose 2-4 mU/min; i U in 1000 ml 5% D+W. Intervention 2: Amniotomy: Oxytocin infusion commenced after 24 hours if not in active labour. All patients had epidural analgesia.
Outcomes	Included outcomes: Vaginal delivery not achieved in 24 hours; caesarean section; epidural analgesia; instrumental vaginal delivery; perinatal death; puerpural pyrexia; post partum haemorrhage.
Notes	Perinatal death in oxytocin and amniotomy group had multiple congenital abnormalities.

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Unclear risk	B - Unclear

Taylor 1993

Methods	Setting: Academic Hospital. Prospective randomised trial comparing vaginal prostaglandin with amniotomy and intravenous oxytocin in patients previously delivered by caesarean section.
Participants	Participants: 42 women. Inclusion criteria: Singleton pregnancy, cephalic presentation, gestational age more than 36 weeks. Multiparous women with one previous pregnancy delivered by caesarean section. Bishop score less than 9. All indications for induction due to pre-eclampsia or postterm gestation.
Interventions	Intervention 1: Low amniotomy and immediate intravenous oxytocin titration. Intervention 2: Vaginal administration of prostaglandin E2 2.5 mg (witepsol pessary) followed by amniotomy after 3 hours and intravenous oxytocin augmentation after 6 hours if labour not established.
Outcomes	Included outcomes: Vaginal delivery not achieved within 24 hours; caesarean section; cervix unfavourable/unchanged after 12-24 hours; uterine rupture; epidural analgesia; instrumental vaginal delivery; Apgar score < 7 at 5 minutes; neonatal intensive unit admission.
Notes	Also published by Sellers 1988.

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Low risk	A - Adequate

Thompson 1987

Methods	Report on 2 studies. 1: Randomized trial: Intravaginal PGE2 gel and intravenous oxytocin with amniotomy.

Thompson 1987 *(Continued)*	
	2: Questionnaire sent to women included in study, one year later to evaluate patient satisfaction with method of induction.
Participants	Participants: 52 women. Inclusion criteria: Bishop score 4+. Exclusion criteria: Asthma; glaucoma; raised intraocular pressure; vaginal bleeding of uncertain aetiology; ruptured membranes; previous caesarean section; failed induction of labour in this pregnancy, labour; known hypersensitivity to PG.
Interventions	Intervention 1: Amniotomy + intravenous oxytocin (Dose: 0.7-1.4 mU/min infusion rate increased at intervals of 30 min; max 10 mu/min). Intervention 2: 1 mg PGE2(Prepidil -Upjohn) intravaginal -posterior fornix. Dose repeated if labour not established and membranes intact; dosage 1-2mg. Amniotomy if indicated.
Outcomes	Included outcomes: Caesarean section; cervix unfavourable/unchanged after 12-24 hours; epidural analgesia; instrumental vaginal delivery; meconium stained liquor. Other outcomes: Retained placenta.
Notes	Patients excluded from trial if not in labour by 12 hours - managed as failed induction. Data has been included for this review. Protocol violations: Multiple violations, inconsistent denominators. Second study: Information on patient satisfaction not included: 40 women questioned, 23 responders; non responders valuable in interpretation of results.

Risk of bias

Bias	Authors' judgement	Support for judgement
Allocation concealment?	Unclear risk	B - Unclear

Amniotomy regarded as augmentation of labour if applied more than two hours after induction was started.
AROM = intentional rupturing of the membranes to stimulate labour or inspect the amniotic fluid
CTG = electronic heart rate monitoring of the fetus
D+W = a solution of sterile water with sugar (dextrose) for intravenous use in labour
FHR = fetal heart rate
IOL = induction of labour
IUPC = intra uterine pressue catheter, which is a soft plastic/celastic catheter system that is inserted through the cervix into the uterus during labour to accurately measure the strength of contractions
min = minutes
max = maximum
PET = positron emission tomography
PG = prostaglandin
ROM = rupture of membranes

Characteristics of excluded studies *[ordered by study ID]*

Study	Reason for exclusion
Arulkumaran 1987	Intervention and control group received the same induction agent with different methods of administration.
Augensen 1987	Both groups received the same intervention.
Bakos 1987	Inadequate randomization . Relevance to Review: Cross over trial comparing amniotomy with intravenous oxytocin for induction of labour.

Study	Reason for exclusion
	Subgroup analyses not possible from available data. Patients who received oxytocin and amniotomy only started with both interventions 4 hours after commencing induction with either one of the two interventions. (Possibility does exist that it may be augmentation.)
Breart 1982	Deals with management of labour, not specified as induction Timing study. Same intervention both arms.
Breart 1991	Deals with management of labour, not specified as induction of labour. '... choice of policies to be evaluated is based on policies applied and the results observed in Dublin ...' active management of labour.
Bremme 1984	Compares amniotomy with oral PGE2.
Calder 1975	Compares intravenous oxytocin + amniotomy with intravenous PGE2 + amniotomy.
Cameron 1985	No primary outcomes reported.
Cameron 1988	No numerators/denominators given. Data sought from authors.
Casey 1993	All patients in control group did not receive amniotomy and intravenous oxytocin.
Chia 1993	IUPC monitoring. Fetal monitoring with different methods. Both arms same induction agent.
Chua 1991	Both groups received the same intervention/ induction agent: methods of administration differed.
Cole 1975	Same intervention both arms. Randomization on timing.
D'Souza 1986	Neonatal effects of oxytocin induction. Outcome of labour not investigated.
Engleman 1979	Same intervention both arms. Compares spontaneous versus induced labour. Cost analysis study.
Gihwala 1987	Amniotomy augmentation of labour. One patient included with an intrauterine death.
Goeree 1995	Cost effectiveness study. Methods of induction not investigated.
Heden 1991	Method of randomization not accepted (folder number).
Henry 1969	Too much uncertainty regarding randomization, oxytocin administration and whether amniotomy was performed or not.
Katz 1983	Same intervention both arms of study.
Leijon 1979	No primary outcomes reported. Investigation of effect of induction of labour, not methods for induction.
Leijon 1980	No primary outcomes reported.
Lo 1994	Not a randomized controlled trial (patient allocation by alternation).
Lykkesfeldt 1979	Intravenous oxytocin + amniotomy compared to oral PG.

Study	Reason for exclusion
Mahmood 1992	Compares PGE2 with amniotomy(alone). Cross over occurred. Oxytocin augmentation, not induction.
Mancuso 1996	No primary outcomes reported.
Mercer 1991	Both groups received the same intervention. 'Priming of cervix' prior to induction.
Misra 1994	Randomization unclear and amniotomy only performed after uterine contractions were present (augmentation).
Nilsson 1984	No primary outcomes reported. Compares oral PGE2 with oxytocin.
Orhue 1993a	Both groups received the same intervention.
Orhue 1993b	Both groups received the same intervention.
Orhue 1994	Both groups received the same intervention.
Pavlou 1978	Both groups received the same intervention.
Reid 1995	Both groups received the same intervention. Patients included in study with prior PG administration: no subgroup analyse in order to exclude them.
Sande 1983	Large number of discrepancies without mentioning reasons, unspecified randomization.
Secher 1981	Inadequate randomization with a large discrepancy in numbers.
Sellers 1988	Uncertainty whether it is an abstract from the study published by Taylor in 1993.
Sivasuriya 1978	No primary outcomes reported. Effect of various induction methods of labour on neonate given as means.
Steer 1976	Some participants not randomly selected.
Steer 1985	Both groups received the same intervention.
Suikkari 1983	Allocation on parity.
Thomas 1974	Both groups received the same intervention. Compares method of administration.
Tylleskar 1978	No primary outcomes reported.
Tylleskar 1979	No primary outcomes reported.
Varma 1981	Not a randomized controlled trial.
Ward 1991	No primary outcomes reported.
Westergaard 1983	Compares oral PGE2 with oral oxytocin.
Witter 1987	Same intervention both arms. Amniotomy possibly as augmentation.

Study	Reason for exclusion
Witter 1989	Prediction trial.

IUPC = intra uterine pressue catheter
PG = prostaglandin

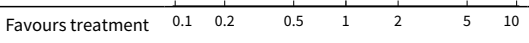
DATA AND ANALYSES

Comparison 1. IV (intravenous) oxytocin and amniotomy versus placebo/no treatment: all women

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
3 Caesarean section	1	184	Risk Ratio (M-H, Fixed, 95% CI)	4.0 [0.46, 35.11]
4 Serious neonatal morbidity or perinatal death	1	184	Risk Ratio (M-H, Fixed, 95% CI)	0.33 [0.01, 8.08]
10 Epidural analgesia	1	184	Risk Ratio (M-H, Fixed, 95% CI)	1.15 [1.06, 1.25]
12 Meconium stained liquor	1	184	Risk Ratio (M-H, Fixed, 95% CI)	0.23 [0.07, 0.78]
25 Woman not satisfied	1	186	Risk Ratio (M-H, Fixed, 95% CI)	1.11 [0.77, 1.60]

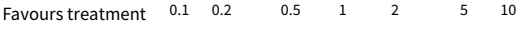
Analysis 1.3. Comparison 1 IV (intravenous) oxytocin and amniotomy versus placebo/no treatment: all women, Outcome 3 Caesarean section.

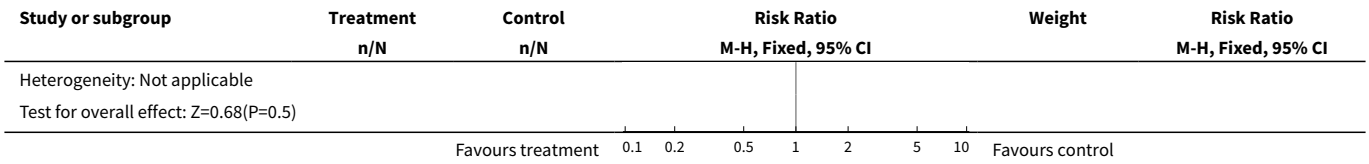
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Martin 1978	4/92	1/92		100%	4[0.46,35.11]
Total (95% CI)	**92**	**92**		**100%**	**4[0.46,35.11]**
Total events: 4 (Treatment), 1 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.25(P=0.21)					



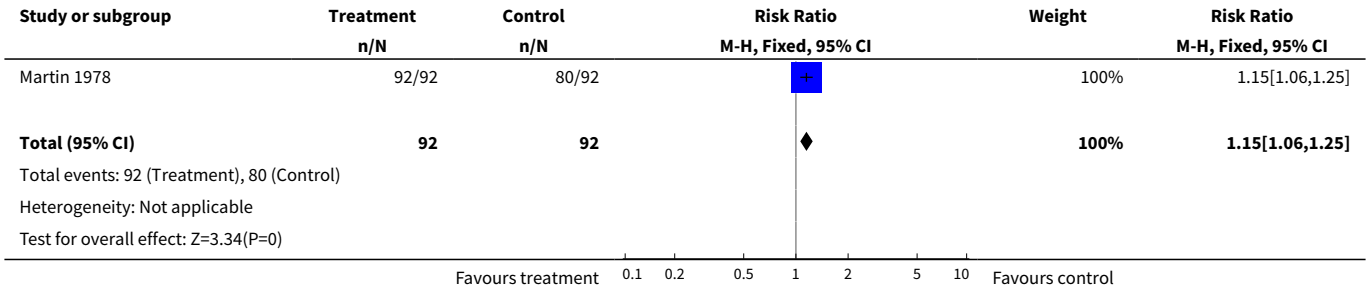
Analysis 1.4. Comparison 1 IV (intravenous) oxytocin and amniotomy versus placebo/no treatment: all women, Outcome 4 Serious neonatal morbidity or perinatal death.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Martin 1978	0/92	1/92		100%	0.33[0.01,8.08]
Total (95% CI)	**92**	**92**		**100%**	**0.33[0.01,8.08]**
Total events: 0 (Treatment), 1 (Control)					

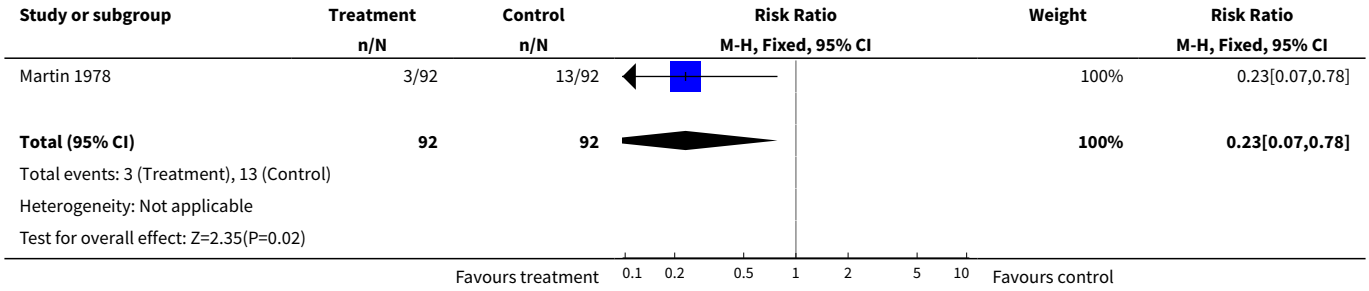




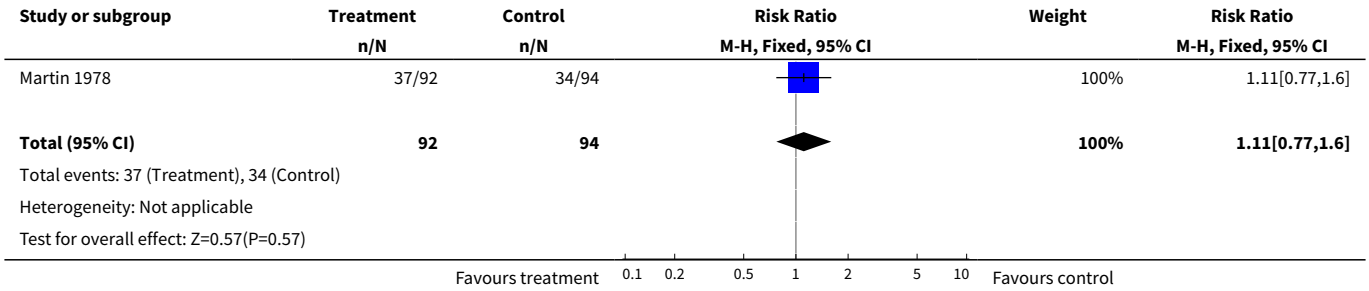
Analysis 1.10. Comparison 1 IV (intravenous) oxytocin and amniotomy versus placebo/no treatment: all women, Outcome 10 Epidural analgesia.



Analysis 1.12. Comparison 1 IV (intravenous) oxytocin and amniotomy versus placebo/no treatment: all women, Outcome 12 Meconium stained liquor.



Analysis 1.25. Comparison 1 IV (intravenous) oxytocin and amniotomy versus placebo/no treatment: all women, Outcome 25 Woman not satisfied.



Comparison 5. IV oxytocin and amniotomy versus vaginal PG:all women

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved within 24 hours	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.9 [0.46, 1.75]
2 Uterine hyperstimulation with FHR changes	4	739	Risk Ratio (M-H, Fixed, 95% CI)	0.81 [0.45, 1.45]
3 Caesarean section	10	1140	Risk Ratio (M-H, Fixed, 95% CI)	1.06 [0.79, 1.42]
4 Serious neonatal morbidity or perinatal death	5	612	Risk Ratio (M-H, Fixed, 95% CI)	1.0 [0.07, 15.12]
5 Serious maternal morbidity or death	2	378	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
6 Cervix unfavourable/unchanged after 12 -24 hours	3	414	Risk Ratio (M-H, Fixed, 95% CI)	0.73 [0.47, 1.12]
7 Oxytocin augmentation	2	160	Risk Ratio (M-H, Fixed, 95% CI)	0.08 [0.01, 0.62]
8 Uterine hyperstimulation without FHR changes	5	590	Risk Ratio (M-H, Fixed, 95% CI)	1.98 [0.51, 7.77]
9 Uterine rupture	1	42	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 69.70]
10 Epidural analgesia/opioid analgesia	5	522	Risk Ratio (M-H, Fixed, 95% CI)	1.03 [0.82, 1.30]
11 Instrumental vaginal delivery	9	1086	Risk Ratio (M-H, Fixed, 95% CI)	0.92 [0.70, 1.19]
12 Meconium stained liquor	1	52	Risk Ratio (M-H, Fixed, 95% CI)	0.36 [0.04, 3.24]
13 Apgar score <7 at 5 minutes	3	176	Risk Ratio (M-H, Fixed, 95% CI)	1.60 [0.44, 5.81]
14 Neonatal intensive care unit admission	2	362	Risk Ratio (M-H, Fixed, 95% CI)	0.59 [0.27, 1.29]
16 Perinatal death	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
19 Nausea	2	638	Risk Ratio (M-H, Fixed, 95% CI)	1.04 [0.47, 2.32]
20 Vomiting	2	378	Risk Ratio (M-H, Fixed, 95% CI)	0.81 [0.27, 2.47]
21 Diarrhoea	2	378	Risk Ratio (M-H, Fixed, 95% CI)	4.70 [0.23, 97.06]
23 Post partum haemorrhage	2	160	Risk Ratio (M-H, Fixed, 95% CI)	5.5 [1.26, 24.07]
25 Woman not satisfied	1	100	Risk Ratio (M-H, Fixed, 95% CI)	53.0 [3.32, 846.47]
27 Chorioamnionitis	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
28 Retained placenta	1	52	Risk Ratio (M-H, Fixed, 95% CI)	3.24 [0.36, 29.15]

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
29 Precipitate labour	1	60	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 70.83]

Analysis 5.1. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 1 Vaginal delivery not achieved within 24 hours.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Taylor 1993	9/21	10/21		100%	0.9[0.46,1.75]
Total (95% CI)	**21**	**21**		**100%**	**0.9[0.46,1.75]**
Total events: 9 (Treatment), 10 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=0.31(P=0.76)					

Analysis 5.2. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 2 Uterine hyperstimulation with FHR changes.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	0/50	0/50			Not estimable
Maclennan 1980	0/30	0/30			Not estimable
Maclennan 1989	0/164	0/154			Not estimable
Parazzini 1998	18/134	21/127		100%	0.81[0.45,1.45]
Total (95% CI)	**378**	**361**		**100%**	**0.81[0.45,1.45]**
Total events: 18 (Treatment), 21 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=0.7(P=0.48)					

Analysis 5.3. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 3 Caesarean section.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Dommisse 1987	5/25	3/25		4.06%	1.67[0.45,6.24]
Kennedy 1982	2/50	1/50		1.35%	2[0.19,21.36]
Lamont 1991	2/41	7/43		9.26%	0.3[0.07,1.36]
Maclennan 1980	1/30	0/30		0.68%	3[0.13,70.83]
Maclennan 1989	20/164	14/154		19.56%	1.34[0.7,2.56]
Melchior 1989	6/25	5/25		6.77%	1.2[0.42,3.43]
Orhue 1995	7/30	6/34		7.62%	1.32[0.5,3.5]
Parazzini 1998	22/163	28/157		38.65%	0.76[0.45,1.26]

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Taylor 1993	4/21	6/21		8.13%	0.67[0.22,2.03]
Thompson 1987	9/25	3/27		3.91%	3.24[0.99,10.63]
Total (95% CI)	**574**	**566**		**100%**	**1.06[0.79,1.42]**
Total events: 78 (Treatment), 73 (Control)					
Heterogeneity: Tau^2=0; Chi^2=10.31, df=9(P=0.33); I^2=12.68%					
Test for overall effect: Z=0.39(P=0.69)					

Analysis 5.4. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 4 Serious neonatal morbidity or perinatal death.

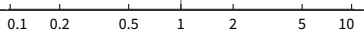
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	0/50	0/50			Not estimable
Lamont 1991	0/41	0/43			Not estimable
Maclennan 1980	0/30	0/30			Not estimable
Maclennan 1989	0/164	0/154			Not estimable
Melchior 1989	1/25	1/25		100%	1[0.07,15.12]
Total (95% CI)	**310**	**302**		**100%**	**1[0.07,15.12]**
Total events: 1 (Treatment), 1 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

Analysis 5.5. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 5 Serious maternal morbidity or death.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Maclennan 1989	0/164	0/154			Not estimable
Orhue 1995	0/30	0/30			Not estimable
Total (95% CI)	**194**	**184**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

Analysis 5.6. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 6 Cervix unfavourable/unchanged after 12 -24 hours.

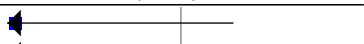
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Parazzini 1998	26/163	34/157		85.27%	0.74[0.46,1.17]
Taylor 1993	0/21	5/21		13.54%	0.09[0.01,1.55]
Thompson 1987	3/25	0/27		1.19%	7.54[0.41,139.04]
Total (95% CI)	**209**	**205**		**100%**	**0.73[0.47,1.12]**
Total events: 29 (Treatment), 39 (Control)					
Heterogeneity: Tau^2=0; Chi^2=4.54, df=2(P=0.1); I^2=55.97%					
Test for overall effect: Z=1.43(P=0.15)					



Favours treatment — Favours control

Analysis 5.7. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 7 Oxytocin augmentation.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	0/50	4/50		37.5%	0.11[0.01,2.01]
Orhue 1995	0/30	7/30		62.5%	0.07[0,1.12]
Total (95% CI)	**80**	**80**		**100%**	**0.08[0.01,0.62]**
Total events: 0 (Treatment), 11 (Control)					
Heterogeneity: Tau^2=0; Chi^2=0.06, df=1(P=0.8); I^2=0%					
Test for overall effect: Z=2.42(P=0.02)					



Favours treatment — Favours control

Analysis 5.8. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 8 Uterine hyperstimulation without FHR changes.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	0/50	0/50			Not estimable
Maclennan 1980	1/30	0/30		16.56%	3[0.13,70.83]
Melchior 1989	1/25	1/25		33.13%	1[0.07,15.12]
Orhue 1995	2/30	0/30		16.56%	5[0.25,99.95]
Parazzini 1998	1/163	1/157		33.75%	0.96[0.06,15.27]
Total (95% CI)	**298**	**292**		**100%**	**1.98[0.51,7.77]**
Total events: 5 (Treatment), 2 (Control)					
Heterogeneity: Tau^2=0; Chi^2=0.94, df=3(P=0.82); I^2=0%					
Test for overall effect: Z=0.98(P=0.33)					

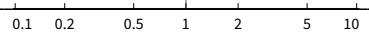
Favours treatment — Favours control

Analysis 5.9. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 9 Uterine rupture.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Taylor 1993	1/21	0/21		100%	3[0.13,69.7]
Total (95% CI)	**21**	**21**		**100%**	**3[0.13,69.7]**
Total events: 1 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=0.68(P=0.49)					

Analysis 5.10. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 10 Epidural analgesia/opioid analgesia.

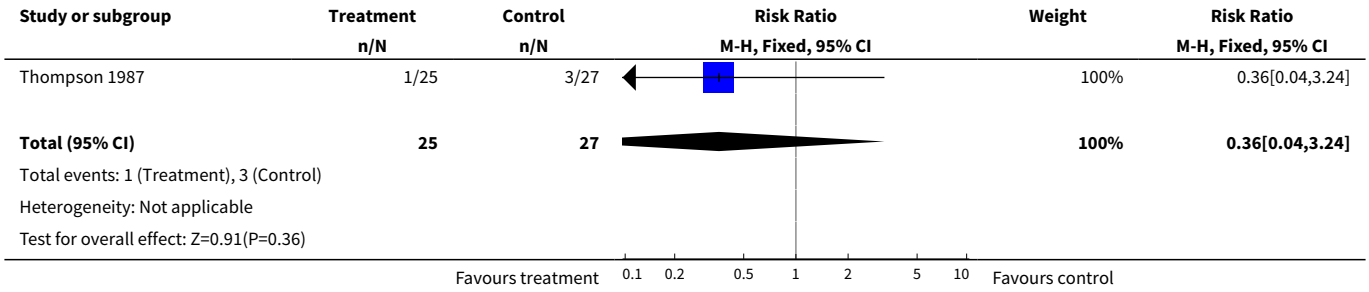
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Maclennan 1980	12/30	3/30		3.39%	4[1.25,12.75]
Maclennan 1989	42/164	52/154		60.7%	0.76[0.54,1.07]
Melchior 1989	12/25	13/25		14.71%	0.92[0.53,1.61]
Taylor 1993	17/21	12/21		13.58%	1.42[0.93,2.17]
Thompson 1987	9/25	7/27		7.62%	1.39[0.61,3.17]
Total (95% CI)	**265**	**257**		**100%**	**1.03[0.82,1.3]**
Total events: 92 (Treatment), 87 (Control)					
Heterogeneity: Tau^2=0; Chi^2=11.15, df=4(P=0.02); I^2=64.14%					
Test for overall effect: Z=0.25(P=0.8)					



Analysis 5.11. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 11 Instrumental vaginal delivery.

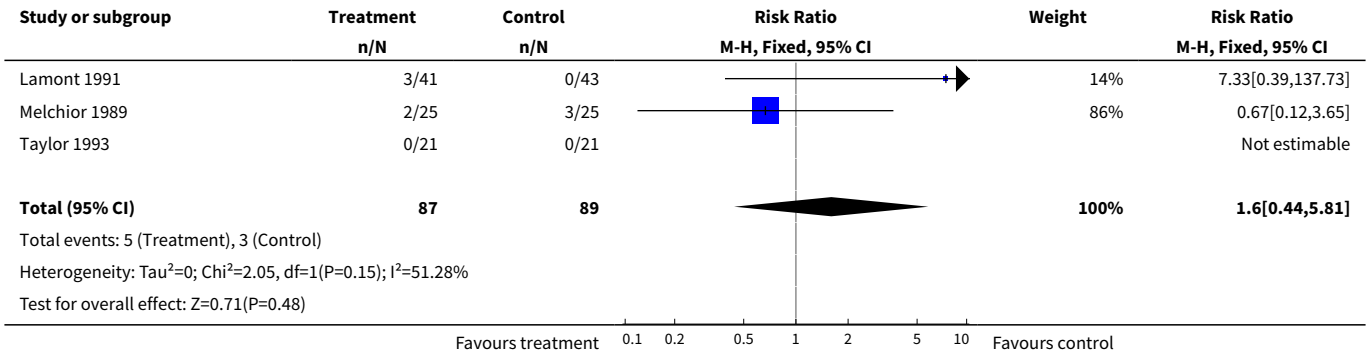
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	7/50	4/50		4.44%	1.75[0.55,5.61]
Lamont 1991	8/41	7/43		7.58%	1.2[0.48,3.01]
Maclennan 1980	12/30	8/30		8.88%	1.5[0.72,3.14]
Maclennan 1989	31/164	45/154		51.52%	0.65[0.43,0.97]
Melchior 1989	3/25	7/25		7.77%	0.43[0.12,1.47]
Orhue 1995	5/30	4/30		4.44%	1.25[0.37,4.21]
Parazzini 1998	2/163	4/157		4.52%	0.48[0.09,2.59]
Taylor 1993	5/21	4/21		4.44%	1.25[0.39,4.02]
Thompson 1987	10/25	6/27		6.4%	1.8[0.77,4.23]
Total (95% CI)	**549**	**537**		**100%**	**0.92[0.7,1.19]**
Total events: 83 (Treatment), 89 (Control)					
Heterogeneity: Tau^2=0; Chi^2=11.07, df=8(P=0.2); I^2=27.72%					
Test for overall effect: Z=0.65(P=0.52)					

Analysis 5.12. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 12 Meconium stained liquor.



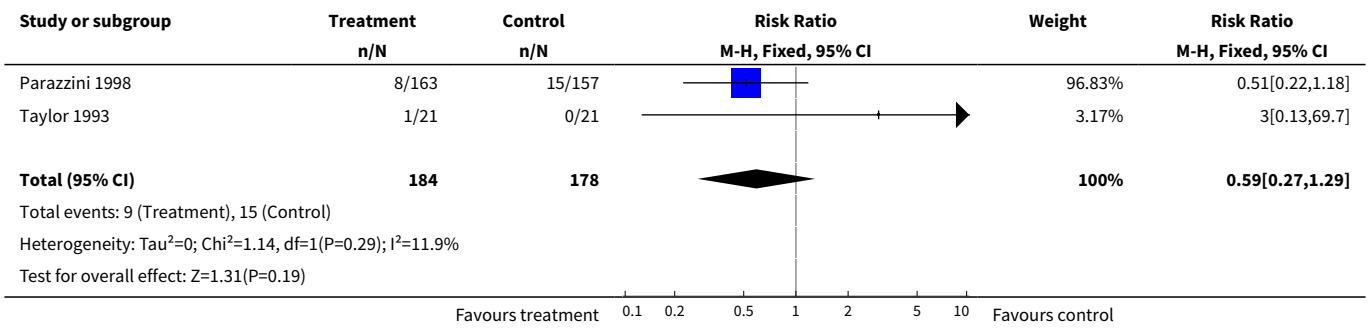
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Thompson 1987	1/25	3/27		100%	0.36[0.04,3.24]
Total (95% CI)	**25**	**27**		**100%**	**0.36[0.04,3.24]**
Total events: 1 (Treatment), 3 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=0.91(P=0.36)					

Analysis 5.13. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 13 Apgar score <7 at 5 minutes.



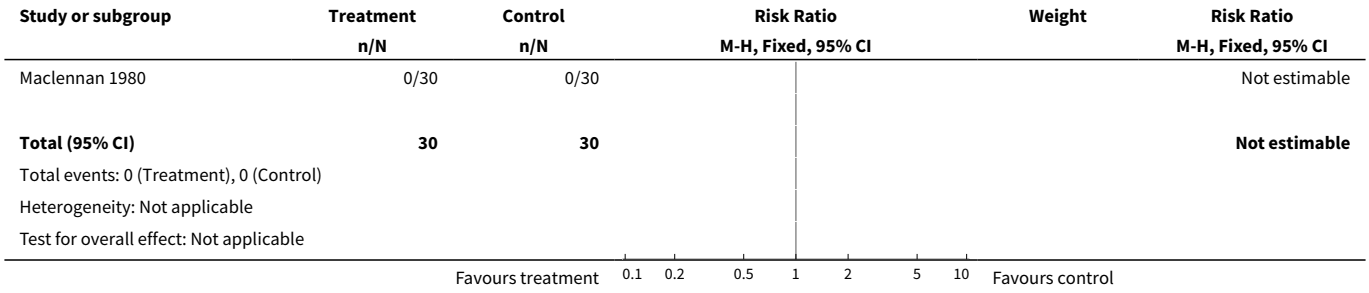
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Lamont 1991	3/41	0/43		14%	7.33[0.39,137.73]
Melchior 1989	2/25	3/25		86%	0.67[0.12,3.65]
Taylor 1993	0/21	0/21			Not estimable
Total (95% CI)	**87**	**89**		**100%**	**1.6[0.44,5.81]**
Total events: 5 (Treatment), 3 (Control)					
Heterogeneity: Tau^2=0; Chi^2=2.05, df=1(P=0.15); I^2=51.28%					
Test for overall effect: Z=0.71(P=0.48)					

Analysis 5.14. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 14 Neonatal intensive care unit admission.

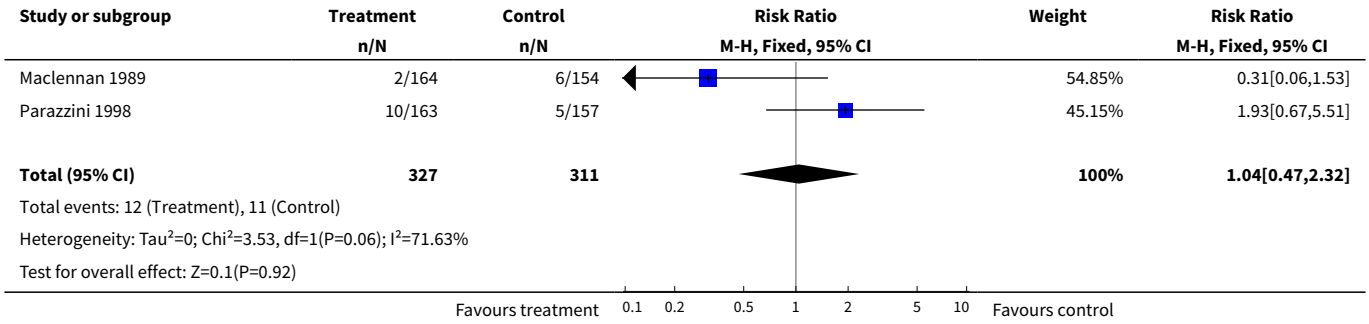


Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Parazzini 1998	8/163	15/157		96.83%	0.51[0.22,1.18]
Taylor 1993	1/21	0/21		3.17%	3[0.13,69.7]
Total (95% CI)	**184**	**178**		**100%**	**0.59[0.27,1.29]**
Total events: 9 (Treatment), 15 (Control)					
Heterogeneity: Tau^2=0; Chi^2=1.14, df=1(P=0.29); I^2=11.9%					
Test for overall effect: Z=1.31(P=0.19)					

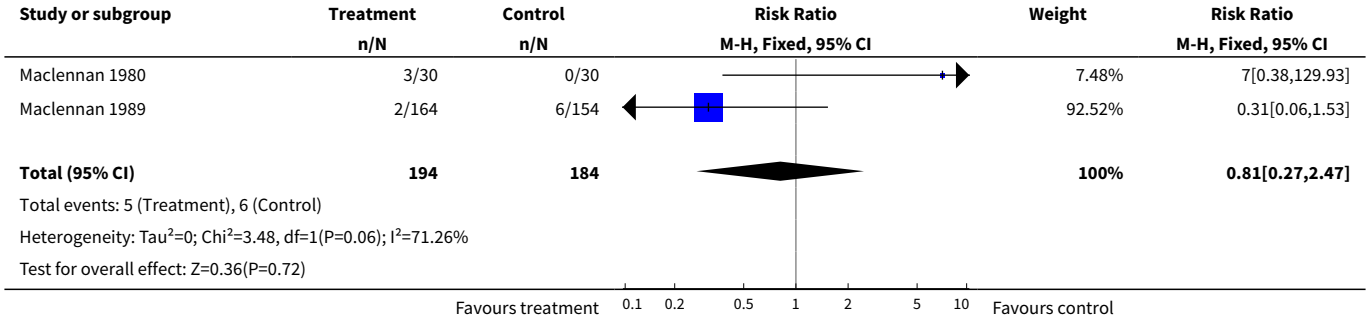
Analysis 5.16. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 16 Perinatal death.



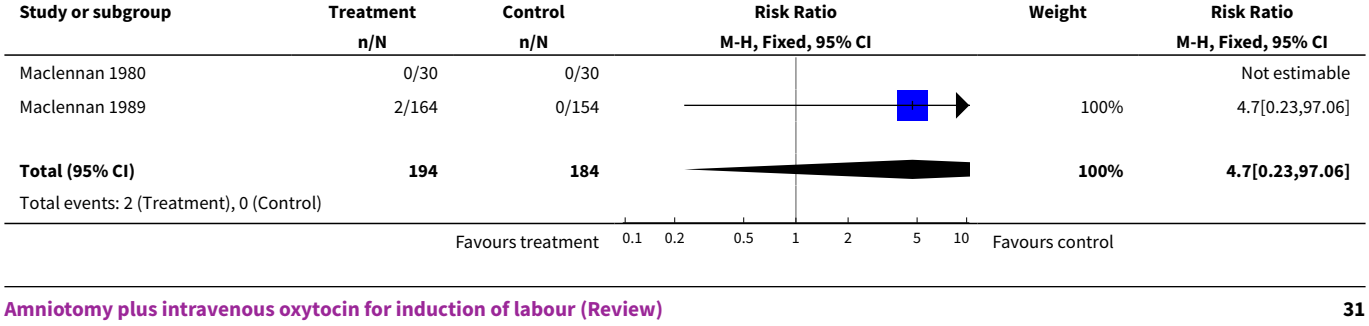
Analysis 5.19. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 19 Nausea.



Analysis 5.20. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 20 Vomiting.



Analysis 5.21. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 21 Diarrhoea.



Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Heterogeneity: Not applicable					
Test for overall effect: Z=1(P=0.32)					

Favours treatment 0.1 0.2 0.5 1 2 5 10 Favours control

Analysis 5.23. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 23 Post partum haemorrhage.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	8/50	1/50		50%	8[1.04,61.62]
Orhue 1995	3/30	1/30		50%	3[0.33,27.23]
Total (95% CI)	**80**	**80**		**100%**	**5.5[1.26,24.07]**
Total events: 11 (Treatment), 2 (Control)					
Heterogeneity: Tau^2=0; Chi^2=0.42, df=1(P=0.52); I^2=0%					
Test for overall effect: Z=2.26(P=0.02)					

Favours treatment 0.1 0.2 0.5 1 2 5 10 Favours control

Analysis 5.25. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 25 Woman not satisfied.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	26/50	0/50		100%	53[3.32,846.47]
Total (95% CI)	**50**	**50**		**100%**	**53[3.32,846.47]**
Total events: 26 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=2.81(P=0)					

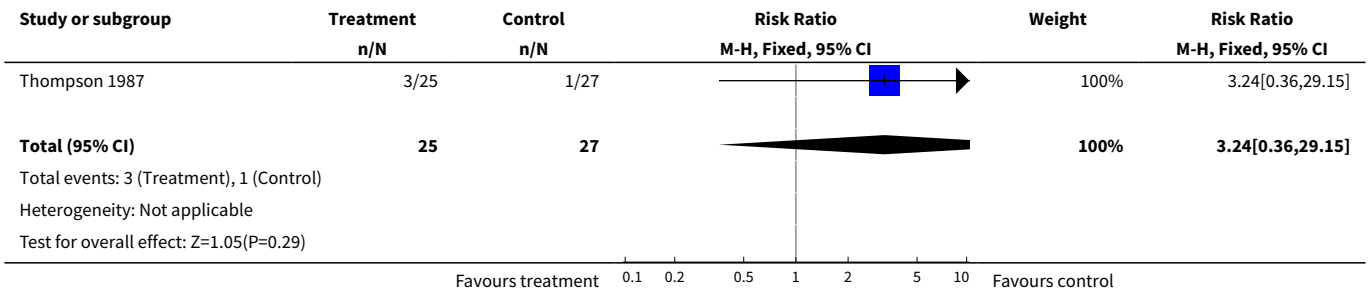
Favours treatment 0.1 0.2 0.5 1 2 5 10 Favours control

Analysis 5.27. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 27 Chorioamnionitis.

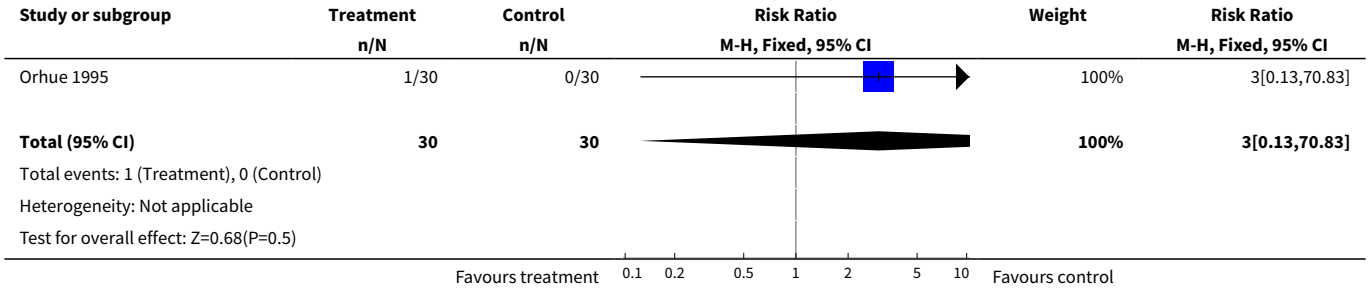
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Maclennan 1980	0/30	0/30			Not estimable
Total (95% CI)	**30**	**30**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

Favours treatment 0.1 0.2 0.5 1 2 5 10 Favours control

Analysis 5.28. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 28 Retained placenta.



Analysis 5.29. Comparison 5 IV oxytocin and amniotomy versus vaginal PG:all women, Outcome 29 Precipitate labour.

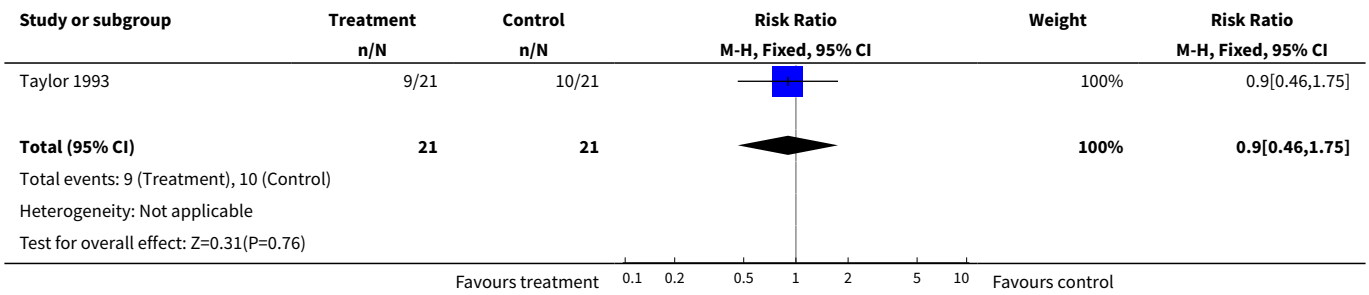


Comparison 6. IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix

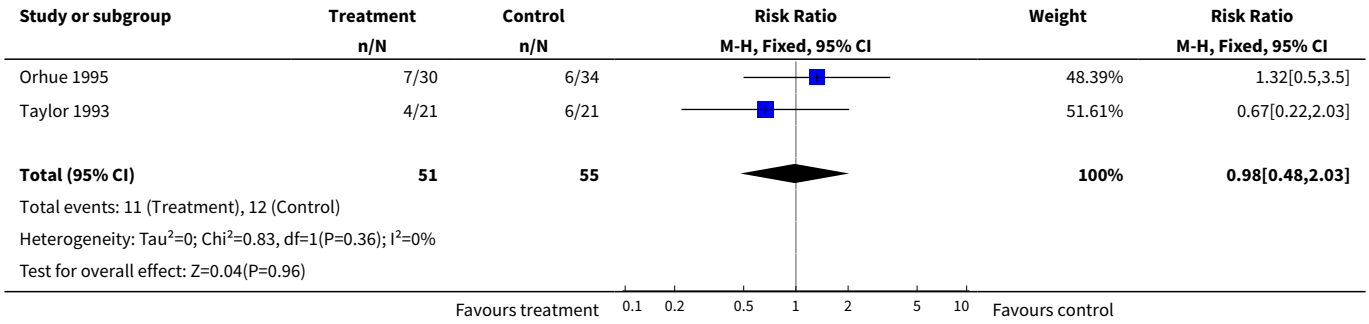
Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved within 24 hours	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.9 [0.46, 1.75]
3 Caesarean section	2	106	Risk Ratio (M-H, Fixed, 95% CI)	0.98 [0.48, 2.03]
5 Serious maternal morbidity or death	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
6 Cervix unfavourable/unchanged after 12 -24 hours	2	94	Risk Ratio (M-H, Fixed, 95% CI)	0.69 [0.20, 2.35]
7 Oxytocin augmentation	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.07 [0.00, 1.12]
8 Uterine hyperstimulation without FHR changes	1	60	Risk Ratio (M-H, Fixed, 95% CI)	5.0 [0.25, 99.95]
9 Uterine rupture	1	42	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 69.70]

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
10 Epidural analgesia/opioid analgesia	4	472	Risk Ratio (M-H, Fixed, 95% CI)	1.05 [0.81, 1.35]
11 Instrumental vaginal delivery	2	102	Risk Ratio (M-H, Fixed, 95% CI)	1.25 [0.54, 2.90]
13 Apgar score <7 at 5 minutes	2	126	Risk Ratio (M-H, Fixed, 95% CI)	7.33 [0.39, 137.73]
14 Neonatal intensive care unit admission	1	42	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 69.70]
23 Post partum haemorrhage	1	60	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.33, 27.23]
29 Precipitate labour	1	60	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 70.83]

Analysis 6.1. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 1 Vaginal delivery not achieved within 24 hours.



Analysis 6.3. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 3 Caesarean section.

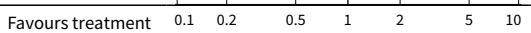


Analysis 6.5. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 5 Serious maternal morbidity or death.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Orhue 1995	0/30	0/30			Not estimable
Total (95% CI)	**30**	**30**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

Analysis 6.6. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 6 Cervix unfavourable/unchanged after 12 -24 hours.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Taylor 1993	0/21	5/21		91.95%	0.09[0.01,1.55]
Thompson 1987	3/25	0/27		8.05%	7.54[0.41,139.04]
Total (95% CI)	**46**	**48**		**100%**	**0.69[0.2,2.35]**
Total events: 3 (Treatment), 5 (Control)					
Heterogeneity: Tau^2=0; Chi^2=4.55, df=1(P=0.03); I^2=78.02%					
Test for overall effect: Z=0.59(P=0.55)					

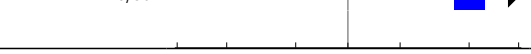


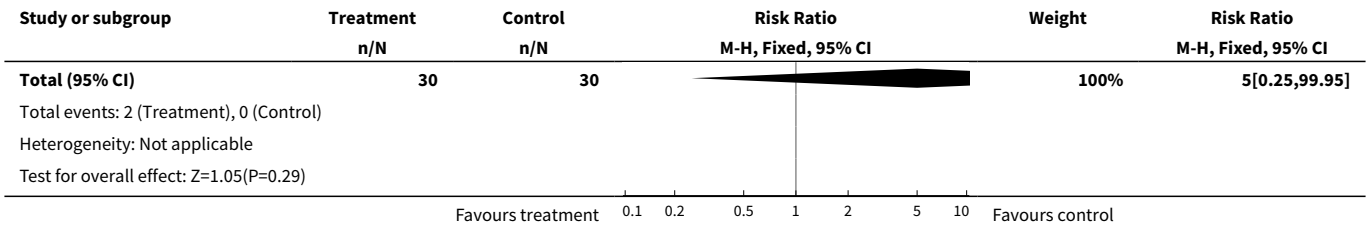
Analysis 6.7. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 7 Oxytocin augmentation.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Orhue 1995	0/30	7/30		100%	0.07[0,1.12]
Total (95% CI)	**30**	**30**		**100%**	**0.07[0,1.12]**
Total events: 0 (Treatment), 7 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.88(P=0.06)					

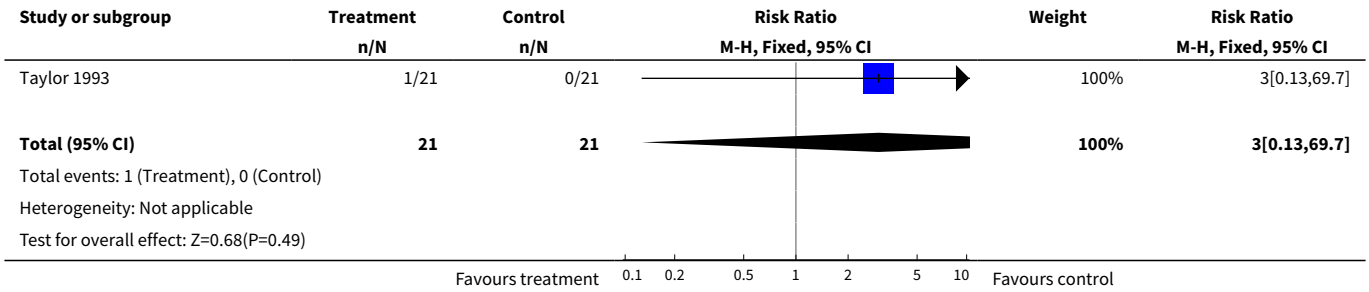
Analysis 6.8. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 8 Uterine hyperstimulation without FHR changes.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Orhue 1995	2/30	0/30		100%	5[0.25,99.95]

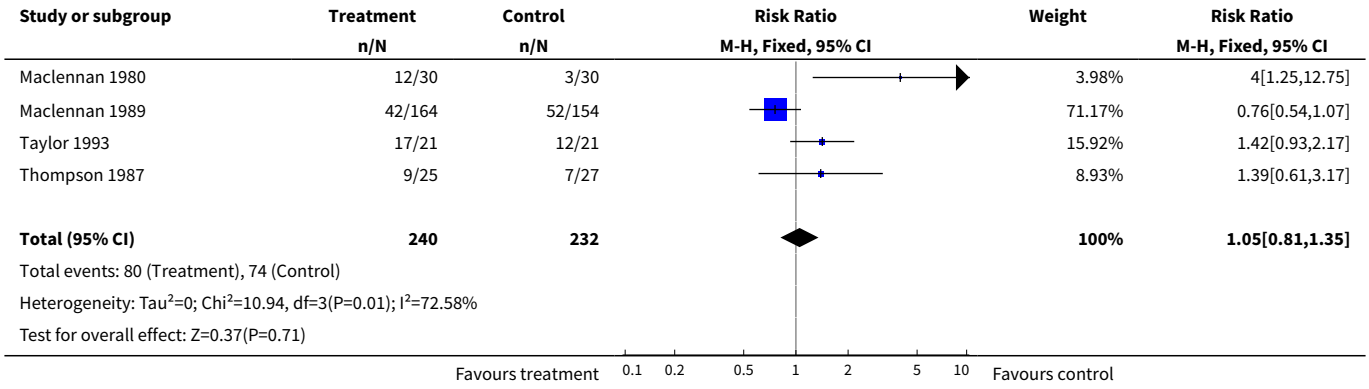




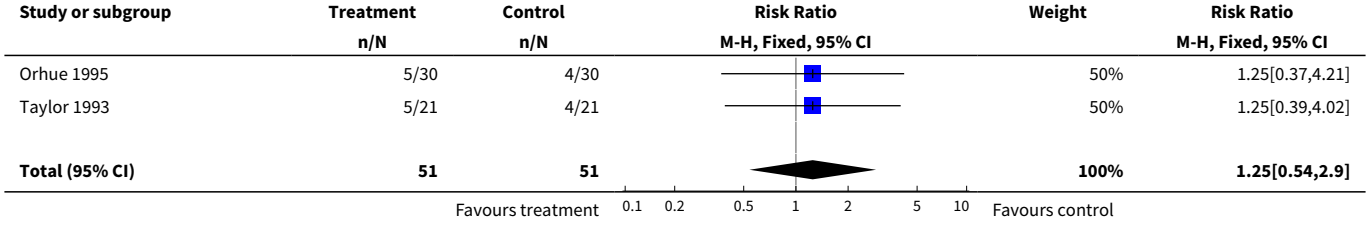
Analysis 6.9. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 9 Uterine rupture.

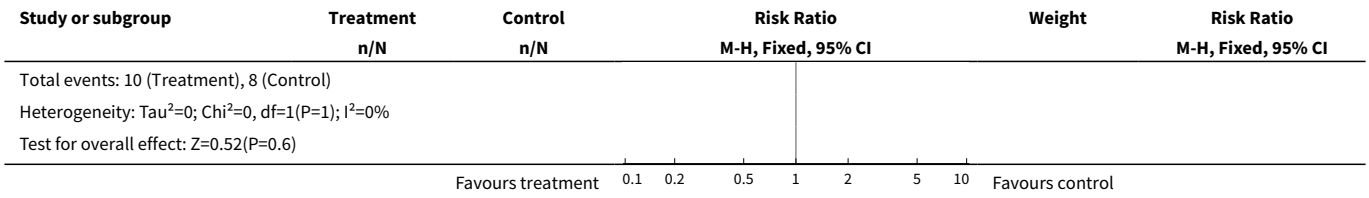


Analysis 6.10. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 10 Epidural analgesia/opioid analgesia.

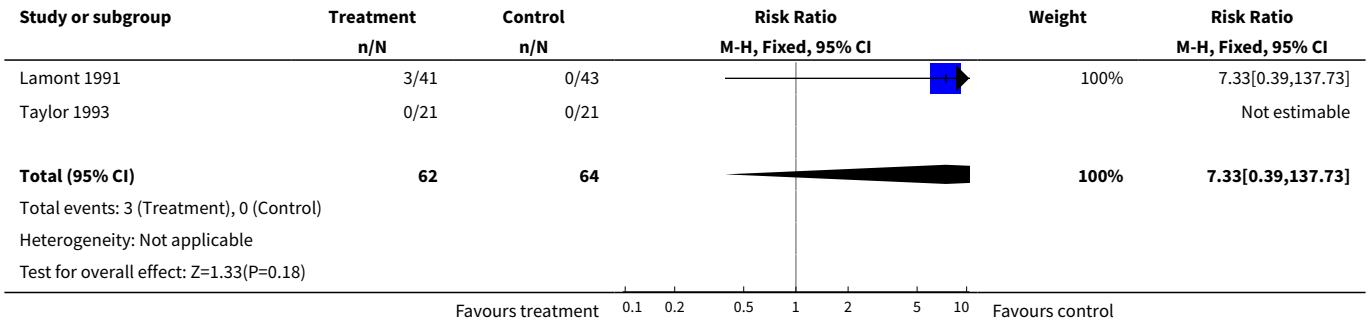


Analysis 6.11. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 11 Instrumental vaginal delivery.

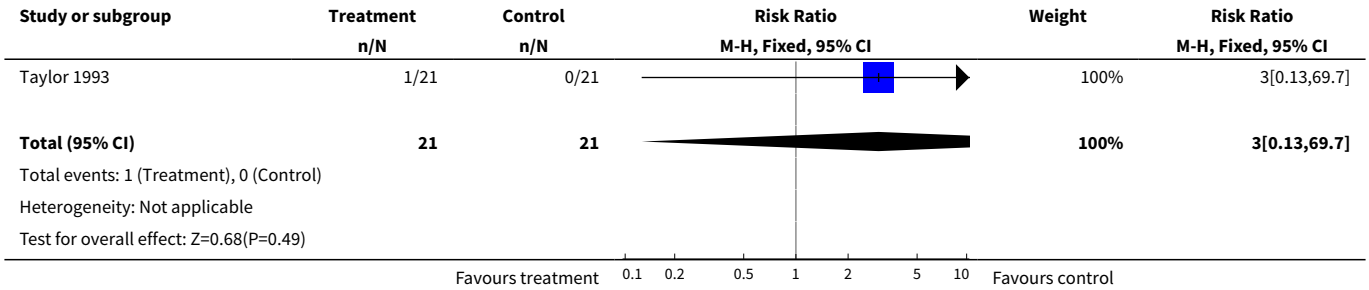




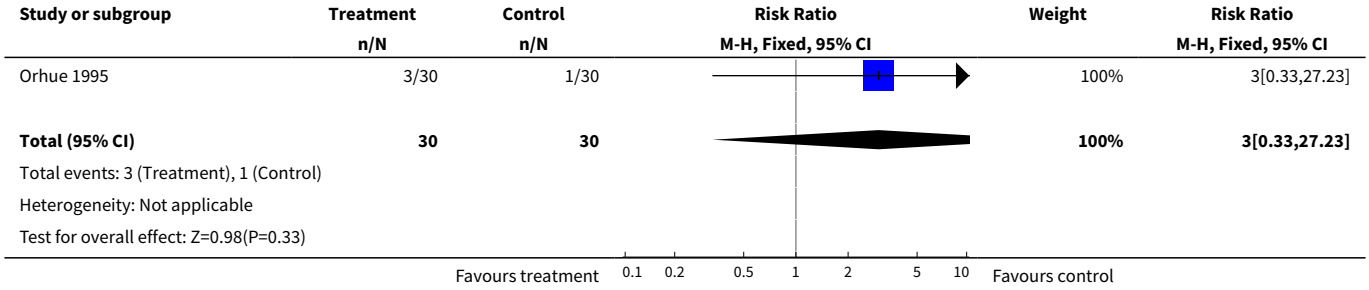
Analysis 6.13. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 13 Apgar score <7 at 5 minutes.



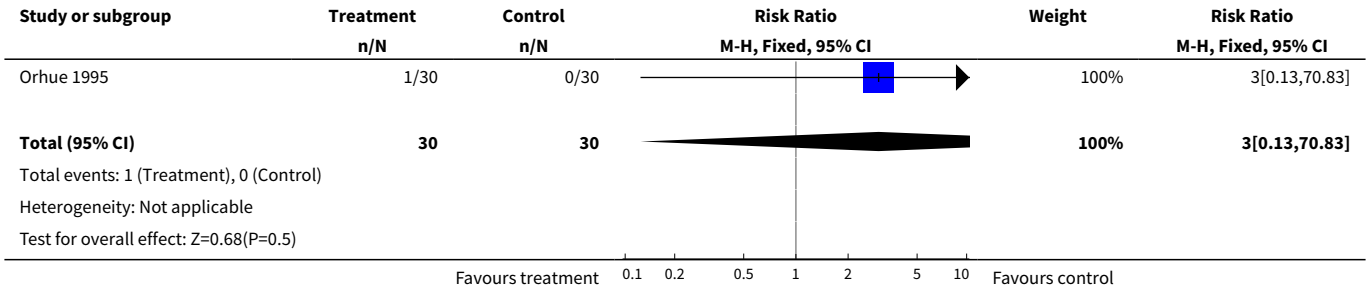
Analysis 6.14. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 14 Neonatal intensive care unit admission.



Analysis 6.23. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 23 Post partum haemorrhage.



Analysis 6.29. Comparison 6 IV oxytocin and amniotomy versus vaginal PG: all women, unfavourable cervix, Outcome 29 Precipitate labour.



Comparison 7. IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
2 Uterine hyperstimulation with FHR changes	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
3 Caesarean section	5	606	Risk Ratio (M-H, Fixed, 95% CI)	0.95 [0.63, 1.41]
4 Serious neonatal morbidity or perinatal death	2	184	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
6 Cervix unfavourable/unchanged after 12 -24 hours	2	372	Risk Ratio (M-H, Fixed, 95% CI)	0.83 [0.53, 1.30]
7 Oxytocin augmentation	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.11 [0.01, 2.01]
8 Uterine hyperstimulation without FHR changes	2	420	Risk Ratio (M-H, Fixed, 95% CI)	0.96 [0.06, 15.27]
10 Epidural analgesia/opioid analgesia	1	52	Risk Ratio (M-H, Fixed, 95% CI)	1.39 [0.61, 3.17]
11 Instrumental vaginal delivery	4	556	Risk Ratio (M-H, Fixed, 95% CI)	1.33 [0.79, 2.23]
12 Meconium stained liquor	1	52	Risk Ratio (M-H, Fixed, 95% CI)	0.36 [0.04, 3.24]
13 Apgar score <7 at 5 minutes	1	84	Risk Ratio (M-H, Fixed, 95% CI)	7.33 [0.39, 137.73]
14 Neonatal intensive care admission	1	320	Risk Ratio (M-H, Fixed, 95% CI)	0.51 [0.22, 1.18]
19 Nausea	1	320	Risk Ratio (M-H, Fixed, 95% CI)	1.93 [0.67, 5.51]
23 Post partum haemorrhage	1	100	Risk Ratio (M-H, Fixed, 95% CI)	8.0 [1.04, 61.62]
25 Woman not satisfied	1	100	Risk Ratio (M-H, Fixed, 95% CI)	53.0 [3.32, 846.47]
28 Retained placenta	1	52	Risk Ratio (M-H, Fixed, 95% CI)	3.24 [0.36, 29.15]

Analysis 7.2. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 2 Uterine hyperstimulation with FHR changes.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	0/50	0/50			Not estimable
Total (95% CI)	**50**	**50**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

Analysis 7.3. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 3 Caesarean section.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Dommisse 1987	5/25	3/25		7.1%	1.67[0.45,6.24]
Kennedy 1982	2/50	1/50		2.37%	2[0.19,21.36]
Lamont 1991	2/41	7/43		16.18%	0.3[0.07,1.36]
Parazzini 1998	22/163	28/157		67.53%	0.76[0.45,1.26]
Thompson 1987	9/25	3/27		6.83%	3.24[0.99,10.63]
Total (95% CI)	**304**	**302**		**100%**	**0.95[0.63,1.41]**
Total events: 40 (Treatment), 42 (Control)					
Heterogeneity: Tau^2=0; Chi^2=8.16, df=4(P=0.09); I^2=50.99%					
Test for overall effect: Z=0.27(P=0.79)					

Analysis 7.4. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 4 Serious neonatal morbidity or perinatal death.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	0/50	0/50			Not estimable
Lamont 1991	0/41	0/43			Not estimable
Total (95% CI)	**91**	**93**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

Analysis 7.6. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 6 Cervix unfavourable/unchanged after 12 -24 hours.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Parazzini 1998	26/163	34/157		98.63%	0.74[0.46,1.17]
Thompson 1987	3/25	0/27		1.37%	7.54[0.41,139.04]
Total (95% CI)	**188**	**184**		**100%**	**0.83[0.53,1.3]**
Total events: 29 (Treatment), 34 (Control)					
Heterogeneity: Tau^2=0; Chi^2=2.46, df=1(P=0.12); I^2=59.32%					
Test for overall effect: Z=0.82(P=0.41)					

Analysis 7.7. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 7 Oxytocin augmentation.

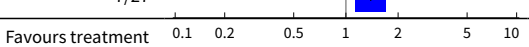
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	0/50	4/50		100%	0.11[0.01,2.01]
Total (95% CI)	**50**	**50**		**100%**	**0.11[0.01,2.01]**
Total events: 0 (Treatment), 4 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.49(P=0.14)					

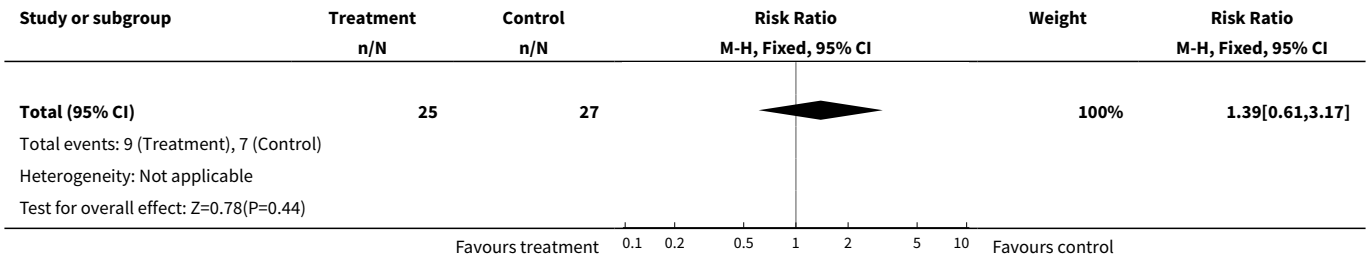
Analysis 7.8. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 8 Uterine hyperstimulation without FHR changes.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	0/50	0/50			Not estimable
Parazzini 1998	1/163	1/157		100%	0.96[0.06,15.27]
Total (95% CI)	**213**	**207**		**100%**	**0.96[0.06,15.27]**
Total events: 1 (Treatment), 1 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=0.03(P=0.98)					

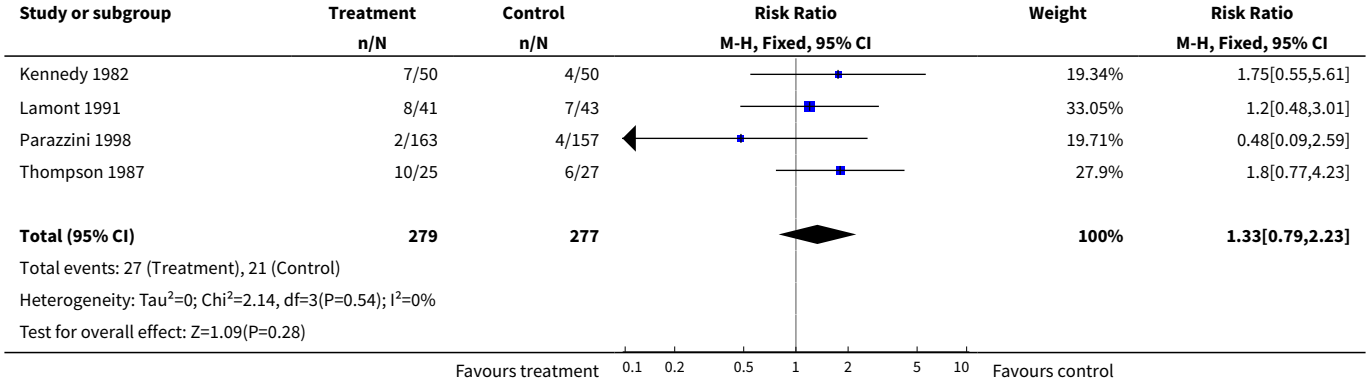
Analysis 7.10. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 10 Epidural analgesia/opioid analgesia.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Thompson 1987	9/25	7/27		100%	1.39[0.61,3.17]

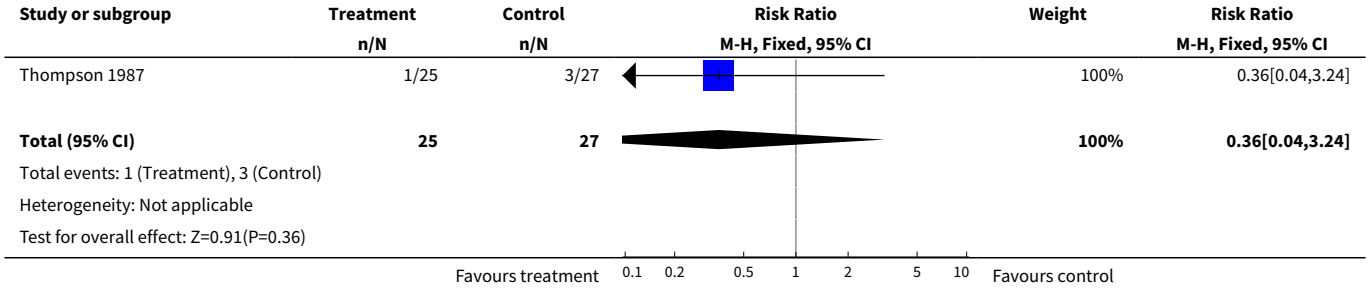




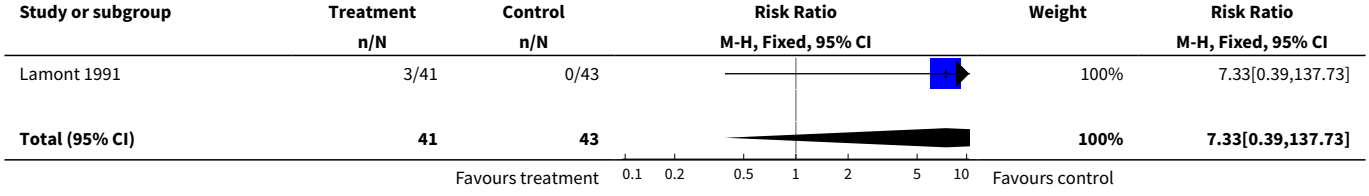
Analysis 7.11. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 11 Instrumental vaginal delivery.

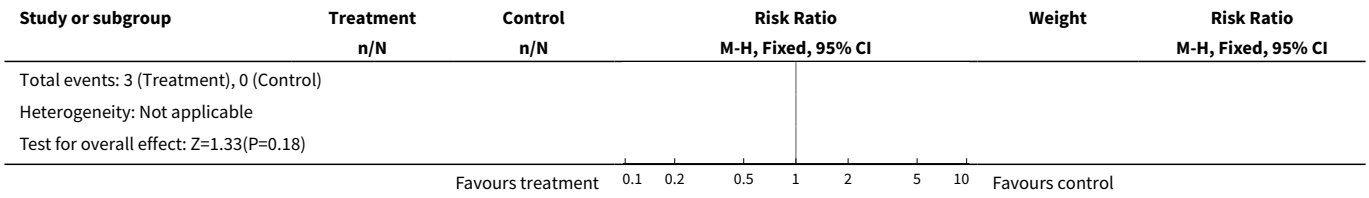


Analysis 7.12. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 12 Meconium stained liquor.

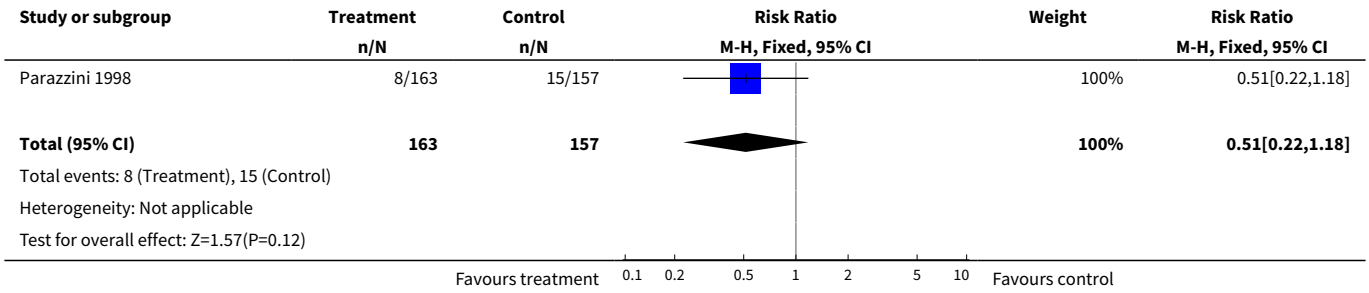


Analysis 7.13. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 13 Apgar score <7 at 5 minutes.

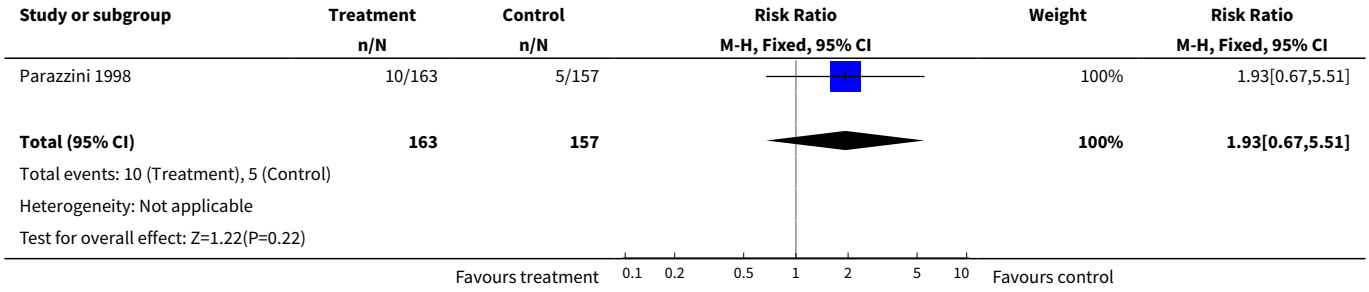




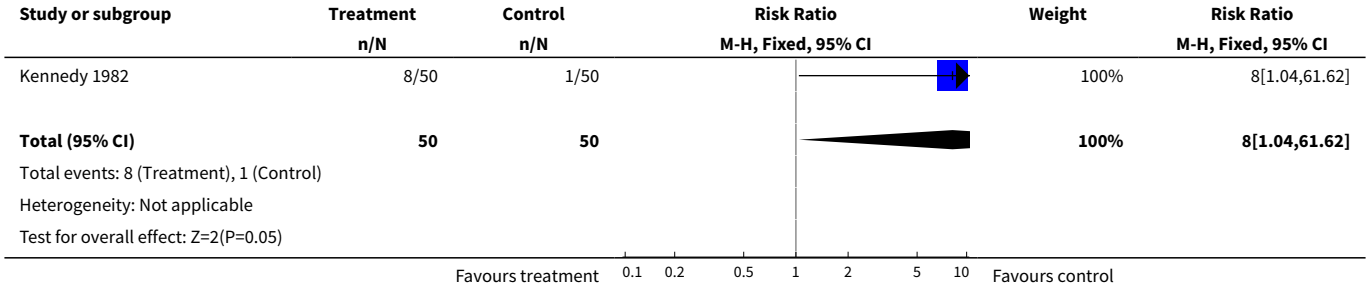
Analysis 7.14. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 14 Neonatal intensive care admission.



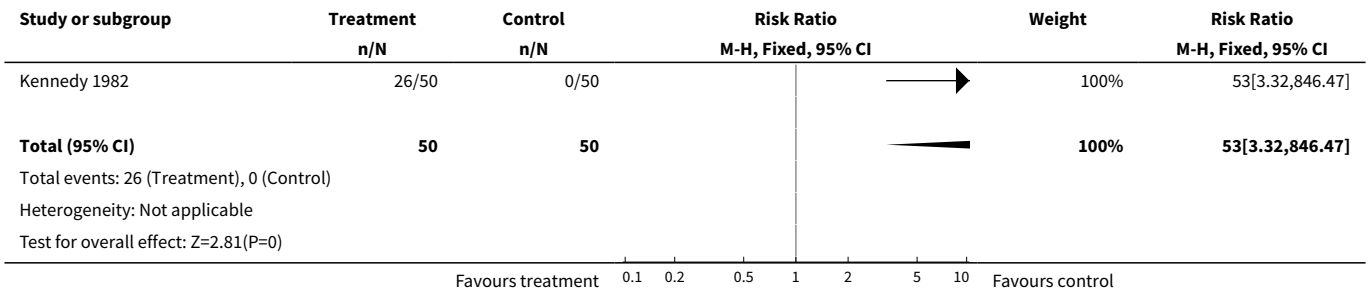
Analysis 7.19. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 19 Nausea.



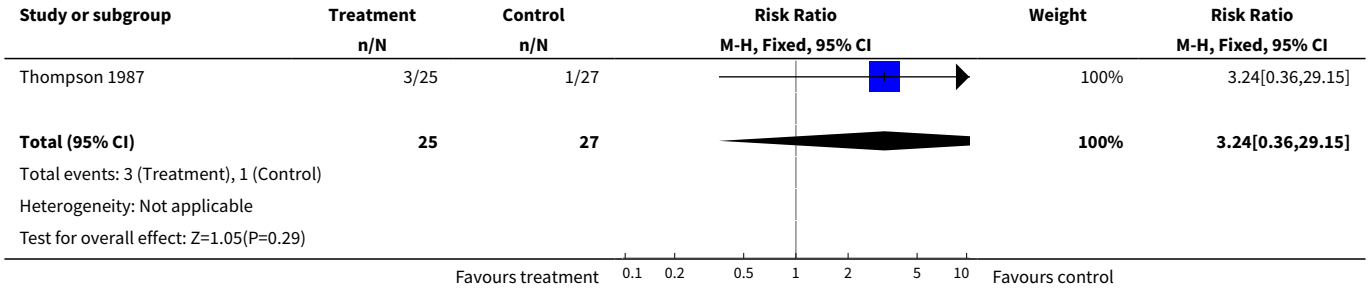
Analysis 7.23. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 23 Post partum haemorrhage.



Analysis 7.25. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 25 Woman not satisfied.



Analysis 7.28. Comparison 7 IV oxytocin and amniotomy versus vaginal PG; all women, favourable cervix, Outcome 28 Retained placenta.



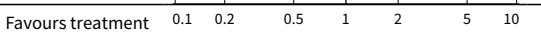
Comparison 8. IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
2 Uterine hyperstimulation with FHR changes	1	318	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
3 Caesarean section	1	318	Risk Ratio (M-H, Fixed, 95% CI)	1.34 [0.70, 2.56]
4 Serious neonatal morbidity or perinatal death	1	318	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
5 Serious maternal morbidity or death	1	318	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
10 Epidural analgesia/opioid analgesia	1	318	Risk Ratio (M-H, Fixed, 95% CI)	0.76 [0.54, 1.07]
11 Instrumental vaginal delivery	1	318	Risk Ratio (M-H, Fixed, 95% CI)	0.65 [0.43, 0.97]
19 Nausea	1	318	Risk Ratio (M-H, Fixed, 95% CI)	0.31 [0.06, 1.53]

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
20 Vomiting	1	318	Risk Ratio (M-H, Fixed, 95% CI)	0.31 [0.06, 1.53]
21 Diarrhoea	1	318	Risk Ratio (M-H, Fixed, 95% CI)	4.70 [0.23, 97.06]

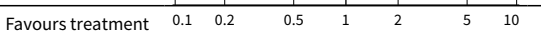
Analysis 8.2. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 2 Uterine hyperstimulation with FHR changes.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Maclennan 1989	0/164	0/154			Not estimable
Total (95% CI)	**164**	**154**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					



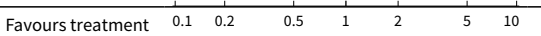
Analysis 8.3. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 3 Caesarean section.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Maclennan 1989	20/164	14/154		100%	1.34[0.7,2.56]
Total (95% CI)	**164**	**154**		**100%**	**1.34[0.7,2.56]**
Total events: 20 (Treatment), 14 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=0.89(P=0.37)					

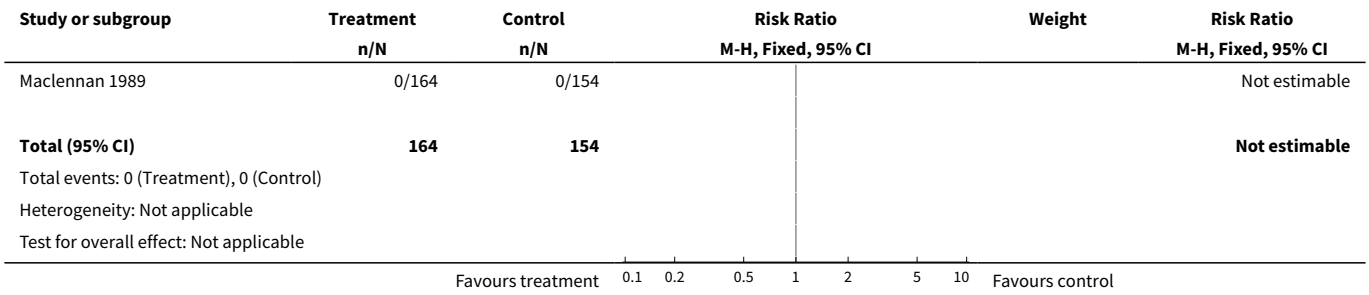


Analysis 8.4. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 4 Serious neonatal morbidity or perinatal death.

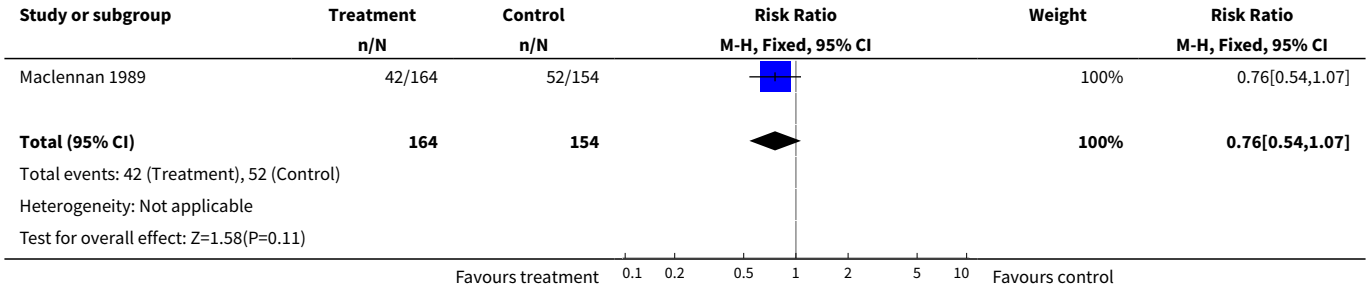
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Maclennan 1989	0/164	0/154			Not estimable
Total (95% CI)	**164**	**154**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					



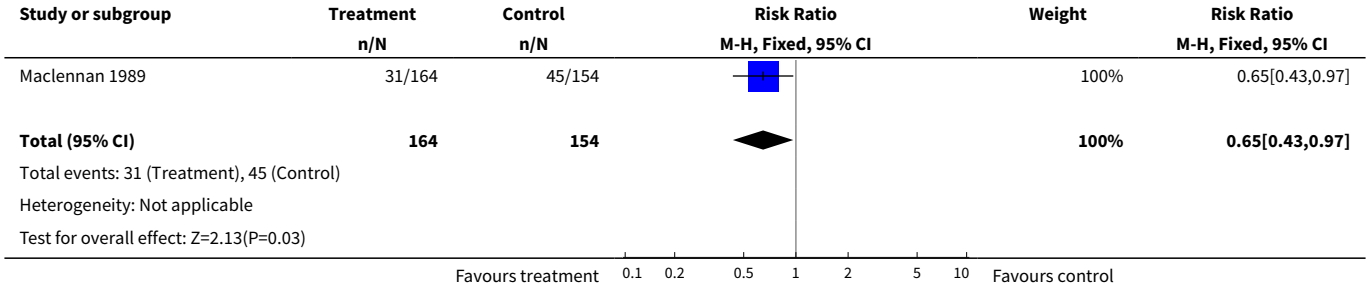
Analysis 8.5. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 5 Serious maternal morbidity or death.



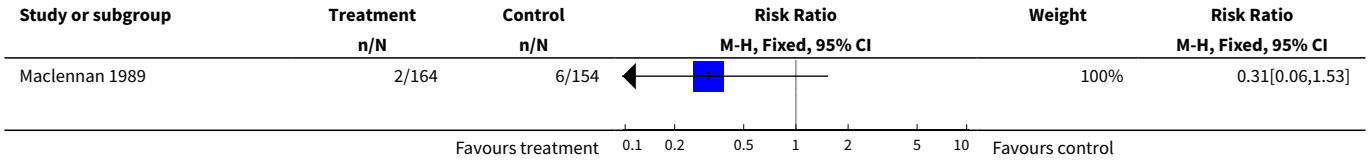
Analysis 8.10. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 10 Epidural analgesia/opioid analgesia.

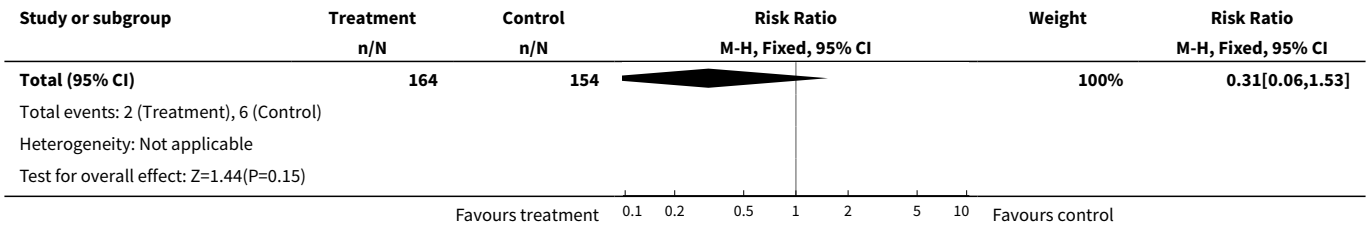


Analysis 8.11. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 11 Instrumental vaginal delivery.

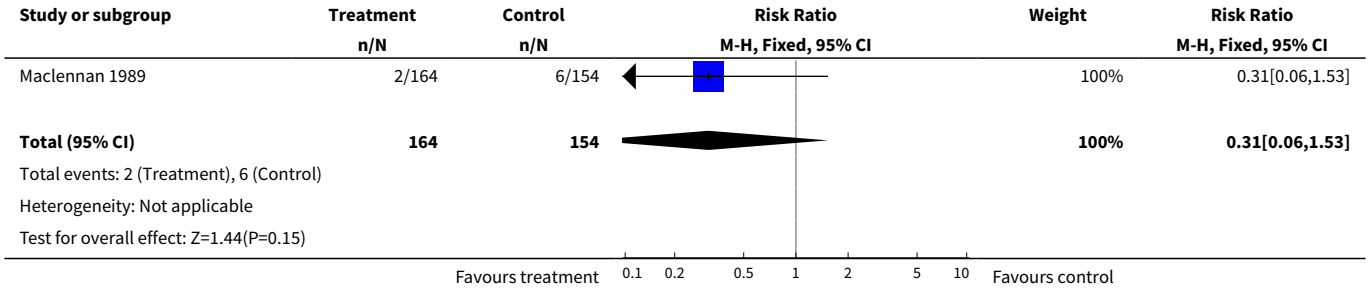


Analysis 8.19. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 19 Nausea.

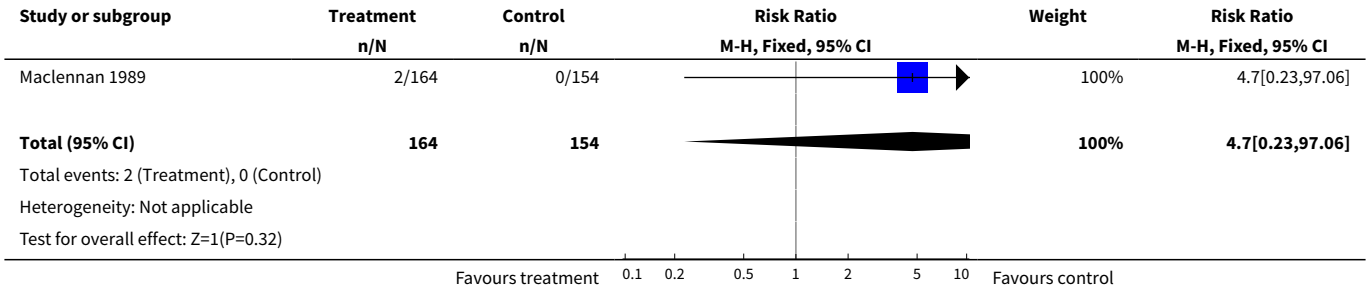




Analysis 8.20. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 20 Vomiting.



Analysis 8.21. Comparison 8 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, variable or undefined cervix, Outcome 21 Diarrhoea.



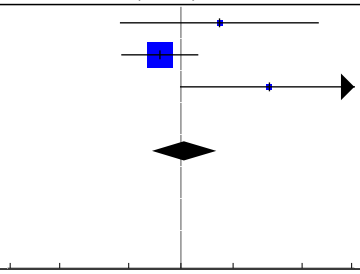
Comparison 9. IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
3 Caesarean section	3	422	Risk Ratio (M-H, Fixed, 95% CI)	1.04 [0.68, 1.60]
6 Cervix unfavourable/unchanged after 12 -24 hours	2	372	Risk Ratio (M-H, Fixed, 95% CI)	0.83 [0.53, 1.30]
8 Uterine hyperstimulation without FHR changes	1	320	Risk Ratio (M-H, Fixed, 95% CI)	0.96 [0.06, 15.27]
11 Instrumental vaginal delivery	2	372	Risk Ratio (M-H, Fixed, 95% CI)	1.25 [0.60, 2.63]

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
12 Meconium stained liquor	1	52	Risk Ratio (M-H, Fixed, 95% CI)	0.36 [0.04, 3.24]
14 Neonatal intensive care admission	1	320	Risk Ratio (M-H, Fixed, 95% CI)	0.51 [0.22, 1.18]
19 Nausea	1	320	Risk Ratio (M-H, Fixed, 95% CI)	1.93 [0.67, 5.51]
28 Retained placenta	1	52	Risk Ratio (M-H, Fixed, 95% CI)	3.24 [0.36, 29.15]

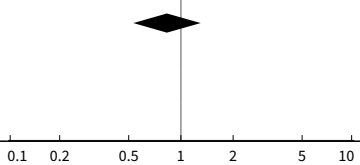
Analysis 9.3. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 3 Caesarean section.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Dommisse 1987	5/25	3/25		8.72%	1.67[0.45,6.24]
Parazzini 1998	22/163	28/157		82.9%	0.76[0.45,1.26]
Thompson 1987	9/25	3/27		8.38%	3.24[0.99,10.63]
Total (95% CI)	**213**	**209**		**100%**	**1.04[0.68,1.6]**
Total events: 36 (Treatment), 34 (Control)					
Heterogeneity: Tau^2=0; Chi^2=5.48, df=2(P=0.06); I^2=63.51%					
Test for overall effect: Z=0.2(P=0.84)					



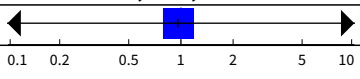
Analysis 9.6. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 6 Cervix unfavourable/unchanged after 12 -24 hours.

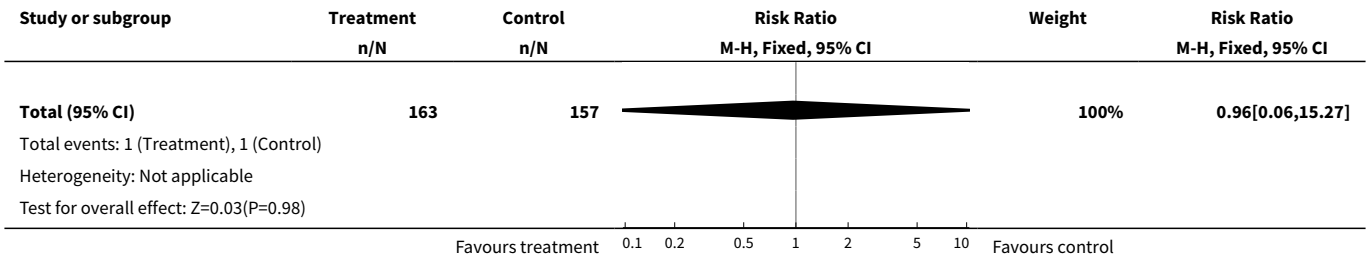
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Parazzini 1998	26/163	34/157		98.63%	0.74[0.46,1.17]
Thompson 1987	3/25	0/27		1.37%	7.54[0.41,139.04]
Total (95% CI)	**188**	**184**		**100%**	**0.83[0.53,1.3]**
Total events: 29 (Treatment), 34 (Control)					
Heterogeneity: Tau^2=0; Chi^2=2.46, df=1(P=0.12); I^2=59.32%					
Test for overall effect: Z=0.82(P=0.41)					



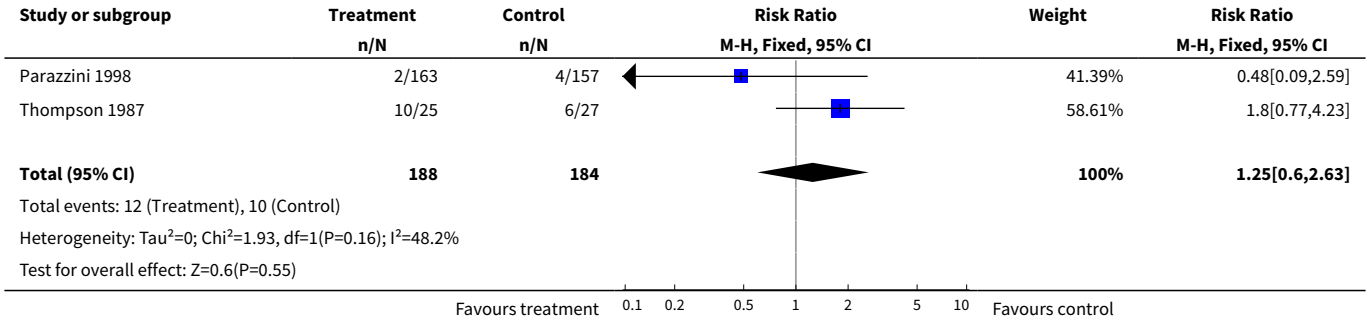
Analysis 9.8. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 8 Uterine hyperstimulation without FHR changes.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Parazzini 1998	1/163	1/157		100%	0.96[0.06,15.27]

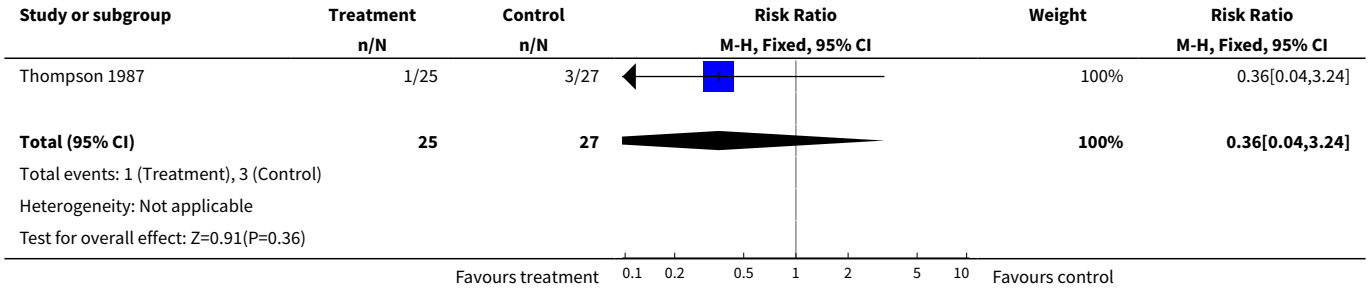




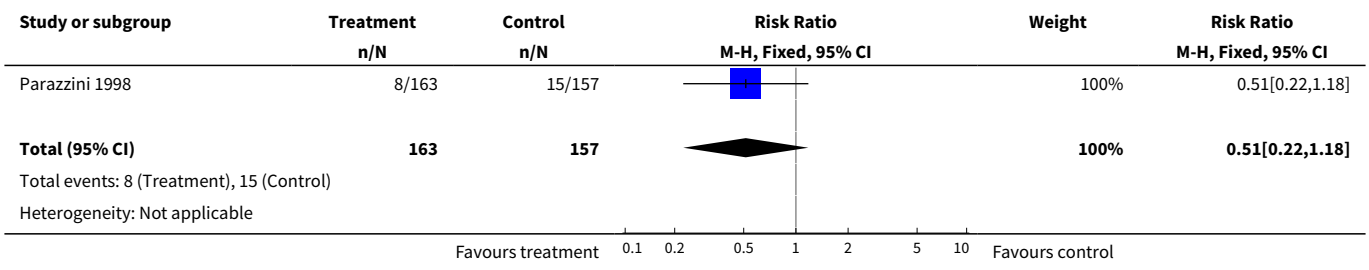
Analysis 9.11. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 11 Instrumental vaginal delivery.

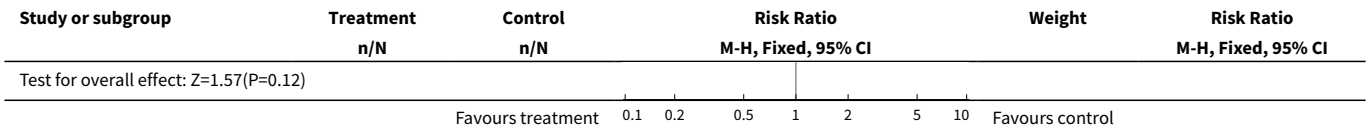


Analysis 9.12. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 12 Meconium stained liquor.

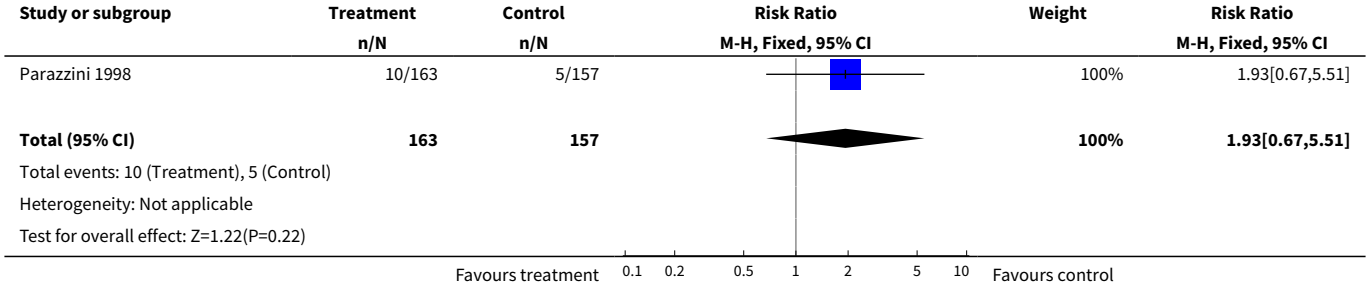


Analysis 9.14. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 14 Neonatal intensive care admission.

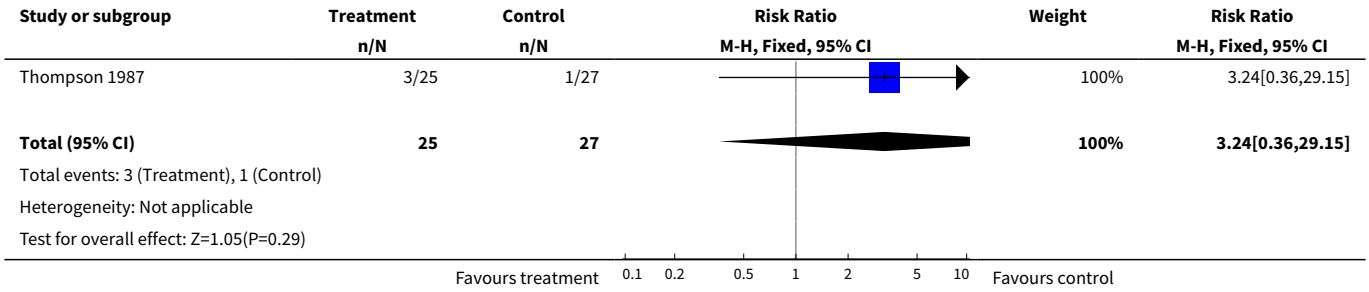




Analysis 9.19. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 19 Nausea.



Analysis 9.28. Comparison 9 IV oxytocin and amniotomy versus vaginal PG: all women, intact membranes, favourable cervix, Outcome 28 Retained placenta.



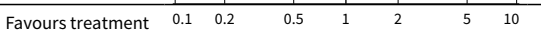
Comparison 10. IV oxytocin and amniotomy versus vaginal PG:all primiparae

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
3 Caesarean section	1	64	Risk Ratio (M-H, Fixed, 95% CI)	1.32 [0.50, 3.50]
5 Serious maternal morbidity or death	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
7 Oxytocin augmentation	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.07 [0.00, 1.12]
8 Uterine hyperstimulation without FHR changes	1	60	Risk Ratio (M-H, Fixed, 95% CI)	5.0 [0.25, 99.95]
11 Instrumental vaginal delivery	1	60	Risk Ratio (M-H, Fixed, 95% CI)	1.25 [0.37, 4.21]

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
23 Post partum haemorrhage	1	60	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.33, 27.23]
29 Precipitate labour	1	60	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 70.83]

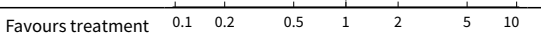
Analysis 10.3. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 3 Caesarean section.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Orhue 1995	7/30	6/34		100%	1.32[0.5,3.5]
Total (95% CI)	**30**	**34**		**100%**	**1.32[0.5,3.5]**
Total events: 7 (Treatment), 6 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=0.56(P=0.57)					



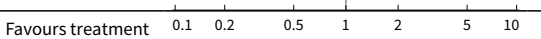
Analysis 10.5. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 5 Serious maternal morbidity or death.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Orhue 1995	0/30	0/30			Not estimable
Total (95% CI)	**30**	**30**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

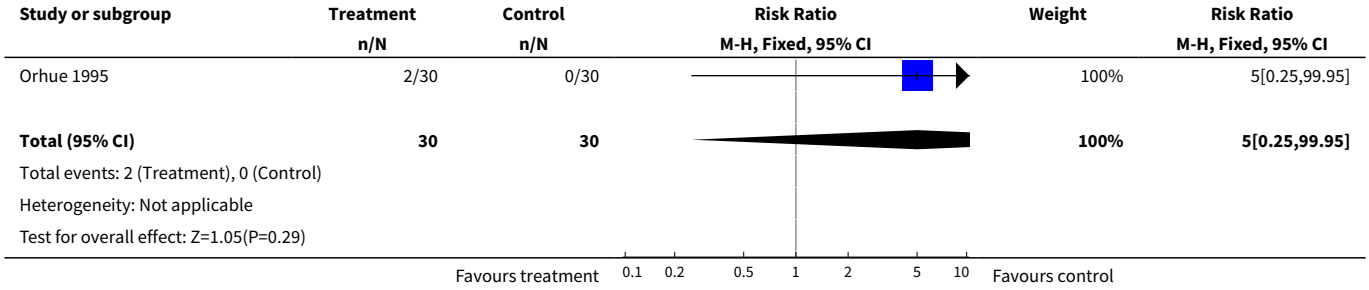


Analysis 10.7. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 7 Oxytocin augmentation.

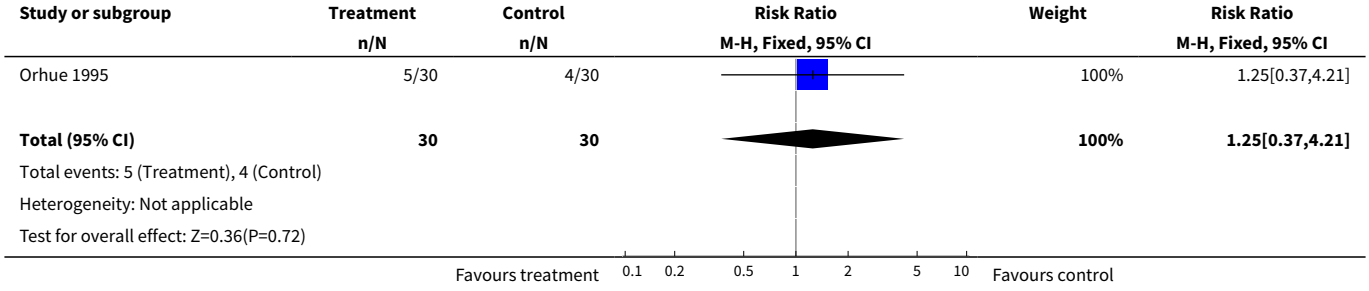
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Orhue 1995	0/30	7/30		100%	0.07[0,1.12]
Total (95% CI)	**30**	**30**		**100%**	**0.07[0,1.12]**
Total events: 0 (Treatment), 7 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.88(P=0.06)					



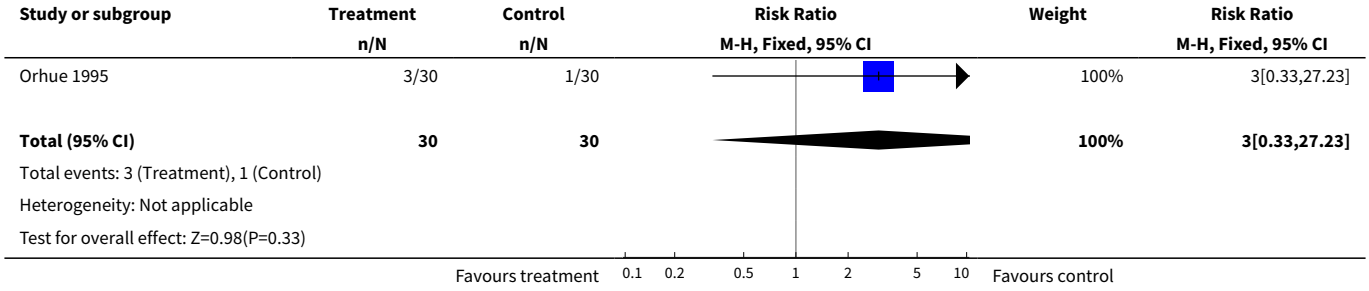
Analysis 10.8. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 8 Uterine hyperstimulation without FHR changes.



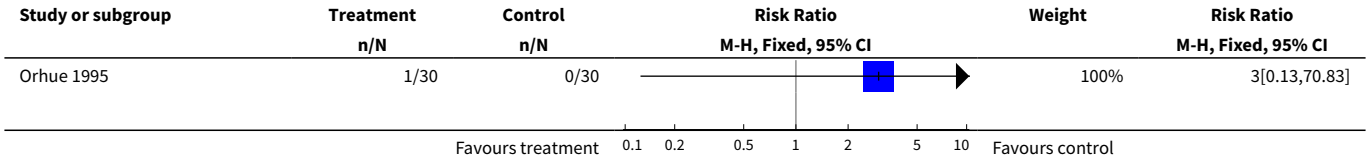
Analysis 10.11. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 11 Instrumental vaginal delivery.

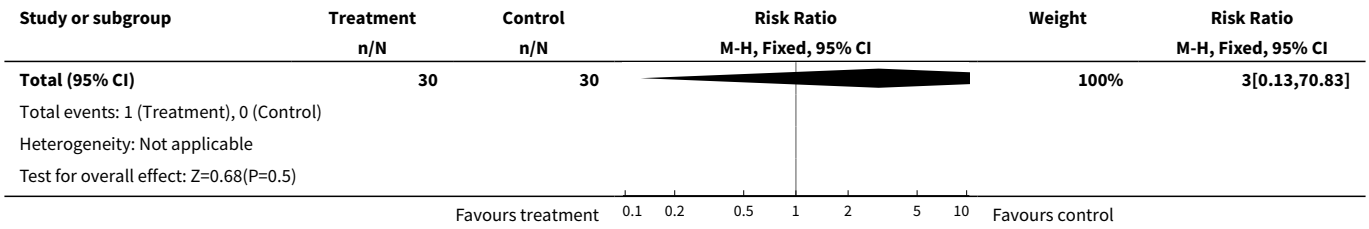


Analysis 10.23. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 23 Post partum haemorrhage.



Analysis 10.29. Comparison 10 IV oxytocin and amniotomy versus vaginal PG:all primiparae, Outcome 29 Precipitate labour.

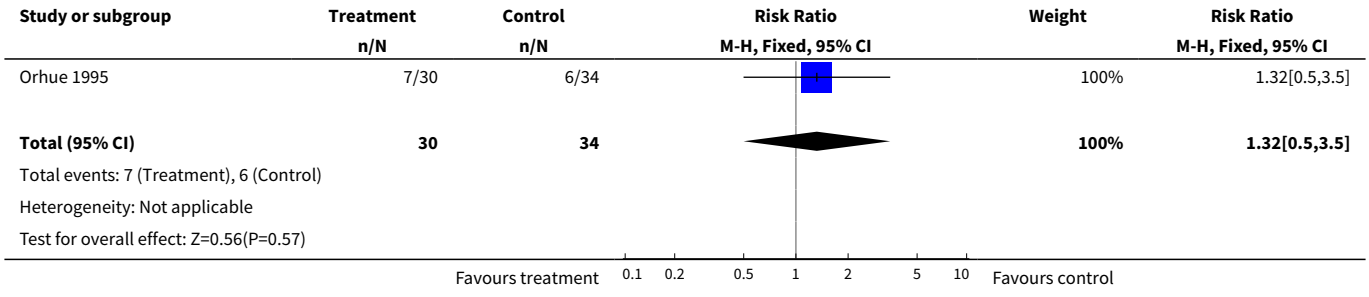




Comparison 11. IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
3 Caesarean section	1	64	Risk Ratio (M-H, Fixed, 95% CI)	1.32 [0.50, 3.50]
5 Serious maternal morbidity or death	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
7 Oxytocin augmentation	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.07 [0.00, 1.12]
8 Uterine hyperstimulation without FHR changes	1	60	Risk Ratio (M-H, Fixed, 95% CI)	5.0 [0.25, 99.95]
11 Instrumental vaginal delivery	1	60	Risk Ratio (M-H, Fixed, 95% CI)	1.25 [0.37, 4.21]
23 Post partum haemorrhage	1	60	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.33, 27.23]
29 Precipitate labour	1	60	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 70.83]

Analysis 11.3. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 3 Caesarean section.

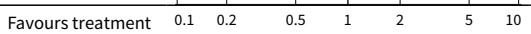


Analysis 11.5. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 5 Serious maternal morbidity or death.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Orhue 1995	0/30	0/30			Not estimable
Total (95% CI)	**30**	**30**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

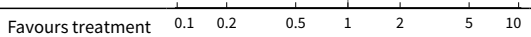
Analysis 11.7. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 7 Oxytocin augmentation.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Orhue 1995	0/30	7/30		100%	0.07[0,1.12]
Total (95% CI)	**30**	**30**		**100%**	**0.07[0,1.12]**
Total events: 0 (Treatment), 7 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.88(P=0.06)					



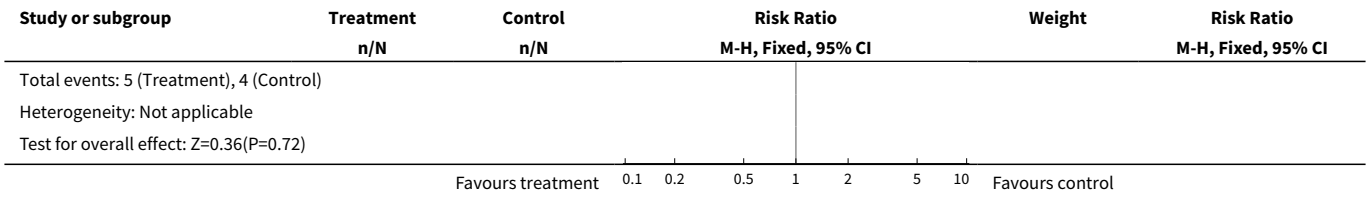
Analysis 11.8. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 8 Uterine hyperstimulation without FHR changes.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Orhue 1995	2/30	0/30		100%	5[0.25,99.95]
Total (95% CI)	**30**	**30**		**100%**	**5[0.25,99.95]**
Total events: 2 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.05(P=0.29)					

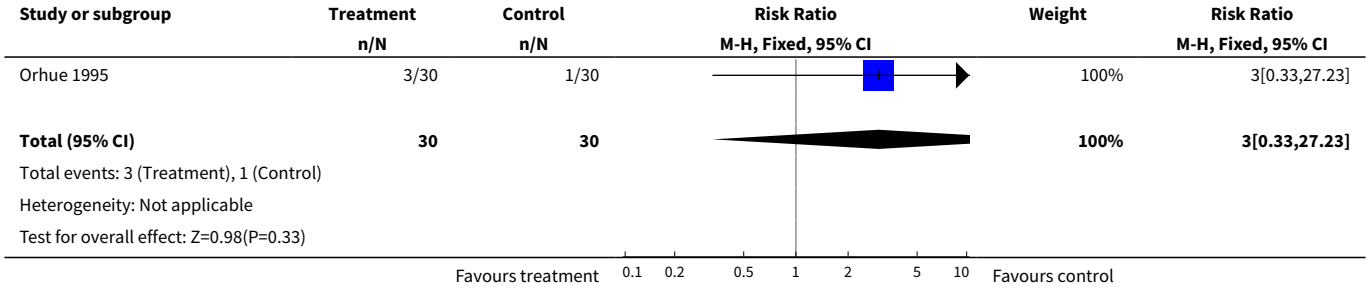


Analysis 11.11. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 11 Instrumental vaginal delivery.

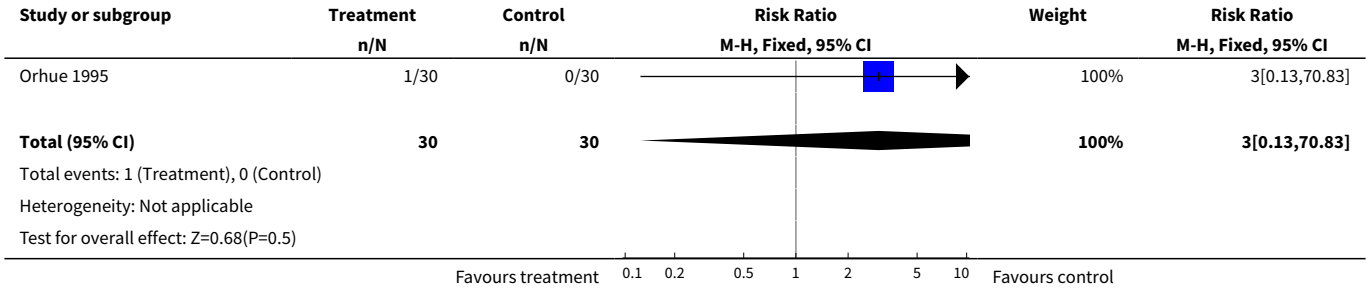
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Orhue 1995	5/30	4/30		100%	1.25[0.37,4.21]
Total (95% CI)	**30**	**30**		**100%**	**1.25[0.37,4.21]**



Analysis 11.23. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 23 Post partum haemorrhage.



Analysis 11.29. Comparison 11 IV oxytocin and amniotomy versus vaginal PG: all primiparae, unfavourable cervix, Outcome 29 Precipitate labour.



Comparison 12. IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section)

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
2 Uterine hyperstimulation with FHR changes	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
3 Caesarean section	1	100	Risk Ratio (M-H, Fixed, 95% CI)	2.0 [0.19, 21.36]
7 Oxytocin augmentation	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.07 [0.00, 1.12]
11 Instrumental vaginal delivery	1	100	Risk Ratio (M-H, Fixed, 95% CI)	1.75 [0.55, 5.61]

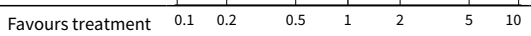
Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
23 Post partum haemorrhage	1	100	Risk Ratio (M-H, Fixed, 95% CI)	8.0 [1.04, 61.62]
25 Women not satisfied	1	100	Risk Ratio (M-H, Fixed, 95% CI)	53.0 [3.32, 846.47]

Analysis 12.2. Comparison 12 IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section), Outcome 2 Uterine hyperstimulation with FHR changes.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	0/50	0/50			Not estimable
Total (95% CI)	**50**	**50**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

Analysis 12.3. Comparison 12 IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section), Outcome 3 Caesarean section.

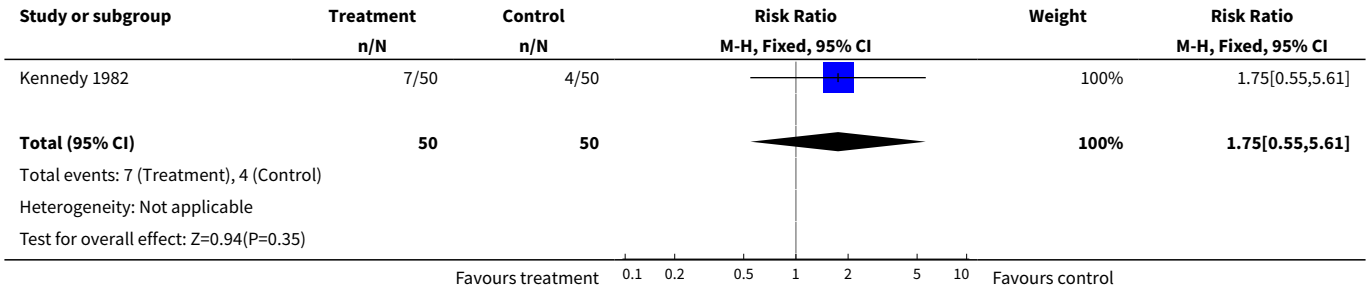
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	2/50	1/50		100%	2[0.19,21.36]
Total (95% CI)	**50**	**50**		**100%**	**2[0.19,21.36]**
Total events: 2 (Treatment), 1 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=0.57(P=0.57)					



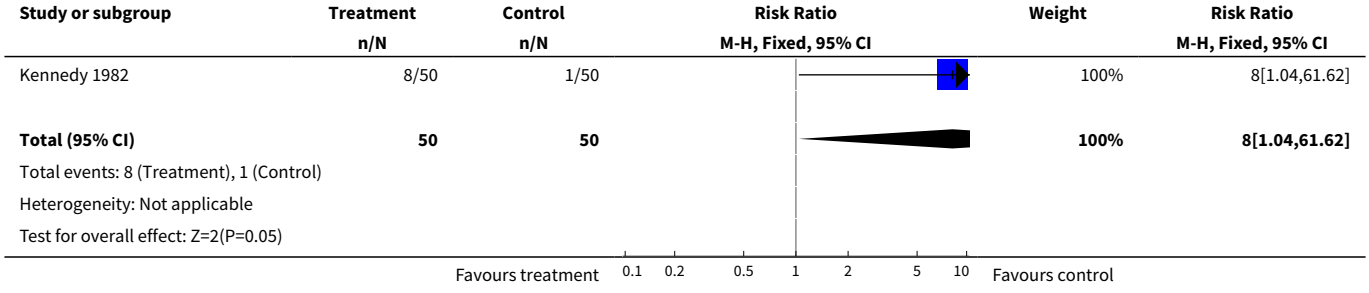
Analysis 12.7. Comparison 12 IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section), Outcome 7 Oxytocin augmentation.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Orhue 1995	0/30	7/30		100%	0.07[0,1.12]
Total (95% CI)	**30**	**30**		**100%**	**0.07[0,1.12]**
Total events: 0 (Treatment), 7 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.88(P=0.06)					

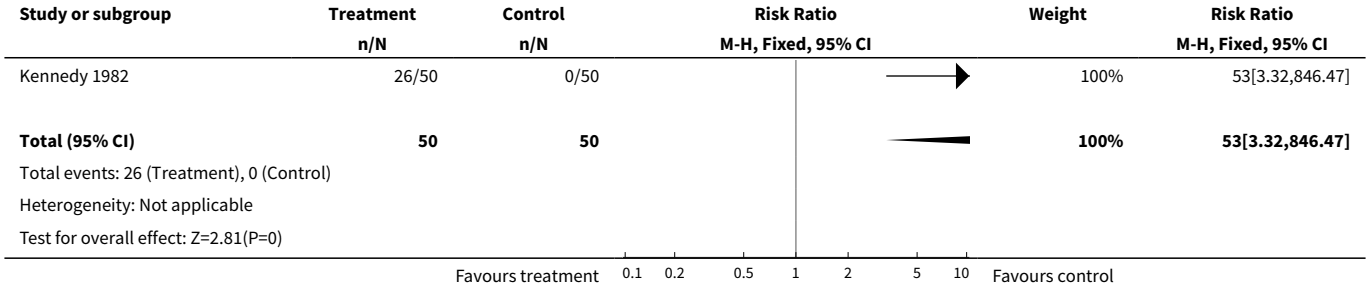
Analysis 12.11. Comparison 12 IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section), Outcome 11 Instrumental vaginal delivery.



Analysis 12.23. Comparison 12 IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section), Outcome 23 Post partum haemorrhage.



Analysis 12.25. Comparison 12 IV oxytocin and amniotomy versus vaginal PG: all multiparae (without previous caesarean section), Outcome 25 Women not satisfied.



Comparison 13. IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
2 Uterine hyperstimulation with FHR changes	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]

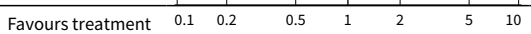
Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
3 Caesarean section	1	100	Risk Ratio (M-H, Fixed, 95% CI)	2.0 [0.19, 21.36]
4 Serious neonatal morbidity or perinatal death	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
8 Uterine hyperstimulation without FHR changes	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
11 Instrumental vaginal delivery	1	100	Risk Ratio (M-H, Fixed, 95% CI)	1.75 [0.55, 5.61]
23 Post partum haemorrhage	1	100	Risk Ratio (M-H, Fixed, 95% CI)	8.0 [1.04, 61.62]
25 Woman not satisfied	1	100	Risk Ratio (M-H, Fixed, 95% CI)	53.0 [3.32, 846.47]

Analysis 13.2. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 2 Uterine hyperstimulation with FHR changes.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	0/50	0/50			Not estimable
Total (95% CI)	**50**	**50**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

Analysis 13.3. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 3 Caesarean section.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	2/50	1/50		100%	2[0.19,21.36]
Total (95% CI)	**50**	**50**		**100%**	**2[0.19,21.36]**
Total events: 2 (Treatment), 1 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=0.57(P=0.57)					

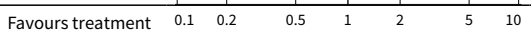


Analysis 13.4. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 4 Serious neonatal morbidity or perinatal death.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	0/50	0/50			Not estimable
Total (95% CI)	**50**	**50**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

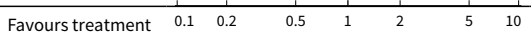
Analysis 13.8. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 8 Uterine hyperstimulation without FHR changes.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	0/50	0/50			Not estimable
Total (95% CI)	**50**	**50**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					



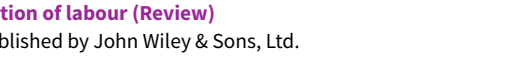
Analysis 13.11. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 11 Instrumental vaginal delivery.

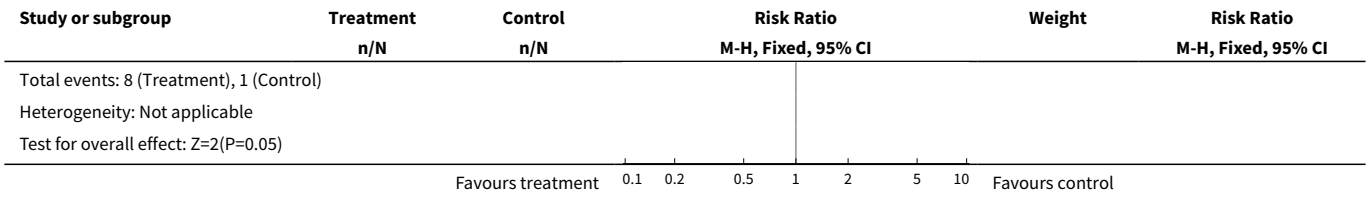
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	7/50	4/50		100%	1.75[0.55,5.61]
Total (95% CI)	**50**	**50**		**100%**	**1.75[0.55,5.61]**
Total events: 7 (Treatment), 4 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=0.94(P=0.35)					



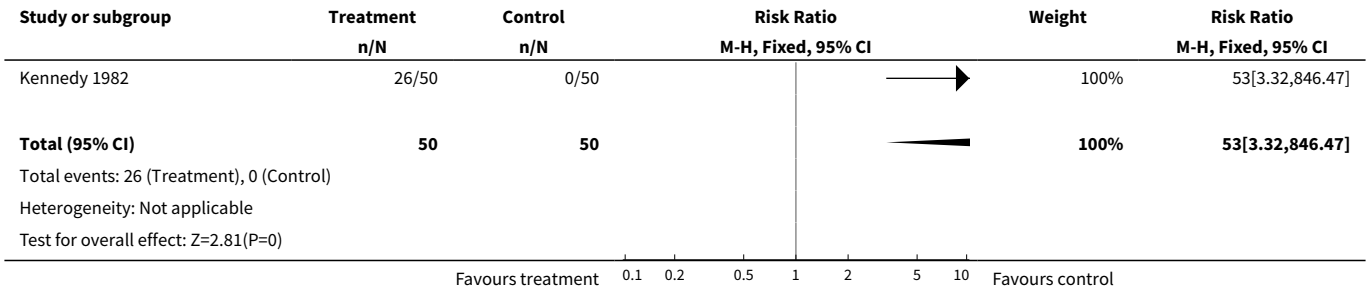
Analysis 13.23. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 23 Post partum haemorrhage.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1982	8/50	1/50		100%	8[1.04,61.62]
Total (95% CI)	**50**	**50**		**100%**	**8[1.04,61.62]**





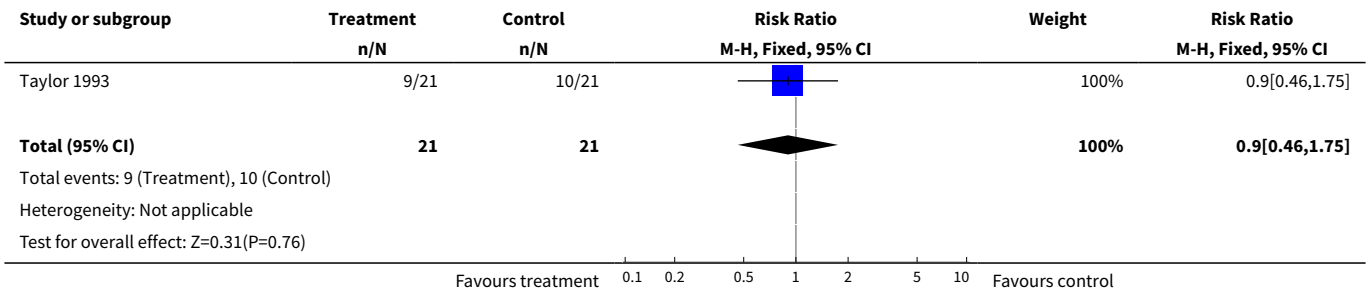
Analysis 13.25. Comparison 13 IV oxytocin and amniotomy versus vaginal PG: all multiparae, favourable cervix, Outcome 25 Woman not satisfied.



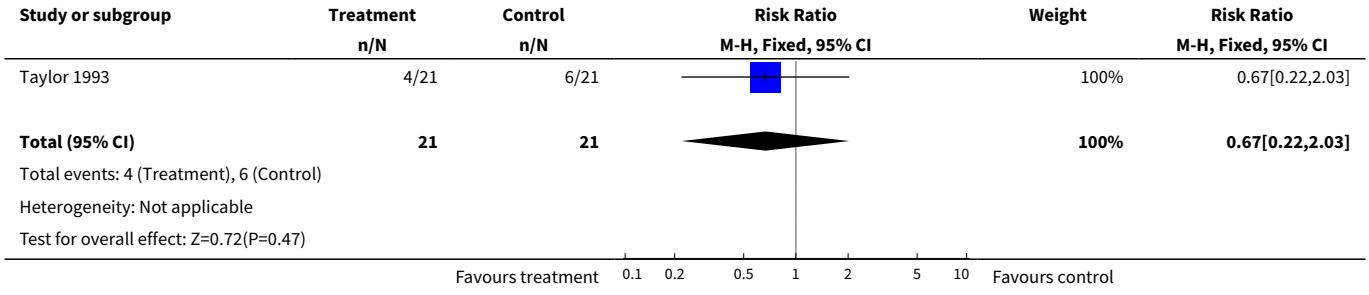
Comparison 14. IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section.

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved in 24 hours	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.9 [0.46, 1.75]
3 Caesarean section	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.67 [0.22, 2.03]
6 Cervix unfavourable/unchanged after 12-24 hours	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.09 [0.01, 1.55]
9 Uterine rupture	1	42	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 69.70]
10 Epidural analgesia	1	42	Risk Ratio (M-H, Fixed, 95% CI)	1.42 [0.93, 2.17]
11 Instrumental vaginal delivery	1	42	Risk Ratio (M-H, Fixed, 95% CI)	1.25 [0.39, 4.02]
13 Apgar score < 7 at 5 minutes	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
14 Neonatal intensive care unit admission	1	42	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 69.70]

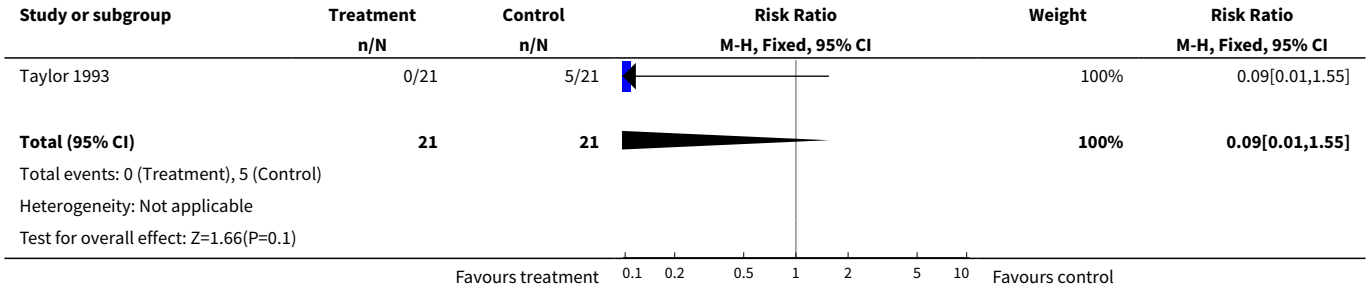
Analysis 14.1. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 1 Vaginal delivery not achieved in 24 hours.



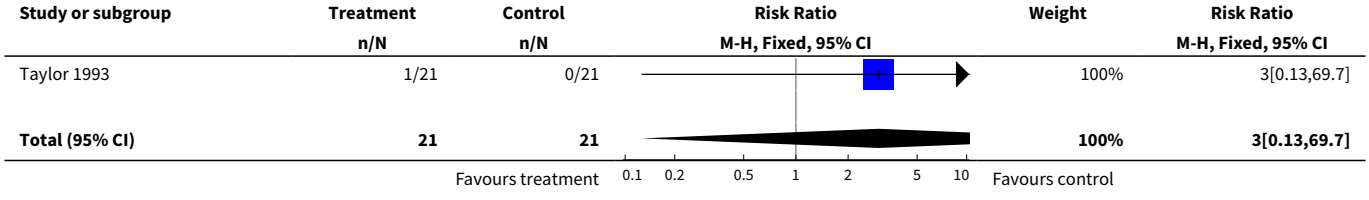
Analysis 14.3. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 3 Caesarean section.

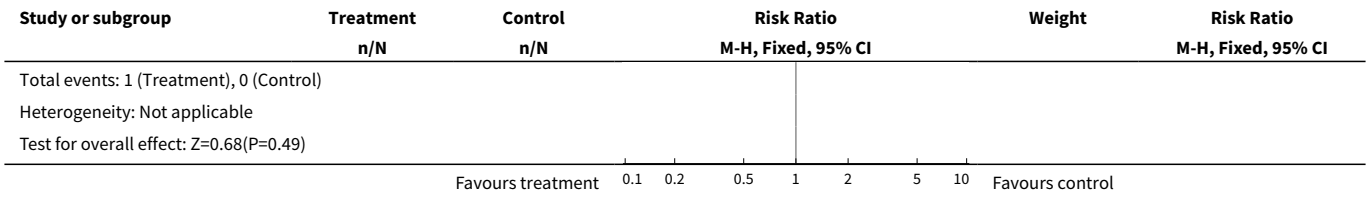


Analysis 14.6. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 6 Cervix unfavourable/unchanged after 12-24 hours.

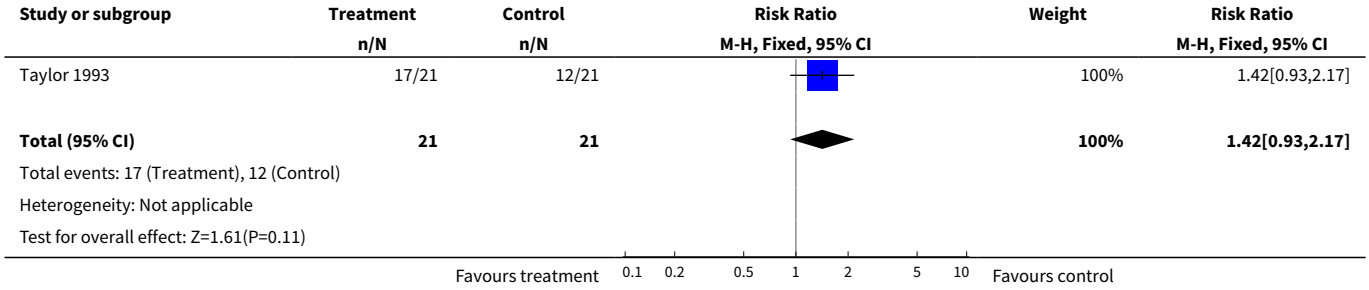


Analysis 14.9. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 9 Uterine rupture.

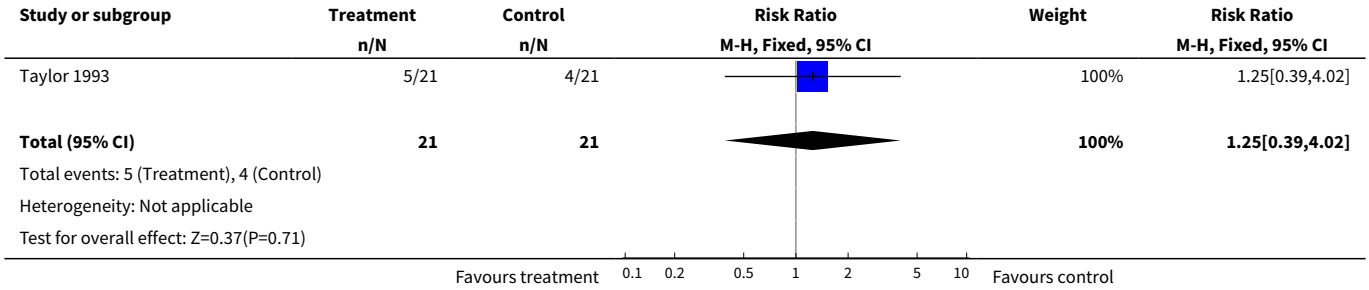




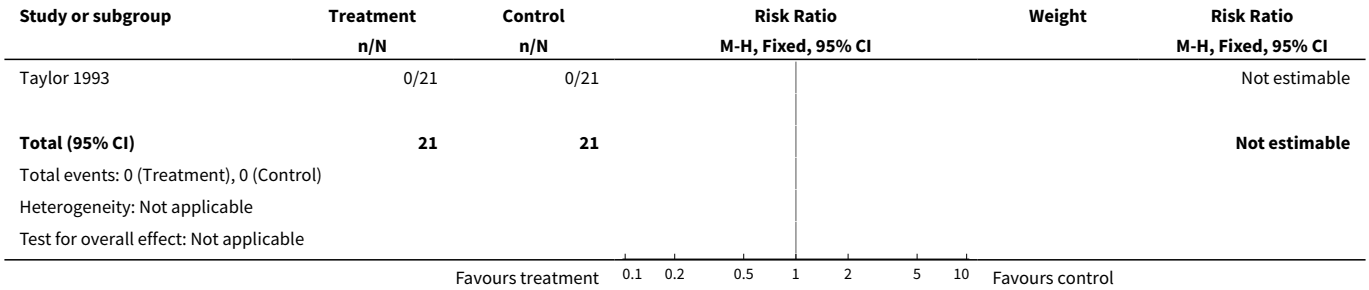
Analysis 14.10. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 10 Epidural analgesia.



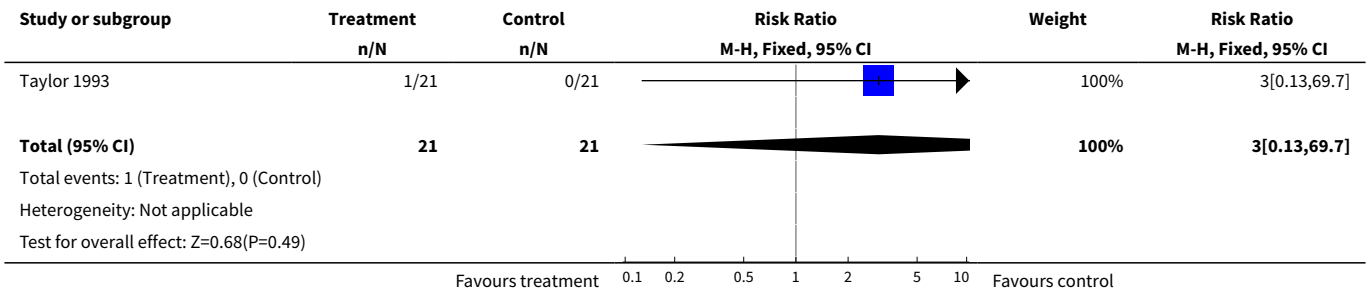
Analysis 14.11. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 11 Instrumental vaginal delivery.



Analysis 14.13. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 13 Apgar score < 7 at 5 minutes.



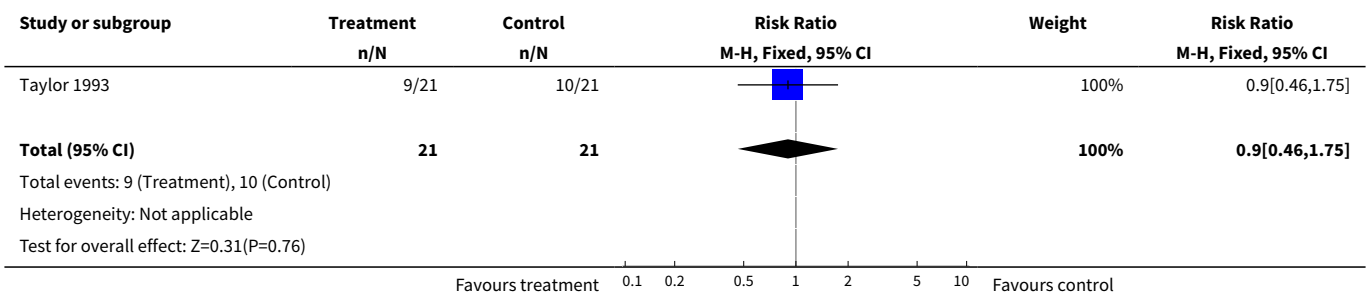
Analysis 14.14. Comparison 14 IV oxytocin and amniotomy versus vaginal PG: all women, previous caesarean section., Outcome 14 Neonatal intensive care unit admission.



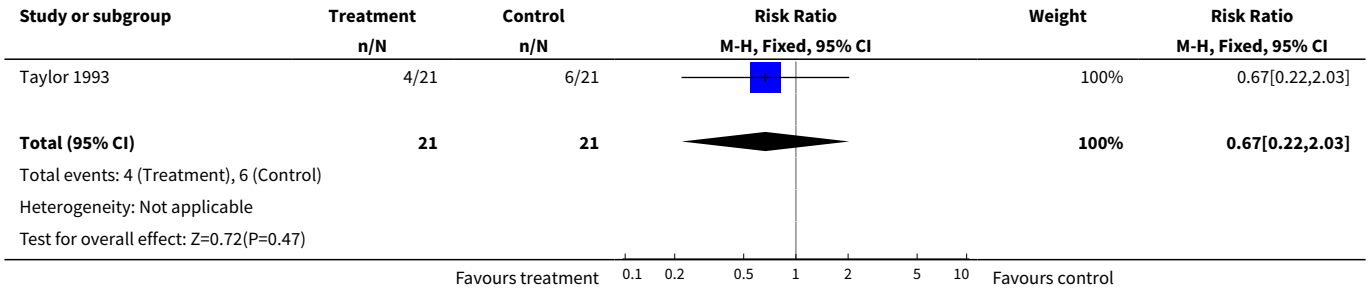
Comparison 15. IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved in 24 hours	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.9 [0.46, 1.75]
3 Caesarean section	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.67 [0.22, 2.03]
6 Cervix unfavourable/unchanged after 12-24 hours	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.09 [0.01, 1.55]
9 Uterine rupture	1	42	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 69.70]
10 Epidural analgesia	1	42	Risk Ratio (M-H, Fixed, 95% CI)	1.42 [0.93, 2.17]
11 Instrumental vaginal delivery	1	42	Risk Ratio (M-H, Fixed, 95% CI)	1.25 [0.39, 4.02]
13 Apgar score < 7 at 5 minutes	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
14 Neonatal intensive care unit admission	1	42	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 69.70]

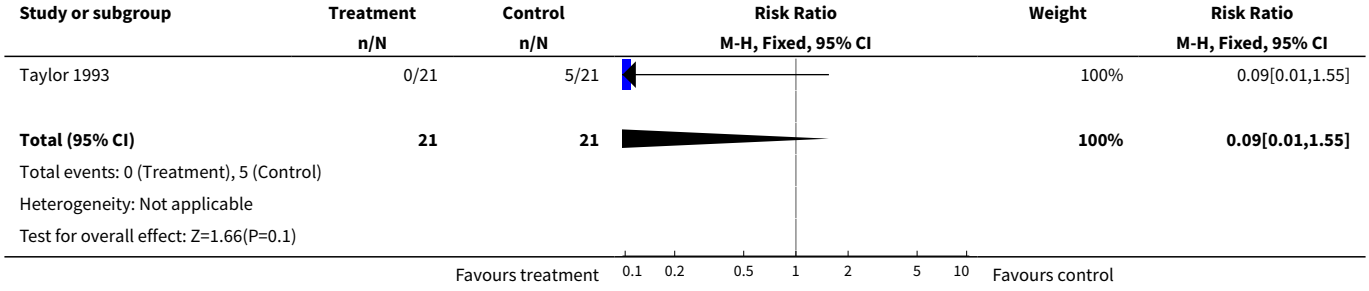
Analysis 15.1. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 1 Vaginal delivery not achieved in 24 hours.



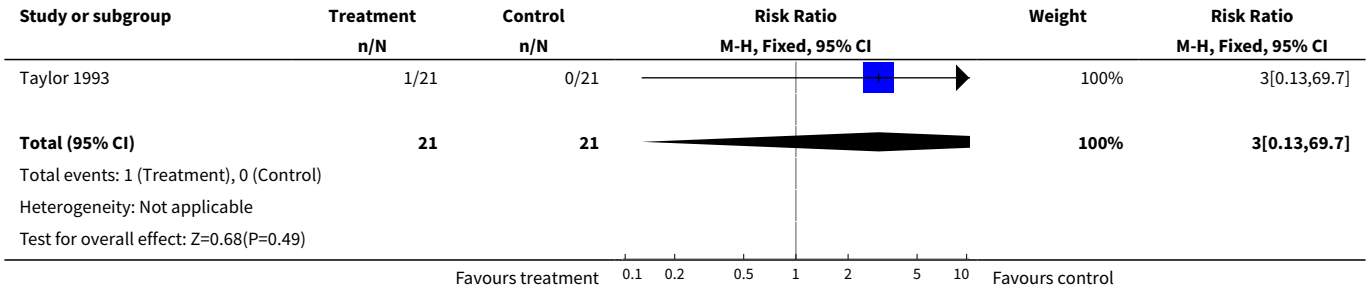
Analysis 15.3. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 3 Caesarean section.



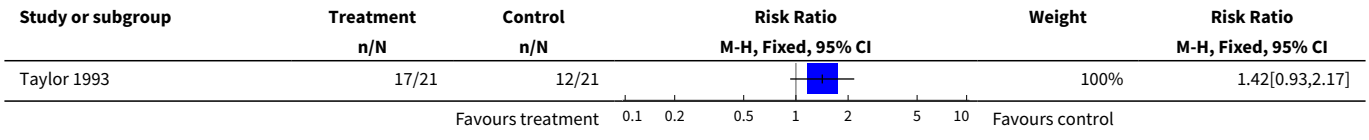
Analysis 15.6. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 6 Cervix unfavourable/unchanged after 12-24 hours.

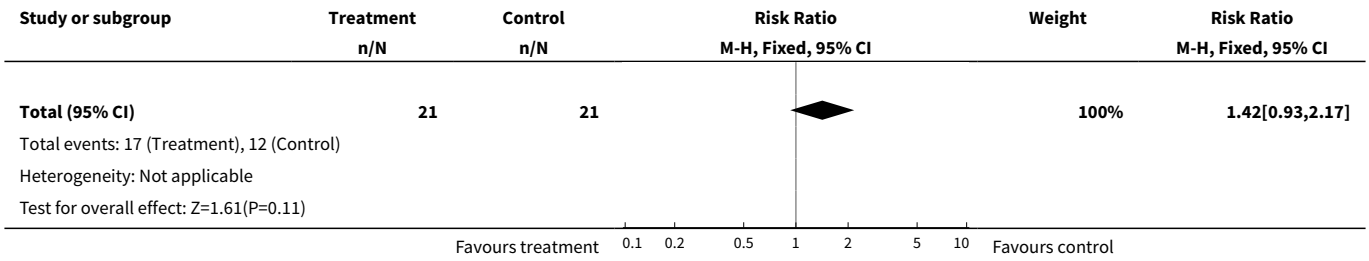


Analysis 15.9. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 9 Uterine rupture.

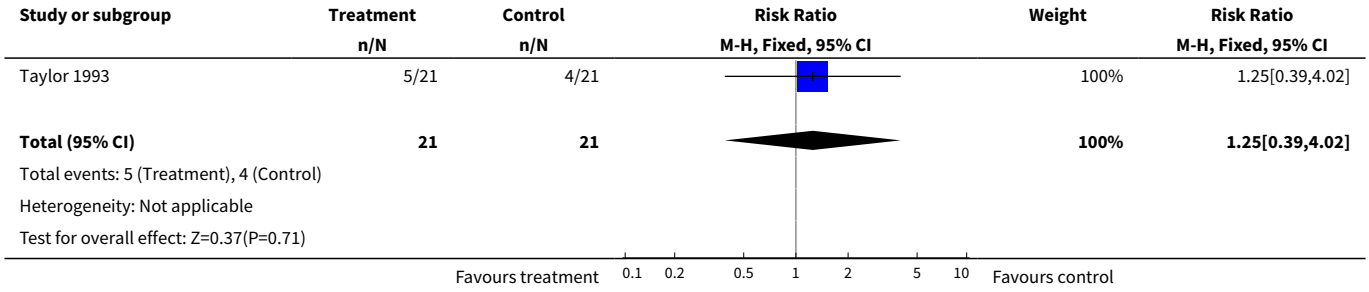


Analysis 15.10. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 10 Epidural analgesia.

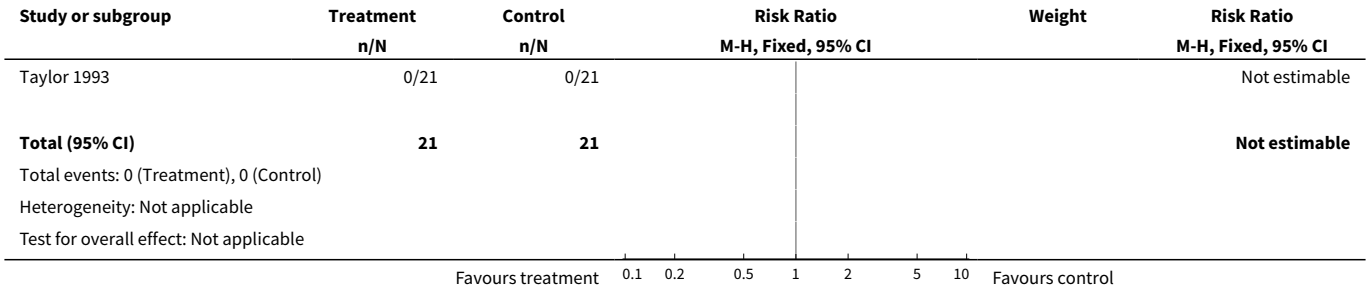




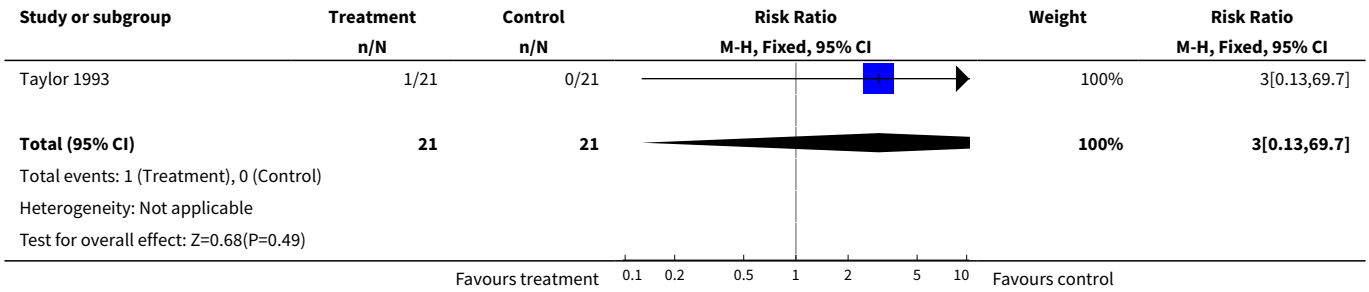
Analysis 15.11. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 11 Instrumental vaginal delivery.



Analysis 15.13. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 13 Apgar score < 7 at 5 minutes.



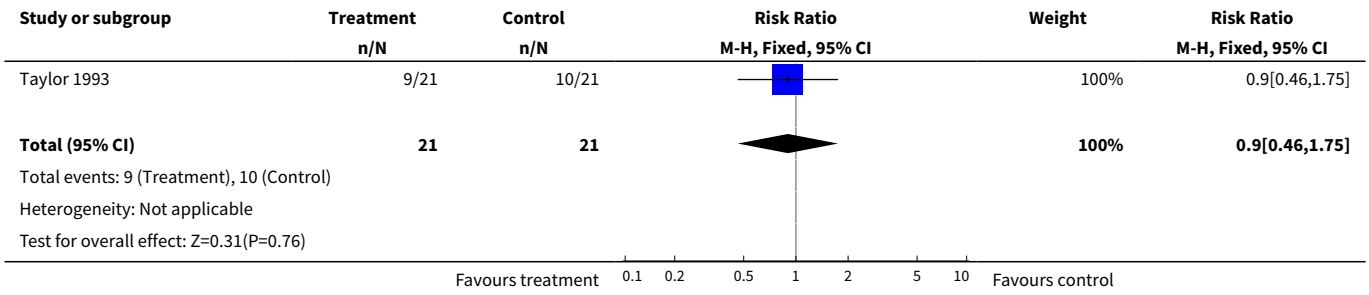
Analysis 15.14. Comparison 15 IV Oxytocin and amniotomy versus vaginal PG:all women, previous CS, unfavourable cervix, Outcome 14 Neonatal intensive care unit admission.



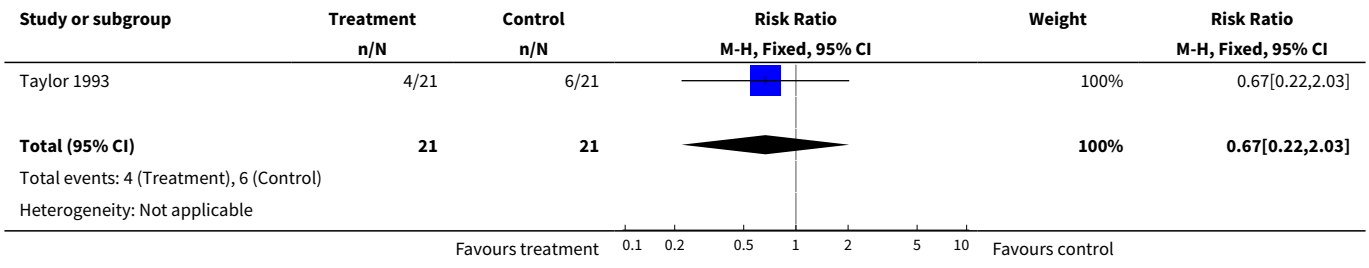
Comparison 16. IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix

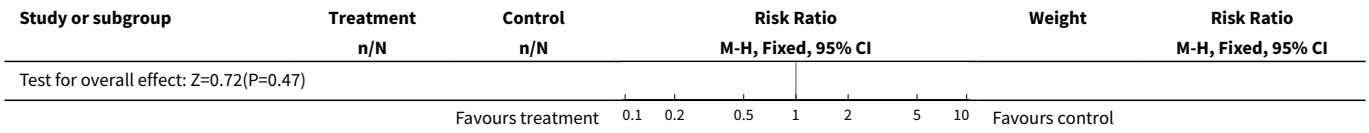
Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved in 24 hours	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.9 [0.46, 1.75]
3 Caesarean section	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.67 [0.22, 2.03]
6 Cervix unfavourable/unchanged after 12-24 hours	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.09 [0.01, 1.55]
9 Uterine rupture	1	42	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 69.70]
10 Epidural analgesia	1	42	Risk Ratio (M-H, Fixed, 95% CI)	1.42 [0.93, 2.17]
11 Instrumental vaginal delivery	1	42	Risk Ratio (M-H, Fixed, 95% CI)	1.25 [0.39, 4.02]
13 Apgar score < 7 at 5 minutes	1	42	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
14 Neonatal intensive care unit admission	1	42	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 69.70]

Analysis 16.1. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 1 Vaginal delivery not achieved in 24 hours.

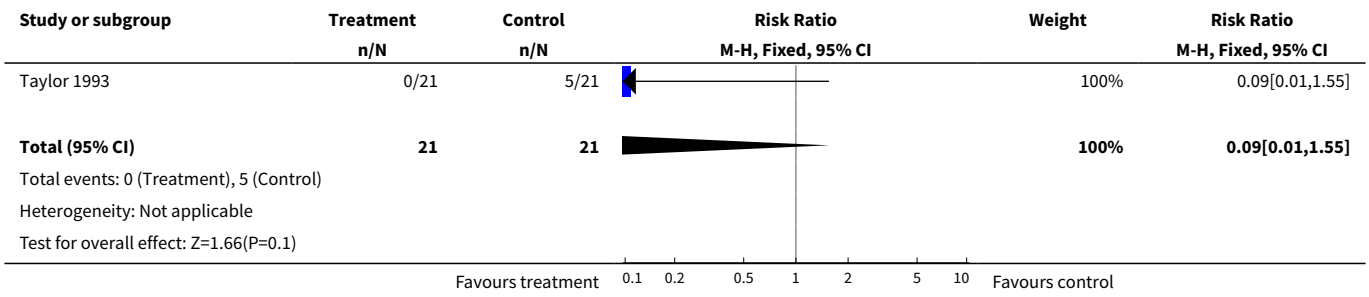


Analysis 16.3. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 3 Caesarean section.

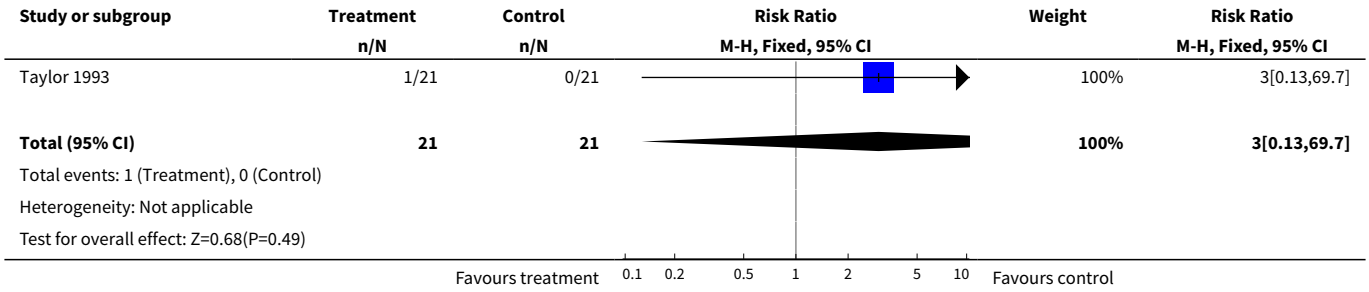




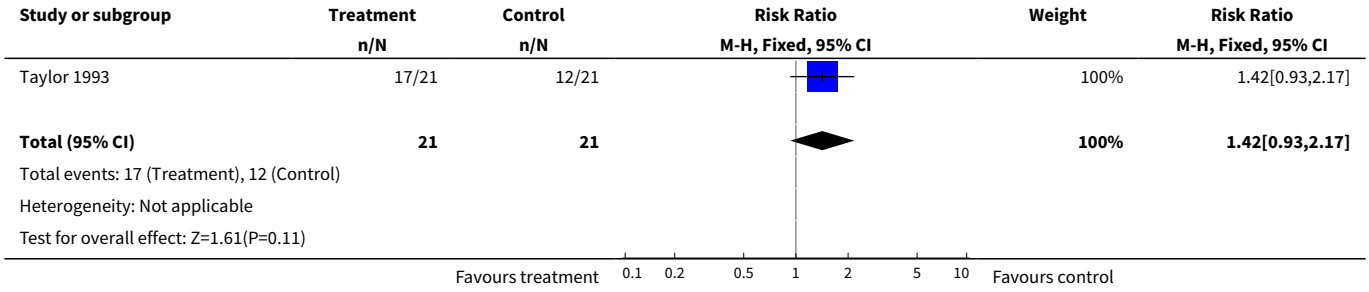
Analysis 16.6. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 6 Cervix unfavourable/unchanged after 12-24 hours.



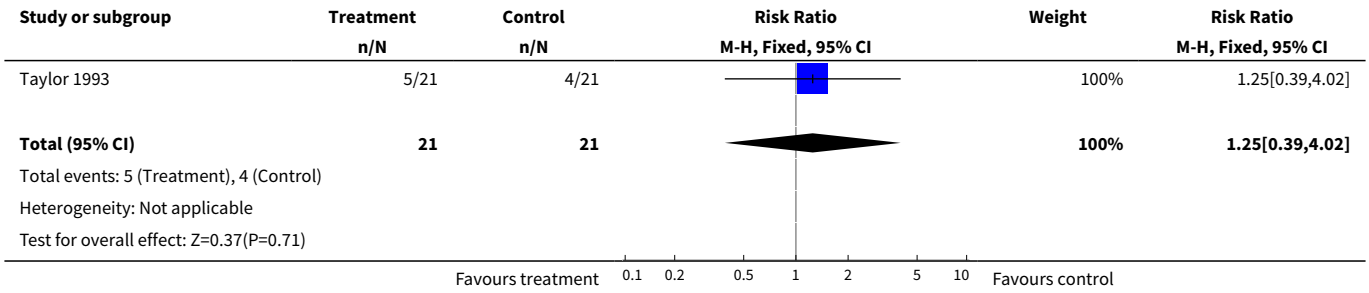
Analysis 16.9. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 9 Uterine rupture.



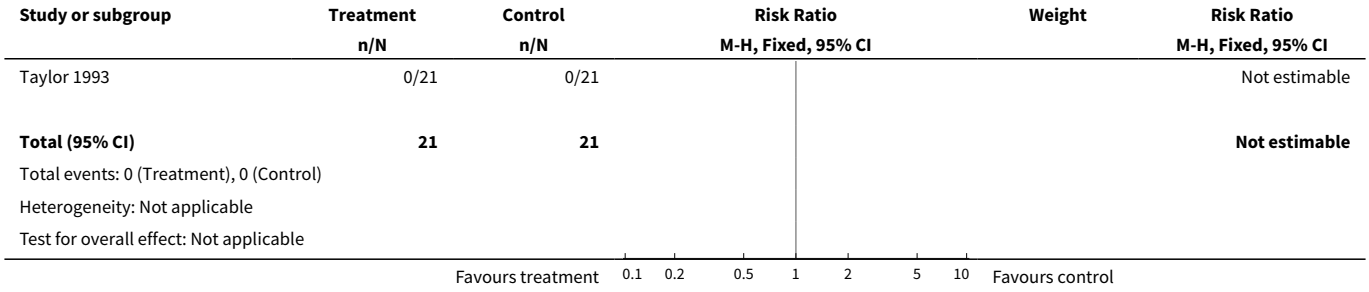
Analysis 16.10. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 10 Epidural analgesia.



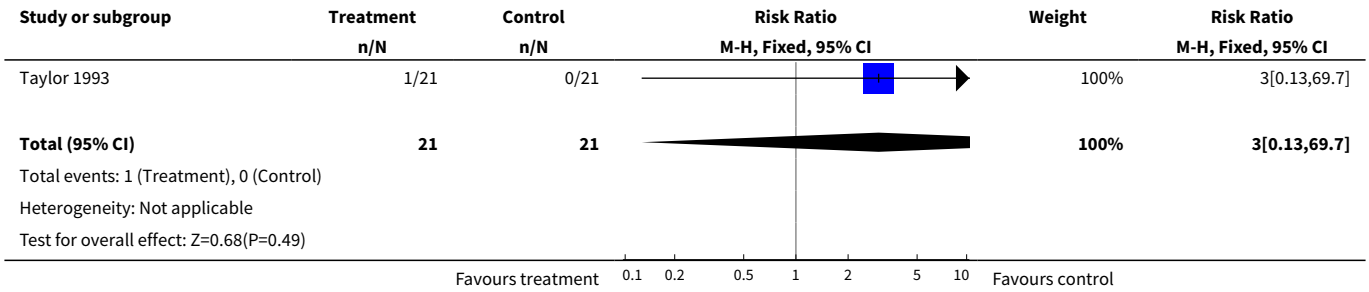
Analysis 16.11. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 11 Instrumental vaginal delivery.



Analysis 16.13. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 13 Apgar score < 7 at 5 minutes.



Analysis 16.14. Comparison 16 IV Oxytocin and amniotomy versus vaginal PG: all women, previous CS, intact membranes, unfavourable cervix, Outcome 14 Neonatal intensive care unit admission.



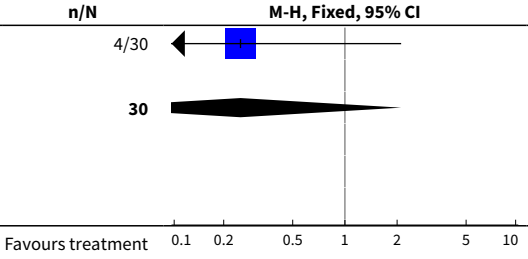
Comparison 17. IV oxytocin and amniotomy versus intracervical PG: all women

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved within 24 hours	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.11]

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
2 Uterine hyperstimulation with FHR changes	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
3 Caesarean section	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.11]
7 Oxytocin augmentation	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.07 [0.00, 1.12]
8 Uterine hyperstimulation without FHR changes	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
11 Instrumental vaginal delivery	1	60	Risk Ratio (M-H, Fixed, 95% CI)	1.67 [0.69, 4.00]
12 Meconium stained liquor	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
25 Woman not satisfied	1	60	Risk Ratio (M-H, Fixed, 95% CI)	1.0 [0.07, 15.26]

Analysis 17.1. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 1 Vaginal delivery not achieved within 24 hours.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1978	1/30	4/30		100%	0.25[0.03,2.11]
Total (95% CI)	**30**	**30**		**100%**	**0.25[0.03,2.11]**
Total events: 1 (Treatment), 4 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.27(P=0.2)					



Analysis 17.2. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 2 Uterine hyperstimulation with FHR changes.

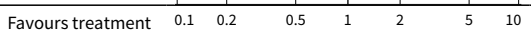
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1978	0/30	0/30			Not estimable
Total (95% CI)	**30**	**30**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

Analysis 17.3. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 3 Caesarean section.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1978	1/30	4/30		100%	0.25[0.03,2.11]
Total (95% CI)	**30**	**30**		**100%**	**0.25[0.03,2.11]**
Total events: 1 (Treatment), 4 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.27(P=0.2)					

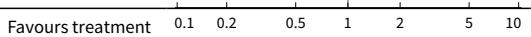
Analysis 17.7. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 7 Oxytocin augmentation.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1978	0/30	7/30		100%	0.07[0,1.12]
Total (95% CI)	**30**	**30**		**100%**	**0.07[0,1.12]**
Total events: 0 (Treatment), 7 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.88(P=0.06)					



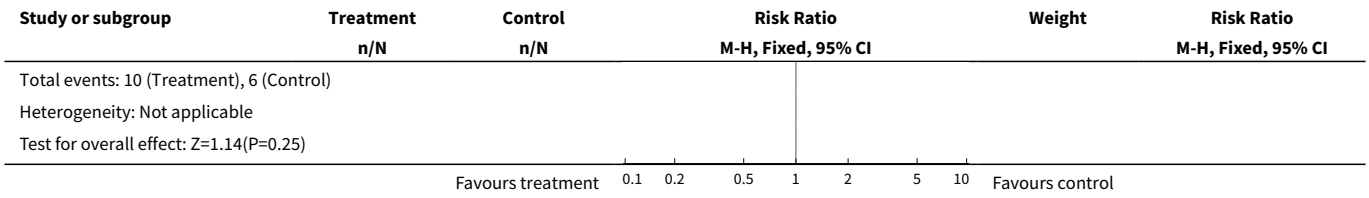
Analysis 17.8. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 8 Uterine hyperstimulation without FHR changes.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1978	0/30	0/30			Not estimable
Total (95% CI)	**30**	**30**			**Not estimable**
Total events: 0 (Treatment), 0 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

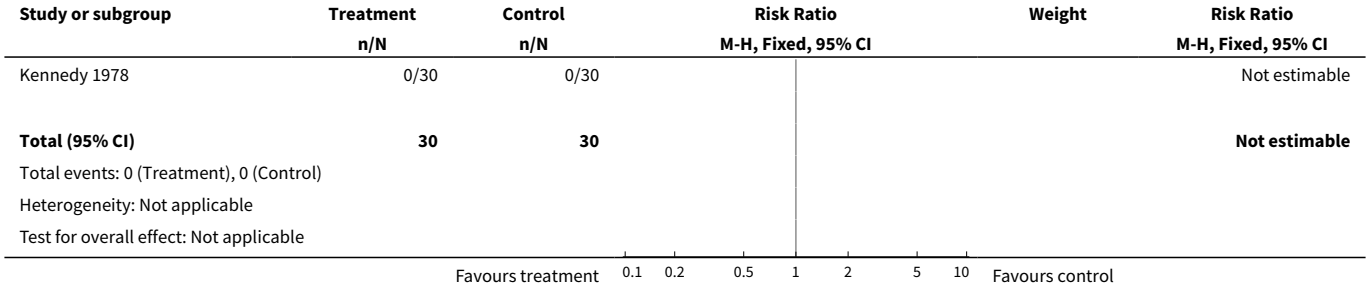


Analysis 17.11. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 11 Instrumental vaginal delivery.

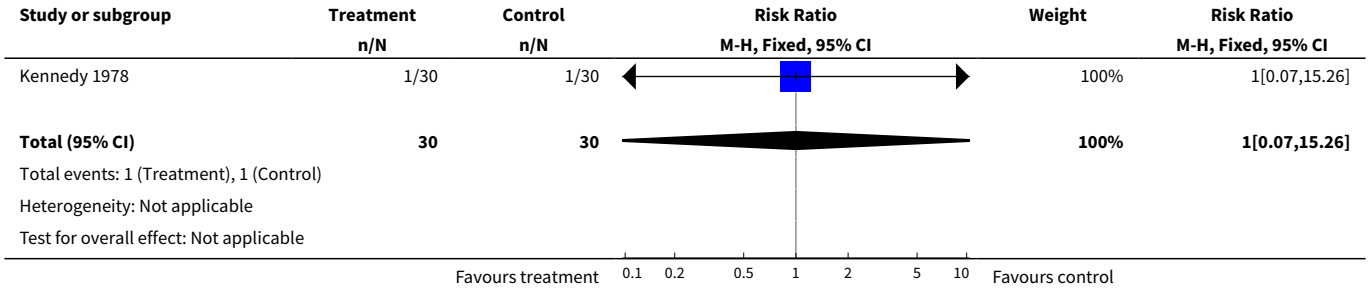
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Kennedy 1978	10/30	6/30		100%	1.67[0.69,4]
Total (95% CI)	**30**	**30**		**100%**	**1.67[0.69,4]**



Analysis 17.12. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 12 Meconium stained liquor.



Analysis 17.25. Comparison 17 IV oxytocin and amniotomy versus intracervical PG: all women, Outcome 25 Woman not satisfied.

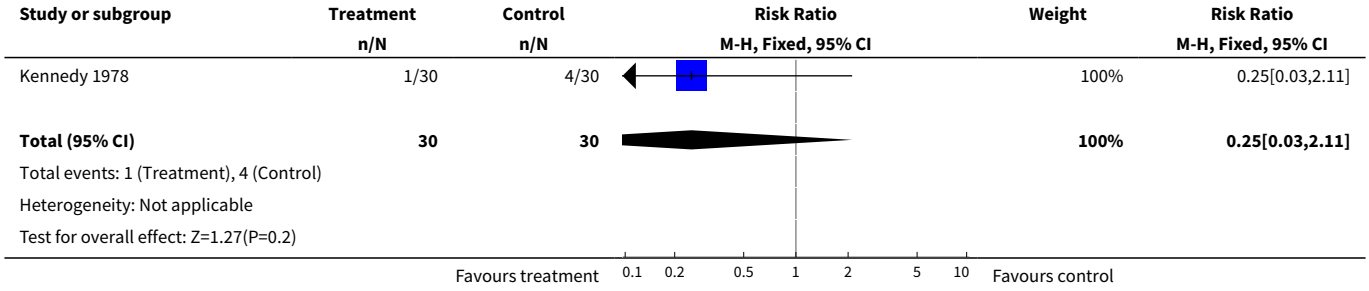


Comparison 18. IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix

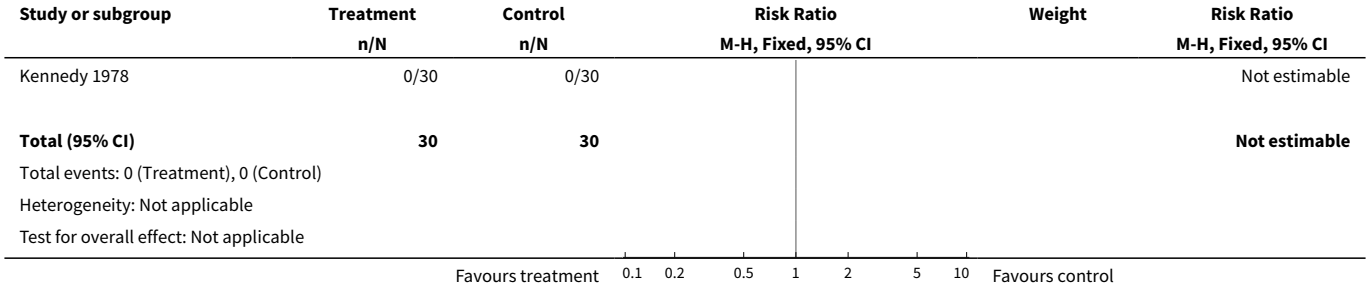
Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved within 24 hours	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.11]
2 Uterine hyperstimulation with FHR changes	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
3 Caesarean section	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.11]
7 Oxytocin augmentation	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.07 [0.00, 1.12]

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
8 Uterine hyperstimulation without FHR changes	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
11 Instrumental vaginal delivery	1	60	Risk Ratio (M-H, Fixed, 95% CI)	1.67 [0.69, 4.00]
12 Meconium stained liquor	1	60	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
25 Women not satisfied	1	60	Risk Ratio (M-H, Fixed, 95% CI)	1.0 [0.07, 15.26]

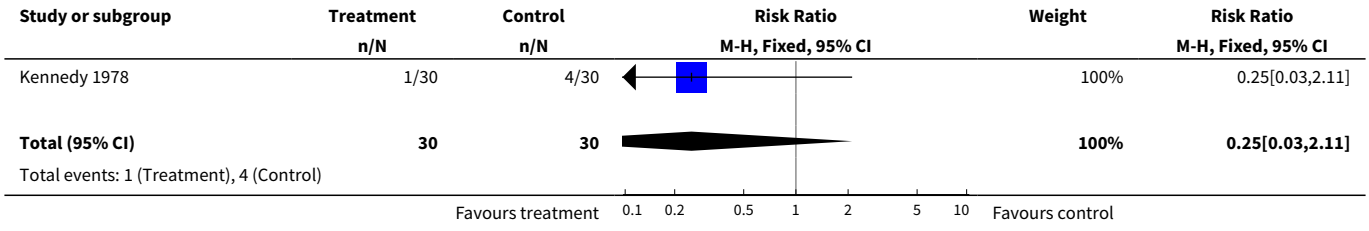
Analysis 18.1. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 1 Vaginal delivery not achieved within 24 hours.

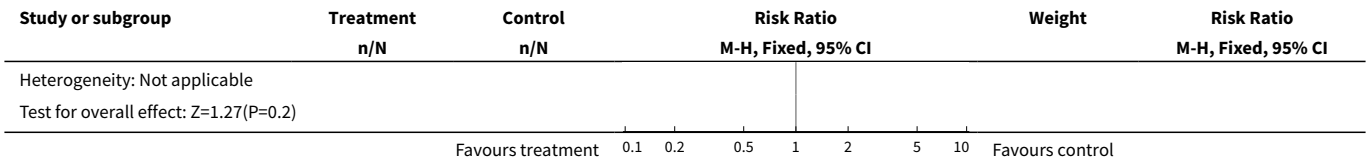


Analysis 18.2. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 2 Uterine hyperstimulation with FHR changes.

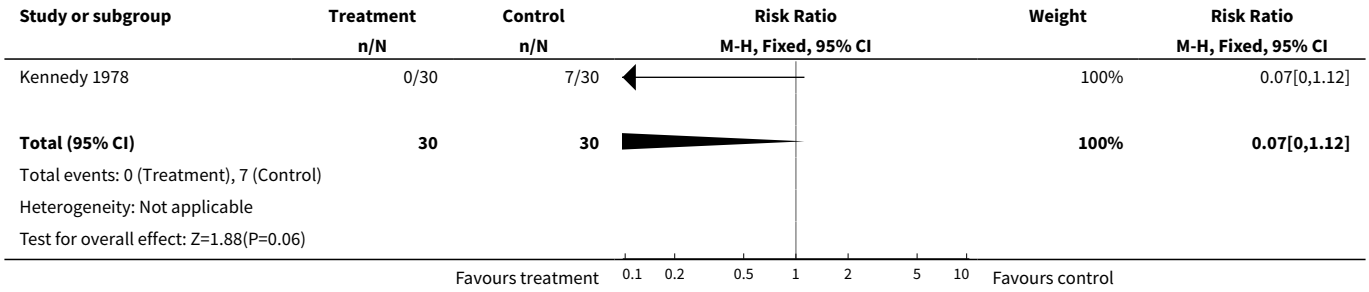


Analysis 18.3. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 3 Caesarean section.

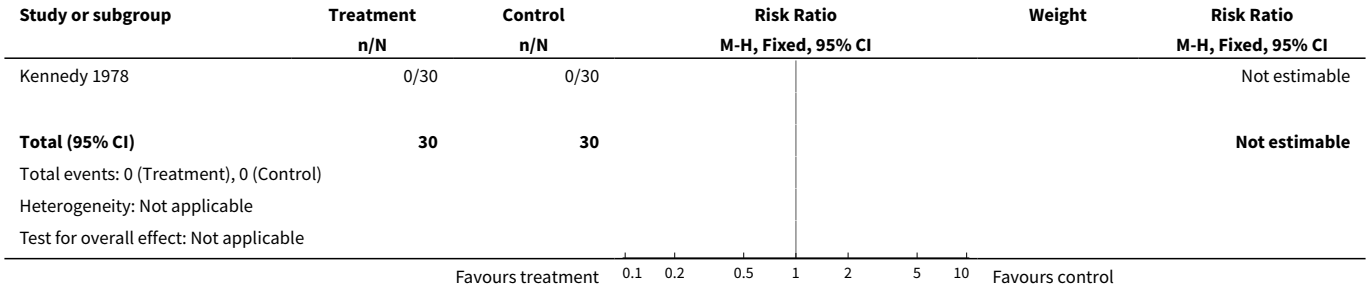




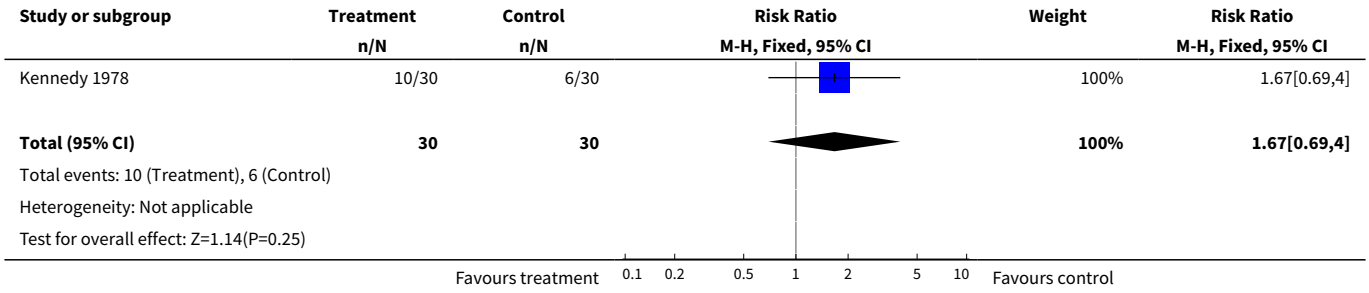
Analysis 18.7. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 7 Oxytocin augmentation.



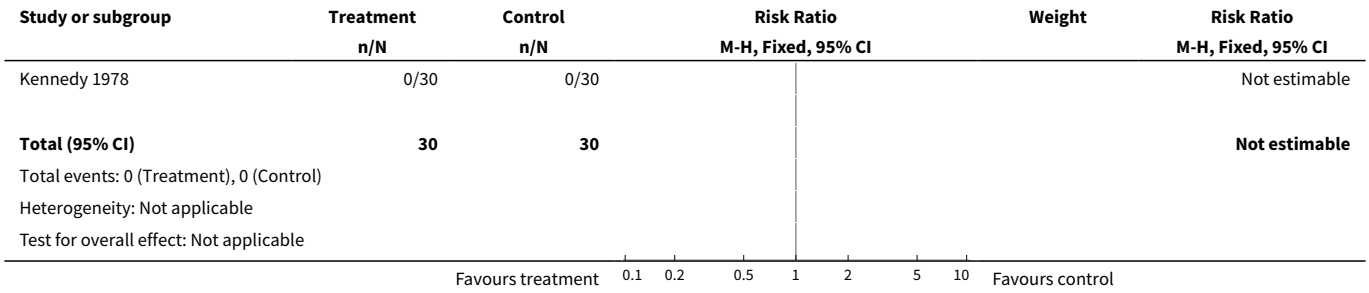
Analysis 18.8. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 8 Uterine hyperstimulation without FHR changes.



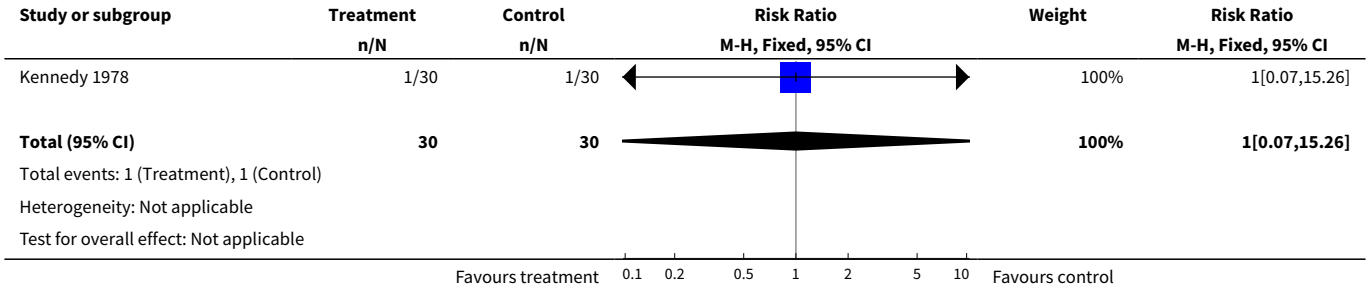
Analysis 18.11. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 11 Instrumental vaginal delivery.



Analysis 18.12. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 12 Meconium stained liquor.



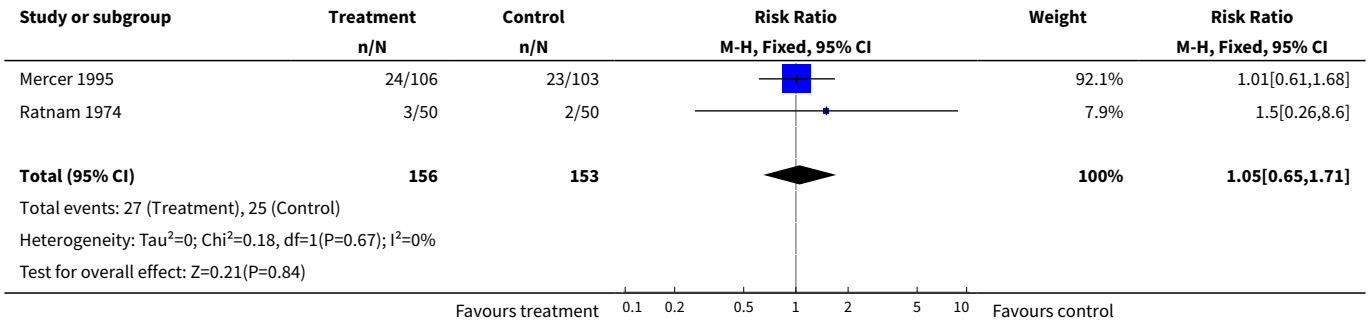
Analysis 18.25. Comparison 18 IV oxytocin and amniotomy versus intracervical PG: all women, favourable cervix, Outcome 25 Women not satisfied.



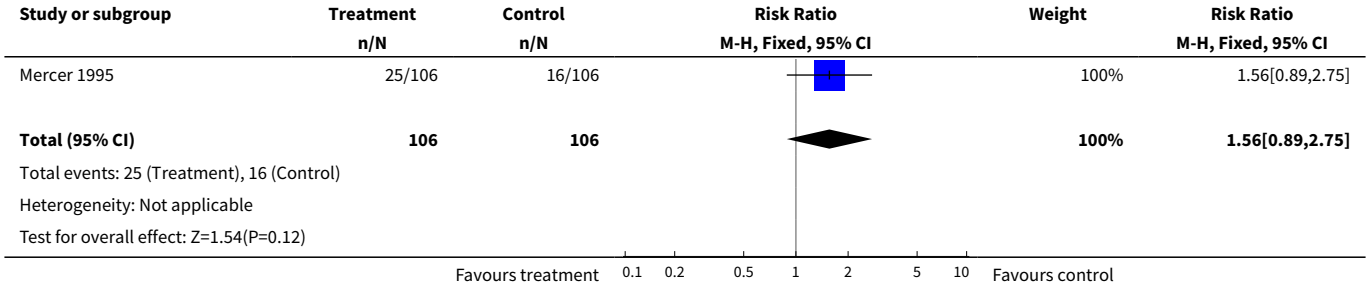
Comparison 19. IV oxytocin and amniotomy versus oxytocin alone: all women

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
3 Caesarean section	2	309	Risk Ratio (M-H, Fixed, 95% CI)	1.05 [0.65, 1.71]
8 Uterine hyperstimulation without FHR changes	1	212	Risk Ratio (M-H, Fixed, 95% CI)	1.56 [0.89, 2.75]
10 Epidural analgesia	1	209	Risk Ratio (M-H, Fixed, 95% CI)	1.07 [0.93, 1.24]
12 Mecomium stained liquor	1	209	Risk Ratio (M-H, Fixed, 95% CI)	1.62 [0.91, 2.89]
13 Apgar score <7 at 5 minutes	1	209	Risk Ratio (M-H, Fixed, 95% CI)	3.89 [0.44, 34.19]

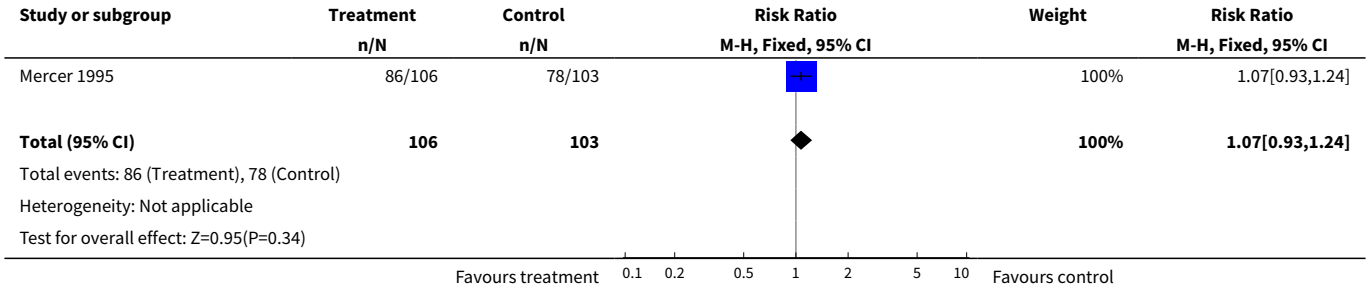
Analysis 19.3. Comparison 19 IV oxytocin and amniotomy versus oxytocin alone: all women, Outcome 3 Caesarean section.



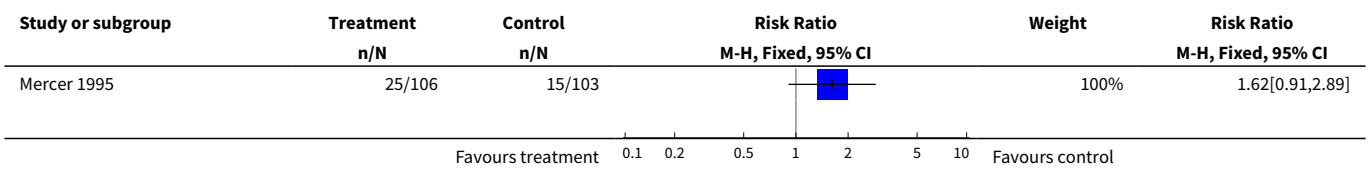
Analysis 19.8. Comparison 19 IV oxytocin and amniotomy versus oxytocin alone: all women, Outcome 8 Uterine hyperstimulation without FHR changes.

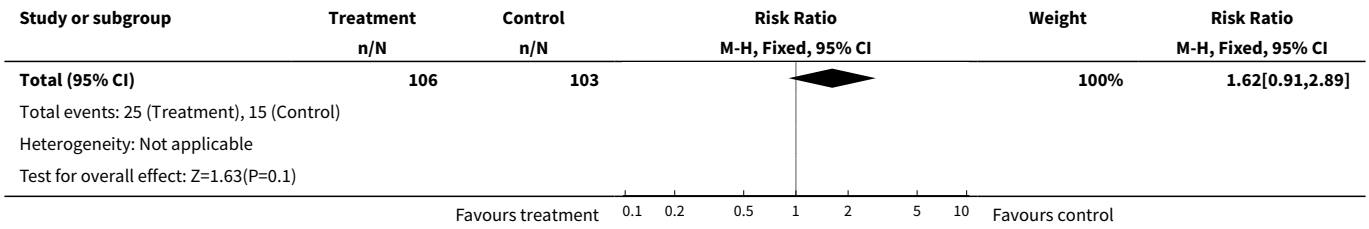


Analysis 19.10. Comparison 19 IV oxytocin and amniotomy versus oxytocin alone: all women, Outcome 10 Epidural analgesia.

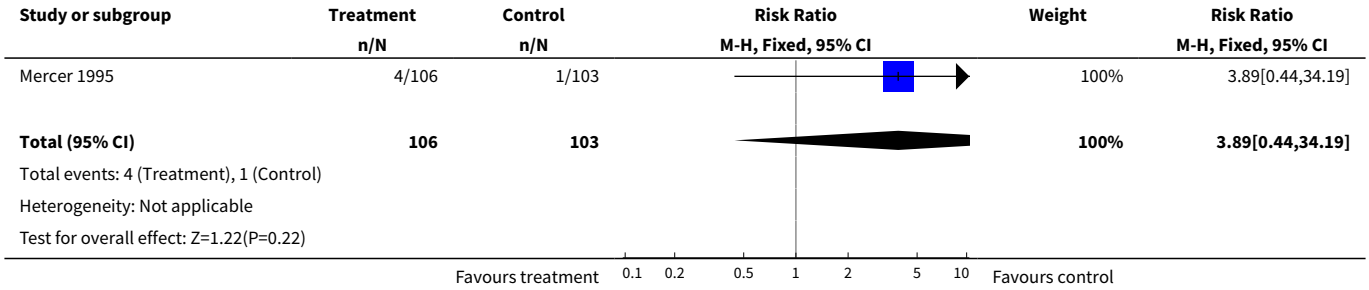


Analysis 19.12. Comparison 19 IV oxytocin and amniotomy versus oxytocin alone: all women, Outcome 12 Mecomium stained liquor.





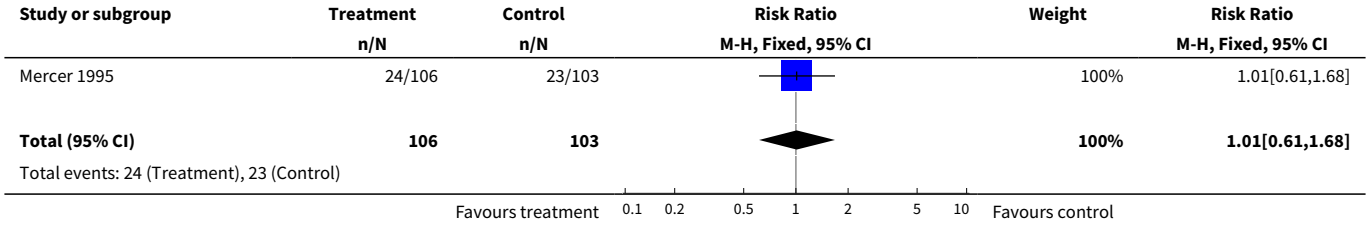
Analysis 19.13. Comparison 19 IV oxytocin and amniotomy versus oxytocin alone: all women, Outcome 13 Apgar score <7 at 5 minutes.

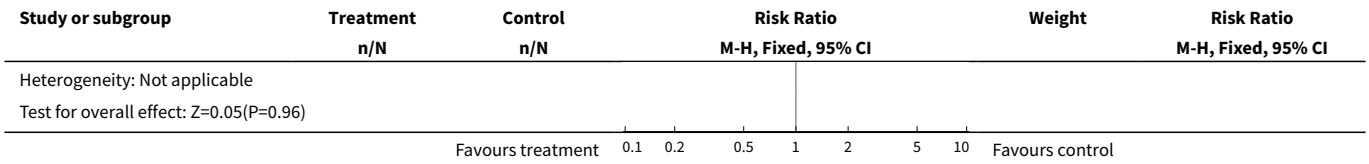


Comparison 20. IV oxytocin and amniotomy versus oxytocin alone: all women, intact membranes, variable or undefined cervix

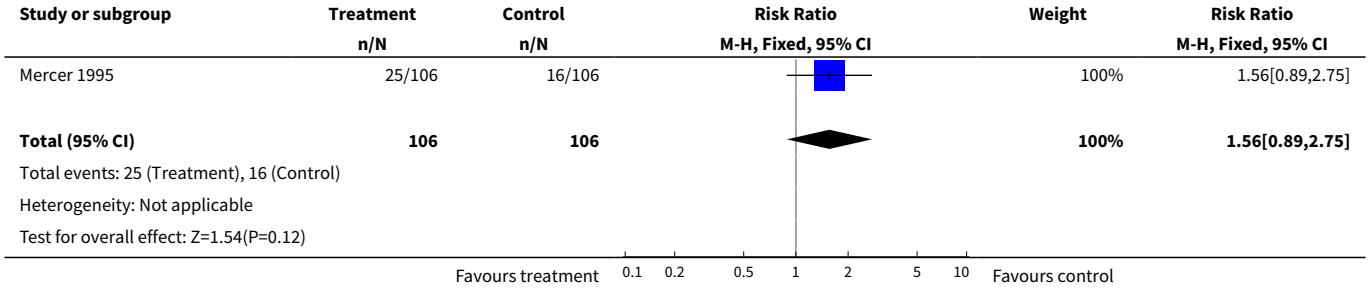
Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
3 Caesarean section	1	209	Risk Ratio (M-H, Fixed, 95% CI)	1.01 [0.61, 1.68]
8 Uterine hyperstimulation without FHR changes	1	212	Risk Ratio (M-H, Fixed, 95% CI)	1.56 [0.89, 2.75]
10 Epidural analgesia	1	209	Risk Ratio (M-H, Fixed, 95% CI)	1.07 [0.93, 1.24]
12 Mecomium stained liquor	1	209	Risk Ratio (M-H, Fixed, 95% CI)	1.62 [0.91, 2.89]
13 Apgar score <7 at 5 minutes	1	209	Risk Ratio (M-H, Fixed, 95% CI)	3.89 [0.44, 34.19]

Analysis 20.3. Comparison 20 IV oxytocin and amniotomy versus oxytocin alone: all women, intact membranes, variable or undefined cervix, Outcome 3 Caesarean section.

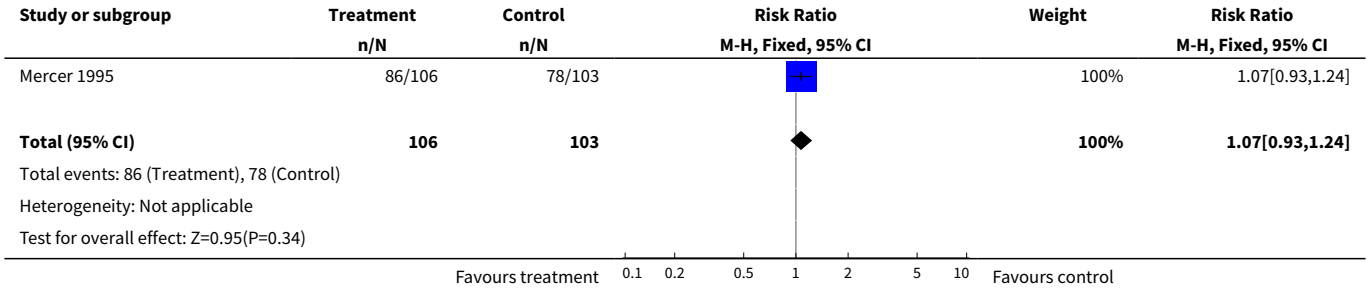




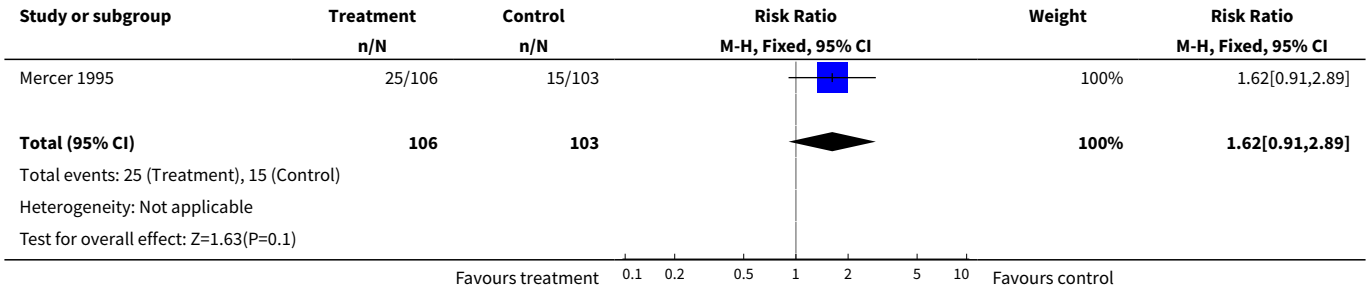
Analysis 20.8. Comparison 20 IV oxytocin and amniotomy versus oxytocin alone: all women, intact membranes, variable or undefined cervix, Outcome 8 Uterine hyperstimulation without FHR changes.



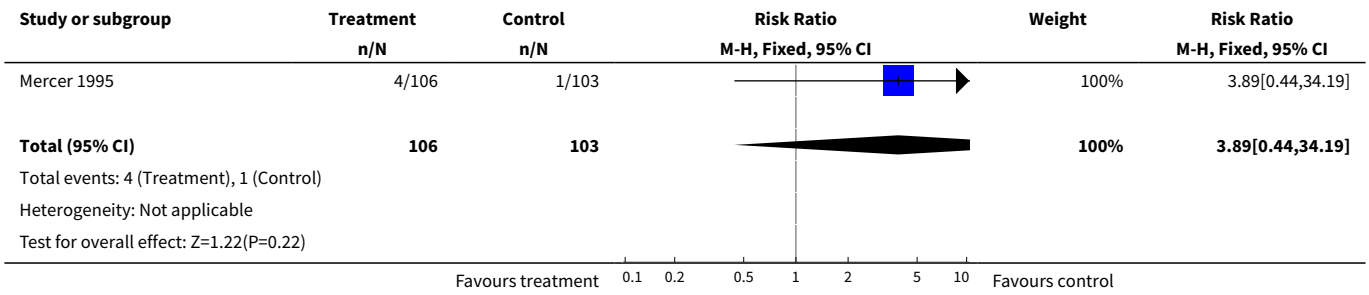
Analysis 20.10. Comparison 20 IV oxytocin and amniotomy versus oxytocin alone: all women, intact membranes, variable or undefined cervix, Outcome 10 Epidural analgesia.



Analysis 20.12. Comparison 20 IV oxytocin and amniotomy versus oxytocin alone: all women, intact membranes, variable or undefined cervix, Outcome 12 Mecomium stained liquor.



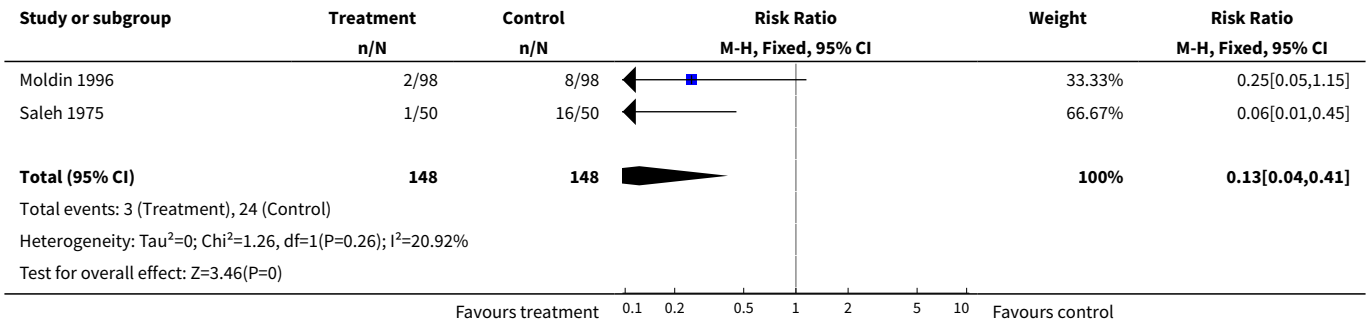
Analysis 20.13. Comparison 20 IV oxytocin and amniotomy versus oxytocin alone: all women, intact membranes, variable or undefined cervix, Outcome 13 Apgar score <7 at 5 minutes.



Comparison 21. IV oxytocin and amniotomy versus amniotomy alone: all women

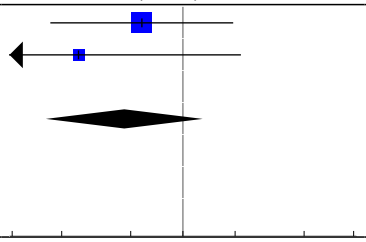
Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved within 24 hours	2	296	Risk Ratio (M-H, Fixed, 95% CI)	0.13 [0.04, 0.41]
3 Caesarean section	2	511	Risk Ratio (M-H, Fixed, 95% CI)	0.46 [0.16, 1.30]
10 Epidural analgesia/opioid analgesia	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
11 Instrumental vaginal delivery	2	510	Risk Ratio (M-H, Fixed, 95% CI)	0.65 [0.49, 0.85]
16 Perinatal death	1	100	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 71.92]
23 Post partum haemorrhage	2	500	Risk Ratio (M-H, Fixed, 95% CI)	0.44 [0.20, 1.00]
30 Puerpural pyrexia	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.16]

Analysis 21.1. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 1 Vaginal delivery not achieved within 24 hours.



Analysis 21.3. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 3 Caesarean section.

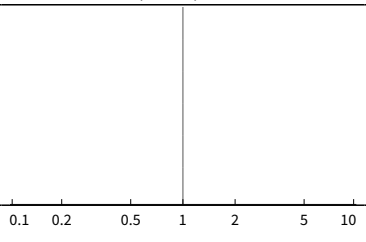
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Patterson 1971	4/204	7/207		63.47%	0.58[0.17,1.95]
Saleh 1975	1/50	4/50		36.53%	0.25[0.03,2.16]
Total (95% CI)	**254**	**257**		**100%**	**0.46[0.16,1.3]**
Total events: 5 (Treatment), 11 (Control)					
Heterogeneity: Tau^2=0; Chi^2=0.45, df=1(P=0.5); I^2=0%					
Test for overall effect: Z=1.46(P=0.14)					



Favours treatment — Favours control

Analysis 21.10. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 10 Epidural analgesia/opioid analgesia.

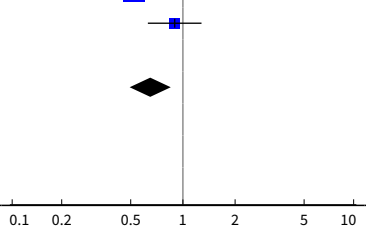
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	50/50	50/50			Not estimable
Total (95% CI)	**50**	**50**			**Not estimable**
Total events: 50 (Treatment), 50 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					



Favours treatment — Favours control

Analysis 21.11. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 11 Instrumental vaginal delivery.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Patterson 1971	31/205	59/205		67.05%	0.53[0.36,0.78]
Saleh 1975	26/50	29/50		32.95%	0.9[0.63,1.28]
Total (95% CI)	**255**	**255**		**100%**	**0.65[0.49,0.85]**
Total events: 57 (Treatment), 88 (Control)					
Heterogeneity: Tau^2=0; Chi^2=4.32, df=1(P=0.04); I^2=76.84%					
Test for overall effect: Z=3.12(P=0)					

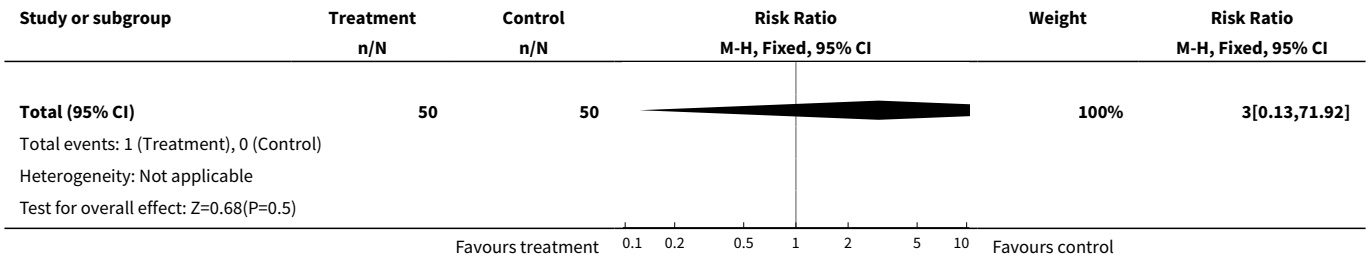


Favours treatment — Favours control

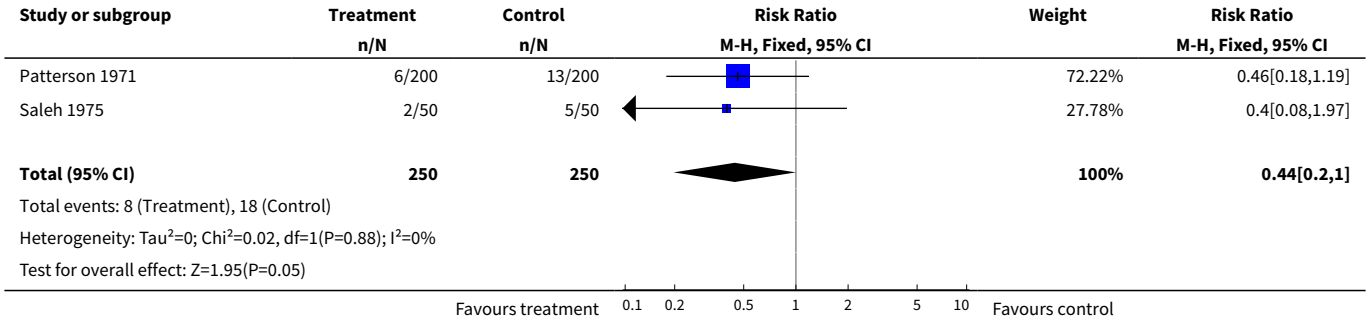
Analysis 21.16. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 16 Perinatal death.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	1/50	0/50		100%	3[0.13,71.92]

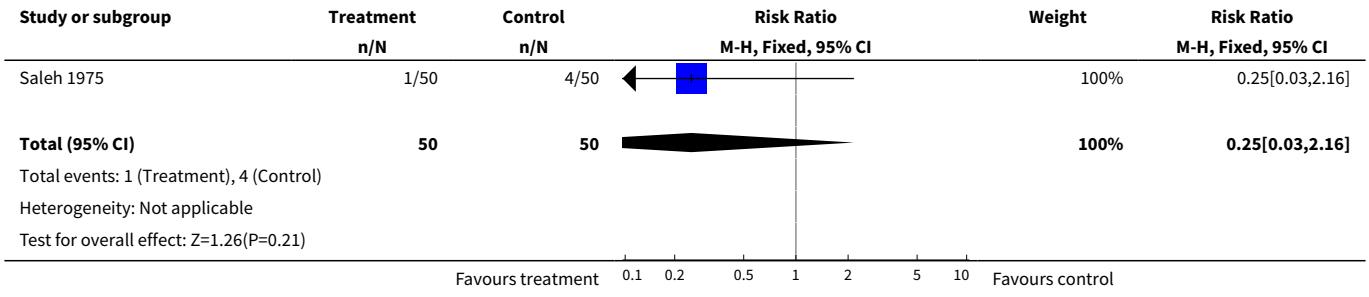
Favours treatment — Favours control



Analysis 21.23. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 23 Post partum haemorrhage.



Analysis 21.30. Comparison 21 IV oxytocin and amniotomy versus amniotomy alone: all women, Outcome 30 Puerpural pyrexia.



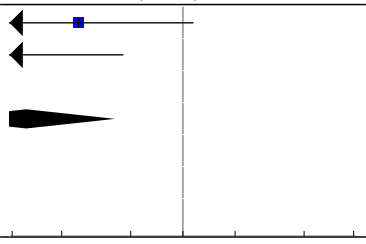
Comparison 22. IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved within 24 hours	2	296	Risk Ratio (M-H, Fixed, 95% CI)	0.13 [0.04, 0.41]
3 Caesarean section	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.16]
10 Epidural analgesia/opioid analgesia	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
11 Instrumental vaginal delivery	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.90 [0.63, 1.28]
16 Perinatal death	1	100	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 71.92]
23 Post partum haemorrhage	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.4 [0.08, 1.97]
30 Puerpural pyrexia	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.16]

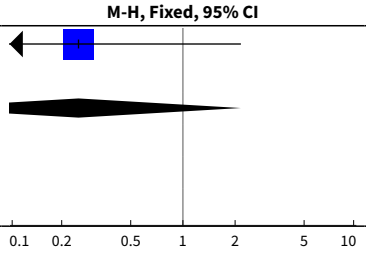
Analysis 22.1. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 1 Vaginal delivery not achieved within 24 hours.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Moldin 1996	2/98	8/98		33.33%	0.25[0.05,1.15]
Saleh 1975	1/50	16/50		66.67%	0.06[0.01,0.45]
Total (95% CI)	**148**	**148**		**100%**	**0.13[0.04,0.41]**
Total events: 3 (Treatment), 24 (Control)					
Heterogeneity: Tau^2=0; Chi^2=1.26, df=1(P=0.26); I^2=20.92%					
Test for overall effect: Z=3.46(P=0)					



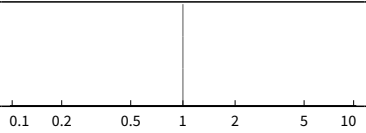
Analysis 22.3. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 3 Caesarean section.

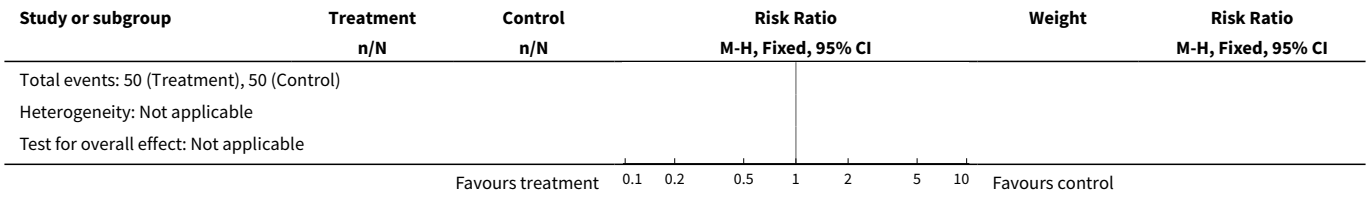
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	1/50	4/50		100%	0.25[0.03,2.16]
Total (95% CI)	**50**	**50**		**100%**	**0.25[0.03,2.16]**
Total events: 1 (Treatment), 4 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.26(P=0.21)					



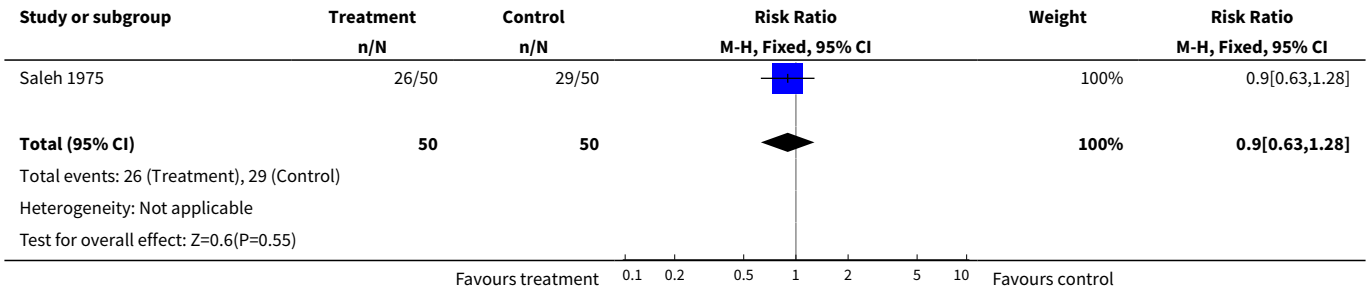
Analysis 22.10. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 10 Epidural analgesia/opioid analgesia.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	50/50	50/50			Not estimable
Total (95% CI)	**50**	**50**			**Not estimable**

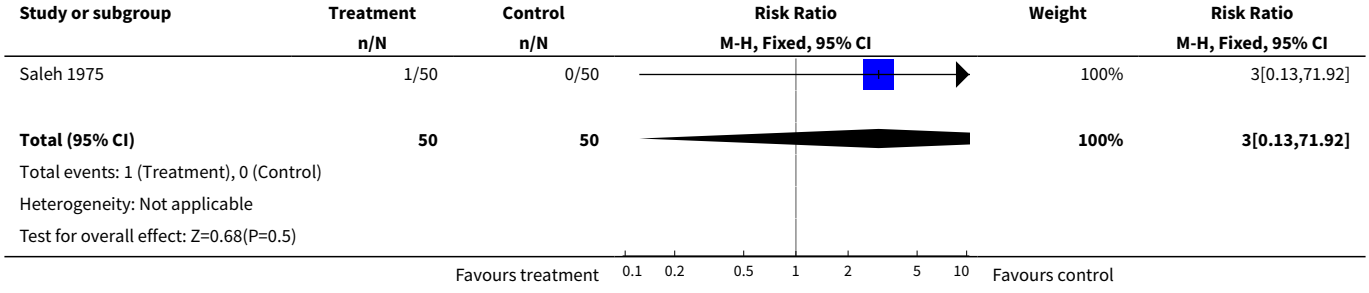




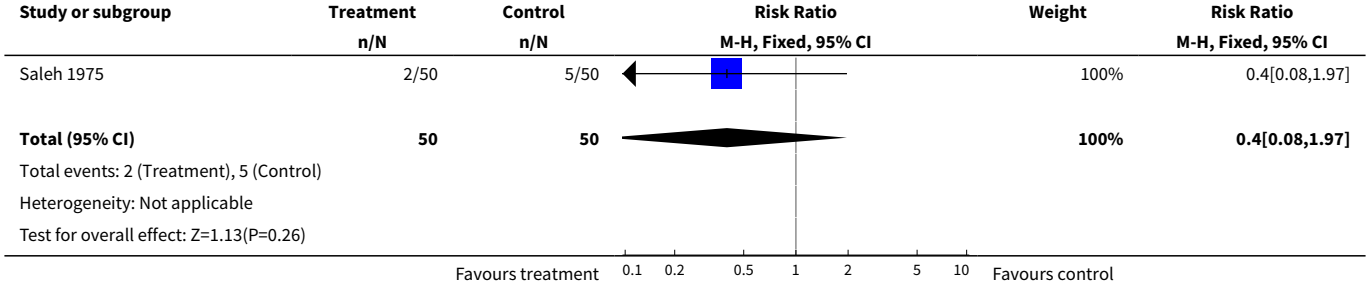
Analysis 22.11. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 11 Instrumental vaginal delivery.



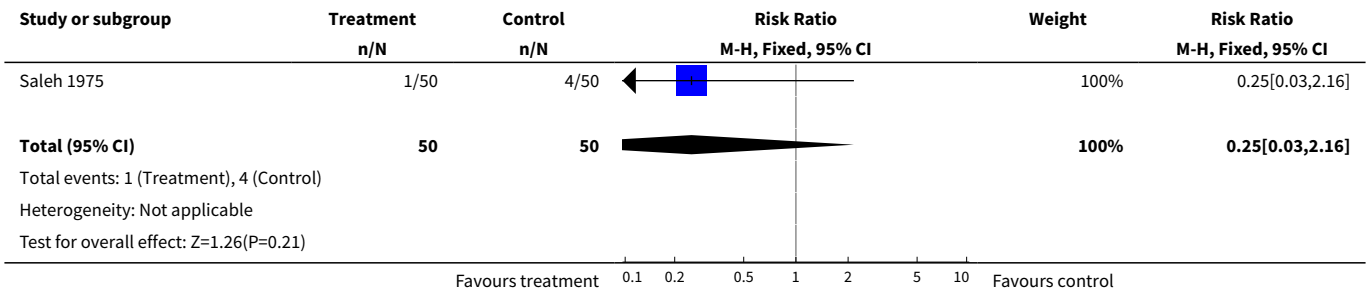
Analysis 22.16. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 16 Perinatal death.



Analysis 22.23. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 23 Post partum haemorrhage.



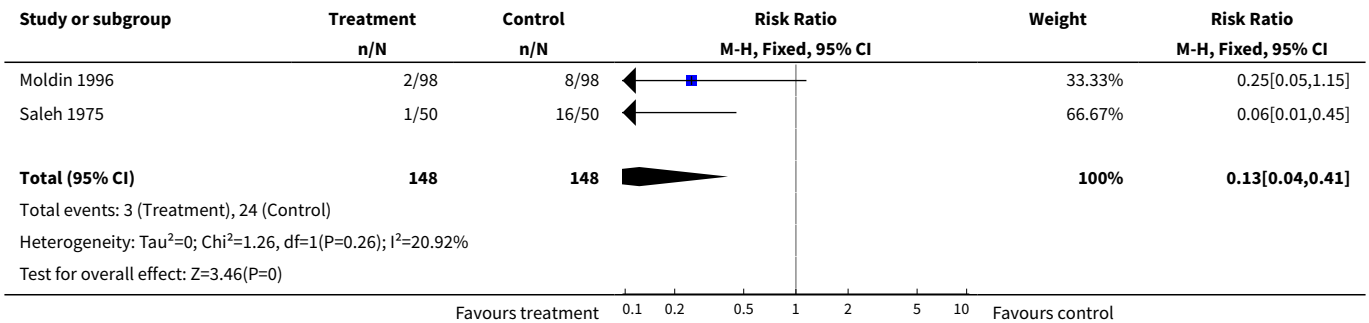
Analysis 22.30. Comparison 22 IV oxytocin and amniotomy versus amniotomy alone: all women, favourable cervix, Outcome 30 Puerpural pyrexia.



Comparison 23. IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved within 24 hours	2	296	Risk Ratio (M-H, Fixed, 95% CI)	0.13 [0.04, 0.41]
3 Caesarean section	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.16]
10 Epidural analgesia/opioid analgesia	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
11 Instrumental vaginal delivery	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.90 [0.63, 1.28]
16 Perinatal death	1	100	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 71.92]
23 Post partum haemorrhage	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.4 [0.08, 1.97]
30 Puerpural pyrexia	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.16]

Analysis 23.1. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 1 Vaginal delivery not achieved within 24 hours.



Analysis 23.3. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 3 Caesarean section.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	1/50	4/50		100%	0.25[0.03,2.16]
Total (95% CI)	**50**	**50**		**100%**	**0.25[0.03,2.16]**
Total events: 1 (Treatment), 4 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.26(P=0.21)					

Analysis 23.10. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 10 Epidural analgesia/opioid analgesia.

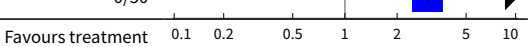
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	50/50	50/50			Not estimable
Total (95% CI)	**50**	**50**			**Not estimable**
Total events: 50 (Treatment), 50 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Not applicable					

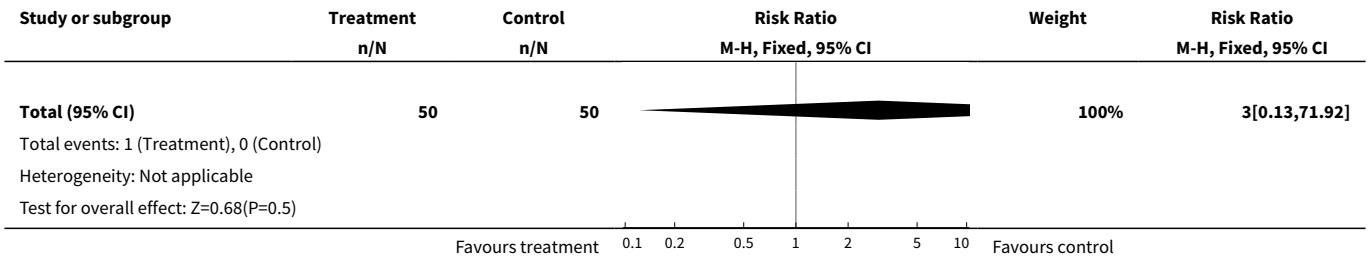
Analysis 23.11. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 11 Instrumental vaginal delivery.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	26/50	29/50		100%	0.9[0.63,1.28]
Total (95% CI)	**50**	**50**		**100%**	**0.9[0.63,1.28]**
Total events: 26 (Treatment), 29 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=0.6(P=0.55)					

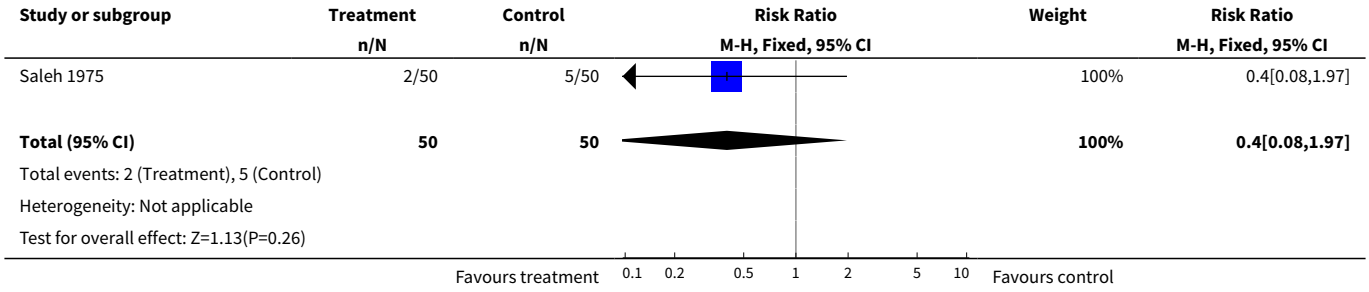
Analysis 23.16. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 16 Perinatal death.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	1/50	0/50		100%	3[0.13,71.92]

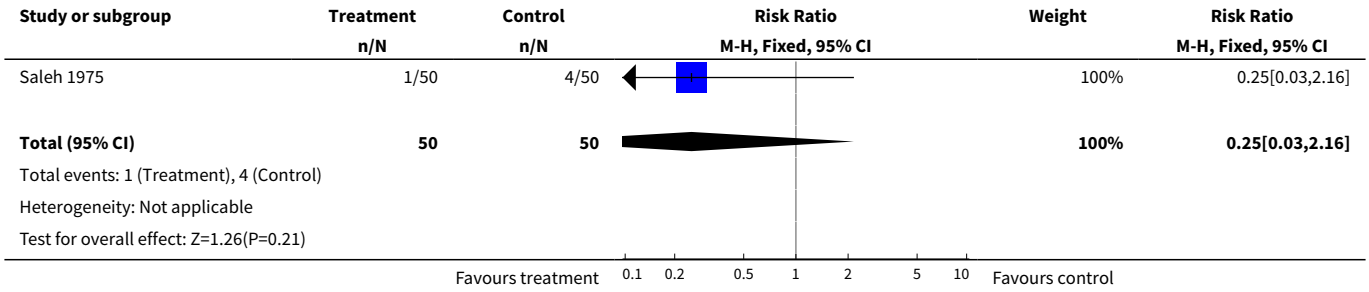




Analysis 23.23. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 23 Post partum haemorrhage.



Analysis 23.30. Comparison 23 IV oxytocin and amniotomy versus amniotomy alone: all women, intact membranes, favourable cervix, Outcome 30 Puerpural pyrexia.



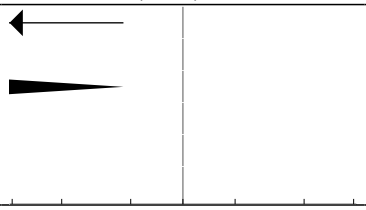
Comparison 24. IV oxytocin and amniotomy versus amniotomy alone: all primiparae

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved within 24 hours	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.06 [0.01, 0.45]
3 Caesarean section	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.16]
10 Epidural analgesia/opioid analgesia	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
11 Instrumental vaginal delivery	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.90 [0.63, 1.28]
16 Perinatal death	1	100	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 71.92]
23 Post partum haemorrhage	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.4 [0.08, 1.97]
30 Puerpural pyrexia	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.16]

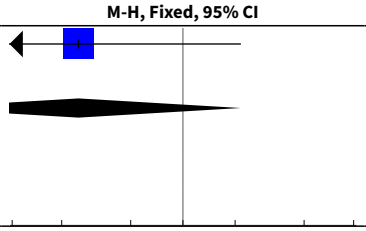
Analysis 24.1. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 1 Vaginal delivery not achieved within 24 hours.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	1/50	16/50		100%	0.06[0.01,0.45]
Total (95% CI)	**50**	**50**		**100%**	**0.06[0.01,0.45]**
Total events: 1 (Treatment), 16 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=2.74(P=0.01)					



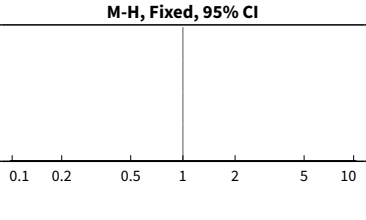
Analysis 24.3. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 3 Caesarean section.

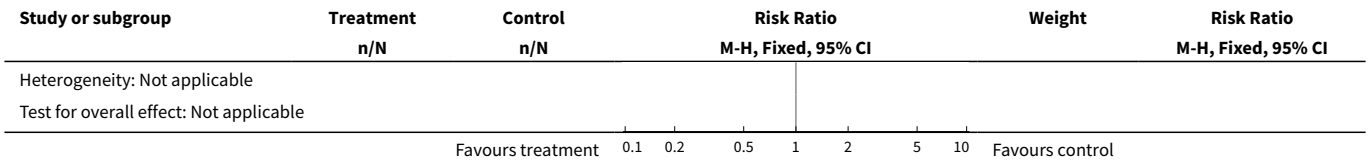
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	1/50	4/50		100%	0.25[0.03,2.16]
Total (95% CI)	**50**	**50**		**100%**	**0.25[0.03,2.16]**
Total events: 1 (Treatment), 4 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.26(P=0.21)					



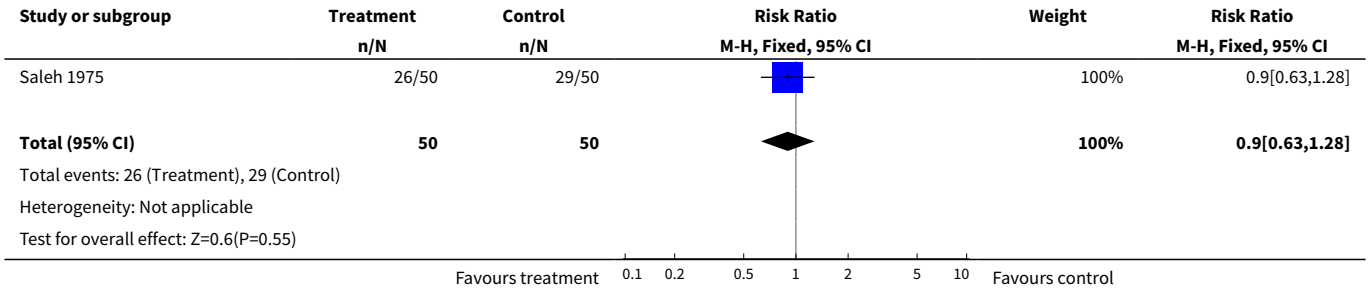
Analysis 24.10. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 10 Epidural analgesia/opioid analgesia.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	50/50	50/50			Not estimable
Total (95% CI)	**50**	**50**			**Not estimable**
Total events: 50 (Treatment), 50 (Control)					

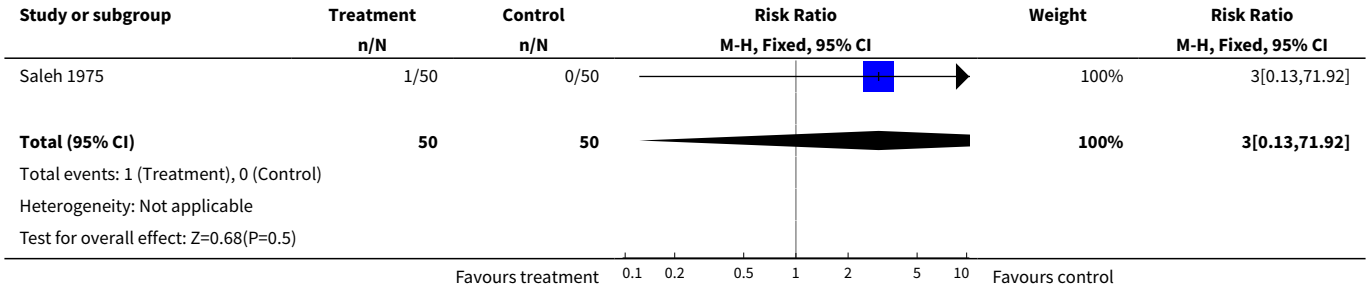




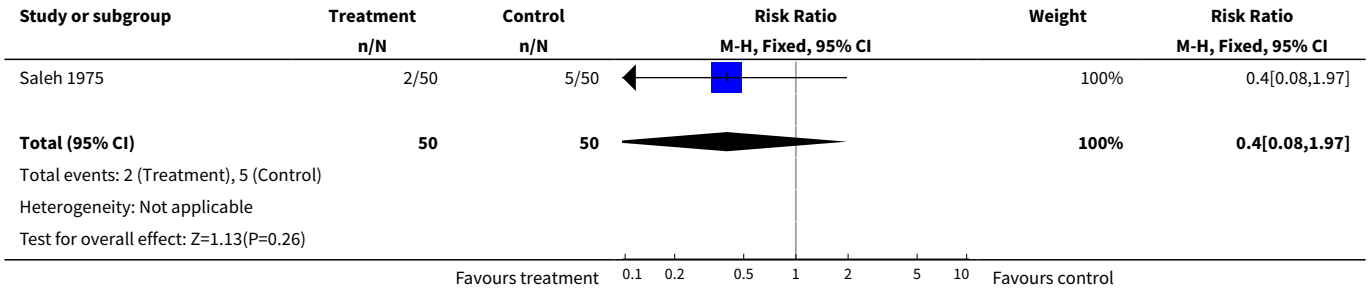
Analysis 24.11. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 11 Instrumental vaginal delivery.



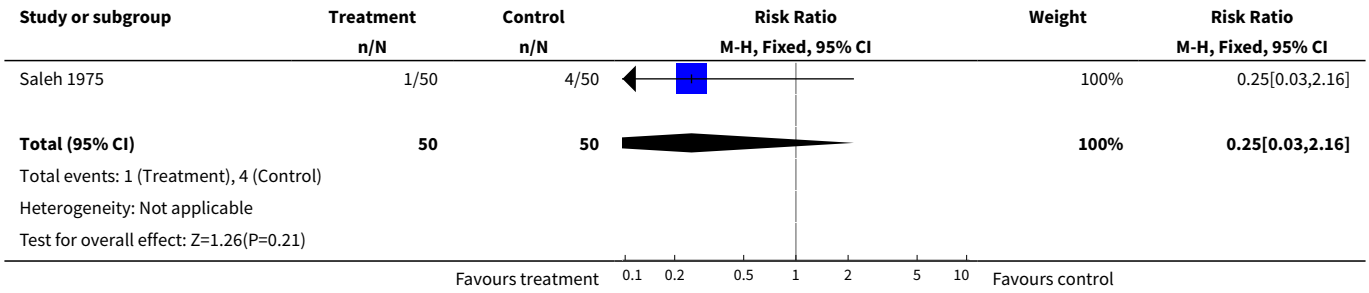
Analysis 24.16. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 16 Perinatal death.



Analysis 24.23. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 23 Post partum haemorrhage.



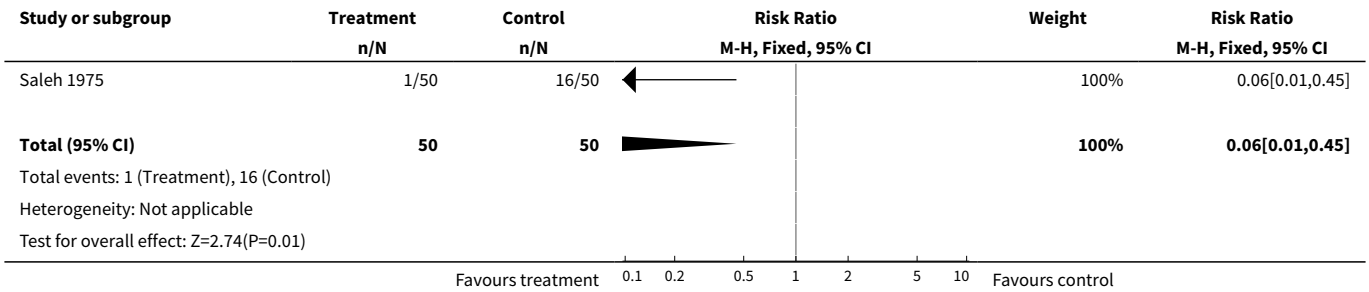
Analysis 24.30. Comparison 24 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, Outcome 30 Puerpural pyrexia.



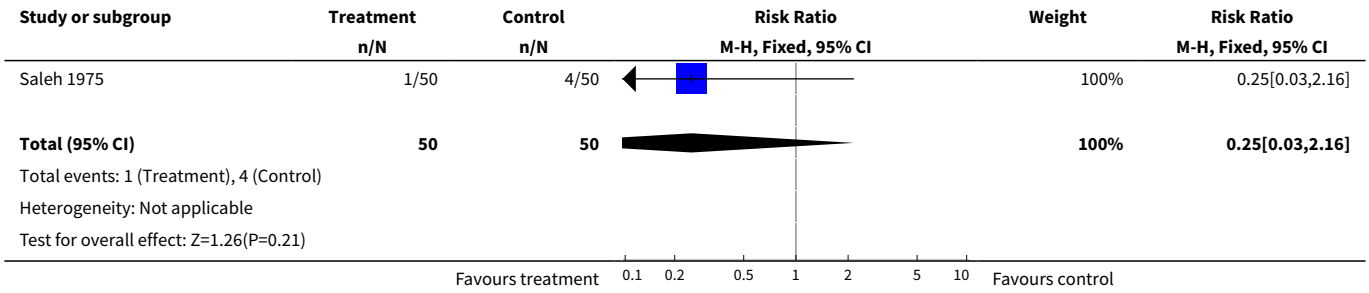
Comparison 25. IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved within 24 hours	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.06 [0.01, 0.45]
3 Caesarean section	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.16]
10 Epidural analgesia/opioid analgesia	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]
11 Instrumental vaginal delivery	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.90 [0.63, 1.28]
16 Perinatal death	1	100	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 71.92]
23 Post partum haemorrhage	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.4 [0.08, 1.97]
30 Puerpural pyrexia	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.16]

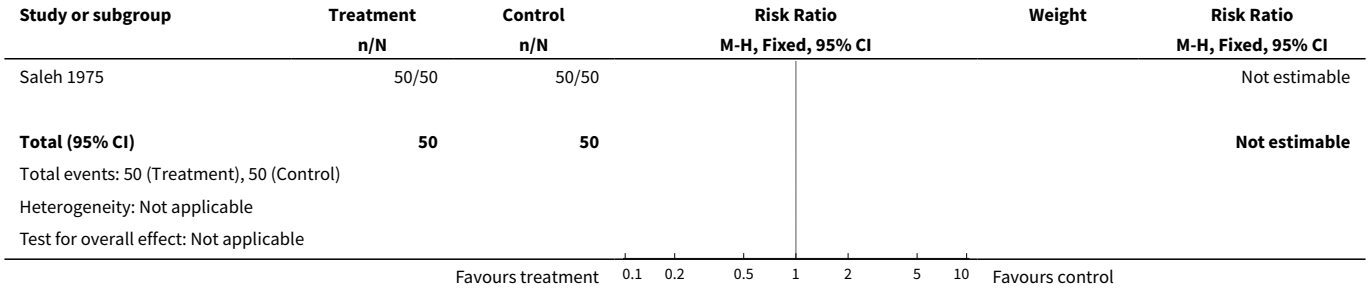
Analysis 25.1. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 1 Vaginal delivery not achieved within 24 hours.



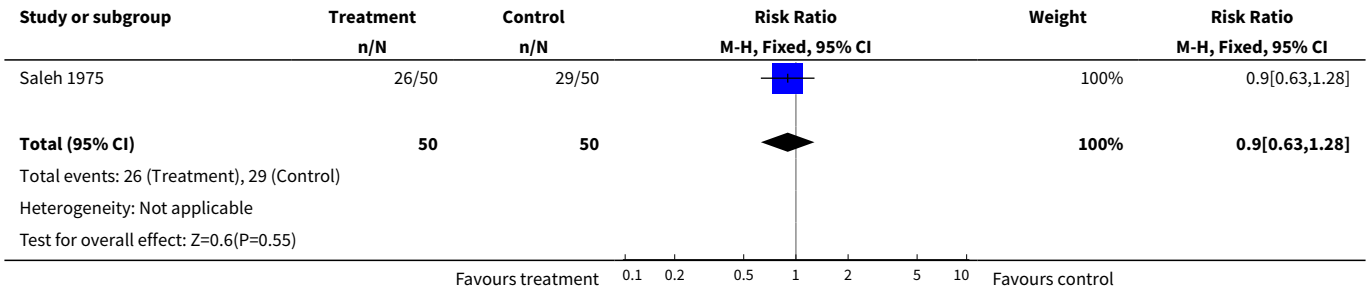
Analysis 25.3. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 3 Caesarean section.



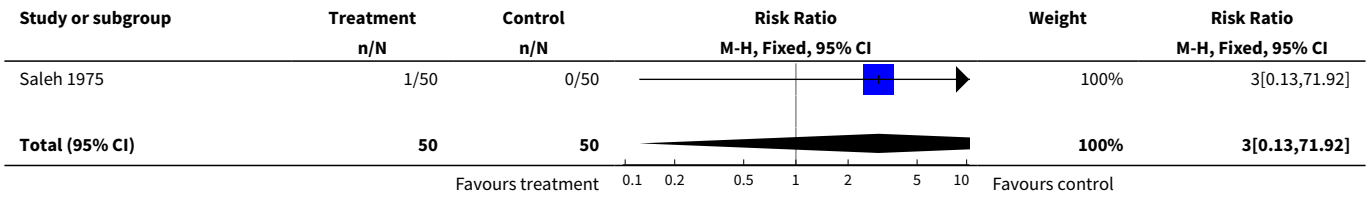
Analysis 25.10. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 10 Epidural analgesia/opioid analgesia.

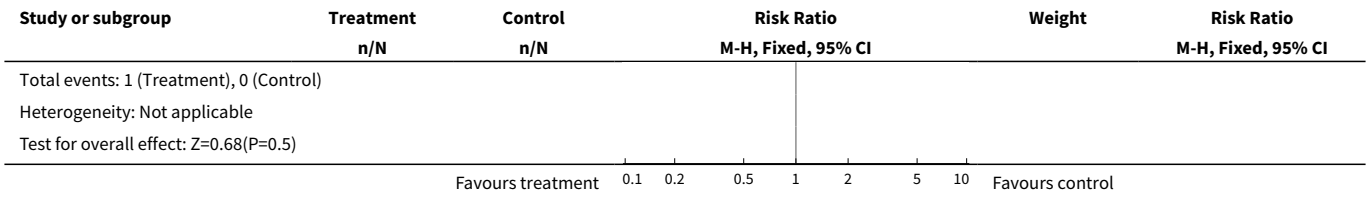


Analysis 25.11. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 11 Instrumental vaginal delivery.

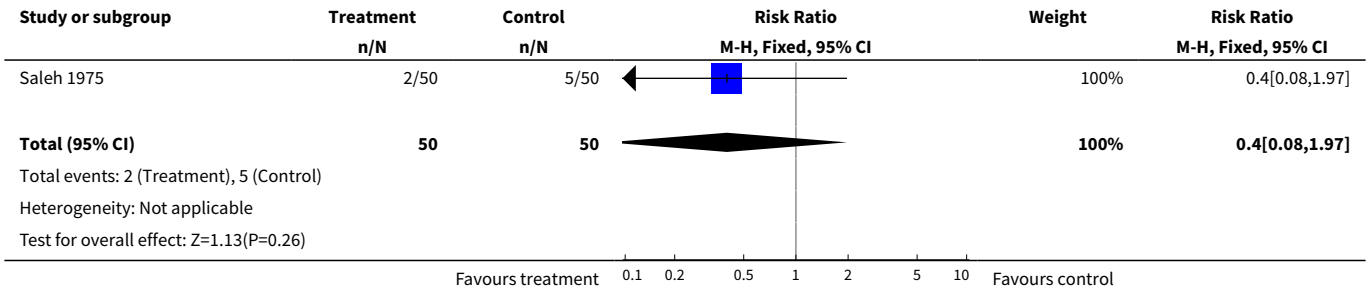


Analysis 25.16. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 16 Perinatal death.

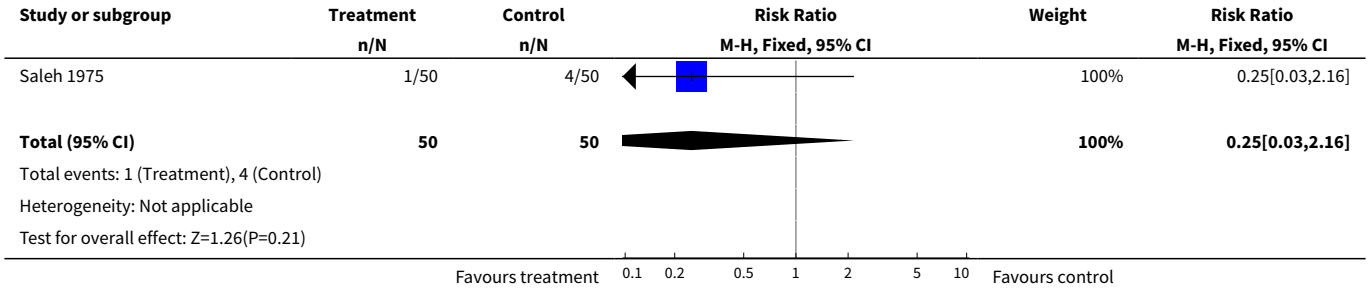




Analysis 25.23. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 23 Post partum haemorrhage.



Analysis 25.30. Comparison 25 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, favourable cervix, Outcome 30 Puerpural pyrexia.



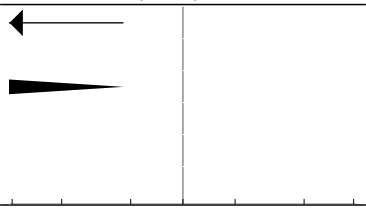
Comparison 26. IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
1 Vaginal delivery not achieved within 24 hours	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.06 [0.01, 0.45]
3 Caesarean section	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.16]
10 Epidural analgesia/opioid analgesia	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.0 [0.0, 0.0]

Outcome or subgroup title	No. of studies	No. of participants	Statistical method	Effect size
11 Instrumental vaginal delivery	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.90 [0.63, 1.28]
16 Perinatal death	1	100	Risk Ratio (M-H, Fixed, 95% CI)	3.0 [0.13, 71.92]
23 Post partum haemorrhage	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.4 [0.08, 1.97]
30 Puerpural pyrexia	1	100	Risk Ratio (M-H, Fixed, 95% CI)	0.25 [0.03, 2.16]

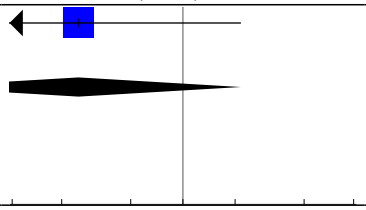
Analysis 26.1. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 1 Vaginal delivery not achieved within 24 hours.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	1/50	16/50		100%	0.06[0.01,0.45]
Total (95% CI)	**50**	**50**		**100%**	**0.06[0.01,0.45]**
Total events: 1 (Treatment), 16 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=2.74(P=0.01)					



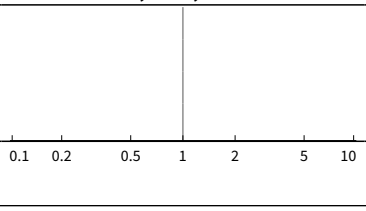
Analysis 26.3. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 3 Caesarean section.

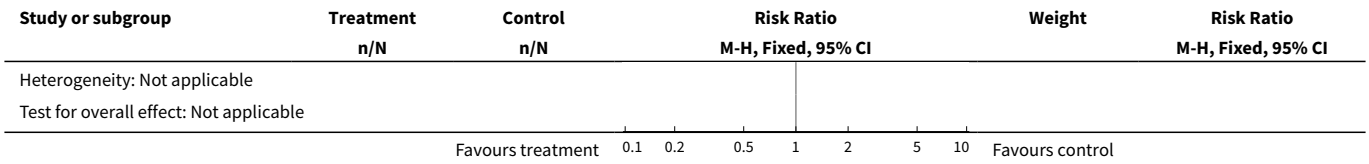
Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	1/50	4/50		100%	0.25[0.03,2.16]
Total (95% CI)	**50**	**50**		**100%**	**0.25[0.03,2.16]**
Total events: 1 (Treatment), 4 (Control)					
Heterogeneity: Not applicable					
Test for overall effect: Z=1.26(P=0.21)					



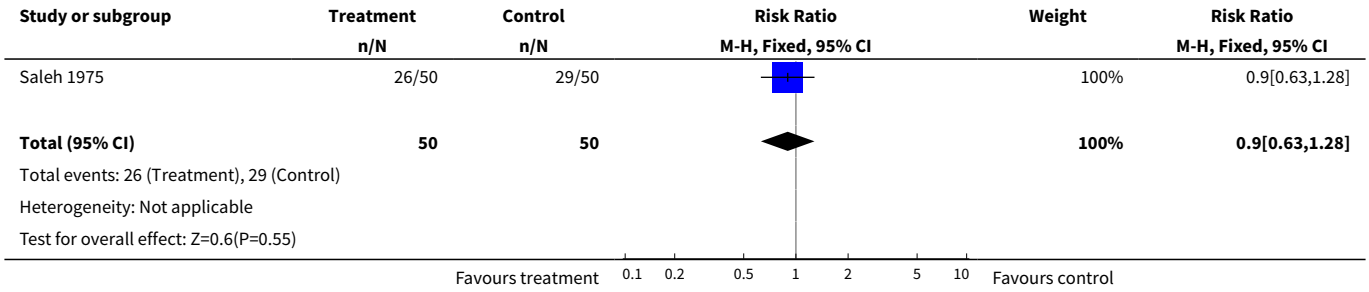
Analysis 26.10. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 10 Epidural analgesia/opioid analgesia.

Study or subgroup	Treatment n/N	Control n/N	Risk Ratio M-H, Fixed, 95% CI	Weight	Risk Ratio M-H, Fixed, 95% CI
Saleh 1975	50/50	50/50			Not estimable
Total (95% CI)	**50**	**50**			**Not estimable**
Total events: 50 (Treatment), 50 (Control)					

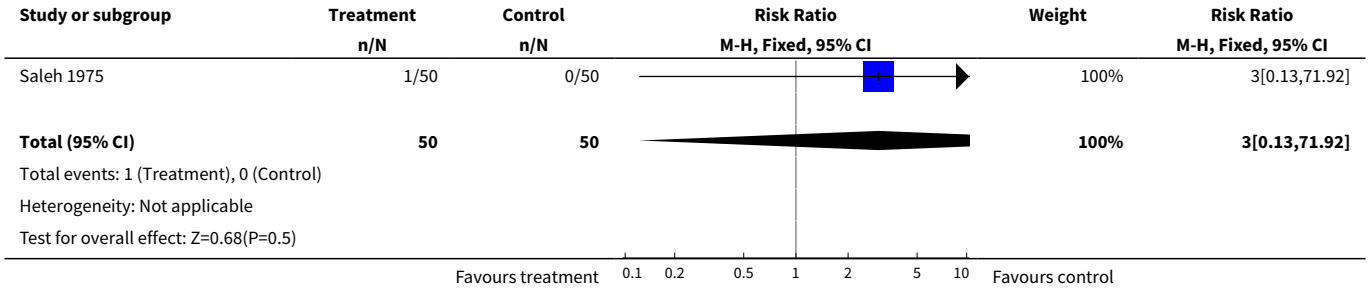




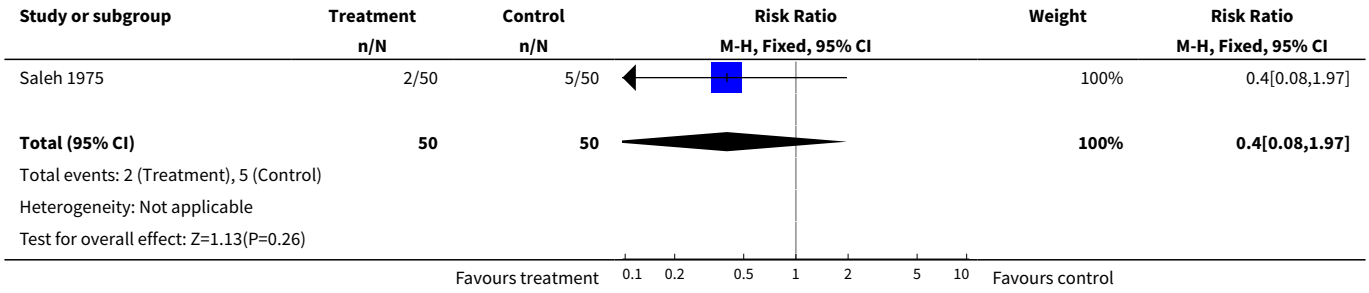
Analysis 26.11. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 11 Instrumental vaginal delivery.



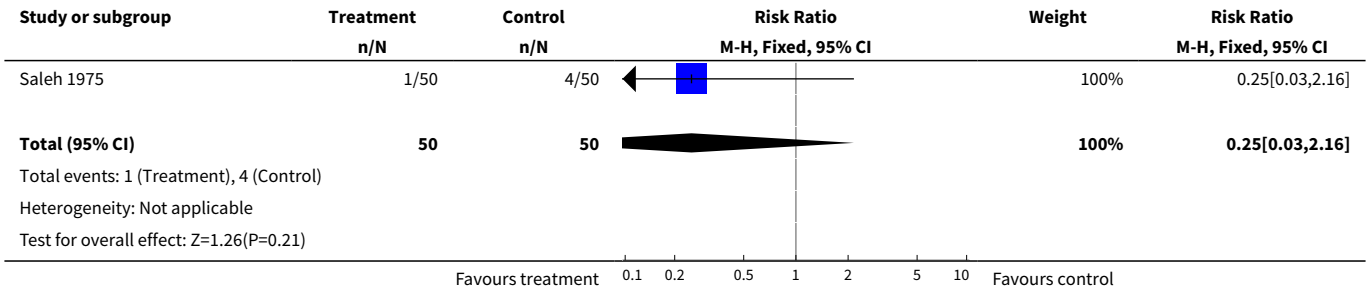
Analysis 26.16. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 16 Perinatal death.



Analysis 26.23. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 23 Post partum haemorrhage.



Analysis 26.30. Comparison 26 IV oxytocin and amniotomy versus amniotomy alone: all primiparae, intact membranes, favourable cervix, Outcome 30 Puerpural pyrexia.



WHAT'S NEW

Date	Event	Description
29 January 2013	Amended	Contact details updated.

HISTORY

Protocol first published: Issue 2, 2000
Review first published: Issue 3, 2001

Date	Event	Description
21 September 2009	Amended	Search updated. Three new reports added to Studies awaiting classification (Chanrachakul 2003; Chua 1988; Selo-Ojeme 2007) and a Published note added about the updating of this review.
31 October 2008	Amended	Converted to new review format.

CONTRIBUTIONS OF AUTHORS

Both reviewers prepared the text. Danie Botha entered the data into RevMan and Graham Howarth checked the data.

DECLARATIONS OF INTEREST

None known

SOURCES OF SUPPORT

Internal sources

- No sources of support supplied

External sources

- University of Pretoria and the South African MRC Unit for Maternal and Infant Care Strategies, South Africa.

NOTES

This review will be updated by a new review team following a new protocol, which is currently being prepared.

INDEX TERMS

Medical Subject Headings (MeSH)

Amnion [*surgery]; Injections, Intravenous; Labor, Induced [*methods]; Oxytocin [*administration & dosage]; Treatment Outcome

MeSH check words

Female; Humans; Pregnancy