| **Summary of findings:** | | | | | | |
| --- | --- | --- | --- | --- | --- | --- |
| **Amnioinfusion compared to Standard management for women with PPROM** | | | | | | |
| **Patient or population:** women with PPROM  **Setting:**  **Intervention:** Amnioinfusion  **Comparison:** Standard management | | | | | | |
| Outcomes | **Anticipated absolute effects\*** (95% CI) | | Relative effect (95% CI) | № of participants (studies) | Certainty of the evidence (GRADE) | Comments |
| **Risk with Standard management** | **Risk with Amnioinfusion** |
| Neonatal Sepsis | 200 per 1,000 | **128 per 1,000** (54 to 302) | **RR 0.64** (0.27 to 1.51) | 79 (3 observational studies) | ⨁◯◯◯ Very low1,a,b | The evidence suggests that amnioinfusion results in little to no difference in neonatal Sepsis. |
| Neonatal Sepsis | 144 per 1,000 | **85 per 1,000** (38 to 195) | **RR 0.59** (0.26 to 1.35) | 183 (3 RCTs) | ⨁⨁⨁⨁ Highb,c | The evidence suggests that amnioinfusion does not reduce neonatal Sepsis. |
| Latency Period |  | MD **5.82 higher** (11.58 lower to 23.23 higher) | - | 183 (3 RCTs) | ⨁⨁⨁⨁ Highc | Amnioinfusion likely results in little to no difference in latency Period. |
| Latency Period |  | MD **21.97 higher** (13.19 higher to 30.79 higher) | - | 238 (6 observational studies) | ⨁◯◯◯ Very lowa | The evidence is very uncertain about the effect of amnioinfusion on latency Period . |
| Perinatal Mortality | 639 per 1,000 | **434 per 1,000** (326 to 587) | **RR 0.68** (0.51 to 0.92) | 184 (4 observational studies) | ⨁◯◯◯ Very lowa | The evidence is very uncertain about the effect of amnioinfusion on perinatal Mortality (Observational studies). |
| Perinatal Mortality | 711 per 1,000 | **562 per 1,000** (398 to 804) | **RR 0.79** (0.56 to 1.13) | 183 (3 RCTs) | ⨁⨁⨁⨁ High2,3,4,b,c | Amnioinfusion results in little to no difference in perinatal Mortality . |
| Neonatal Mortality | 532 per 1,000 | **564 per 1,000** (346 to 920) | **RR 1.06** (0.65 to 1.73) | 167 (3 RCTs) | ⨁⨁⨁⨁ High | Amnioinfusion may result in little to no difference in neonatal Mortality. |
| Neonatal Mortality | 171 per 1,000 | **91 per 1,000** (46 to 178) | **RR 0.53** (0.27 to 1.04) | 162 (4 observational studies) | ⨁◯◯◯ Very lowa | The evidence is very uncertain about the effect of amnioinfusion on neonatal Mortality. |
| Clinical chorioamnionitis | 605 per 1,000 | **629 per 1,000** (345 to 1,000) | **RR 1.04** (0.57 to 1.90) | 102 (2 observational studies) | ⨁◯◯◯ Very lowa,b | Amnioinfusion may result in no difference in clinical chorioamnionitis . |
| Clinical chorioamnitis | 300 per 1,000 | **204 per 1,000** (120 to 348) | **RR 0.68** (0.40 to 1.16) | 183 (3 RCTs) | ⨁⨁⨁⨁ High | Amnioinfusion likely results in little to no difference in clinical chorioamnitis. |
| Cesarean section rate | 443 per 1,000 | **801 per 1,000** (93 to 1,000) | **RR 1.81** (0.21 to 2.72) | 126 (3 observational studies) | ⨁◯◯◯ Very lowa | Amnioinfusion may increase cesarean section rate but the evidence is very uncertain. |
| Cesarean section rate | 211 per 1,000 | **350 per 1,000** (213 to 574) | **RR 1.66** (1.01 to 2.72) | 183 (3 RCTs) | ⨁⨁⨁⨁ High | Amnioinfusion likely increases cesarean section rate slightly. |
| Gestational age at PPROM |  | MD **2.08 lower** (4.18 lower to 0.02 higher) | - | 202 (5 observational studies) | ⨁◯◯◯ Very lowa |  |
| Gestational age at PPROM |  | MD **0.11 higher** (0.58 lower to 0.79 higher) | - | 183 (3 RCTs) | ⨁⨁⨁⨁ High |  |
| Gestational age at delivery |  | MD **2.74 higher** (0.54 higher to 4.93 higher) | - | 252 (5 observational studies) | ⨁◯◯◯ Very low | Amnioinfusion may increase/have little to no effect on gestational age at delivery but the evidence is very uncertain. |
| Gestational age at delivery | The mean gestational age at delivery was **0** | MD **1.31 higher** (1.52 lower to 4.15 higher) | - | 183 (3 RCTs) | ⨁⨁⨁⨁ Highc | Amnioinfusion probably increases gestational age at delivery slightly. |
| Birth weight | The mean birth weight was **0** | MD **148.68 higher** (61.04 higher to 236.31 higher) | - | 1058 (5 observational studies) | ⨁⨁◯◯ Low | Amnioinfusion may result in little to no difference in birth weight. |
| Intraventricular hemorrage | 139 per 1,000 | **61 per 1,000** (7 to 561) | **RR 0.44** (0.05 to 4.04) | 63 (1 observational study) | ⨁◯◯◯ Very low | The evidence is very uncertain about the effect of amnioinfusion on intraventricular hemorrage. |
| Intraventricular hemorrage | 98 per 1,000 | **142 per 1,000** (19 to 1,000) | **RR 1.46** (0.19 to 11.19) | 84 (2 RCTs) | ⨁⨁⨁⨁ High |  |
| NEC | 24 per 1,000 | **49 per 1,000** (8 to 314) | **RR 2.01** (0.31 to 12.89) | 84 (2 RCTs) | ⨁⨁⨁⨁ High | Amnioinfusion results in little to no difference in NEC. |
| Pulmonary Hypoplasia | 450 per 1,000 | **234 per 1,000** (131 to 414) | **RR 0.52** (0.29 to 0.92) | 95 (3 observational studies) | ⨁◯◯◯ Very low | The evidence is very uncertain about the effect of amnioinfusion on pulmonary Hypoplasia. |
| Pulmonary Hypoplasia | 194 per 1,000 | **194 per 1,000** (139 to 271) | **RR 1.00** (0.72 to 1.40) | 114 (2 RCTs) | ⨁⨁⨁⨁ Highc | Amnioinfusion results in little to no difference in pulmonary Hypoplasia. |
| Composite neonatal outcome | 319 per 1,000 | **211 per 1,000** (96 to 453) | **RR 0.66** (0.30 to 1.42) | 85 (2 observational studies) | ⨁◯◯◯ Very low | The evidence is very uncertain about the effect of amnioinfusion on composite neonatal outcome. |
| Composite neonatal outcome | 732 per 1,000 | **680 per 1,000** (549 to 834) | **RR 0.93** (0.75 to 1.14) | 84 (2 RCTs) | ⨁⨁⨁⨁ High | Amnioinfusion does not reduce composite neonatal outcome. |
| BPH | 340 per 1,000 | **293 per 1,000** (27 to 1,000) | **RR 0.86** (0.08 to 9.37) | 86 (2 observational studies) | ⨁◯◯◯ Very low |  |
| BPH | 143 per 1,000 | **174 per 1,000** (83 to 328) | **OR 1.26** (0.54 to 2.93) | 95 (3 RCTs) | ⨁⨁⨁⨁ High | Amnioinfusion may result in a slight increase in BPH. |
| Maternal sepsis | 11 per 1,000 | **4 per 1,000** (0 to 85) | **OR 0.32** (0.01 to 8.24) | 183 (3 RCTs) | ⨁⨁◯◯ Low | Amnioinfusion may result in little to no difference in maternal sepsis. |
| Pneumothorax | 211 per 1,000 | **112 per 1,000** (44 to 280) | **RR 0.53** (0.21 to 1.33) | 68 (2 RCTs) | ⨁⨁⨁◯ Moderate | Amnioinfusion likely results in little to no difference in pneumothorax. |
| Orthopediatric abnormalities | 122 per 1,000 | **177 per 1,000** (46 to 667) | **RR 1.45** (0.38 to 5.47) | 84 (2 RCTs) | ⨁⨁⨁◯ Moderate | Amnioinfusion likely results in little to no difference in orthopediatric abnormalities. |
| Orthopediatric abnormalities | 24 per 1,000 | **9 per 1,000** (2 to 44) | **RR 0.37** (0.08 to 1.80) | 84 (2 observational studies) | ⨁◯◯◯ Very low |  |
| Maternal age | The mean maternal age was **0** | MD **0.75 lower** (4.9 lower to 3.4 higher) | - | 244 (5 observational studies) | - |  |
| Maternal Age | The mean maternal Age was **0** | MD **0.39 lower** (2.03 lower to 1.25 higher) | - | 183 (3 RCTs) | - |  |
| Placenta abruptio | 0 per 1,000 | **0 per 1,000** (0 to 0) | **RR 6.65** (0.83 to 53.05) | 183 (3 RCTs) | ⨁⨁◯◯ Low | The evidence suggests amnioinfusion increases placenta abruptio slightly. |
| Placenta abruptio | 207 per 1,000 | **91 per 1,000** (29 to 298) | **RR 0.44** (0.14 to 1.44) | 73 (2 observational studies) | ⨁◯◯◯ Very low | The evidence is very uncertain about the effect of amnioinfusion on placenta abruptio. |
| Mild neurodevelopmental delay | 467 per 1,000 | **322 per 1,000** (177 to 583) | **RR 0.69** (0.38 to 1.25) | 43 (3 RCTs) | ⨁⨁⨁⨁ High | Amnioinfusion results in little to no difference in mild neurodevelopmental delay. |
| Severe neurodevelopmental assessment | 143 per 1,000 | **90 per 1,000** (29 to 281) | **RR 0.63** (0.20 to 1.97) | 27 (2 RCTs) | ⨁⨁⨁⨁ High | Amnioinfusion results in little to no difference in severe neurodevelopmental assessment. |
| Respiratory morbidities | 357 per 1,000 | **332 per 1,000** (68 to 1,000) | **RR 0.93** (0.19 to 4.65) | 25 (2 RCTs) | ⨁⨁⨁⨁ High | Amnioinfusion does not reduce respiratory morbidities. |
| Long-term healthy survival-best case scenario | 36 per 1,000 | **44 per 1,000** (19 to 23) | **RR 1.24** (0.52 to 0.63) | 112 (2 RCTs) | ⨁⨁⨁⨁ High3,5,b | Amnioinfusion results in little to no difference in long-term healthy survival-best case scenario. |
| Long-term healthy survival-worse case scenario | 54 per 1,000 | **179 per 1,000** (46 to 702) | **RR 3.34** (0.85 to 13.10) | 112 (2 studies) | - |  |
| \***The risk in the intervention group** (and its 95% confidence interval) is based on the assumed risk in the comparison group and the **relative effect** of the intervention (and its 95% CI).  **CI:** confidence interval; **MD:** mean difference; **OR:** odds ratio; **RR:** risk ratio | | | | | | |
| **GRADE Working Group grades of evidence** **High certainty:** we are very confident that the true effect lies close to that of the estimate of the effect. **Moderate certainty:** we are moderately confident in the effect estimate: the true effect is likely to be close to the estimate of the effect, but there is a possibility that it is substantially different. **Low certainty:** our confidence in the effect estimate is limited: the true effect may be substantially different from the estimate of the effect. **Very low certainty:** we have very little confidence in the effect estimate: the true effect is likely to be substantially different from the estimate of effect. | | | | | | |

#### Explanations

a. observational studies

b. Small sample size