WHO/RHR/15.21

WHO recommendations for prevention and treatment of maternal peripartum infections:

Evidence base

World Health Organization

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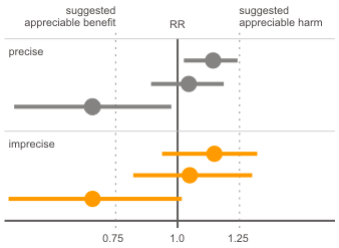
Standard criteria for grading of evidence

Box 1. Standard criteria for grading of evidence[1]

Domain	Grade	Characteristics
STUDY DESIGN	0	All randomized controlled trials
	-2	All observational studies
STUDY DESIGN LIMITATIONS	0	Most of the pooled effect provided by studies, with low risk of bias ("A")
	-1	Most of the pooled effect provided by studies "B" or "C" without a substantial proportion (i.e. < 40%) from studies "C"
	-2	Most of the pooled effect provided by studies "B" or "C" with a substantial proportion (i.e. > 40%) from studies "C"
INCONSISTENCY	0	No severe heterogeneity (I2<60% or Chi2≥0.05)
	-1	Severe, non-explained, heterogeneity (I2≥60% or Chi2<0.05) If heterogeneity could be caused by publication bias or imprecision due to small studies, downgrade only for publication bias or imprecision (i.e. the same weakness shouldn't be downgraded twice)
INDIRECTNESS	0	No indirectness
	-1	Presence of indirect comparison, population, intervention, comparator, or outcome
IMPRECISION	0	The CI is precise according to the figure below The total cumulative study population is not very small (i.e. sample size is more than 300 patients) and the total number of events is more than 30 
	-1	One of the above-mentioned conditions is not fulfilled
	-2	The two above-mentioned are not fulfilled
	Note: If the total number of events is less than 30 and the total cumulative sample size is appropriately large (i.e. above 3,000 patients, consider not downgrading the evidence).	
PUBLICATION BIAS	0	No evident asymmetry in the funnel plot or less than 5 studies to be plotted.
	-1	Evident asymmetry in funnel plot with at least five studies.
	Note: Publication bias is likely when in addition to the FP asymmetry there are substantial heterogeneity and statistically significant results that are possibly favoured by the PB.	

[1] Note: All observational studies will start as "low-quality" evidence, but non-controlled studies (e.g. case series) will be further downgraded to "very low-quality" evidence.

GRADE[1] tables

Table 1. Routine perineal/pubic shaving prior to giving vaginal birth

Source: Basevi V, Lavender T. Routine perineal shaving on admission in labour. Cochrane Database Syst Rev. 2014;11:CD001236.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Perineal shaving	No perineal shaving	Relative (95% CI)	Absolute		
Maternal febrile morbidity												
3	randomized trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	38/502 (7.6%)	33/495 (6.7%)	RR 1.14 (0.73 to 1.76)	9 more per 1000 (from 18 fewer to 51 more)	⊕OOO VERY LOW	CRITICAL
Wound infection												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	24/231 (10.4%)	16/227 (7%)	RR 1.47 (0.80 to 2.70)	33 more per 1000 (from 14 fewer to 120 more)	⊕⊕⊕O MODERATE	CRITICAL
Wound dehiscence												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	0/231 (0%)	1/227 (0.4%)	RR 0.33 (0.01 to 8.00)	3 fewer per 1000 (from 4 fewer to 31 more)	⊕⊕⊕O MODERATE	CRITICAL
Maternal satisfaction (continuous data)												
1	randomized trial	serious[3]	no serious inconsistency	no serious indirectness	serious[2]	none	231	227	—	MD 0.00 higher (0.13 lower to 0.13 higher)	⊕⊕OO LOW	IMPORTANT
Neonatal infection												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[4]	none	0/231 (0%)	0/227 (0%)	not pooled	not pooled	⊕⊕OO LOW	IMPORTANT

1 Two studies contributing > 80% of the pooled effect had serious design limitations.
2 Wide confidence interval crossing the line of no effect.
3 Pooled effect from one study with no blinding of participants and assessors for a subjective outcome.
4 One study with no events.

[1] GRADE: Grading of Recommendations Assessment, Development and Evaluation (http://www.gradeworkinggroup.org/)

Table 2. Routine vaginal cleansing with an antiseptic agent (chlorhexidine) during labour

Source: Lumbiganon P, Thinkhamrop J, Thinkhamrop B, Tolosa JE. Vaginal chlorhexidine during labour for preventing maternal and neonatal infections (excluding Group B Streptococcal and HIV). Cochrane Database Syst Rev. 2014;9:CD004070.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Chlorhexidine vaginal wash	Sterile water vaginal wash	Relative (95% CI)	Absolute		
Chorioamnionitis												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	115/1514 (7.6%)	103/1498 (6.9%)	RR 1.10 (0.86 to 1.42)	7 more per 1000 (from 10 fewer to 29 more)	⊕⊕⊕O MODERATE	CRITICAL
Postpartum endometritis												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	71/1514 (4.7%)	85/1498 (5.7%)	RR 0.83 (0.61 to 1.13)	10 fewer per 1000 (from 22 fewer to 7 more)	⊕⊕⊕O MODERATE	CRITICAL
Maternal side-effects												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	0/1033 (0%)	0/1032 (0%)	not pooled	not pooled	⊕⊕⊕O MODERATE	CRITICAL
Neonatal pneumonia												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	0/457 (0%)	1/453 (0.2%)	RR 0.33 (0.01 to 8.09)	1 fewer per 1000 (from 2 fewer to 16 more)	⊕⊕⊕O MODERATE	CRITICAL
Neonatal meningitis												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	0/508 (0%)	1/516 (0.2%)	RR 0.34 (0.01 to 8.29)	1 fewer per 1000 (from 2 fewer to 14 more)	⊕⊕⊕O MODERATE	CRITICAL
Blood culture confirming neonatal sepsis												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	3/1038 (0.3%)	4/1039 (0.4%)	RR 0.75 (0.17 to 3.35)	1 fewer per 1000 (from 3 fewer to 9 more)	⊕⊕⊕O MODERATE	CRITICAL
Neonatal sepsis												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	3/1495 (0.2%)	4/1492 (0.3%)	RR 0.75 (0.17 to 3.35)	1 fewer per 1000 (from 2 fewer to 6 more)	⊕⊕⊕O MODERATE	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Chlorhexidine vaginal wash	Sterile water vaginal wash	Relative (95% CI)	Absolute		
Perinatal mortality												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	2/1034 (0.2%)	2/1037 (0.2%)	RR 1.00 (0.17 to 5.79)	0 fewer per 1000 (from 2 fewer to 9 more)	⊕⊕⊕O MODERATE	CRITICAL

1 Wide confidence interval crossing the line of no effect.
2 Two studies with no events.

Table 3. Routine vaginal cleansing with an antiseptic agent (chlorhexidine) during labour for group B Streptococcus (GBS)-colonized women

Source: Ohlsson A, Shah VS, Stade BC. Vaginal chlorhexidine during labour to prevent early-onset neonatal group B streptococcal infection. Cochrane Database Syst Rev. 2014;12:CD003520.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Chlorhexidine vaginal wash or gel/cream	Placebo or no treatment	Relative (95% CI)	Absolute		
Adverse (mild) effects in the mother												
3	randomized trials	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	11/488 (2.3%)	1/578 (0.2%)	RR 8.50 (1.60 to 45.28)	13 more per 1000 (from 1 more to 77 more)	⊕OOO VERY LOW	CRITICAL
Early onset GBS disease (sepsis and/or meningitis within the first seven days of life)												
2	randomized trials	very serious[3]	no serious inconsistency	no serious indirectness	serious[2]	none	2/451 (0.4%)	1/536 (0.2%)	RR 2.32 (0.34 to 15.63)	2 more per 1000 (from 1 fewer to 27 more)	⊕OOO VERY LOW	CRITICAL
GBS pneumonia within the first seven days of life												
2	randomized trials	very serious[3]	no serious inconsistency	no serious indirectness	serious[2]	none	0/451 (0%)	1/536 (0.2%)	RR 0.35 (0.01 to 8.6)	1 fewer per 1000 (from 2 fewer to 14 more)	⊕OOO VERY LOW	CRITICAL
Neonatal colonization with GBS within the first seven days of life												
3	randomized trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	21/128 (16.4%)	45/200 (22.5%)	RR 0.65 (0.36 to 1.18)	79 fewer per 1000 (from 144 fewer to 40 more)	⊕⊕OO LOW	CRITICAL
Neonatal mortality due to early-onset GBS infection												
1	randomized trial	very serious[4]	no serious inconsistency	no serious indirectness	very serious[5]	none	0/63 (0%)	0/127 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Adverse (mild) effects in the neonate												
3	randomized trials	very serious[1]	no serious inconsistency	no serious indirectness	very serious[5]	none	0/488 (0%)	0/578 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL

1 All studies contributing to the pooled effect had serious design limitations.
2 Wide confidence interval crossing the line of no effect and few events.
3 Both studies contributing to the pooled effect had serious design limitations.
4 One study with serious design limitations.
5 No events.

Table 4. Intrapartum antibiotics for known maternal group B Streptococcal colonization

Source: Ohlsson A, Shah VS. Intrapartum antibiotics for known maternal group B Streptococcal colonization. Cochrane Database Syst Rev. 2014;6:CD007467.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Intrapartum antibiotics	No antibiotic treatment antibiotics	Relative (95% CI)	Absolute		
Maternal sepsis in the peri/postpartum period												
1	randomized trial	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/83 (0%)	1/77 (1.3%)	RR 0.31 (0.01 to 7.49)	9 fewer per 1000 (from 13 fewer to 84 more)	⊕OOO VERY LOW	CRITICAL
Puerperal infection												
1	randomized trial	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/57 (0%)	3/64 (4.7%)	RR 0.16 (0.01 to 3.03)	39 fewer per 1000 (from 46 fewer to 95 more)	⊕OOO VERY LOW	CRITICAL
Neonatal mortality from all causes												
1	randomized trial	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/85 (0%)	2/79 (2.5%)	RR 0.19 (0.01 to 3.82)	21 fewer per 1000 (from 25 fewer to 71 more)	⊕OOO VERY LOW	CRITICAL
Neonatal mortality from early-onset GBS infection												
1	randomized trial	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/85 (0%)	1/79 (1.3%)	RR 0.31 (0.01 to 7.50)	9 fewer per 1000 (from 13 fewer to 82 more)	⊕OOO VERY LOW	CRITICAL
Neonatal mortality from infections caused by bacteria other than GBS												
1	randomized trial	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/85 (0%)	1/79 (1.3%)	RR 0.31 (0.01 to 7.50)	9 fewer per 1000 (from 13 fewer to 82 more)	⊕OOO VERY LOW	CRITICAL
Early (postnatal age less than seven days) GBS infection in a neonate												
3	randomized trials	very serious[3]	no serious inconsistency	no serious indirectness	serious[4]	none	1/233 (0.4%)	12/255 (4.7%)	RR 0.17 (0.04 to 0.74)	39 fewer per 1000 (from 12 fewer to 45 fewer)	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Intrapartum antibiotics	No antibiotic treatment antibiotics	Relative (95% CI)	Absolute		
Probable early (postnatal age less than seven days) GBS infection in a neonate												
2	randomized trials	very serious[3]	no serious inconsistency	no serious indirectness	serious[4]	none	1/148 (0.7%)	10/176 (5.7%)	RR 0.17 (0.03 to 0.91)	47 fewer per 1000 (from 5 fewer to 55 fewer)	⊕OOO VERY LOW	CRITICAL
Late-onset (seven days old or more) GBS infection in a neonate												
2	randomized trials	very serious[3]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/145 (0%)	1/144 (0.7%)	RR 0.36 (0.01 to 8.69)	4 fewer per 1000 (from 7 fewer to 53 more)	⊕OOO VERY LOW	CRITICAL
Neonatal sepsis due to bacterial organisms other than GBS												
2	randomized trials	very serious[3]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/145 (0.7%)	1/144 (0.7%)	RR 1 (0.15 to 6.79)	0 fewer per 1000 (from 6 fewer to 40 more)	⊕OOO VERY LOW	CRITICAL

1 One study with serious design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.
3 Studies contributing to the pooled effect had serious design limitations.
4 Small sample size and few events.

Table 5. Antibiotic prophylaxis during the second and third trimester of pregnancy

Source: Thinkhamrop J, Hofmeyr GJ, Adetoro O, Lumbiganon P, Ota E. Antibiotic prophylaxis during the second and third trimester to reduce adverse pregnancy outcomes and morbidity. Cochrane Database Syst Rev. 2015;1:CD002250.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Prophylactic antibiotics	Placebo	Relative (95% CI)	Absolute		
Puerperal sepsis/postpartum endometritis												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	27/323 (8.4%)	49/304 (16.1%)	RR 0.53 (0.35 to 0.82)	76 fewer per 1000 (from 29 fewer to 105 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Puerperal sepsis/postpartum endometritis – unselected pregnant women												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	10/225 (4.4%)	18/206 (8.7%)	RR 0.51 (0.24 to 1.08)	43 fewer per 1000 (from 66 fewer to 7 more)	⊕⊕⊕O MODERATE	CRITICAL
Puerperal sepsis/postpartum endometritis – high-risk pregnant women; history of preterm delivery, low birthweight < 2500 g, stillbirth or early perinatal death												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	17/98 (17.3%)	31/98 (31.6%)	RR 0.55 (0.33 to 0.92)	142 fewer per 1000 (from 25 fewer to 212 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Neonatal sepsis												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	5/70 (7.1%)	0/72 (0%)	RR 11.31 (0.64 to 200.79)	—	⊕⊕OO LOW	CRITICAL
Neonatal sepsis – high-risk pregnant women; with previous preterm delivery												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	5/70 (7.1%)	0/72 (0%)	RR 11.31 (0.64 to 200.79)	—	⊕⊕OO LOW	CRITICAL
Chorioamnionitis												
1	randomized trial	serious[4]	no serious inconsistency	no serious indirectness	very serious[3]	none	2/119 (1.7%)	3/110 (2.7%)	RR 0.62 (0.10 to 3.62)	10 fewer per 1000 (from 25 fewer to 71 more)	⊕OOO VERY LOW	CRITICAL
Chorioamnionitis – unselected pregnant women												
1	randomized trial	serious[4]	no serious inconsistency	no serious indirectness	very serious[3]	none	2/119 (1.7%)	3/110 (2.7%)	RR 0.62 (0.10 to 3.62)	10 fewer per 1000 (from 25 fewer to 71 more)	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Prophylactic antibiotics	Placebo	Relative (95% CI)	Absolute		
Perinatal mortality												
4	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	49/1374 (3.6%)	58/1336 (4.3%)	RR 0.83 (0.57 to 1.20)	7 fewer per 1000 (from 9 fewer to 19 more)	⊕⊕⊕O MODERATE	CRITICAL
Perinatal mortality – Perinatal mortality in unselected women												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	45/1170 (3.8%)	53/1145 (4.6%)	RR 0.84 (0.57 to 1.23)	7 fewer per 1000 (from 11 fewer to 20 more)	⊕⊕⊕O MODERATE	CRITICAL
Perinatal mortality – high-risk pregnant women with history of preterm delivery, low birthweight < 2500 g, stillbirth or perinatal death												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	3/134 (2.2%)	5/119 (4.2%)	RR 0.53 (0.13 to 2.18)	20 fewer per 1000 (from 37 fewer to 50 more)	⊕⊕OO LOW	CRITICAL
Perinatal mortality – high-risk pregnant women with previous preterm delivery												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	1/70 (1.4%)	0/72 (0%)	RR 3.08 (0.13 to 74.46)	0 fewer per 1000 (from 0 fewer to 0 more)	⊕⊕OO LOW	CRITICAL

1 Wide confidence interval crossing the line of no effect.
2 Small sample size.
3 Wide confidence interval crossing the line of no effect, small sample size and few events.
4 One study with design limitations.

Table 6. Prophylactic antibiotics for women in preterm labour with intact amniotic membranes

Source: Flenady V, Hawley G, Stock OM, Kenyon S, Badawi N. Prophylactic antibiotics for inhibiting preterm labour with intact membranes. Cochrane Database Syst Rev. 2013;12:CD000246.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Any antibiotics	Placebo or no treatment	Relative (95% CI)	Absolute		
Perinatal mortality												
10	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	141/5213 (2.7%)	43/2091 (2.1%)	RR 1.22 (0.88 to 1.69)	5 more per 1000 (from 2 fewer to 14 more)	⊕⊕⊕O MODERATE	CRITICAL
Stillbirth												
8	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	39/5105 (0.8%)	19/1975 (1%)	RR 0.73 (0.43 to 1.26)	3 fewer per 1000 (from 5 fewer to 3 more)	⊕⊕⊕O MODERATE	CRITICAL
Neonatal death												
9	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	101/5183 (1.9%)	24/2065 (1.2%)	RR 1.57 (1.03 to 2.4)	7 more per 1000 (from 0 more to 16 more)	⊕⊕⊕⊕ HIGH	CRITICAL
Infant death												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	78/3508 (2.2%)	24/1146 (2.1%)	RR 1.06 (0.68 to 1.67)	1 more per 1000 (from 7 fewer to 14 more)	⊕⊕⊕O MODERATE	CRITICAL
Any functional impairment at seven years of age												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	957/2317 (41.3%)	275/735 (37.4%)	RR 1.10 (0.99 to 1.23)	37 more per 1000 (from 4 fewer to 86 more)	⊕⊕⊕⊕ HIGH	CRITICAL
Moderate/severe functional impairment at seven years of age												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	417/2317 (18%)	124/735 (16.9%)	RR 1.07 (0.89 to 1.28)	12 more per 1000 (from 19 fewer to 47 more)	⊕⊕⊕O MODERATE	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Any antibiotics	Placebo or no treatment	Relative (95% CI)	Absolute		
Cerebral palsy at seven years of age												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	68/2403 (2.8%)	12/770 (1.6%)	RR 1.82 (0.99 to 3.34)	13 more per 1000 (from 0 fewer to 36 more)	⊕⊕⊕⊕ HIGH	CRITICAL
Maternal adverse drug reaction requiring cessation of treatment												
5	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	54/313 (17.3%)	41/313 (13.1%)	RR 1.32 (0.92 to 1.89)	42 more per 1000 (from 10 fewer to 117 more)	⊕⊕⊕O MODERATE	CRITICAL
Maternal infection												
10	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	458/5246 (8.7%)	236/2125 (11.1%)	RR 0.74 (0.63 to 0.86)	29 fewer per 1000 (from 16 fewer to 41 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Admission to neonatal intensive or special care nursery												
5	randomized trials	no serious risk of bias	serious[2]	no serious indirectness	no serious imprecision	none	1301/4992 (26.1%)	493/1883 (26.2%)	RR 0.82 (0.62 to 1.1)	47 fewer per 1000 (from 99 fewer to 26 more)	⊕⊕⊕O MODERATE	CRITICAL
Neonatal mechanical ventilation												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	371/4685 (7.9%)	121/1556 (7.8%)	RR 1.02 (0.84 to 1.24)	2 more per 1000 (from 12 fewer to 19 more)	⊕⊕⊕⊕ HIGH	CRITICAL
Respiratory distress syndrome												
9	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	463/5159 (9%)	197/2041 (9.7%)	RR 0.99 (0.84 to 1.16)	1 fewer per 1000 (from 15 fewer to 15 more)	⊕⊕⊕⊕ HIGH	CRITICAL
Neonatal positive blood culture												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	99/4821 (2.1%)	35/1705 (2.1%)	RR 1.01 (0.69 to 1.49)	0 more per 1000 (from 6 fewer to 10 more)	⊕⊕⊕O MODERATE	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Any antibiotics	Placebo or no treatment	Relative (95% CI)	Absolute		
Neonatal sepsis												
10	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	127/5252 (2.4%)	76/2134 (3.6%)	RR 0.86 (0.64 to 1.16)	5 fewer per 1000 (from 13 fewer to 6 more)	⊕⊕⊕O MODERATE	CRITICAL
Intraventricular haemorrhage												
5	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	59/4968 (1.2%)	30/1845 (1.6%)	RR 0.76 (0.48 to 1.19)	4 fewer per 1000 (from 8 fewer to 3 more)	⊕⊕⊕O MODERATE	CRITICAL
Necrotizing enterocolitis												
6	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	62/5004 (1.2%)	25/1876 (1.3%)	RR 1.06 (0.64 to 1.73)	1 more per 1000 (from 5 fewer to 10 more)	⊕⊕⊕O MODERATE	CRITICAL
Major cerebral abnormality												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	87/4685 (1.9%)	29/1556 (1.9%)	RR 1.00 (0.66 to 1.51)	0 fewer per 1000 (from 6 fewer to 10 more)	⊕⊕⊕O MODERATE	CRITICAL
Chronic neonatal lung disease												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	102/4685 (2.2%)	29/1556 (1.9%)	RR 1.17 (0.78 to 1.76)	3 more per 1000 (from 4 fewer to 14 more)	⊕⊕⊕O MODERATE	CRITICAL

1 Wide confidence interval crossing the line of no effect.
2 Significant statistical heterogeneity ($I^2 > 60\%$).

Table 7. Prophylactic antibiotics for women in preterm labour with ruptured membranes

Source: Kenyon S, Boulvain M, Neilson JP. Antibiotics for preterm rupture of membranes. Cochrane Database Syst Rev. 2013;12:CD001058.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Any antibiotic	Placebo	Relative (95% CI)	Absolute		
Maternal death												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[1]	none	0/369 (0%)	0/394 (0%)	not pooled	not pooled	⊕⊕OO LOW	CRITICAL
Chorioamnionitis												
11	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	126/767 (16.4%)	196/792 (24.7%)	RR 0.66 (0.46 to 0.96)	84 fewer per 1000 (from 10 fewer to 134 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Major adverse drug reaction												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[1]	none	0/3913 (0%)	0/1574 (0%)	not pooled	not pooled	⊕⊕OO LOW	CRITICAL
Perinatal death/death before discharge (all studies: placebo and no treatment)												
18	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	299/4604 (6.5%)	172/2268 (7.6%)	RR 0.89 (0.74 to 1.08)	8 fewer per 1000 (from 20 fewer to 6 more)	⊕⊕⊕O MODERATE	CRITICAL
Neonatal necrotizing enterocolitis												
11	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	100/4273 (2.3%)	58/1956 (3%)	RR 1.09 (0.65 to 1.83)	3 more per 1000 (from 10 fewer to 25 more)	⊕⊕⊕O MODERATE	CRITICAL
Neonatal respiratory distress syndrome												
12	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	965/4303 (22.4%)	551/1984 (27.8%)	RR 0.95 (0.83 to 1.09)	14 fewer per 1000 (from 47 fewer to 25 more)	⊕⊕⊕⊕ HIGH	CRITICAL
Treatment with surfactant												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	526/3584 (14.7%)	217/1225 (17.7%)	RR 0.83 (0.72 to 0.96)	30 fewer per 1000 (from 7 fewer to 50 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Neonatal encephalopathy												
1	randomized trial	serious[3]	no serious inconsistency	no serious indirectness	very serious[1]	none	0/30 (0%)	0/30 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Any antibiotic	Placebo	Relative (95% CI)	Absolute		
Positive neonatal blood culture												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	234/3654 (6.4%)	104/1307 (8%)	RR 0.79 (0.63 to 0.99)	17 fewer per 1000 (from 1 fewer to 29 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Neonatal infection including pneumonia												
12	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	85/823 (10.3%)	141/857 (16.5%)	RR 0.67 (0.52 to 0.85)	54 fewer per 1000 (from 25 fewer to 79 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Major cerebral abnormality on ultrasound before discharge												
12	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	240/4303 (5.6%)	184/1986 (9.3%)	RR 0.81 (0.68 to 0.98)	18 fewer per 1000 (from 2 fewer to 30 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Serious childhood disability at seven years of age												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	938/2375 (39.5%)	311/796 (39.1%)	RR 1.01 (0.91 to 1.12)	4 more per 1000 (from 35 fewer to 47 more)	⊕⊕⊕⊕ HIGH	CRITICAL
Days in neonatal intensive care unit (better outcomes indicated by lower values)												
3	randomized trials	serious[4]	no serious inconsistency	no serious indirectness	serious[5]	none	110	115	—	MD 5.05 lower (9.77 to 0.33 lower)	⊕⊕OO LOW	CRITICAL
Neonatal intensive care												
4	randomized trials	no serious risk of bias	serious[6]	no serious indirectness	no serious imprecision	none	2583/3687 (70.1%)	975/1336 (73%)	RR 0.98 (0.84 to 1.13)	15 fewer per 1000 (from 117 fewer to 95 more)	⊕⊕⊕O MODERATE	CRITICAL
Number of babies requiring ventilation												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	757/3641 (20.8%)	292/1283 (22.8%)	RR 0.90 (0.8 to 1.02)	23 fewer per 1000 (from 46 fewer to 5 more)	⊕⊕⊕⊕ HIGH	CRITICAL

1 No events.
2 Wide confidence interval crossing the line of no effect.
3 One study with design limitations.
4 Most of the studies contributing to the pooled effect had design limitations.
5 Small sample size.
6 Statistical heterogeneity ($I^2 > 60\%$).

Table 8a. Prophylactic antibiotics for women with prelabour rupture of membranes at or near term (all women)

Source: Wojcieszek AM, Stock OM, Flenady V. Antibiotics for prelabour rupture of membranes at or near term. Cochrane Database Syst Rev. 2014;10:CD001807.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Any antibiotic	Placebo or no treatment	Relative (95% CI)	Absolute		
Chorioamnionitis and/or endometritis												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	38/1324 (2.9%)	60/1315 (4.6%)	RR 0.48 (0.20 to 1.15)	24 fewer per 1000 (from 37 fewer to 7 more)	⊕⊕OO LOW	CRITICAL
Serious maternal outcome												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	0/953 (0%)	0/953 (0%)	not pooled	not pooled	⊕⊕OO LOW	CRITICAL
Chorioamnionitis (suspected or proven)												
4	randomized trials	very serious[4]	no serious inconsistency	no serious indirectness	no serious imprecision	none	36/1324 (2.7%)	49/1315 (3.7%)	RR 0.65 (0.34 to 1.26)	13 fewer per 1000 (from 25 fewer to 10 more)	⊕⊕OO LOW	CRITICAL
Endometritis												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	5/1324 (0.4%)	13/1315 (1%)	RR 0.34 (0.05 to 2.31)	7 fewer per 1000 (from 9 fewer to 13 more)	⊕⊕OO LOW	CRITICAL
Postpartum septicaemia												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	0/953 (0%)	0/953 (0%)	not pooled	not pooled	⊕⊕OO LOW	CRITICAL
Wound infection												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	11/953 (1.2%)	14/953 (1.5%)	RR 0.79 (0.36 to 1.72)	3 fewer per 1000 (from 9 fewer to 11 more)	⊕⊕⊕O MODERATE	CRITICAL
Maternal adverse effects												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	1/1324 (0.1%)	0/1315 (0%)	RR 2.93 (0.12 to 71.63)	—	⊕⊕OO LOW	CRITICAL
Perinatal mortality												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	8/1324 (0.6%)	4/1315 (0.3%)	RR 1.98 (0.60 to 6.55)	3 more per 1000 (from 1 fewer to 17 more)	⊕⊕OO LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Any antibiotic	Placebo or no treatment	Relative (95% CI)	Absolute		
Neonatal mortality												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	0/953 (0%)	0/953 (0%)	not pooled	not pooled	⊕⊕OO LOW	CRITICAL
Admission to neonatal intensive care unit												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	49/953 (5.1%)	40/953 (4.2%)	RR 1.23 (0.82 to 1.85)	10 more per 1000 (from 8 fewer to 36 more)	⊕⊕⊕O MODERATE	CRITICAL
Neonatal intensive care unit stay (days) (better outcomes indicated by lower values)												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	820	820	—	MD 0.05 higher (0.09 lower to 0.19 higher)	⊕⊕⊕O MODERATE	CRITICAL
Probable early-onset neonatal sepsis												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	29/1324 (2.2%)	29/1315 (2.2%)	RR 0.69 (0.21 to 2.33)	7 fewer per 1000 (from 17 fewer to 29 more)	⊕⊕OO LOW	CRITICAL
Definite early-onset neonatal sepsis												
4	randomized trials	no serious risk of bias	serious[5]	no serious indirectness	serious[2]	none	10/1324 (0.8%)	13/1315 (1%)	RR 0.57 (0.08 to 4.26)	4 fewer per 1000 (from 9 fewer to 32 more)	⊕⊕OO LOW	CRITICAL
Neonatal meningitis												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	1/1324 (0.1%)	3/1315 (0.2%)	RR 0.33 (0.03 to 3.11)	2 fewer per 1000 (from 2 fewer to 5 more)	⊕⊕OO LOW	CRITICAL
Neonatal pneumonia												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	0/1324 (0%)	1/1315 (0.1%)	RR 0.33 (0.01 to 7.96)	1 fewer per 1000 (from 1 fewer to 5 more)	⊕⊕OO LOW	CRITICAL

1 Most studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect.
3 No events.
4 Most studies contributing to the pooled effect had serious design limitations.
5 Statistical heterogeneity ($I^2 > 60\%$).

Table 8b. Prophylactic antibiotics for women with prelabour rupture of membranes at term (by timing of induction of labour)

Source: Wojcieszek AM, Stock OM, Flenady V. Antibiotics for prelabour rupture of membranes at or near term. Cochrane Database Syst Rev. 2014;10:CD001807.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Any antibiotic (subgrouped by timing of induction of labour)	Placebo or no treatment	Relative (95% CI)	Absolute		
Chorioamnionitis and/or endometritis – early induction of labour												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	23/820 (2.8%)	20/820 (2.4%)	RR 1.15 (0.64 to 2.08)	4 more per 1000 (from 9 fewer to 26 more)	⊕⊕⊕O MODERATE	CRITICAL
Chorioamnionitis and/or endometritis – late induction of labour												
2	randomized trials	very serious[2]	no serious inconsistency	no serious indirectness	serious[1]	none	13/426 (3.1%)	29/412 (7%)	RR 0.34 (0.08 to 1.47)	46 fewer per 1000 (from 65 fewer to 33 more)	⊕OOO VERY LOW	CRITICAL
Serious maternal outcome – early induction of labour												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	0/820 (0%)	0/820 (0%)	not pooled	not pooled	⊕⊕OO LOW	CRITICAL
Serious maternal outcome – late induction of labour												
1	randomized trial	very serious[4]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/55 (0%)	0/50 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Probable early-onset neonatal sepsis – early induction of labour												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	25/820 (3%)	17/820 (2.1%)	RR 1.47 (0.80 to 2.70)	10 more per 1000 (from 4 fewer to 35 more)	⊕⊕⊕O MODERATE	CRITICAL
Probable early-onset neonatal sepsis – late induction of labour												
2	randomized trials	very serious[2]	no serious inconsistency	no serious indirectness	serious[1]	none	1/426 (0.2%)	7/412 (1.7%)	RR 0.14 (0.02 to 1.13)	15 fewer per 1000 (from 17 fewer to 2 more)	⊕OOO VERY LOW	CRITICAL
Definite early-onset neonatal sepsis – early induction of labour												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	9/820 (1.1%)	7/820 (0.9%)	RR 1.29 (0.48 to 3.44)	2 more per 1000 (from 4 fewer to 21 more)	⊕⊕⊕O MODERATE	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Any antibiotic (subgrouped by timing of induction of labour)	Placebo or no treatment	Relative (95% CI)	Absolute		
Definite early-onset neonatal sepsis – late induction of labour												
2	randomized trials	very serious[2]	no serious inconsistency	no serious indirectness	serious[1]	none	1/426 (0.2%)	6/412 (1.5%)	RR 0.16 (0.02 to 1.34)	12 fewer per 1000 (from 14 fewer to 5 more)	⊕OOO VERY LOW	CRITICAL
Stillbirth – early induction of labour												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	6/820 (0.7%)	2/820 (0.2%)	RR 3.00 (0.61 to 14.82)	5 more per 1000 (from 1 fewer to 34 more)	⊕⊕⊕O MODERATE	CRITICAL
Stillbirth – late induction of labour												
1	randomized trial	very serious[4]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/55 (0%)	0/50 (0%)	not pooled	not pooled	⊕OOO VERY LOW	
Perinatal mortality – early induction of labour												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	6/820 (0.7%)	2/820 (0.2%)	RR 3.00 (0.61 to 14.82)	5 more per 1000 (from 1 fewer to 34 more)	⊕⊕⊕O MODERATE	CRITICAL
Perinatal mortality – late induction of labour												
2	randomized trials	very serious[2]	no serious inconsistency	no serious indirectness	serious[1]	none	2/426 (0.5%)	2/412 (0.5%)	RR 0.98 (0.14 to 6.89)	0 fewer per 1000 (from 4 fewer to 29 more)	⊕OOO VERY LOW	CRITICAL
Neonatal mortality – early induction of labour												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	0/820 (0%)	0/820 (0%)	not pooled	not pooled	⊕⊕OO LOW	CRITICAL
Neonatal mortality – late induction of labour												
1	randomized trial	very serious[4]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/55 (0%)	0/50 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL

1 Wide confidence interval crossing the line of no effect.
2 Both studies contributing to the pooled effect had serious design limitations.
3 No events.
4 One study with serious design limitations.

Table 9. Prophylactic antibiotics for women with meconium-stained amniotic fluid during labour

Source: Siriwachirachai T, Sangkomkamhang US, Lumbiganon P, Laopaiboon M. Antibiotics for meconium-stained amniotic fluid in labour for preventing maternal and neonatal infections. Cochrane Database Syst Rev. 2014;11:CD007772.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotic	Placebo	Relative (95% CI)	Absolute		
Chorioamnionitis												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	16/183 (8.7%)	43/179 (24%)	RR 0.36 (0.21 to 0.62)	154 fewer per 1000 (from 91 fewer to 190 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Postpartum endometritis												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[2]	none	5/60 (8.3%)	10/60 (16.7%)	RR 0.5 (0.18 to 1.38)	83 fewer per 1000 (from 137 fewer to 63 more)	⊕⊕OO LOW	CRITICAL
Neonatal intensive care admissions												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[2]	none	10/60 (16.7%)	12/60 (20%)	RR 0.83 (0.39 to 1.78)	34 fewer per 1000 (from 122 fewer to 156 more)	⊕⊕OO LOW	CRITICAL
Neonatal sepsis												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[2]	none	3/60 (5%)	3/60 (5%)	RR 1 (0.21 to 4.76)	0 fewer per 1000 (from 40 fewer to 188 more)	⊕⊕OO LOW	CRITICAL

1 One study with design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 10. Prophylactic antibiotics for women undergoing manual removal of retained placenta

Source: Chibueze EC, Parsons AJQ, Ota E, Swa T, Oladapo OT, Mori R. Prophylactic antibiotics for manual removal of retained placenta in vaginal birth: a systematic review of observational studies and meta-analysis. 2015 (unpublished).

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotic prophylaxis	No treatment	Relative (95% CI)	Absolute		
Puerperal fever												
1	observational study	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	58/65 (89.2%)	213/237 (89.9%)	OR 0.93 (0.38 to 2.27)	7 fewer per 1000 (from 127 fewer to 54 more)	⊕OOO VERY LOW	CRITICAL
Endometritis												
3	observational studies	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	8/156 (5.1%)	31/411 (7.5%)	OR 0.84 (0.38 to 1.85)	11 fewer per 1000 (from 45 fewer to 56 more)	⊕OOO VERY LOW	CRITICAL

1 The study or studies contributing to the effect estimate had serious design limitations based on Newcastle-Ottawa Scale rating.
2 Wide confidence interval crossing the line of no effect.

Table 11a. Prophylactic antibiotics for women undergoing operative vaginal deliveries (randomized controlled trials)

Source: Liabsuetrakul T, Choobun T, Peeyananjarassri K, Islam QM. Antibiotic prophylaxis for operative vaginal delivery. Cochrane Database Syst Rev. 2014;10:CD004455.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Any antibiotic	No treatment	Relative (95% CI)	Absolute		
Endometritis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/192 (0%)	7/201 (3.5%)	RR 0.07 (0.00 to 1.21)	32 fewer per 1000 (from 35 fewer to 7 more)	⊕OOO VERY LOW	CRITICAL
Maternal hospital stay (days) (better indicated by lower values)												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	192	201	—	MD 0.09 higher (0.23 lower to 0.41 higher)	⊕⊕OO LOW	IMPORTANT

1 One study with design limitations.
2 Wide confidence interval crossing the line of no effect and few events.
3 Wide confidence interval crossing the line of no effect.

Table 11b. Routine prophylactic antibiotics for women undergoing operative vaginal deliveries (non-randomized studies)

Source: Parsons AJQ, Chibueze CE, Ota E, Swa T, Oladapo OT, Mori R. Routine administration of prophylactic antibiotics for preventing infectious morbidities in women undergoing operative vaginal deliveries: a systematic review and meta-analysis. 2015 (unpublished).

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotic prophylaxis	No treatment	Relative (95% CI)	Absolute		
Puerperal fever												
2	observational studies	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	50/113 (44.2%)	642/844 (76.1%)	OR 1.14 (0.45 to 2.90)	23 more per 1000 (from 172 fewer to 141 more)	⊕OOO VERY LOW	CRITICAL
Endometritis												
2	observational studies	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	7/217 (3.2%)	83/874 (9.5%)	OR 0.67 (0.07 to 6.04)	29 fewer per 1000 (from 88 fewer to 293 more)	⊕OOO VERY LOW	CRITICAL
Wound infection (episiotomy abscess)												
2	observational studies	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	1/238 (0.4%)	6/302 (2%)	OR 0.35 (0.06 to 2.06)	13 fewer per 1000 (from 19 fewer to 20 more)	⊕OOO VERY LOW	CRITICAL
Maternal septicaemia												
1	observational study	very serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	0/171 (0%)	1/165 (0.6%)	OR 0.32 (0.01 to 7.90)	4 fewer per 1000 (from 6 fewer to 40 more)	⊕OOO VERY LOW	CRITICAL

1 The study or studies contributing to the effect estimate had design limitations based on Newcastle-Ottawa Scale (NOS) rating.
2 Wide confidence interval crossing the line of no effect.

Table 12. Routine prophylactic antibiotics for women with third- and fourth-degree perineal tear

Source: Buppasiri P, Lumbiganon P, Thinkhamrop J, Thinkhamrop B. Antibiotic prophylaxis for third- and fourth-degree perineal tear during vaginal birth. Cochrane Database Syst Rev. 2014;10:CD005125.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotic prophylaxis	No treatment	Relative (95% CI)	Absolute		
Infection rate at two weeks postpartum												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	13/49 (26.5%)	14/58 (24.1%)	RR 0.34 (0.12 to 0.96)	159 fewer per 1000 (from 10 fewer to 212 fewer)	⊕⊕OO LOW	CRITICAL
Infection rate at two weeks postpartum – perineal wound infection in third- or fourth-degree tear												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	4/49 (8.2%)	14/58 (24.1%)	RR 0.34 (0.12 to 0.96)	159 fewer per 1000 (from 10 fewer to 212 fewer)	⊕⊕OO LOW	CRITICAL
Infection rate at six weeks postpartum												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	4/55 (7.3%)	14/73 (19.2%)	RR 0.38 (0.13 to 1.09)	119 fewer per 1000 (from 167 fewer to 17 more)	⊕OOO VERY LOW	CRITICAL
Infection rate at six weeks postpartum – perineal wound infection in third- or fourth-degree tear												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	4/55 (7.3%)	14/73 (19.2%)	RR 0.38 (0.13 to 1.09)	119 fewer per 1000 (from 167 fewer to 17 more)	⊕OOO VERY LOW	CRITICAL

1 One study with a high rate of loss to follow-up.
2 Small sample size and few events.
3 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 13. Routine prophylactic antibiotics for women with uncomplicated vaginal birth

Source: Ota E, Chibueze CE, Bonet M, Oladapo OT. Antibiotic prophylaxis for uncomplicated vaginal birth: a systematic review of randomized and non-randomized studies. 2015 (unpublished).

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotic prophylaxis	No antibiotic treatment	Relative (95% CI)	Absolute		
Endometritis												
2	randomized trials	very serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	4/869 (0.5%)	17/784 (2.2%)	RR 0.26 (0.09 to 0.73)	16 fewer per 1000 (from 6 fewer to 20 fewer)	⊕⊕OO LOW	CRITICAL
Puerperal fever (temperature above 38OC)												
2	randomized trials	serious[2]	serious[3]	no serious indirectness	serious[4]	none	10/869 (1.2%)	19/784 (2.4%)	RR 0.26 (0.02 to 3.97)	18 fewer per 1000 (from 24 fewer to 72 more)	⊕OOO VERY LOW	CRITICAL
Wound infection												
1	randomized trial	very serious[5]	no serious inconsistency	no serious indirectness	very serious[6]	none	2/259 (0.8%)	1/103 (1%)	RR 0.8 (0.07 to 8.68)	2 fewer per 1000 (from 9 fewer to 75 more)	⊕OOO VERY LOW	CRITICAL
Urinary tract infection												
1	randomized trial	very serious[5]	no serious inconsistency	no serious indirectness	very serious[6]	none	5/610 (0.8%)	11/681 (1.6%)	RR 0.51 (0.18 to 1.45)	8 fewer per 1000 (from 13 fewer to 7 more)	⊕OOO VERY LOW	CRITICAL
Maternal hospital stay (days) (better outcomes indicated by lower values)												
1	randomized trial	very serious[5]	no serious inconsistency	no serious indirectness	serious[4]	none	610	681	—	MD 0.15 lower (0.31 lower to 0.01 higher)	⊕OOO VERY LOW	CRITICAL

1 Both studies contributing to the pooled effect had serious design limitations.
2 Both studies contributing to the pooled effect had design limitations.
3 Significant statistical heterogeneity ($I^2 > 60\%$).
4 Wide confidence interval crossing the line of no effect.
5 One study with serious design limitations.
6 Wide confidence interval crossing the line of no effect and few events.

Table 14a. Vaginal cleansing with an antiseptic agent prior to caesarean section to prevent infectious morbidity (all women)

Source: Haas DM, Morgan S, Contreras K. Vaginal preparation with antiseptic solution before caesarean section for preventing postoperative infections. Cochrane Database Syst Rev. 2014;12:CD007892.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Preoperative vaginal cleansing with povidone-iodine	No preoperative vaginal preparation with povidone-iodine	Relative (95% CI)	Absolute		
Post-caesarean endometritis												
7	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	56/1312 (4.3%)	110/1323 (8.3%)	RR 0.45 (0.25 to 0.81)	46 fewer per 1000 (from 16 fewer to 62 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Postoperative fever												
6	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	153/1232 (12.4%)	175/1243 (14.1%)	RR 0.90 (0.74 to 1.10)	14 fewer per 1000 (from 37 fewer to 14 more)	⊕⊕⊕O MODERATE	CRITICAL
Wound infection												
6	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	32/1095 (2.9%)	37/1110 (3.3%)	RR 0.86 (0.54 to 1.36)	5 fewer per 1000 (from 15 fewer to 12 more)	⊕⊕⊕O MODERATE	IMPORTANT

1 Most studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect.

Table 14b. Vaginal cleansing with an antiseptic agent prior to caesarean section to prevent infectious morbidity (by presence of labour)

Source: Haas DM, Morgan S, Contreras K. Vaginal preparation with antiseptic solution before caesarean section for preventing postoperative infections. Cochrane Database Syst Rev. 2014;12:CD007892.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Preoperative vaginal cleansing with povidone-iodine	No preoperative vaginal preparation with povidone-iodine	Relative (95% CI)	Absolute		
Post-caesarean endometritis												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	42/706 (5.9%)	59/688 (8.6%)	RR 0.70 (0.48 to 1.02)	26 fewer per 1000 (from 45 fewer to 2 more)	⊕⊕⊕⊕ HIGH	CRITICAL
Post-caesarean endometritis – Women in labour												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	20/270 (7.4%)	33/253 (13%)	RR 0.56 (0.34 to 0.95)	57 fewer per 1000 (from 7 fewer to 86 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Post-caesarean endometritis – Women not in labour												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	22/436 (5%)	26/435 (6%)	RR 0.89 (0.52 to 1.54)	7 fewer per 1000 (from 29 fewer to 32 more)	⊕⊕⊕O MODERATE	CRITICAL
Postoperative fever												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	57/488 (11.7%)	68/477 (14.3%)	RR 0.82 (0.59 to 1.13)	26 fewer per 1000 (from 58 fewer to 19 more)	⊕⊕⊕O MODERATE	CRITICAL
Postoperative fever – Women in labour												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	25/160 (15.6%)	32/147 (21.8%)	RR 0.68 (0.42 to 1.08)	70 fewer per 1000 (from 126 fewer to 17 more)	⊕⊕⊕O MODERATE	CRITICAL
Postoperative fever – Women not in labour												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	32/328 (9.8%)	36/330 (10.9%)	RR 0.96 (0.61 to 1.49)	4 fewer per 1000 (from 43 fewer to 53 more)	⊕⊕⊕O MODERATE	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Preoperative vaginal cleansing with povidone-iodine	No preoperative vaginal preparation with povidone-iodine	Relative (95% CI)	Absolute		
Wound infection												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	13/485 (2.7%)	19/474 (4%)	RR 0.67 (0.34 to 1.34)	13 fewer per 1000 (from 26 fewer to 14 more)	⊕⊕⊕O MODERATE	IMPORTANT
Wound infection – Women in labour												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	5/160 (3.1%)	7/147 (4.8%)	RR 0.72 (0.24 to 2.21)	13 fewer per 1000 (from 36 fewer to 58 more)	⊕⊕⊕O MODERATE	IMPORTANT
Wound infection – Women not in labour												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	8/325 (2.5%)	12/327 (3.7%)	RR 0.64 (0.27 to 1.56)	13 fewer per 1000 (from 27 fewer to 21 more)	⊕⊕⊕O MODERATE	IMPORTANT

1 Wide confidence interval crossing the line of no effect.

Table 14c. Vaginal cleansing with an antiseptic agent prior to caesarean section to prevent infectious morbidity (by status of membranes)

Source: Haas DM, Morgan S, Contreras K. Vaginal preparation with antiseptic solution before caesarean section for preventing postoperative infections. Cochrane Database Syst Rev. 2014;12:CD007892.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Preoperative vaginal cleansing with povidone-iodine	No preoperative vaginal preparation with povidone-iodine	Relative (95% CI)	Absolute		
Post-caesarean endometritis												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	25/569 (4.4%)	56/560 (10%)	RR 0.45 (0.29 to 0.70)	55 fewer per 1000 (from 30 fewer to 71 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Post-caesarean endometritis – women with ruptured membranes												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	6/138 (4.3%)	24/134 (17.9%)	RR 0.24 (0.10 to 0.55)	136 fewer per 1000 (from 81 fewer to 161 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Post-caesarean endometritis – women with intact membranes												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	19/431 (4.4%)	32/426 (7.5%)	RR 0.62 (0.36 to 1.06)	29 fewer per 1000 (from 48 fewer to 5 more)	⊕⊕⊕⊕ HIGH	CRITICAL
Postoperative fever												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	57/489 (11.7%)	68/480 (14.2%)	RR 0.83 (0.60 to 1.14)	24 fewer per 1000 (from 57 fewer to 20 more)	⊕⊕⊕O MODERATE	CRITICAL
Postoperative fever – women with ruptured membranes												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	15/102 (14.7%)	21/98 (21.4%)	RR 0.62 (0.34 to 1.12)	81 fewer per 1000 (from 141 fewer to 26 more)	⊕⊕⊕O MODERATE	CRITICAL
Postoperative fever – women with intact membranes												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	42/387 (10.9%)	47/382 (12.3%)	RR 0.93 (0.63 to 1.36)	9 fewer per 1000 (from 46 fewer to 44 more)	⊕⊕⊕O MODERATE	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Preoperative vaginal cleansing with povidone-iodine	No preoperative vaginal preparation with povidone-iodine	Relative (95% CI)	Absolute		
Wound infection												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	20/569 (3.5%)	23/560 (4.1%)	RR 0.87 (0.49 to 1.57)	5 fewer per 1000 (from 21 fewer to 23 more)	⊕⊕⊕O MODERATE	IMPORTANT
Wound infection – women with ruptured membranes												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[2]	none	8/138 (5.8%)	7/134 (5.2%)	RR 1.22 (0.46 to 3.20)	11 more per 1000 (from 28 fewer to 115 more)	⊕⊕OO LOW	IMPORTANT
Wound infection – women with intact membranes												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	12/431 (2.8%)	16/426 (3.8%)	RR 0.72 (0.35 to 1.52)	11 fewer per 1000 (from 24 fewer to 20 more)	⊕⊕⊕O MODERATE	IMPORTANT

1 Wide confidence interval crossing the line of no effect.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 15a. Antiseptic agents for preoperative skin preparation (alcohol scrub plus iodophor drape versus iodophor scrub)

Source: Hadiati DR, Hakimi M, Nurdiati DS, Ota E. Skin preparation for preventing infection following caesarean section. Cochrane Database Syst Rev. 2014;9:CD007462.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	One-minute alcohol scrub with iodophor drape	Five-minute iodophor scrub without drape	Relative (95% CI)	Absolute		
Wound infection												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[1]	none	0/38 (0%)	0/41 (0%)	not pooled	not pooled	⊕⊕OO LOW	CRITICAL
Endomyometritis												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[2]	none	3/38 (7.9%)	2/41 (4.9%)	RR 1.62 (0.29 to 9.16)	30 more per 1000 (from 35 fewer to 398 more)	⊕⊕OO LOW	CRITICAL
Reduction of skin bacteria colony counts												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	38	41	—	MD 0.07 (0.34 lower to 0.48 higher)	⊕⊕OO LOW	IMPORTANT

1 Small sample size and no events.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.
3 Wide confidence interval crossing the line of no effect and small sample size.

Table 15b. Antiseptic agents for preoperative skin preparation (chlorhexidine gluconate versus povidone-iodine)

Source: Hadiati DR, Hakimi M, Nurdiati DS, Ota E. Skin preparation for preventing infection following caesarean section. Cochrane Database Syst Rev. 2014;9:CD007462.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Chlorhexidine gluconate	Povidone iodine	Relative (95% CI)	Absolute		
Wound infection												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	2/21 (9.5%)	1/22 (4.5%)	RR 2.10 (0.20 to 21.42)	50 more per 1000 (from 36 fewer to 928 more)	⊕OOO VERY LOW	CRITICAL
Bacterial growth at 18 hours after caesarean section												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	3/27 (1.1%)	16/33 (48.4%)	RR 0.23 (0.07 to 0.70)	373 fewer per 1000 (from 145 fewer to 451 fewer)	⊕OOO VERY LOW	IMPORTANT

1 One study with design limitations.
2 Wide confidence internal crossing line of no effect, small sample size and few events.
3 Small sample size and few events.

Table 15c. Antiseptic agents for preoperative skin preparation (parachlorometaxylenol plus iodine vs iodine alone)

Source: Hadiati DR, Hakimi M, Nurdiati DS, Ota E. Skin preparation for preventing infection following caesarean section. Cochrane Database Syst Rev. 2014;9:CD007462.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Parachloro-metaxylenol with iodine	Iodine alone	Relative (95% CI)	Absolute		
Wound infection												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[1]	none	1/25 (4%)	3/25 (12%)	RR 0.33 (0.04 to 2.99)	80 fewer per 1000 (from 115 fewer to 239 more)	⊕⊕OO LOW	CRITICAL
Endometritis												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[2]	none	14/25 (56%)	16/25 (64%)	RR 0.88 (0.56 to 1.38)	77 fewer per 1000 (from 282 fewer to 243 more)	⊕⊕OO LOW	CRITICAL

1 Wide confidence interval crossing the line of no effect, small sample size and few events.
2 Wide confidence interval crossing the line of no effect and small sample size.

Table 15d. Method of application of antiseptic agents for preoperative skin preparation (drape vs no drape)

Source: Hadiati DR, Hakimi M, Nurdiati DS, Ota E. Skin preparation for preventing infection following caesarean section. Cochrane Database Syst Rev. 2014;9:CD007462.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Drape after skin preparation	No drape after skin preparation	Relative (95% CI)	Absolute		
Wound infection												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	92/642 (14.3%)	81/652 (12.4%)	RR 1.29 (0.97 to 1.71)	36 more per 1000 (from 4 fewer to 88 more)	⊕⊕OO LOW	CRITICAL
Wound infection – iodine												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	58/337 (17.2%)	43/354 (12.1%)	RR 1.42 (0.98 to 2.04)	51 more per 1000 (from 2 fewer to 126 more)	⊕⊕OO LOW	CRITICAL
Wound infection – chlorhexidine												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	34/305 (11.1%)	30/298 (10.1%)	RR 1.11 (0.7 to 1.76)	11 more per 1000 (from 30 fewer to 77 more)	⊕⊕⊕O MODERATE	CRITICAL
Maternal hospital stay (days)												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	305	298	—	MD 0.1 higher (0.27 lower to 0.46 higher)	⊕⊕⊕O MODERATE	IMPORTANT

1 The study or studies contributing to the effect estimate had design limitations.
2 Wide confidence interval crossing the line of no effect.

Table 15e. Method of application of antiseptic agents for preoperative skin preparation (alcohol with drape vs iodophor without drape)

Source: Hadiati DR, Hakimi M, Nurdiati DS, Ota E. Skin preparation for preventing infection following caesarean section. Cochrane Database Syst Rev. 2014;9:CD007462.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	One-minute alcohol scrub with iodophor drape	Five-minute iodophor scrub without drape	Relative (95% CI)	Absolute		
Wound infection												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[1]	none	0/38 (0%)	0/41 (0%)	not pooled	not pooled	⨁⨁◯◯ LOW	CRITICAL
Endomyometritis												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[2]	none	3/38 (7.9%)	2/41 (4.9%)	RR 1.62 (0.29 to 9.16)	30 more per 1000 (from 35 fewer to 398 more)	⨁⨁◯◯ LOW	CRITICAL
Reduction of skin bacteria colony counts												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	38	41	—	MD 0.07 higher (0.34 lower to 0.48 higher)	⨁⨁◯◯ LOW	IMPORTANT

1 Small sample size and no events.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.
3 Wide confidence interval crossing the line of no effect and small sample size.

Table 16a. Prophylactic antibiotics for women undergoing caesarean section (any antibiotic)

Source: Smaill FM, Grivell RM. Antibiotic prophylaxis versus no prophylaxis for preventing infection after caesarean section. Cochrane Database Syst Rev. 2014;10:CD007482.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotic prophylaxis	No antibiotics	Relative (95% CI)	Absolute		
Maternal febrile morbidity												
56	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	621/5017 (12.4%)	1155/4029 (28.7%)	RR 0.45 (0.40 to 0.51)	158 fewer per 1000 (from 140 fewer to 172 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection												
82	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	278/8081 (3.4%)	566/6326 (8.9%)	RR 0.40 (0.35 to 0.46)	54 fewer per 1000 (from 48 fewer to 58 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal endometritis												
83	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	437/7630 (5.7%)	933/5918 (15.8%)	RR 0.38 (0.34 to 0.42)	98 fewer per 1000 (from 91 fewer to 104 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal serious infectious complications												
32	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	19/3491 (0.5%)	66/2668 (2.5%)	RR 0.31 (0.20 to 0.49)	17 fewer per 1000 (from 13 fewer to 20 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal adverse effects												
13	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	16/1191 (1.3%)	2/940 (0.2%)	RR 2.43 (1.00 to 5.90)	3 more per 1000 (from 0 more to 10 more)	⊕⊕⊕O MODERATE	IMPORTANT
Maternal hospital stay (days)												
19	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	1583	1585	—	MD 0.46 lower (0.65 to 0.28 lower)	⊕⊕⊕O MODERATE	IMPORTANT

1 Most studies contributing to the pooled effect had design limitations.

Table 16b. Prophylactic antibiotics for women undergoing caesarean section (by class of antibiotics)

Source: Smaill FM, Grivell RM. Antibiotic prophylaxis versus no prophylaxis for preventing infection after caesarean section. Cochrane Database Syst Rev. 2014;10:CD007482.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics (by class of antibiotic)	No antibiotic	Relative (95% CI)	Absolute		
Maternal febrile morbidity – aminopenicillins												
7	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	34/366 (9.3%)	62/237 (26.2%)	RR 0.39 (0.26 to 0.58)	160 fewer per 1000 (from 110 fewer to 194 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal febrile morbidity – extended-spectrum penicillins												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	56/431 (13%)	118/305 (38.7%)	RR 0.37 (0.28 to 0.49)	244 fewer per 1000 (from 197 fewer to 279 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal febrile morbidity/fever – beta-lactamase inhibitor combinations												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	22/436 (5%)	39/355 (11%)	RR 0.48 (0.29 to 0.79)	57 fewer per 1000 (from 23 fewer to 78 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal febrile morbidity – first-generation cephalosporins												
10	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	121/825 (14.7%)	163/611 (26.7%)	RR 0.54 (0.44 to 0.66)	123 fewer per 1000 (from 91 fewer to 149 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal febrile morbidity – second-generation cephalosporins												
9	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	59/536 (11%)	145/465 (31.2%)	RR 0.35 (0.27 to 0.46)	203 fewer per 1000 (from 168 fewer to 228 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal febrile morbidity – cefamycins												
9	randomized trials	serious[1]	serious[2]	no serious indirectness	no serious imprecision	none	160/1015 (15.8%)	195/879 (22.2%)	RR 0.73 (0.61 to 0.88)	60 fewer per 1000 (from 27 fewer to 87 fewer)	⊕⊕OO LOW	CRITICAL
Maternal febrile morbidity – third-generation cephalosporins												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	21/222 (9.5%)	31/154 (20.1%)	RR 0.44 (0.27 to 0.74)	113 fewer per 1000 (from 52 fewer to 147 fewer)	⊕⊕⊕O MODERATE	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics (by class of antibiotic)	No antibiotic	Relative (95% CI)	Absolute		
Maternal febrile morbidity – monobactams												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	16/79 (20.3%)	6/19 (31.6%)	RR 0.64 (0.29 to 1.42)	114 fewer per 1000 (from 224 fewer to 133 more)	⊕⊕OO LOW	CRITICAL
Maternal febrile morbidity – lincosamides												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	2/20 (10%)	2/10 (20%)	RR 0.50 (0.08 to 3.05)	100 fewer per 1000 (from 184 fewer to 410 more)	⊕⊕OO LOW	CRITICAL
Maternal febrile morbidity – nitroimidazoles												
7	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	110/537 (20.5%)	196/561 (34.9%)	RR 0.59 (0.48 to 0.71)	143 fewer per 1000 (from 101 fewer to 182 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal febrile morbidity – aminoglycoside-containing combination												
5	randomized trials	very serious[4]	no serious inconsistency	no serious indirectness	no serious imprecision	none	36/345 (10.4%)	107/323 (33.1%)	RR 0.33 (0.24 to 0.46)	222 fewer per 1000 (from 179 fewer to 252 fewer)	⊕⊕OO LOW	CRITICAL
Maternal febrile morbidity – other antibiotic combination												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	22/315 (7%)	59/215 (27.4%)	RR 0.27 (0.17 to 0.44)	200 fewer per 1000 (from 154 fewer to 228 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal febrile morbidity – other regimen												
1	randomized trial	very serious[5]	no serious inconsistency	no serious indirectness	very serious[3]	none	3/62 (4.8%)	12/56 (21.4%)	RR 0.23 (0.07 to 0.76)	165 fewer per 1000 (from 51 fewer to 199 fewer)	⊕OOO VERY LOW	CRITICAL
Maternal wound infection – natural penicillins												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	2/46 (4.3%)	2/20 (10%)	RR 0.43 (0.07 to 2.87)	57 fewer per 1000 (from 93 fewer to 187 more)	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics (by class of antibiotic)	No antibiotic	Relative (95% CI)	Absolute		
Maternal wound infection –aminopenicillins (ampicillin)												
12	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	43/786 (5.5%)	65/537 (12.1%)	RR 0.50 (0.35 to 0.72)	61 fewer per 1000 (from 34 fewer to 79 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection – extended-spectrum penicillins												
7	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	7/494 (1.4%)	32/351 (9.1%)	RR 0.18 (0.09 to 0.39)	75 fewer per 1000 (from 56 fewer to 83 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection – beta-lactamase inhibitor combination												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	12/461 (2.6%)	30/362 (8.3%)	RR 0.26 (0.13 to 0.51)	61 fewer per 1000 (from 41 fewer to 72 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection – first-generation cephalosporin												
17	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	53/2001 (2.6%)	91/1370 (6.6%)	RR 0.38 (0.28 to 0.53)	41 fewer per 1000 (from 31 fewer to 48 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection – second-generation cephalosporin												
9	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	11/620 (1.8%)	26/546 (4.8%)	RR 0.38 (0.19 to 0.75)	30 fewer per 1000 (from 12 fewer to 39 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection – cefamycins												
16	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	55/1442 (3.8%)	114/1193 (9.6%)	RR 0.45 (0.33 to 0.60)	53 fewer per 1000 (from 38 fewer to 64 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection – third-generation cephalosporin												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	18/823 (2.2%)	33/696 (4.7%)	RR 0.44 (0.26 to 0.73)	27 fewer per 1000 (from 13 fewer to 35 fewer)	⊕⊕⊕O MODERATE	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics (by class of antibiotic)	No antibiotic	Relative (95% CI)	Absolute		
Maternal wound infection – monobactams												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	2/79 (2.5%)	1/19 (5.3%)	RR 0.48 (0.05 to 5.03)	27 fewer per 1000 (from 50 fewer to 212 more)	⊕⊕OO LOW	CRITICAL
Maternal wound infection – lincosamides												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	1/20 (5%)	2/10 (20%)	RR 0.25 (0.03 to 2.44)	150 fewer per 1000 (from 194 fewer to 288 more)	⊕⊕OO LOW	CRITICAL
Maternal wound infection – nitroimidazoles												
9	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	39/540 (7.2%)	80/534 (15%)	RR 0.49 (0.34 to 0.69)	76 fewer per 1000 (from 46 fewer to 99 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection – aminoglycoside-containing combination												
8	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	8/357 (2.2%)	47/297 (15.8%)	RR 0.17 (0.08 to 0.34)	131 fewer per 1000 (from 104 fewer to 146 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection – other antibiotic combination												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[6]	none	27/315 (8.6%)	30/215 (14%)	RR 0.60 (0.36 to 1.02)	56 fewer per 1000 (from 89 fewer to 3 more)	⊕⊕OO LOW	CRITICAL
Maternal wound infection – other regimen												
2	randomized trials	very serious[7]	serious[2]	no serious indirectness	very serious[3]	none	2/88 (2.3%)	4/83 (4.8%)	RR 0.58 (0.15 to 2.30)	20 fewer per 1000 (from 41 fewer to 63 more)	⊕OOO VERY LOW	CRITICAL
Maternal endometritis – natural penicillins												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[8]	none	3/46 (6.5%)	7/20 (35%)	RR 0.19 (0.05 to 0.65)	283 fewer per 1000 (from 123 fewer to 332 fewer)	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics (by class of antibiotic)	No antibiotic	Relative (95% CI)	Absolute		
Maternal endometritis – aminopenicillins (ampicillin)												
10	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	27/654 (4.1%)	73/454 (16.1%)	RR 0.24 (0.16 to 0.38)	122 fewer per 1000 (from 100 fewer to 135 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal endometritis – extended-spectrum penicillins												
9	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	86/663 (13%)	154/501 (30.7%)	RR 0.46 (0.37 to 0.58)	166 fewer per 1000 (from 129 fewer to 194 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal endometritis – beta-lactamase inhibitor combinations												
5	randomized trials	very serious[7]	no serious inconsistency	no serious indirectness	serious[6]	none	10/444 (2.3%)	9/344 (2.6%)	RR 0.67 (0.27 to 1.66)	9 fewer per 1000 (from 19 fewer to 17 more)	⊕OOO VERY LOW	CRITICAL
Maternal endometritis – first-generation cephalosporin												
18	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	81/2050 (4%)	153/1401 (10.9%)	RR 0.42 (0.33 to 0.54)	63 fewer per 1000 (from 50 fewer to 73 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal endometritis – second-generation cephalosporin												
13	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	47/839 (5.6%)	146/724 (20.2%)	RR 0.27 (0.20 to 0.37)	147 fewer per 1000 (from 127 fewer to 161 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal endometritis – cefamycins												
15	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	73/1372 (5.3%)	183/1163 (15.7%)	RR 0.36 (0.28 to 0.47)	101 fewer per 1000 (from 83 fewer to 113 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal endometritis – third-generation cephalosporin												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[9]	none	6/247 (2.4%)	17/161 (10.6%)	RR 0.28 (0.11 to 0.69)	76 fewer per 1000 (from 33 fewer to 94 fewer)	⊕⊕OO LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics (by class of antibiotic)	No antibiotic	Relative (95% CI)	Absolute		
Maternal endometritis – monobactams												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	13/79 (16.5%)	5/19 (26.3%)	RR 0.63 (0.25 to 1.54)	97 fewer per 1000 (from 197 fewer to 142 more)	⊕⊕OO LOW	CRITICAL
Maternal endometritis – nitroimidazoles												
8	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	41/458 (9%)	79/461 (17.1%)	RR 0.52 (0.37 to 0.73)	82 fewer per 1000 (from 46 fewer to 108 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal endometritis – trimethoprim-sulfamethoxazole												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	6/29 (20.7%)	13/28 (46.4%)	RR 0.45 (0.20 to 1.01)	255 fewer per 1000 (from 371 fewer to 5 more)	⊕OOO VERY LOW	CRITICAL
Maternal endometritis – aminoglycoside-containing combination												
8	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	26/388 (6.7%)	77/334 (23.1%)	RR 0.29 (0.19 to 0.45)	164 fewer per 1000 (from 127 fewer to 187 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal endometritis – other antibiotic combination												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[9]	none	10/315 (3.2%)	19/215 (8.8%)	RR 0.33 (0.14 to 0.75)	59 fewer per 1000 (from 22 fewer to 76 fewer)	⊕⊕OO LOW	CRITICAL
Maternal endometritis – other regimen												
2	randomized trials	very serious[7]	no serious inconsistency	no serious indirectness	very serious[3]	none	6/88 (6.8%)	14/83 (16.9%)	RR 0.42 (0.17 to 1.03)	98 fewer per 1000 (from 140 fewer to 5 more)	⊕OOO VERY LOW	CRITICAL
Maternal serious infectious complications – aminopenicillins (ampicillin)												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[9]	none	2/296 (0.7%)	7/246 (2.8%)	RR 0.27 (0.06 to 1.18)	21 fewer per 1000 (from 27 fewer to 5 more)	⊕⊕OO LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics (by class of antibiotic)	No antibiotic	Relative (95% CI)	Absolute		
Maternal serious infectious complications – extended-spectrum penicillins												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	1/76 (1.3%)	2/75 (2.7%)	RR 0.49 (0.05 to 5.33)	14 fewer per 1000 (from 25 fewer to 115 more)	⊕OOO VERY LOW	CRITICAL
Maternal serious infectious complications – first-generation cephalosporin												
10	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	5/1436 (0.3%)	13/915 (1.4%)	RR 0.39 (0.16 to 0.95)	9 fewer per 1000 (from 1 fewer to 12 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal serious infectious complications – second-generation cephalosporin												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[10]	none	1/276 (0.4%)	4/246 (1.6%)	RR 0.34 (0.06 to 2.13)	11 fewer per 1000 (from 15 fewer to 18 more)	⊕OOO VERY LOW	CRITICAL
Maternal serious infectious complications – cefamycins												
10	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	4/767 (0.5%)	25/605 (4.1%)	RR 0.22 (0.10 to 0.49)	32 fewer per 1000 (from 21 fewer to 37 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal serious infectious complications – third-generation cephalosporin												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[6]	none	1/222 (0.5%)	1/154 (0.6%)	RR 0.70 (0.12 to 4.03)	2 fewer per 1000 (from 6 fewer to 20 more)	⊕⊕OO LOW	CRITICAL
Maternal serious infectious complications – onobactams												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	2/79 (2.5%)	0/19 (0%)	RR 1.25 (0.06 to 25.02)	—	⊕⊕OO LOW	CRITICAL
Maternal serious infectious complications – nitroimidazoles												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[6]	none	3/257 (1.2%)	7/259 (2.7%)	RR 0.47 (0.13 to 1.65)	14 fewer per 1000 (from 24 fewer to 18 more)	⊕⊕OO LOW	CRITICAL
Maternal serious infectious complications – aminoglycoside-containing regimens												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[6]	none	1/200 (0.5%)	5/198 (2.5%)	RR 0.32 (0.06 to 1.59)	17 fewer per 1000 (from 24 fewer to 15 more)	⊕⊕OO LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics (by class of antibiotic)	No antibiotic	Relative (95% CI)	Absolute		
Maternal adverse effects – extended-spectrum penicillins												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	1/70 (1.4%)	0/69 (0%)	RR 2.96 (0.12 to 71.38)	—	⊕OOO VERY LOW	IMPORTANT
Maternal adverse effects – beta-lactamase inhibitor combination												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[11]	none	0/117 (0%)	0/118 (0%)	not pooled	not pooled	⊕OOO VERY LOW	IMPORTANT
Maternal adverse effects – first-generation cephalosporin												
3	randomized trials	serious[1]	serious[2]	no serious indirectness	serious[9]	none	6/301 (2%)	10/206 (4.9%)	RR 0.37 (0.15 to 0.90)	31 fewer per 1000 (from 5 fewer to 41 fewer)	⊕OOO VERY LOW	IMPORTANT
Maternal adverse effects – second-generation cephalosporin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	1/40 (2.5%)	0/20 (0%)	RR 1.54 (0.07 to 36.11)	—	⊕OOO VERY LOW	IMPORTANT
Maternal adverse effects – cefamycins												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	5/416 (1.2%)	1/238 (0.4%)	RR 1.96 (0.41 to 9.34)	4 more per 1000 (from 2 fewer to 35 more)	⊕OOO VERY LOW	IMPORTANT
Maternal adverse effects – third-generation cephalosporin												
1	randomized trial	serious1	no serious inconsistency	no serious indirectness	very serious[3]	none	1/50 (2%)	0/49 (0%)	RR 2.94 (0.12 to 70.5)	—	⊕OOO VERY LOW	IMPORTANT
Maternal adverse effects – aminoglycoside-containing combination												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	1/40 (2.5%)	0/40 (0%)	RR 3.00 (0.13 to 71.51)	—	⊕OOO VERY LOW	IMPORTANT
Maternal length of hospital (days) – aminopenicillins (ampicillin)												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[6]	none	93	98	—	MD 0.82 lower (1.33 to 0.31 lower)	⊕⊕OO LOW	IMPORTANT
Maternal length of hospital (days) – beta-lactamase inhibitor combinations												
3	randomized trials	serious[1]	serious[2]	no serious indirectness	serious[6]	none	277	278	—	MD 0.18 lower (0.46 lower to 0.09 higher)	⊕OOO VERY LOW	IMPORTANT

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics (by class of antibiotic)	No antibiotic	Relative (95% CI)	Absolute		
Maternal length of hospital (days) – first-generation cephalosporins												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[6]	none	167	158	—	MD 0.22 lower (0.58 lower to 0.14 higher)	⊕⊕OO LOW	IMPORTANT
Maternal length of hospital (days) – second-generation cephalosporin												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[6]	none	109	111	—	MD 0.38 lower (0.69 to 0.08 lower)	⊕⊕OO LOW	IMPORTANT
Maternal length of hospital (days) – cefamycins												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	693	699	—	MD 0.37 lower (0.60 to 0.15 lower)	⊕⊕⊕O MODERATE	IMPORTANT
Maternal length of hospital (days) – nitroimidazoles												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[6]	none	244	241	—	MD 0.91 lower (1.37 to 0.45 lower)	⊕⊕OO LOW	IMPORTANT

1 The study or studies contributing to the pooled effect had design limitations.
2 Significant statistical heterogeneity ($I^2 > 60\%$).
3 Wide confidence interval crossing the line of no effect, small sample size and few events.
4 Most studies contributing to the pooled effect had serious design limitations.
5 One study with serious design limitations.
6 Wide confidence interval crossing the line of no effect.
7 Studies contributing to the pooled effect had serious design limitations.
8 Small sample and few events.
9 Few events
10 Wide confidence interval crossing the line of no effect and few events.
11 No events.

Table 16c. Routine prophylactic antibiotics for women undergoing caesarean section (by type of caesarean section)

Source: Smaill FM, Grivell RM. Antibiotic prophylaxis versus no prophylaxis for preventing infection after caesarean section. Cochrane Database Syst Rev. 2014;10:CD007482.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics	No antibiotics	Relative (95% CI)	Absolute		
Maternal febrile morbidity – elective caesarean section												
16	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	101/1404 (7.2%)	164/1133 (14.5%)	RR 0.48 (0.38 to 0.61)	75 fewer per 1000 (from 56 fewer to 90 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal febrile morbidity – non-elective caesarean section												
15	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	157/1008 (15.6%)	307/776 (39.6%)	RR 0.44 (0.37 to 0.51)	222 fewer per 1000 (from 194 fewer to 249 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal febrile morbidity – both elective and non-elective or undefined caesarean section												
29	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	363/2605 (13.9%)	686/2120 (32.4%)	RR 0.45 (0.4 to 0.50)	178 fewer per 1000 (from 162 fewer to 194 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection – elective caesarean section												
17	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	79/1904 (4.1%)	111/1633 (6.8%)	RR 0.62 (0.47 to 0.82)	26 fewer per 1000 (from 12 fewer to 36 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection – non-elective caesarean section												
20	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	31/1273 (2.4%)	73/1018 (7.2%)	RR 0.39 (0.27 to 0.58)	44 fewer per 1000 (from 30 fewer to 52 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection – both elective and non-elective or undefined caesarean section												
49	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	168/4904 (3.4%)	382/3675 (10.4%)	RR 0.34 (0.28 to 0.40)	69 fewer per 1000 (from 62 fewer to 75 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal endometritis – elective caesarean section												
15	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	25/1387 (1.8%)	44/1115 (3.9%)	RR 0.38 (0.24 to 0.61)	24 fewer per 1000 (from 15 fewer to 30 fewer)	⊕⊕⊕O MODERATE	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics	No antibiotics	Relative (95% CI)	Absolute		
Maternal endometritis – non-elective caesarean section												
20	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	133/1291 (10.3%)	279/1019 (27.4%)	RR 0.39 (0.33 to 0.47)	167 fewer per 1000 (from 145 fewer to 183 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal endometritis – both elective and non-elective or undefined caesarean section												
52	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	279/4974 (5.6%)	610/3802 (16%)	RR 0.37 (0.32 to 0.42)	101 fewer per 1000 (from 93 fewer to 109 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal serious infectious complications – elective caesarean section												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/313 (0.3%)	0/232 (0%)	RR 1.01 (0.04 to 24.21)	—	⊕OOO VERY LOW	CRITICAL
Maternal serious infectious complications – non-elective caesarean section												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	4/392 (1%)	17/304 (5.6%)	RR 0.27 (0.12 to 0.65)	41 fewer per 1000 (from 20 fewer to 49 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal serious infectious complications – both elective and non-elective or undefined caesarean section												
24	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	14/2786 (0.5%)	49/2132 (2.3%)	RR 0.32 (0.19 to 0.54)	16 fewer per 1000 (from 11 fewer to 19 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Maternal adverse effects – elective caesarean section												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/117 (0%)	0/118 (0%)	not pooled	not pooled	⊕OOO VERY LOW	IMPORTANT
Maternal adverse effects – non-elective caesarean section												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	5/463 (1.1%)	0/345 (0%)	RR 2.86 (0.61 to 13.31)	—	⊕OOO VERY LOW	IMPORTANT
Maternal adverse effects – Both elective and non-elective or undefined caesarean section												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	11/611 (1.8%)	2/477 (0.4%)	RR 2.23 (0.75 to 6.63)	5 more per 1000 (from 1 fewer to 24 more)	⊕OOO VERY LOW	IMPORTANT

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics	No antibiotics	Relative (95% CI)	Absolute		
Maternal hospital stay (days) – elective caesarean section												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	537	528	—	MD 0.41 lower (0.62 to 0.21 lower)	⊕⊕⊕O MODERATE	IMPORTANT
Maternal hospital stay (days) – non-elective caesarean section												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	326	320	—	MD 0.46 lower (0.78 to 0.14 lower)	⊕⊕⊕O MODERATE	IMPORTANT
Maternal hospital stay (days) – both elective and non-elective or undefined caesarean section												
11	randomized trials	serious[1]	serious[4]	no serious indirectness	no serious imprecision	none	820	848	—	MD 0.39 lower (0.57 to 0.21 lower)	⊕⊕OO LOW	IMPORTANT

1 Most studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect and few events.
3 No events.
4 Significant statistical heterogeneity ($I^2 > 60\%$).

Table 17. Timing of prophylactic antibiotics for women undergoing caesarean section

Source: Mackeen AD, Packard RE, Ota E, Berghella V, Baxter JK. Timing of intravenous prophylactic antibiotics for preventing postpartum infectious morbidity in women undergoing caesarean delivery. Cochrane Database Syst Rev. 2014;12:CD009516.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Preoperative prophylactic intravenous antibiotics	Intraoperative prophylactic intravenous antibiotic after neonatal cord clamping	Relative (95% CI)	Absolute		
Composite morbidity (as defined by trials)												
10	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	99/2531 (3.9%)	173/2510 (6.9%)	RR 0.57 (0.45 to 0.72)	30 fewer per 1000 (from 19 fewer to 38 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Composite morbidity (as defined by trials) – Cephalosporin 1 g												
5	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	29/1072 (2.7%)	53/1072 (4.9%)	RR 0.55 (0.35 to 0.86)	22 fewer per 1000 (from 7 fewer to 32 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Composite morbidity (as defined by trials) – Cephalosporin 2 g												
5	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	70/1459 (4.8%)	120/1438 (8.3%)	RR 0.57 (0.43 to 0.76)	36 fewer per 1000 (from 20 fewer to 48 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Endomyometritis												
10	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	38/2531 (1.5%)	70/2510 (2.8%)	RR 0.54 (0.36 to 0.79)	13 fewer per 1000 (from 6 fewer to 18 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Endomyometritis – Cephalosporin 1 g												
5	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	14/1072 (1.3%)	24/1072 (2.2%)	RR 0.58 (0.30 to 1.12)	9 fewer per 1000 (from 16 fewer to 3 more)	⊕⊕⊕O MODERATE	CRITICAL
Endomyometritis – Cephalosporin 2 g												
5	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	24/1459 (1.6%)	46/1438 (3.2%)	RR 0.51 (0.32 to 0.83)	16 fewer per 1000 (from 5 fewer to 22 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Preoperative prophylactic intravenous antibiotics	Intraoperative prophylactic intravenous antibiotic after neonatal cord clamping	Relative (95% CI)	Absolute		
Wound infection												
10	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	62/2531 (2.4%)	103/2510 (4.1%)	RR 0.59 (0.44 to 0.81)	17 fewer per 1000 (from 8 fewer to 23 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Wound infection – Cephalosporin 1 g												
5	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	16/1072 (1.5%)	29/1072 (2.7%)	RR 0.55 (0.30 to 1.01)	12 fewer per 1000 (from 19 fewer to 0 more)	⊕⊕⊕O MODERATE	CRITICAL
Wound infection – Cephalosporin 2 g												
5	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	46/1459 (3.2%)	74/1438 (5.1%)	RR 0.61 (0.43 to 0.88)	20 fewer per 1000 (from 6 fewer to 29 fewer)	⊕⊕⊕⊕ HIGH	CRITICAL
Pelvic abscess												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	1/370 (0.3%)	1/371 (0.3%)	RR 1.00 (0.06 to 15.97)	0 fewer per 1000 (from 3 fewer to 40 more)	⊕⊕⊕O MODERATE	CRITICAL
Maternal respiratory infection (pneumonia)												
4	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	3/932 (0.3%)	1/917 (0.1%)	RR 2.30 (0.34 to 15.45)	1 more per 1000 (from 1 fewer to 16 more)	⊕⊕⊕O MODERATE	CRITICAL
Maternal hospital stay (days)												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	670	672	—	MD 0.17 lower (0.3 to 0.04 lower)	⊕⊕⊕⊕ HIGH	IMPORTANT
Maternal febrile Illness												
4	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	49/1324 (3.7%)	53/1326 (4%)	RR 0.93 (0.63 to 1.35)	3 fewer per 1000 (from 15 fewer to 14 more)	⊕⊕⊕O MODERATE	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Preoperative prophylactic intravenous antibiotics	Intraoperative prophylactic intravenous antibiotic after neonatal cord clamping	Relative (95% CI)	Absolute		
Neonatal sepsis												
5	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	41/1452 (2.8%)	54/1455 (3.7%)	RR 0.76 (0.51 to 1.13)	9 fewer per 1000 (from 18 fewer to 5 more)	⊕⊕⊕O MODERATE	IMPORTANT
Neonatal sepsis workup												
4	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	75/588 (12.8%)	82/582 (14.1%)	RR 0.92 (0.69 to 1.23)	11 fewer per 1000 (from 44 fewer to 32 more)	⊕⊕⊕O MODERATE	IMPORTANT
Neonatal infection with a resistant organism												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[2]	none	2/185 (1.1%)	3/194 (1.5%)	RR 0.70 (0.12 to 4.14)	5 fewer per 1000 (from 14 fewer to 49 more)	⊕⊕OO LOW	IMPORTANT
Neonatal infection (other)												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[1]	none	20/153 (13.1%)	21/149 (14.1%)	RR 0.93 (0.52 to 1.64)	10 fewer per 1000 (from 68 fewer to 90 more)	⊕⊕⊕O MODERATE	IMPORTANT
Neonatal intensive care unit admission												
6	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	no serious imprecision	none	147/1862 (7.9%)	159/1846 (8.6%)	RR 0.91 (0.74 to 1.13)	8 fewer per 1000 (from 22 fewer to 11 more)	⊕⊕⊕⊕ HIGH	IMPORTANT
Neonatal intensive care unit stay (days)												
3	randomized trials	no serious risk of bias	serious[3]	no serious indirectness	serious[1]	none	862	869	—	MD 0.07 lower (2.6 lower to 2.46 higher)	⊕⊕OO LOW	IMPORTANT
Neonatal antibiotic treatment												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[4]	none	2/49 (4.1%)	2/41 (4.9%)	RR 0.84 (0.12 to 5.68)	8 fewer per 1000 (from 43 fewer to 228 more)	⊕⊕OO LOW	IMPORTANT

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Preoperative prophylactic intravenous antibiotics	Intraoperative prophylactic intravenous antibiotic after neonatal cord clamping	Relative (95% CI)	Absolute		
Neonatal fever												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[2]	none	8/476 (1.7%)	12/477 (2.5%)	RR 0.67 (0.28 to 1.62)	8 fewer per 1000 (from 18 fewer to 16 more)	⨁⨁◯◯ LOW	IMPORTANT

1 Wide confidence interval crossing the line of no effect.
2 Wide confidence interval crossing the line of no effect and few events.
3 Significant statistical heterogeneity ($I^2 > 60\%$).
4 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 18a. Classes of prophylactic antibiotics for women undergoing caesarean section (all women)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporins	Penicillins	Relative (95% CI)	Absolute		
Maternal sepsis – single cephalosporin vs single penicillin												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/162 (0%)	0/184 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal sepsis – single cephalosporin vs penicillin drug combination												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	1/42 (2.4%)	0/33 (0%)	RR 2.37 (0.10 to 56.41)	—	⊕OOO VERY LOW	CRITICAL
Maternal sepsis – cephalosporin drug combination vs penicillin drug combination												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	3/112 (2.7%)	1/120 (0.8%)	RR 3.21 (0.34 to 30.45)	18 more per 1000 (from 5 fewer to 245 more)	⊕OOO VERY LOW	CRITICAL
Maternal endometritis – single cephalosporin vs single penicillin												
9	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[4]	reporting bias[5]	286/2128 (13.4%)	109/1002 (10.9%)	RR 1.11 (0.81 to 1.52)	12 more per 1000 (from 21 fewer to 57 more)	⊕OOO VERY LOW	CRITICAL
Maternal endometritis – single cephalosporin vs penicillin drug combination												
10	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[4]	reporting bias[5]	38/1072 (3.5%)	44/1062 (4.1%)	RR 0.90 (0.60 to 1.35)	4 fewer per 1000 (from 17 fewer to 15 more)	⊕OOO VERY LOW	CRITICAL
Maternal endometritis – cephalosporin drug combination vs single penicillin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	4/46 (8.7%)	3/93 (3.2%)	RR 2.70 (0.63 to 11.55)	55 more per 1000 (from 12 fewer to 340 more)	⊕OOO VERY LOW	CRITICAL
Maternal endometritis – cephalosporin drug combination vs penicillin drug combination												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/42 (0%)	1/41 (2.4%)	RR 0.33 (0.01 to 7.77)	16 fewer per 1000 (from 24 fewer to 165 more)	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporins	Penicillins	Relative (95% CI)	Absolute		
Maternal fever – single cephalosporin vs single penicillin												
7	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	98/705 (13.9%)	95/639 (14.9%)	RR 0.89 (0.61 to 1.30)	16 fewer per 1000 (from 58 fewer to 45 more)	⊕⊕OO LOW	CRITICAL
Maternal fever – single cephalosporin vs penicillin drug combination												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[4]	reporting bias[5]	59/914 (6.5%)	66/910 (7.3%)	RR 0.92 (0.56 to 1.49)	6 fewer per 1000 (from 32 fewer to 36 more)	⊕OOO VERY LOW	CRITICAL
Maternal fever – cephalosporin drug combination vs single penicillin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	7/46 (15.2%)	6/93 (6.5%)	RR 2.36 (0.84 to 6.62)	88 more per 1000 (from 10 fewer to 363 more)	⊕OOO VERY LOW	CRITICAL
Maternal fever – cephalosporin drug combination vs penicillin drug combination												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	14/154 (9.1%)	9/161 (5.6%)	RR 1.57 (0.69 to 3.60)	32 more per 1000 (from 17 fewer to 145 more)	⊕⊕OO LOW	CRITICAL
Maternal wound infection – single cephalosporin vs single penicillin												
9	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	20/763 (2.6%)	24/734 (3.3%)	RR 0.83 (0.38 to 1.81)	6 fewer per 1000 (from 20 fewer to 26 more)	⊕⊕OO LOW	CRITICAL
Maternal wound infection – single cephalosporin vs penicillin drug combination												
7	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	18/808 (2.2%)	26/800 (3.3%)	RR 0.72 (0.40 to 1.30)	9 fewer per 1000 (from 19 fewer to 10 more)	⊕⊕OO LOW	CRITICAL
Maternal wound infection – cephalosporin drug combination vs single penicillin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	3/46 (6.5%)	3/93 (3.2%)	RR 2.02 (0.42 to 9.63)	33 more per 1000 (from 19 fewer to 278 more)	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporins	Penicillins	Relative (95% CI)	Absolute		
Maternal wound infection – cephalosporin drug combination vs penicillin drug combination												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	7/154 (4.5%)	6/161 (3.7%)	RR 1.23 (0.42 to 3.58)	9 more per 1000 (from 22 fewer to 96 more)	⊕OOO VERY LOW	CRITICAL
Maternal composite serious infectious complication – single cephalosporin vs single penicillin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal composite serious infectious complication – single cephalosporin vs penicillin drug combination												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[2]	none	0/372 (0%)	0/374 (0%)	not pooled	not pooled	⊕⊕OO LOW	CRITICAL
Maternal composite adverse effects – single cephalosporin vs single penicillin												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	2/1435 (0.1%)	1/467 (0.2%)	RR 2.02 (0.18 to 21.96)	2 more per 1000 (from 2 fewer to 45 more)	⊕OOO VERY LOW	CRITICAL
Maternal composite adverse effects – single cephalosporin vs penicillin drug combination												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	2/713 (0.3%)	1/620 (0.2%)	RR 0.96 (0.09 to 10.50)	0 fewer per 1000 (from 1 fewer to 15 more)	⊕OOO VERY LOW	CRITICAL
Maternal allergic reactions – single cephalosporin vs single penicillin												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/93 (0%)	0/98 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal allergic reactions – single cephalosporin vs penicillin drug combination												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/516 (0%)	0/525 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal nausea – single cephalosporin vs single penicillin												
1	randomized trial	serious	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal nausea – single cephalosporin vs penicillin drug combination												
1	randomized trial	serious	no serious inconsistency	no serious indirectness	very serious[2]	none	0/59 (0%)	0/60 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporins	Penicillins	Relative (95% CI)	Absolute		
Maternal vomiting – single cephalosporin vs single penicillin												
1	randomized trial	serious	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal vomiting – single cephalosporin vs penicillin drug combination												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	3/159 (1.9%)	0/160 (0%)	RR 7.00 (0.37 to 133.78)	—	⊕OOO VERY LOW	CRITICAL
Maternal diarrhoea – single cephalosporin vs single penicillin												
1	randomized trial	serious	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal diarrhoea – single cephalosporin vs penicillin drug combination												
1	randomized trial	serious	no serious inconsistency	no serious indirectness	very serious[2]	none	0/59 (0%)	0/60 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal skin rash – single cephalosporin vs single penicillin												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	1/224 (0.4%)	0/127 (0%)	RR 1.45 (0.06 to 35.38)	—	⊕OOO VERY LOW	CRITICAL
Maternal skin rash – single cephalosporin vs penicillin drug combination												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	4/310 (1.3%)	3/308 (1%)	RR 1.26 (0.34 to 4.67)	3 more per 1000 (from 6 fewer to 36 more)	⊕OOO VERY LOW	CRITICAL
Maternal hospital stay (days) – single cephalosporin vs penicillin drug combination												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[4]	none	372	374	—	MD 0.03 lower (0.14 lower to 0.08 higher)	⊕⊕⊕O MODERATE	IMPORTANT

1 Most studies contributing to the pooled effect had design limitations.
2 No events.
3 Wide confidence interval crossing the line of no effect and few events.
4 Wide confidence interval crossing the line of no effect.
5 Evidence of publication bias.

Table 18b. Class of prophylactic antibiotics for women undergoing caesarean section (by type of caesarean section)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporins	Penicillins	Relative (95% CI)	Absolute		
Maternal sepsis												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	4/316 (1.3%)	1/337 (0.3%)	RR 2.91 (0.47 to 18.10)	6 more per 1000 (from 2 fewer to 51 more)	⊕OOO VERY LOW	CRITICAL
Maternal sepsis – non-elective caesarean section												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	1/42 (2.4%)	0/33 (0%)	RR 2.37 (0.10 to 56.41)	—	⊕OOO VERY LOW	CRITICAL
Maternal sepsis – both elective and non-elective or undefined caesarean section												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	3/274 (1.1%)	1/304 (0.3%)	RR 3.21 (0.34 to 30.45)	7 more per 1000 (from 2 fewer to 97 more)	⊕OOO VERY LOW	CRITICAL
Maternal endometritis												
20	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	324/3192 (10.2%)	157/2198 (7.1%)	RR 1.11 (0.90 to 1.37)	8 more per 1000 (from 7 fewer to 26 more)	⊕⊕⊕O MODERATE	CRITICAL
Maternal endometritis – elective caesarean section												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	7/213 (3.3%)	5/248 (2%)	RR 2.06 (0.66 to 6.39)	21 more per 1000 (from 7 fewer to 109 more)	⊕OOO VERY LOW	CRITICAL
Maternal endometritis – non-elective caesarean section												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	250/1729 (14.5%)	60/633 (9.5%)	RR 1.33 (1.01 to 1.75)	31 more per 1000 (from 1 more to 71 more)	⊕⊕⊕O MODERATE	CRITICAL
Maternal endometritis – both elective and non-elective or undefined caesarean section												
11	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	reporting bias[5]	67/1250 (5.4%)	92/1317 (7%)	RR 0.85 (0.60 to 1.19)	10 fewer per 1000 (from 28 fewer to 13 more)	⊕⊕OO LOW	CRITICAL

1 Most studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect and few events.
3 Wide confidence interval crossing the line of no effect, small sample size and few events.
4 Wide confidence interval crossing the line of no effect.
5 Evidence of publication bias.

Table 18c. Class of prophylactic antibiotics for women undergoing caesarean section (by timing of administration)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporins	Penicillins	Relative (95% CI)	Absolute		
Maternal sepsis												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	4/316 (1.3%)	1/337 (0.3%)	RR 2.91 (0.47 to 18.10)	6 more per 1000 (from 2 fewer to 51 more)	⊕OOO VERY LOW	CRITICAL
Maternal sepsis – before cord clamping												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal sepsis – after cord clamping												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/177 (0.6%)	0/185 (0%)	RR 2.37 (0.10 to 56.41)	—	⊕OOO VERY LOW	CRITICAL
Maternal sepsis – timing of administration not reported or both used												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	3/112 (2.7%)	1/120 (0.8%)	RR 3.21 (0.34 to 30.45)	18 more per 1000 (from 5 fewer to 245 more)	⊕OOO VERY LOW	CRITICAL
Maternal endometritis												
20	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[4]	none	324/3192 (10.2%)	157/2198 (7.1%)	RR 1.11 (0.90 to 1.37)	8 more per 1000 (from 7 fewer to 26 more)	⊕⊕OO LOW	CRITICAL
Maternal endometritis – before cord clamping												
2	randomized trials	serious[1]	serious[5]	no serious indirectness	very serious[2]	none	3/166 (1.8%)	11/166 (6.6%)	RR 0.42 (0.02 to 8.20)	38 fewer per 1000 (from 65 fewer to 477 more)	⊕OOO VERY LOW	CRITICAL
Maternal endometritis – after cord clamping												
17	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[4]	reporting bias[6]	310/2892 (10.7%)	140/1962 (7.1%)	RR 1.15 (0.94 to 1.42)	11 more per 1000 (from 4 fewer to 30 more)	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporins	Penicillins	Relative (95% CI)	Absolute		
Maternal endometritis – timing of administration nor reported												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[2]	none	11/134 (8.2%)	6/70 (8.6%)	RR 0.96 (0.37 to 2.48)	3 fewer per 1000 (from 54 fewer to 127 more)	⨁⨁◯◯ LOW	CRITICAL

1 The study or most studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect and few events.
3 No events.
4 Wide confidence interval crossing the line of no effect.
5 Significant statistical heterogeneity ($I^2 > 60\%$).
6 Evidence of publication bias.

Table 18d. Class of prophylactic antibiotics for women undergoing caesarean section (by route of administration)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporins	Penicillins	Relative (95% CI)	Absolute		
Maternal sepsis (all routes)												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	4/316 (1.3%)	1/337 (0.3%)	RR 2.9 (0.46 to 18.17)	6 more per 1000 (from 2 fewer to 51 more)	⊕OOO VERY LOW	CRITICAL
Maternal sepsis – intravenous administration												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	4/181 (2.2%)	1/185 (0.5%)	RR 2.9 (0.46 to 18.17)	10 more per 1000 (from 3 fewer to 93 more)	⊕OOO VERY LOW	CRITICAL
Maternal sepsis – lavage/infiltration												
1	randomized trial	serious[3]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/135 (0%)	0/152 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Endometritis (all routes)												
20	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[4]	reporting bias[5]	324/3192 (10.2%)	157/2198 (7.1%)	RR 1.12 (0.92 to 1.37)	9 more per 1000 (from 6 fewer to 26 more)	⊕OOO VERY LOW	CRITICAL
Endometritis – intravenous administration												
18	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[4]	reporting bias[5]	283/2923 (9.7%)	116/1976 (5.9%)	RR 1.18 (0.94 to 1.49)	11 more per 1000 (from 4 fewer to 29 more)	⊕OOO VERY LOW	CRITICAL
Endometritis – lavage/infiltration												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[4]	none	41/269 (15.2%)	41/222 (18.5%)	RR 0.96 (0.65 to 1.43)	7 fewer per 1000 (from 65 fewer to 79 more)	⊕⊕⊕O MODERATE	CRITICAL

1 Most studies contributing to the effect estimate had design limitations.
2 Wide confidence interval crossing the line of no effect and few events.
3 One study had design limitations.
4 Wide confidence interval crossing the line of no effect.
5 Evidence of publication bias.

Table 18e. Class of prophylactic antibiotics for women undergoing caesarean section (first-generation cephalosporin versus penicillins)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporin (first generation)	Penicillins (extended spectrum)	Relative (95% CI)	Absolute		
Maternal endometritis												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	97/566 (17.1%)	16/248 (6.5%)	RR 2.18 (1.30 to 3.66)	76 more per 1000 (from 19 more to 172 more)	⊕⊕OO LOW	CRITICAL
Maternal fever (febrile morbidity)												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	7/46 (15.2%)	6/93 (6.5%)	RR 2.36 (0.84 to 6.62)	88 more per 1000 (from 10 fewer to 363 more)	⊕OOO VERY LOW	CRITICAL
Maternal wound infection												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	3/46 (6.5%)	3/93 (3.2%)	RR 2.02 (0.42 to 9.63)	33 more per 1000 (from 19 fewer to 278 more)	⊕OOO VERY LOW	CRITICAL
Maternal composite adverse effects												
1	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	0/520 (0%)	0/155 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL

1 The study or studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect.
3 Wide confidence interval crossing the line of no effect, small sample size and few events.
4 No events.

Table 18f. Class of prophylactic antibiotics for women undergoing caesarean section (first-generation cephalosporin versus ampicillin)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporin (first generation)	Penicillins (ampicillin)	Relative (95% CI)	Absolute		
Maternal endometritis												
7	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	reporting bias[3]	103/940 (11%)	51/547 (9.3%)	RR 1.09 (0.69 to 1.71)	8 more per 1000 (from 29 fewer to 66 more)	⊕OOO VERY LOW	CRITICAL
Maternal fever												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	43/446 (9.6%)	52/437 (11.9%)	RR 0.78 (0.40 to 1.51)	26 fewer per 1000 (from 71 fewer to 61 more)	⊕⊕OO LOW	CRITICAL
Maternal wound infection												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	9/322 (2.8%)	10/304 (3.3%)	RR 0.85 (0.36 to 2.01)	5 fewer per 1000 (from 21 fewer to 33 more)	⊕⊕OO LOW	CRITICAL
Maternal urinary tract infection												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	18/322 (5.6%)	13/304 (4.3%)	RR 1.41 (0.54 to 3.70)	18 more per 1000 (from 20 fewer to 115 more)	⊕⊕OO LOW	CRITICAL
Maternal composite adverse effects												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	0/618 (0%)	1/243 (0.4%)	RR 0.32 (0.01 to 7.84)	3 fewer per 1000 (from 4 fewer to 28 more)	⊕OOO VERY LOW	CRITICAL
Maternal allergic reactions												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[5]	none	0/66 (0%)	0/66 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal skin rash												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[5]	none	0/98 (0%)	0/95 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporin (first generation)	Penicillins (ampicillin)	Relative (95% CI)	Absolute		
Maternal hospital stay (days)												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	66	66	—	MD 1.50 lower (2.46 to 0.54 lower)	⊕⊕⊕O MODERATE	IMPORTANT

1 The study or most studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect.
3 Evidence of publication bias.
4 Wide confidence interval crossing the line of no effect and few events.
5 No events

Table 18g. Class of prophylactic antibiotics for women undergoing caesarean section (second-generation cephalosporin versus penicillins)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporin (second generation)	Penicillins (extended spectrum)	Relative (95% CI)	Absolute		
Maternal sepsis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/135 (0%)	0/152 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal endometritis												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	118/864 (13.7%)	59/470 (12.6%)	RR 1.10 (0.78 to 1.54)	13 more per 1000 (from 28 fewer to 68 more)	⊕⊕OO LOW	CRITICAL
Maternal fever (febrile morbidity)												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	66/399 (16.5%)	64/451 (14.2%)	RR 1.08 (0.79 to 1.47)	11 more per 1000 (from 30 fewer to 67 more)	⊕⊕OO LOW	CRITICAL
Maternal wound infection												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	7/184 (3.8%)	4/254 (1.6%)	RR 2.37 (0.64 to 8.73)	22 more per 1000 (from 6 fewer to 122 more)	⊕OOO VERY LOW	CRITICAL
Maternal composite adverse effects												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	2/743 (0.3%)	1/287 (0.3%)	RR 2.02 (0.18 to 21.96)	4 more per 1000 (from 3 fewer to 73 more)	⊕OOO VERY LOW	CRITICAL
Maternal skin rash												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	1/68 (1.5%)	0/61 (0%)	RR 2.7 (0.11 to 64.96)	—	⊕OOO VERY LOW	CRITICAL

1 The study or most studies contributing data to the pooled effect had design limitations.
2 No events.
3 Wide confidence interval crossing the line of no effect.
4 Wide confidence interval crossing the line of no effect and few events.

Table 18h. Class of prophylactic antibiotics for women undergoing caesarean section (second-generation cephalosporin versus ampicillin)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporin (second generation)	Penicillins (ampicillin)	Relative (95% CI)	Absolute		
Maternal sepsis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/42 (2.4%)	0/33 (0%)	RR 2.37 (0.10 to 56.41)	—	⊕OOO VERY LOW	CRITICAL
Maternal endometritis												
8	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	126/1123 (11.2%)	66/767 (8.6%)	RR 1.01 (0.75 to 1.35)	1 more per 1000 (from 22 fewer to 30 more)	⊕⊕OO LOW	CRITICAL
Maternal fever												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[4]	none	20/189 (10.6%)	18/198 (9.1%)	RR 1.17 (0.64 to 2.15)	15 more per 1000 (from 33 fewer to 105 more)	⊕⊕OO LOW	CRITICAL
Maternal wound infection												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	9/316 (2.8%)	8/322 (2.5%)	RR 1.14 (0.47 to 2.78)	3 more per 1000 (from 13 fewer to 44 more)	⊕OOO VERY LOW	CRITICAL
Maternal composite adverse effects												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	2/796 (0.3%)	1/334 (0.3%)	RR 1.92 (0.18 to 20.82)	3 more per 1000 (from 2 fewer to 59 more)	⊕OOO VERY LOW	CRITICAL
Maternal allergic reactions												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[5]	none	0/85 (0%)	0/91 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal skin rash												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[4]	none	3/182 (1.6%)	3/182 (1.6%)	RR 1.02 (0.23 to 4.46)	0 more per 1000 (from 13 fewer to 57 more)	⊕⊕OO LOW	CRITICAL

1 Most studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.
3 Wide confidence interval crossing the line of no effect.
4 Wide confidence interval crossing the line of no effect and few events.
5 No events.

Table 18i. Class of prophylactic antibiotics for women undergoing caesarean section (third-generation cephalosporin versus penicillins)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporin (third generation)	Penicillins (extended spectrum)	Relative (95% CI)	Absolute		
Maternal sepsis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal endometritis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	26/145 (17.9%)	13/155 (8.4%)	RR 2.14 (1.14 to 4.00)	96 more per 1000 (from 12 more to 252 more)	⊕⊕OO LOW	CRITICAL
Maternal wound infection												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal urinary tract infection												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal composite serious infectious complication												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal composite adverse effects												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/172 (0%)	0/187 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal allergic reactions												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal nausea												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal vomiting												
1	no methodology chosen	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporin (third generation)	Penicillins (extended spectrum)	Relative (95% CI)	Absolute		
Maternal diarrhoea												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal skin rash												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/27 (0%)	0/32 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL

1 The study or studies contributing to the pooled effect had design limitations.
2 No events.
3 Wide confidence interval crossing the line of no effect.

Table 18j. Class of prophylactic antibiotics for women undergoing caesarean section (third-generation cephalosporin versus ampicillin)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporin (third generation)	Penicillins (ampicillins)	Relative (95% CI)	Absolute		
Maternal endometritis												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	33/731 (4.5%)	23/741 (3.1%)	RR 1.47 (0.89 to 2.42)	15 more per 1000 (from 3 fewer to 44 more)	⊕⊕OO LOW	CRITICAL
Maternal febrile morbidity												
3	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	32/527 (6.1%)	29/533 (5.4%)	RR 1.12 (0.69 to 1.83)	7 more per 1000 (from 17 fewer to 45 more)	⊕⊕⊕O MODERATE	CRITICAL
Maternal wound infection												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	reporting bias[3]	14/764 (1.8%)	31/792 (3.9%)	RR 0.49 (0.27 to 0.90)	20 fewer per 1000 (from 4 fewer to 29 fewer)	⊕⊕OO LOW	CRITICAL
Maternal composite serious infectious complication												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	0/372 (0%)	0/374 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal allergic reactions												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	0/372 (0%)	0/374 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal composite adverse effects												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	0/517 (0%)	0/522 (0%)	not pooled	not pooled	⊕⊕OO LOW	CRITICAL
Maternal vomiting												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[5]	none	3/100 (3%)	0/100 (0%)	RR 7 (0.37 to 133.78)	—	⊕OOO VERY LOW	CRITICAL
Maternal skin rash												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[5]	none	1/100 (1%)	0/100 (0%)	RR 3.00 (0.12 to 72.77)	—	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Cephalosporin (third generation)	Penicillins (ampicillins)	Relative (95% CI)	Absolute		
Maternal hospital stay (days)												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	372	374	—	MD 0.03 lower (0.14 lower to 0.08 higher)	⊕⊕⊕O MODERATE	IMPORTANT

1 The study or most studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect.
3 Evidence of publication bias.
4 No events.
5 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 18k. Class of prophylactic antibiotics for women undergoing caesarean section (fluoroquinolones versus penicillins)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Fluoro-quinolones	Penicillins	Relative (95% CI)	Absolute		
Maternal sepsis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/39 (2.6%)	0/33 (0%)	RR 2.55 (0.11 to 60.57)	—	⊕OOO VERY LOW	CRITICAL
Maternal endometritis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	18/39 (46.2%)	13/33 (39.4%)	RR 1.17 (0.68 to 2.01)	67 more per 1000 (from 126 fewer to 398 more)	⊕OOO VERY LOW	CRITICAL
Maternal wound infection												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	2/39 (5.1%)	0/33 (0%)	RR 4.25 (0.21 to 85.51)	—	⊕OOO VERY LOW	CRITICAL

1 One study with design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 18I. Class of prophylactic antibiotics for women undergoing caesarean section (fluoroquinolones versus cephalosporin)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Fluoro-quinolones	Cephalosporin	Relative (95% CI)	Absolute		
Maternal sepsis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/39 (2.6%)	1/42 (2.4%)	RR 1.08 (0.07 to 16.63)	2 more per 1000 (from 22 fewer to 372 more)	⊕OOO VERY LOW	CRITICAL
Maternal endometritis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	18/39 (46.2%)	15/42 (35.7%)	RR 1.29 (0.76 to 2.19)	104 more per 1000 (from 86 fewer to 425 more)	⊕OOO VERY LOW	CRITICAL
Maternal wound infection												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	2/39 (5.1%)	1/42 (2.4%)	RR 2.15 (0.20 to 22.82)	27 more per 1000 (from 19 fewer to 520 more)	⊕OOO VERY LOW	CRITICAL

1 One study with design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 18m. Class of prophylactic antibiotics for women undergoing caesarean section (lincosamide/aminoglycoside versus penicillins)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Lincosamide + aminoglycoside	Penicillins	Relative (95% CI)	Absolute		
Maternal endometritis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	4/42 (9.5%)	3/46 (6.5%)	RR 1.46 (0.35 to 6.15)	30 more per 1000 (from 42 fewer to 336 more)	⊕OOO VERY LOW	CRITICAL
Maternal wound infection												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	2/42 (4.8%)	4/46 (8.7%)	RR 0.55 (0.11 to 2.84)	39 fewer per 1000 (from 77 fewer to 160 more)	⊕OOO VERY LOW	CRITICAL

1 One study with design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 18n. Class of prophylactic antibiotics for women undergoing caesarean section (macrolides versus cephalosporin)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Macrolides	Cephalosporins	Relative (95% CI)	Absolute		
Maternal endometritis – beta-lactams versus cephalosporins												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/22 (4.5%)	1/26 (3.8%)	RR 1.18 (0.08 to 17.82)	7 more per 1000 (from 35 fewer to 647 more)	⊕OOO VERY LOW	CRITICAL
Maternal fever febrile morbidity – macrolides versus cephalosporins												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	3/35 (8.6%)	0/35 (0%)	RR 7.00 (0.37 to 130.69)	—	⊕OOO VERY LOW	CRITICAL
Maternal fever (febrile morbidity) – beta-lactams versus cephalosporins												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/22 (4.5%)	2/26 (7.7%)	RR 0.59 (0.06 to 6.09)	32 fewer per 1000 (from 72 fewer to 392 more)	⊕OOO VERY LOW	CRITICAL
Maternal wound infection – beta-lactams versus cephalosporins												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/22 (0%)	1/26 (3.8%)	RR 0.39 (0.02 to 9.15)	23 fewer per 1000 (from 38 fewer to 313 more)	⊕OOO VERY LOW	CRITICAL

1 One study with design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 18o. Class of prophylactic antibiotics for women undergoing caesarean section (gentamicin/nitroimidazole versus antibiotics cocktail)

Source: Gyte GML, Dou L, Vazquez JC. Different classes of antibiotics given to women routinely for preventing infection at caesarean section. Cochrane Database Syst Rev. 2014;11:CD008726.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Gentamicin/ nitroimidazole	Standard cocktail of antibiotics (penicillin/ nitroimidazole/ macrolide)	Relative (95% CI)	Absolute		
Maternal endometritis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	6/116 (5.2%)	8/125 (6.4%)	RR 0.81 (0.29 to 2.26)	12 fewer per 1000 (from 45 fewer to 81 more)	⊕OOO VERY LOW	CRITICAL
Maternal wound infection												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	3/116 (2.6%)	1/125 (0.8%)	RR 3.23 (0.34 to 30.64)	18 more per 1000 (from 5 fewer to 237 more)	⊕OOO VERY LOW	CRITICAL
Stillbirth												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/116 (0.9%)	4/125 (3.2%)	RR 0.27 (0.03 to 2.38)	23 fewer per 1000 (from 31 fewer to 44 more)	⊕OOO VERY LOW	CRITICAL

1 One study with design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 19a. Antibiotic regimens to treat women diagnosed with intra-amniotic infection/chorioamnionitis (intrapartum)

Source: Chapman E, Reveiz L, Illanes E, Bonfill Cosp X. Antibiotic regimens for management of intra-amniotic infection. Cochrane Database Syst Rev. 2014;12:CD010976.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotic	Other regimen or dosage of antibiotic	Relative (95% CI)	Absolute		
Treatment failure (endometritis) – ampicillin plus gentamicin versus thrice daily gentamicin												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[1]	none	5/80 (6.3%)	6/83 (7.2%)	RR 0.86 (0.27 to 2.70)	10 fewer per 1000 (from 53 fewer to 123 more)	⊕⊕OO LOW	CRITICAL
Initial successful response to antibiotics – ampicillin plus gentamicin versus thrice daily gentamicin												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	serious[2]	none	58/62 (93.5%)	56/63 (88.9%)	RR 1.05 (0.94 to 1.17)	44 more per 1000 (from 53 fewer to 151 more)	⊕⊕⊕O MODERATE	CRITICAL
Maximum maternal temperature – ampicillin plus gentamicin versus thrice daily gentamicin												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	62	63	—	MD 0.4 higher (0.45 lower to 1.25 higher)	⊕⊕OO LOW	CRITICAL
Maternal postpartum hospital stay (days) – ampicillin plus gentamicin versus thrice daily gentamicin												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	62	63	—	MD 0 higher (0.43 lower to 0.43 higher)	⊕⊕OO LOW	CRITICAL
Neonatal sepsis – ampicillin plus gentamicin versus thrice daily gentamicin												
2	randomized trials	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[1]	none	7/80 (8.8%)	7/83 (8.4%)	RR 1.07 (0.40 to 2.86)	6 more per 1000 (from 51 fewer to 157 more)	⊕⊕OO LOW	CRITICAL
Respiratory distress syndrome – ampicillin plus gentamicin versus thrice daily gentamicin												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[1]	none	5/62 (8.1%)	3/63 (4.8%)	RR 1.69 (0.42 to 6.78)	33 more per 1000 (from 28 fewer to 275 more)	⊕⊕OO LOW	CRITICAL
Neonatal antibiotic (days of treatment) – ampicillin plus gentamicin versus thrice daily gentamicin												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	62	63	—	MD 0.20 higher (0.37 lower to 0.77 higher)	⊕⊕OO LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotic	Other regimen or dosage of antibiotic	Relative (95% CI)	Absolute		
Treatment failure – ampicillin/sulbactam versus cefotetan												
1	randomized trial	serious[4]	no serious inconsistency	no serious indirectness	very serious[1]	none	0/11 (0%)	0/8 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Maternal death – ampicillin/sulbactam versus cefotetan												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[1]	none	0/20 (0%)	0/18 (0%)	not pooled	not pooled	⊕⊕OO LOW	CRITICAL
Postpartum endometritis – double versus triple therapy												
1	randomized trial	serious[4]	no serious inconsistency	no serious indirectness	very serious[1]	none	10/69 (14.5%)	5/64 (7.8%)	RR 1.86 (0.67 to 5.14)	67 more per 1000 (from 26 fewer to 323 more)	⊕OOO VERY LOW	CRITICAL
Postpartum endometritis vaginal delivery – double versus triple therapy												
1	randomized trial	serious[4]	no serious inconsistency	no serious indirectness	very serious[1]	none	5/39 (12.8%)	0/34 (0%)	RR 9.63 (0.55 to 167.95)	—	⊕OOO VERY LOW	CRITICAL
Postpartum endometritis caesarean section – double versus triple therapy												
1	randomized trial	serious[4]	no serious inconsistency	no serious indirectness	very serious[1]	none	5/30 (16.7%)	5/30 (16.7%)	RR 1.00 (0.32 to 3.10)	0 fewer per 1000 (from 113 fewer to 350 more)	⊕OOO VERY LOW	CRITICAL
Neonatal sepsis (blood culture) – double versus triple therapy												
1	randomized trial	serious[4]	no serious inconsistency	no serious indirectness	very serious[1]	none	1/69 (1.4%)	1/64 (1.6%)	RR 0.93 (0.06 to 14.52)	1 fewer per 1000 (from 15 fewer to 211 more)	⊕OOO VERY LOW	CRITICAL
Neonatal deaths – double versus triple therapy												
1	randomized trial	serious[4]	no serious inconsistency	no serious indirectness	very serious[1]	none	3/69 (4.3%)	2/64 (3.1%)	RR 1.39 (0.24 to 8.06)	12 more per 1000 (from 24 fewer to 221 more)	⊕OOO VERY LOW	CRITICAL
Intraventricular haemorrhage – double versus triple therapy												
1	randomized trial	serious[4]	no serious inconsistency	no serious indirectness	very serious[1]	none	2/69 (2.9%)	0/64 (0%)	RR 4.64 (0.23 to 94.90)	—	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotic	Other regimen or dosage of antibiotic	Relative (95% CI)	Absolute		
Respiratory distress syndrome – double versus triple therapy												
1	randomized trial	serious[4]	no serious inconsistency	no serious indirectness	very serious[1]	none	6/69 (8.7%)	5/64 (7.8%)	RR 1.11 (0.36 to 3.47)	9 more per 1000 (from 50 fewer to 193 more)	⊕OOO VERY LOW	CRITICAL
Neonatal seizures – double versus triple therapy												
1	randomized trial	serious[4]	no serious inconsistency	no serious indirectness	very serious[1]	none	1/69 (1.4%)	1/64 (1.6%)	RR 0.93 (0.06 to 14.52)	1 fewer per 1000 (from 15 fewer to 211 more)	⊕OOO VERY LOW	CRITICAL

1 Wide confidence interval crossing the line of no effect, small sample size and few events.
2 Small sample size.
3 Wide confidence interval crossing the line of no effect and small sample size.
4 One study with design limitations.

Table 19b. Antibiotic regimens to treat women diagnosed with intra-amniotic infection/chorioamnionitis (postpartum)

Source: Chapman E, Reveiz L, Illanes E, Bonfill Cosp X. Antibiotic regimens for management of intra-amniotic infection. Cochrane Database Syst Rev. 2014;12:CD010976.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Ampicillin during labour plus postpartum clindamycin/ gentamicin	Ampicillin during labour only	Relative (95% CI)	Absolute		
Postpartum endometritis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	12/55 (21.8%)	9/61 (14.8%)	RR 1.48 (0.68 to 3.24)	71 more per 1000 (from 47 fewer to 330 more)	⊕OOO VERY LOW	CRITICAL
Wound infection												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/55 (1.8%)	3/61 (4.9%)	RR 0.37 (0.04 to 3.45)	31 fewer per 1000 (from 47 fewer to 120 more)	⊕OOO VERY LOW	CRITICAL
Neonatal sepsis												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	3/55 (5.5%)	3/61 (4.9%)	RR 1.11 (0.23 to 5.27)	5 more per 1000 (from 38 fewer to 210 more)	⊕OOO VERY LOW	CRITICAL
Neonatal death												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/55 (1.8%)	0/61 (0%)	RR 3.32 (0.14 to 79.88)	—	⊕OOO VERY LOW	CRITICAL
Transient tachypnea												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	3/55 (5.5%)	4/61 (6.6%)	RR 0.83 (0.19 to 3.55)	11 fewer per 1000 (from 53 fewer to 167 more)	⊕OOO VERY LOW	CRITICAL

1 One study with design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 19c. Antibiotic regimens to treat women diagnosed with intra-amniotic infection/chorioamnionitis (once-daily versus thrice-daily gentamicin postpartum)

Source: Chapman E, Reveiz L, Illanes E, Bonfill Cosp X. Antibiotic regimens for management of intra-amniotic infection. Cochrane Database Syst Rev. 2014;12:CD010976.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Once-daily postpartum gentamicin	Thrice-daily postpartum gentamicin	Relative (95% CI)	Absolute		
Treatment failure												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	4/65 (6.2%)	4/66 (6.1%)	RR 1.02 (0.27 to 3.89)	1 more per 1000 (from 44 fewer to 175 more)	⊕OOO VERY LOW	CRITICAL
Maternal adverse effect (nephrotoxicity)												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/65 (0%)	0/66 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Length of antibiotic treatment (days)												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	65	66	—	MD 0.30 lower (0.90 lower to 0.30 higher)	⊕OOO VERY LOW	CRITICAL

1 One study with design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.
3 No events.
4 Wide confidence interval crossing the line of no effect and small sample size.

Table 19d. Antibiotic regimens to treat women diagnosed with intra-amniotic infection/chorioamnionitis (by duration)

Source: Chapman E, Reveiz L, Illanes E, Bonfill Cosp X. Antibiotic regimens for management of intra-amniotic infection. Cochrane Database Syst Rev. 2014;12:CD010976.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Antibiotics (short duration) in postpartum	Antibiotics (long duration) in postpartum	Relative (95% CI)	Absolute		
Treatment failure (vaginal and caesarean delivery)												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	7/151 (4.6%)	5/141 (3.5%)	RR 1.31 (0.42 to 4.02)	11 more per 1000 (from 21 fewer to 107 more)	⊕OOO VERY LOW	CRITICAL
Treatment failure (caesarean delivery)												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	4/64 (6.3%)	1/53 (1.9%)	RR 3.31 (0.38 to 28.75)	44 more per 1000 (from 12 fewer to 524 more)	⊕OOO VERY LOW	CRITICAL
Treatment failure (vaginal delivery)												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	9/142 (6.3%)	6/142 (4.2%)	RR 1.46 (0.39 to 5.51)	19 more per 1000 (from 26 fewer to 191 more)	⊕OOO VERY LOW	CRITICAL
Wound infection												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	2/151 (1.3%)	1/141 (0.7%)	RR 1.87 (0.17 to 20.37)	6 more per 1000 (from 6 fewer to 137 more)	⊕OOO VERY LOW	CRITICAL
Pelvic abscess												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/151 (0.7%)	0/141 (0%)	RR 2.80 (0.12 to 68.24)	—	⊕OOO VERY LOW	CRITICAL

1 The study or studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 19e. Antibiotic regimens to treat women diagnosed with intra-amniotic infection/chorioamnionitis (intrapartum versus postpartum ampicillin/gentamicin)

Source: Chapman E, Reveiz L, Illanes E, Bonfill Cosp X. Antibiotic regimens for management of intra-amniotic infection. Cochrane Database Syst Rev. 2014;12:CD010976.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Intrapartum ampicillin/ gentamicin	Postpartum ampicillin/ gentamicin	Relative (95% CI)	Absolute		
Maximum maternal temperature postpartum												
1	randomized trial	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	26	19	—	MD 0.50 lower (1.08 lower to 0.08 higher)	⊕OOO VERY LOW	CRITICAL
Maternal postpartum hospital stay (days)												
1	randomized trial	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	26	19	—	MD 1.00 lower (1.94 to 0.06 lower)	⊕OOO VERY LOW	CRITICAL
Duration of maternal febrile morbidity (days)												
1	randomized trial	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	26	19	—	MD 1.06 lower (2.04 to 0.08 lower)	⊕OOO VERY LOW	CRITICAL
Maternal bacteremia												
1	randomized trial	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	3/26 (11.5%)	1/19 (5.3%)	RR 2.19 (0.25 to 19.48)	63 more per 1000 (from 39 fewer to 973 more)	⊕OOO VERY LOW	CRITICAL
Early neonatal sepsis												
1	randomized trial	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/26 (0%)	4/19 (21.1%)	RR 0.08 (0.00 to 1.44)	194 fewer per 1000 (from 211 fewer to 93 more)	⊕OOO VERY LOW	CRITICAL
Neonatal pneumonia or sepsis												
1	randomized trial	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/26 (0%)	6/19 (31.6%)	RR 0.06 (0.00 to 0.95)	297 fewer per 1000 (from 16 fewer to 316 fewer)	⊕OOO VERY LOW	CRITICAL
Neonatal length of hospital stay (days)												
1	randomized trial	very serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	26	19	—	MD 1.9 lower (3.31 to 0.49 lower)	⊕OOO VERY LOW	CRITICAL

1 One study with serious design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 20a. Antibiotic regimens to treat women diagnosed with postpartum endometritis (lincosamide plus aminoglycoside versus others)

Source: Mackeen AD, Packard RE, Ota E, Speer L. Antibiotic regimens for postpartum endometritis. Cochrane Database Syst Rev. 2015;2:CD001067.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Lincosamide plus aminoglycoside	Any other regimen	Relative (95% CI)	Absolute		
Treatment failure – lincosamides versus cephalosporins												
8	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	42/406 (10.3%)	69/466 (14.8%)	RR 0.69 (0.49 to 0.99)	46 fewer per 1000 (from 1 fewer to 76 more)	⊕⊕⊕O MODERATE	CRITICAL
Treatment failure – lincosamides versus monobactams												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	7/92 (7.6%)	3/89 (3.4%)	RR 2.25 (0.60 to 8.43)	42 more per 1000 (from 13 fewer to 250 more)	⊕OOO VERY LOW	CRITICAL
Treatment failure – lincosamides versus penicillins												
7	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	47/349 (13.5%)	71/340 (20.9%)	RR 0.65 (0.46 to 0.90)	73 fewer per 1000 (from 21 fewer to 113 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Treatment failure – lincosamides versus quinolone												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	13/89 (14.6%)	18/87 (20.7%)	RR 0.72 (0.38 to 1.37)	58 fewer per 1000 (from 128 fewer to 77 more)	⊕OOO VERY LOW	CRITICAL
Treatment failure – aminoglycoside plus penicillin versus piperacillin/tazobactam												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	5/42 (11.9%)	3/14 (21.4%)	RR 0.56 (0.15 to 2.03)	94 fewer per 1000 (from 182 fewer to 221 more)	⊕OOO VERY LOW	IMPORTANT
Severe complication – lincosamides versus cephalosporins												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	2/226 (0.9%)	1/250 (0.4%)	RR 2.40 (0.30 to 19.19)	6 more per 1000 (from 3 fewer to 73 more)	⊕OOO VERY LOW	CRITICAL
Severe complication – lincosamides versus monobactams												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	0/31 (0%)	0/31 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Lincosamide plus aminoglycoside	Any other regimen	Relative (95% CI)	Absolute		
Severe complication – lincosamides versus penicillins												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	2/212 (0.9%)	8/210 (3.8%)	RR 0.33 (0.09 to 1.18)	26 fewer per 1000 (from 35 fewer to 7 more)	⊕OOO VERY LOW	CRITICAL
Severe complication –lincosamides versus quinolone												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	2/81 (2.5%)	0/79 (0%)	RR 2.89 (0.31 to 27.20)	—	⊕OOO VERY LOW	CRITICAL
Wound infection – lincosamides versus cephalosporins												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	17/237 (7.2%)	30/263 (11.4%)	RR 0.53 (0.30 to 0.93)	54 fewer per 1000 (from 8 fewer to 80 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Wound infection – lincosamides versus monobactams												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/61 (1.6%)	1/58 (1.7%)	RR 0.95 (0.06 to 14.85)	1 fewer per 1000 (from 16 fewer to 239 more)	⊕OOO VERY LOW	CRITICAL
Wound infection – lincosamides versus penicillins												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	8/170 (4.7%)	18/169 (10.7%)	RR 0.46 (0.21 to 1.00)	58 fewer per 1000 (from 84 fewer to 0 more)	⊕OOO VERY LOW	CRITICAL
Wound infection – lincosamides versus quinolone												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/48 (2.1%)	2/49 (4.1%)	RR 0.51 (0.05 to 5.45)	20 fewer per 1000 (from 39 fewer to 182 more)	⊕OOO VERY LOW	CRITICAL
Allergic reaction – lincosamides versus cephalosporins												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	6/351 (1.7%)	4/329 (1.2%)	RR 1.36 (0.44 to 4.21)	4 more per 1000 (from 7 fewer to 39 more)	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Lincosamide plus aminoglycoside	Any other regimen	Relative (95% CI)	Absolute		
Allergic reaction – lincosamides versus monobactams												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/92 (1.1%)	2/89 (2.2%)	RR 0.59 (0.08 to 4.31)	9 fewer per 1000 (from 21 fewer to 74 more)	⊕OOO VERY LOW	CRITICAL
Allergic reaction – lincosamides versus penicillins												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	2/124 (1.6%)	2/123 (1.6%)	RR 1.00 (0.14 to 6.96)	0 fewer per 1000 (from 14 fewer to 97 more)	⊕OOO VERY LOW	CRITICAL
Allergic reaction – lincosamides versus quinolone												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	1/81 (1.2%)	1/79 (1.3%)	RR 0.91 (0.06 to 13.9)	1 fewer per 1000 (from 12 fewer to 163 more)	⊕OOO VERY LOW	CRITICAL
Diarrhoea – lincosamides versus cephalosporins												
7	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	10/350 (2.9%)	4/408 (1%)	RR 2.09 (0.77 to 5.63)	11 more per 1000 (from 2 fewer to 45 more)	⊕OOO VERY LOW	CRITICAL
Diarrhoea – lincosamides versus monobactams												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/61 (1.6%)	2/58 (3.4%)	RR 0.48 (0.04 to 5.10)	18 fewer per 1000 (from 33 fewer to 141 more)	⊕OOO VERY LOW	CRITICAL
Diarrhoea – lincosamides versus penicillins												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	9/188 (4.8%)	6/187 (3.2%)	RR 1.43 (0.55 to 3.72)	14 more per 1000 (from 14 fewer to 87 more)	⊕OOO VERY LOW	CRITICAL
Diarrhoea – lincosamides versus quinolone												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/33 (3%)	1/30 (3.3%)	RR 0.91 (0.06 to 13.90)	3 fewer per 1000 (from 31 fewer to 430 more)	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Lincosamide plus aminoglycoside	Any other regimen	Relative (95% CI)	Absolute		
Maternal hospital stay (days) – lincosamides versus cephalosporins (better outcomes indicated by lower values)												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[5]	none	254	240	—	MD 0.26 lower (0.56 lower to 0.04 higher)	⊕⊕OO LOW	CRITICAL
Maternal hospital stay (days) – lincosamides versus monobactams (better outcomes indicated by lower values)												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	61	58	—	MD 0.45 higher (0.25 lower to 1.15 higher)	⊕OOO VERY LOW	CRITICAL
Treatment failure despite administration of prophylactic antibiotics for caesarean section – lincosamides versus penicillins												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	21/117 (17.9%)	18/112 (16.1%)	RR 1.12 (0.63 to 1.98)	19 more per 1000 (from 59 fewer to 158 more)	⊕OOO VERY LOW	CRITICAL

1 The study or most studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.
3 Wide confidence interval crossing the line of no effect and small sample size.
4 Wide confidence interval crossing the line of no effect and few events.
5 Wide confidence interval crossing the line of no effect.

Table 20b. Antibiotic regimens to treat women diagnosed with postpartum endometritis (aminoglycoside plus penicillin versus others)

Source: Mackeen AD, Packard RE, Ota E, Speer L. Antibiotic regimens for postpartum endometritis. Cochrane Database Syst Rev. 2015;2:CD001067.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Aminoglycoside plus penicillin or ampicillin	Any other regimen	Relative (95% CI)	Absolute		
Treatment failure – aminoglycoside plus penicillin versus gentamycin/clindamycin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	36/100 (36%)	14/100 (14%)	RR 2.57 (1.48 to 4.46)	220 more per 1000 (from 67 more to 484 more)	⊕OOO VERY LOW	CRITICAL
Treatment failure – aminoglycoside plus ampicillin versus piperacillin/tazobactam												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	5/42 (11.9%)	3/14 (21.4%)	RR 0.56 (0.15 to 2.03)	94 fewer per 1000 (from 182 fewer to 221 more)	⊕OOO VERY LOW	CRITICAL
Severe complication – aminoglycoside plus penicillin versus gentamycin/clindamycin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/100 (0%)	4/100 (4%)	RR 0.11 (0.01 to 2.04)	36 fewer per 1000 (from 40 fewer to 42 more)	⊕OOO VERY LOW	CRITICAL
Severe complication – aminoglycoside plus ampicillin versus piperacillin/tazobactam												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	0/42 (0%)	0/14 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Wound infection – aminoglycoside plus penicillin versus gentamycin/clindamycin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	8/100 (8%)	16/100 (16%)	RR 0.50 (0.22 to 1.12)	80 fewer per 1000 (from 125 fewer to 19 more)	⊕OOO VERY LOW	CRITICAL
Wound infection – aminoglycoside plus ampicillin versus piperacillin/tazobactam												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	3/42 (7.1%)	0/14 (0%)	RR 2.44 (0.13 to 44.57)	—	⊕OOO VERY LOW	CRITICAL
Allergic reaction – aminoglycoside plus penicillin versus gentamycin/clindamycin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	2/100 (2%)	2/100 (2%)	RR 1 (0.14 to 6.96)	0 fewer per 1000 (from 17 fewer to 119 more)	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Aminoglycoside plus penicillin or ampicillin	Any other regimen	Relative (95% CI)	Absolute		
Allergic reaction – aminoglycoside plus ampicillin versus piperacillin/tazobactam												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/42 (0%)	0/14 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Diarrhoea – aminoglycoside plus penicillin versus gentamycin/clindamycin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	2/100 (2%)	0/100 (0%)	RR 5.00 (0.24 to 102.85)	—	⊕OOO VERY LOW	CRITICAL
Diarrhoea – aminoglycoside plus ampicillin versus piperacillin/tazobactam												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	0/42 (0%)	0/14 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL

1 One study with design limitations.
2 Wide confidence interval crossing the line of no effect and small sample size.
3 Wide confidence interval crossing the line of no effect, small sample size and few events.
4 No events.

Table 20c. Antibiotic regimens to treat women diagnosed with postpartum endometritis (penicillin plus beta-lactamase inhibitor versus others)

Source: Mackeen AD, Packard RE, Ota E, Speer L. Antibiotic regimens for postpartum endometritis. Cochrane Database Syst Rev. 2015;2:CD001067.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Beta-lactamase inhibitor combination versus any other regimen	Any other regimen	Relative (95% CI)	Absolute		
Treatment failure – penicillin plus beta-lactamase inhibitor versus lincosamides												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	37/250 (14.8%)	34/245 (13.9%)	RR 1.07 (0.70 to 1.64)	10 more per 1000 (from 42 fewer to 89 more)	⊕⊕OO LOW	CRITICAL
Treatment failure – penicillin plus beta-lactamase inhibitor versus cephalosporins												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	3/25 (12%)	3/27 (11.1%)	RR 1.08 (0.26 to 4.42)	9 more per 1000 (from 82 fewer to 380 more)	⊕OOO VERY LOW	CRITICAL
Treatment failure – penicillin plus beta-lactamase inhibitor versus penicillins												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	3/64 (4.7%)	6/91 (6.6%)	RR 1.24 (0.39 to 3.93)	16 more per 1000 (from 40 fewer to 193 more)	⊕OOO VERY LOW	CRITICAL
Treatment failure – penicillin plus beta-lactamase inhibitor versus carbapenems												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	107/118 (90.7%)	112/120 (93.3%)	RR 0.97 (0.90 to 1.05)	28 fewer per 1000 (from 93 fewer to 47 more)	⊕⊕⊕O MODERATE	CRITICAL
Treatment failure – penicillin plus beta-lactamase inhibitor versus nitroimidazoles												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	3/32 (9.4%)	3/35 (8.6%)	RR 1.09 (0.24 to 5.04)	8 more per 1000 (from 65 fewer to 346 more)	⊕OOO VERY LOW	CRITICAL
Severe complication – penicillin plus beta-lactamase inhibitor versus lincosamides												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	4/78 (5.1%)	1/82 (1.2%)	RR 4.32 (0.51 to 36.95)	40 more per 1000 (from 6 fewer to 438 more)	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Beta-lactamase inhibitor combination versus any other regimen	Any other regimen	Relative (95% CI)	Absolute		
Severe complication – penicillin plus beta-lactamase inhibitor versus penicillin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	0/14 (0%)	0/42 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Wound infection – penicillin plus beta-lactamase inhibitor versus lincosamides												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	0/37 (0%)	0/40 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Wound infection – penicillin plus beta-lactamase inhibitor versus penicillin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/14 (0%)	3/42 (7.1%)	RR 0.41 (0.02 to 7.47)	42 fewer per 1000 (from 70 fewer to 462 more)	⊕OOO VERY LOW	CRITICAL
Allergic reaction – penicillin plus beta-lactamase inhibitor versus lincosamides												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	0/60 (0%)	0/64 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Allergic reaction – penicillin plus beta-lactamase inhibitor versus penicillin												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	1/64 (1.6%)	1/91 (1.1%)	RR 0.98 (0.06 to 15.23)	0 fewer per 1000 (from 10 fewer to 156 more)	⊕OOO VERY LOW	CRITICAL
Diarrhoea – penicillin plus beta-lactamase inhibitor versus lincosamides												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	4/78 (5.1%)	4/82 (4.9%)	RR 1.08 (0.29 to 4.01)	4 more per 1000 (from 35 fewer to 147 more)	⊕OOO VERY LOW	CRITICAL
Diarrhoea – penicillin plus beta-lactamase inhibitor versus cephalosporins												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	1/13 (7.7%)	2/14 (14.3%)	RR 0.54 (0.06 to 5.26)	66 fewer per 1000 (from 134 fewer to 609 more)	⊕OOO VERY LOW	CRITICAL
Diarrhoea – penicillin plus beta-lactamase inhibitor versus penicillin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	0/14 (0%)	0/42 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Beta-lactamase inhibitor combination versus any other regimen	Any other regimen	Relative (95% CI)	Absolute		
Maternal hospital stay (days) – penicillin plus beta-lactamase inhibitor versus penicillin (better outcomes indicated by lower values)												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[5]	none	50	49	—	MD 0.80 higher (0.09 lower to 1.69 higher)	⨁OOO VERY LOW	CRITICAL

1 The study or most studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect.
3 Wide confidence interval crossing the line of no effect, small sample size and few events.
4 No events.
5 Wide confidence interval crossing the line of no effect, line of no effect and small sample.

Table 20d. Antibiotic regimens to treat women diagnosed with postpartum endometritis (aztreonam plus clindamycin versus others)

Source: Mackeen AD, Packard RE, Ota E, Speer L. Antibiotic regimens for postpartum endometritis. Cochra ne Database Syst Rev. 2015;2:CD001067.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Aztreonam plus clindamycin	Any other regimen	Relative (95% CI)	Absolute		
Treatment failure – aztreonam plus clindamycin versus trospectomycin plus aztreonam												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	21/210 (10%)	14/212 (6.6%)	RR 1.49 (0.78 to 2.84)	32 more per 1000 (from 15 fewer to 122 more)	⊕⊕OO LOW	CRITICAL
Treatment failure – aztreonam plus clindamycin versus gentamicin plus clindamycin												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	3/89 (3.4%)	7/92 (7.6%)	RR 0.45 (0.12 to 1.67)	42 fewer per 1000 (from 67 fewer to 51 more)	⊕OOO VERY LOW	CRITICAL
Severe complication – aztreonam plus clindamycin versus gentamicin plus clindamycin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	0/31 (0%)	0/31 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Wound infection – aztreonam plus clindamycin versus gentamicin plus clindamycin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	1/56 (1.8%)	1/61 (1.6%)	RR 1.09 (0.07 to 17.00)	1 more per 1000 (from 15 fewer to 262 more)	⊕OOO VERY LOW	CRITICAL
Allergic reaction – aztreonam plus clindamycin versus gentamicin plus clindamycin												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	2/89 (2.2%)	1/92 (1.1%)	RR 1.71 (0.23 to 12.54)	8 more per 1000 (from 8 fewer to 125 more)	⊕OOO VERY LOW	CRITICAL
Diarrhoea – aztreonam plus clindamycin versus gentamicin plus clindamycin												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	2/58 (3.4%)	1/61 (1.6%)	RR 2.10 (0.20 to 22.58)	18 more per 1000 (from 13 fewer to 354 more)	⊕OOO VERY LOW	CRITICAL

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Aztreonam plus clindamycin	Any other regimen	Relative (95% CI)	Absolute		
Maternal hospital stay (days) – aztreonam plus clindamycin versus gentamicin plus clindamycin (better outcomes indicated by lower values)												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	58	61	—	MD 0.45 lower (1.15 lower to 0.25 higher)	⊕OOO VERY LOW	CRITICAL

1 The study or studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect.
3 Wide confidence interval crossing the line of no effect, small sample size and few events.
4 No events.

Table 20e. Antibiotic regimens to treat women diagnosed with postpartum endometritis (longer versus shorter half-life of the same agent)

Source: Mackeen AD, Packard RE, Ota E, Speer L. Antibiotic regimens for postpartum endometritis. Cochrane Database Syst Rev. 2015;2:CD001067.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Agent with longer half-life	Similar agent with shorter half-life	Relative (95% CI)	Absolute		
Treatment failure												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	37/298 (12.4%)	39/186 (21%)	RR 0.61 (0.40 to 0.92)	82 fewer per 1000 (from 17 fewer to 126 fewer)	⊕⊕⊕O MODERATE	CRITICAL
Severe complication												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	1/232 (0.4%)	2/123 (1.6%)	RR 0.27 (0.02 to 2.89)	12 fewer per 1000 (from 16 fewer to 31 more)	⊕⊕OO LOW	CRITICAL
Wound infection												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	3/298 (1%)	3/186 (1.6%)	RR 0.70 (0.13 to 3.68)	5 fewer per 1000 (from 14 fewer to 43 more)	⊕⊕OO LOW	CRITICAL
Allergic reaction												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	serious[2]	none	6/248 (2.4%)	4/129 (3.1%)	RR 0.78 (0.22 to 2.72)	7 fewer per 1000 (from 24 fewer to 53 more)	⊕⊕OO LOW	CRITICAL
Diarrhoea												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[3]	none	6/66 (9.1%)	4/63 (6.3%)	RR 1.43 (0.42 to 4.84)	27 more per 1000 (from 37 fewer to 244 more)	⊕⊕OO LOW	CRITICAL
Length of stay (better outcomes indicated by lower values)												
1	randomized trial	no serious risk of bias	no serious inconsistency	no serious indirectness	very serious[4]	none	66	63	—	MD 0.60 lower (1.45 lower to 0.25 higher)	⊕⊕OO LOW	CRITICAL

1 The study or studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect.
3 Wide confidence interval crossing the line of no effect, small sample size and few events.
4 Wide confidence interval crossing the line of no effect and small sample size.

Table 20f. Antibiotic regimens to treat women diagnosed with postpartum endometritis (metronidazole plus gentamicin versus other regimen)

Source: Mackeen AD, Packard RE, Ota E, Speer L. Antibiotic regimens for postpartum endometritis. Cochrane Database Syst Rev. 2015;2:CD001067.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Metronidazole plus gentamicin	Any other regimen	Relative (95% CI)	Absolute		
Treatment failure – metronidazole plus gentamicin versus penicillins (ampicillin plus sulbactam)												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	3/35 (8.6%)	3/32 (9.4%)	RR 0.91 (0.20 to 4.21)	8 fewer per 1000 (from 75 fewer to 301 more)	⊕OOO VERY LOW	CRITICAL

1 One study with design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.

Table 20g. Antibiotic regimens to treat women diagnosed with postpartum endometritis (once-daily versus thrice-daily gentamicin)

Source: Mackeen AD, Packard RE, Ota E, Speer L. Antibiotic regimens for postpartum endometritis. Cochrane Database Syst Rev. 2015;2:CD001067.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Once-daily gentamicin dosing	Thrice-daily (eight-hourly) gentamicin dosing	Relative (95% CI)	Absolute		
Treatment failure												
4	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	39/228 (17.1%)	58/235 (24.7%)	RR 0.70 (0.49 to 1.00)	74 fewer per 1000 (from 126 fewer to 0 more)	⊕⊕⊕O MODERATE	CRITICAL
Nephrotoxicity												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/173 (0.6%)	0/180 (0%)	RR 3.04 (0.13 to 73.43)	—	⊕OOO VERY LOW	CRITICAL
Length of stay (better outcomes indicated by lower values)												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	158	164	—	MD 0.73 lower (1.27 to 0.20 lower)	⊕⊕⊕O MODERATE	CRITICAL

1 Most of the studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect and few events.

Table 20h. Antibiotic regimens to treat women diagnosed with postpartum endometritis (continued oral treatment after intravenous course)

Source: Mackeen AD, Packard RE, Ota E, Speer L. Antibiotic regimens for postpartum endometritis. Cochrane Database Syst Rev. 2015;2:CD001067.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Continued oral treatment after intravenous antibiotic course	No treatment after intravenous antibiotic course	Relative (95% CI)	Absolute		
Treatment failure												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	3/37 (8.1%)	4/72 (5.6%)	RR 1.46 (0.34 to 6.18)	26 more per 1000 (from 37 fewer to 288 more)	⊕OOO VERY LOW	CRITICAL
Severe complication												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[3]	none	0/70 (0%)	0/74 (0%)	not pooled	not pooled	⊕OOO VERY LOW	CRITICAL
Wound infection												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/38 (2.6%)	0/43 (0%)	RR 3.38 (0.14 to 80.7)	—	⊕OOO VERY LOW	CRITICAL
Urinary tract infection												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/38 (2.6%)	1/43 (2.3%)	RR 1.13 (0.07 to 17.48)	3 more per 1000 (from 22 fewer to 383 more)	⊕OOO VERY LOW	CRITICAL
Recurrent endometritis												
3	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	1/107 (0.9%)	0/146 (0%)	RR 2.91 (0.12 to 68.81)	—	⊕OOO VERY LOW	CRITICAL
Length of stay (better outcomes indicated by lower values)												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[4]	none	32	31	—	MD 0.21 lower (1.44 lower to 1.02 higher)	⊕OOO VERY LOW	CRITICAL

1 The study or most studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.
3 No events.
4 Wide confidence interval crossing the line of no effect and small sample size.

Table 20i. Antibiotic regimens to treat women diagnosed with postpartum endometritis (poor versus good activity against penicillase-resistant bacteria)

Source: Mackeen AD, Packard RE, Ota E, Speer L. Antibiotic regimens for postpartum endometritis. Cochrane Database Syst Rev. 2015;2:CD001067.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Poor activity against penicillin-resistant anaerobic bacteria	Good activity against penicillin-resistant anaerobic bacteria	Relative (95% CI)	Absolute		
Treatment failure												
7	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	92/421 (21.9%)	40/353 (11.3%)	RR 1.94 (1.38 to 2.72)	107 more per 1000 (from 43 more to 195 more)	⊕⊕⊕O MODERATE	CRITICAL
Severe complication												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	5/364 (1.4%)	2/307 (0.7%)	RR 1.68 (0.45 to 6.29)	4 more per 1000 (from 4 fewer to 34 more)	⊕OOO VERY LOW	CRITICAL
Wound infection												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	no serious imprecision	none	44/398 (11.1%)	23/342 (6.7%)	RR 1.88 (1.17 to 3.02)	59 more per 1000 (from 11 more to 136 more)	⊕⊕⊕O MODERATE	CRITICAL
Allergic reaction												
5	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	4/321 (1.2%)	3/307 (1%)	RR 1.34 (0.34 to 5.36)	3 more per 1000 (from 6 fewer to 43 more)	⊕OOO VERY LOW	CRITICAL
Diarrhoea												
6	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	2/417 (0.5%)	9/326 (2.8%)	RR 0.29 (0.08 to 1.04)	20 fewer per 1000 (from 25 fewer to 1 more)	⊕OOO VERY LOW	CRITICAL
Length of stay (better outcomes indicated by lower values)												
2	randomized trials	serious[1]	no serious inconsistency	no serious indirectness	serious[3]	none	126	141	—	MD 0.37 higher (0 to 0.73 higher)	⊕⊕OO LOW	CRITICAL

1 The study or most studies contributing to the pooled effect had design limitations.
2 Wide confidence interval crossing the line of no effect and few events.
3 Small sample size.

Table 20j. Antibiotic regimens to treat women diagnosed with postpartum endometritis (oral ofloxacin/clindamycin versus intravenous clindamycin/gentamicin)

Source: Mackeen AD, Packard RE, Ota E, Speer L. Antibiotic regimens for postpartum endometritis. Cochrane Database Syst Rev. 2015;2:CD001067.

Quality assessment							No. of patients		Effect		Quality	Importance
No. of studies	Design	Risk of bias	Inconsistency	Indirectness	Imprecision	Other considerations	Oral ofloxacin/ clindamycin	Intravenous clindamycin/ gentamicin	Relative (95% CI)	Absolute		
Treatment failure												
1	randomized trial	serious[1]	no serious inconsistency	no serious indirectness	very serious[2]	none	2/8 (25%)	3/8 (37.5%)	RR 0.67 (0.15 to 2.98)	124 fewer per 1000 (from 319 fewer to 743 more)	⊕OOO VERY LOW	CRITICAL

1 One study with design limitations.
2 Wide confidence interval crossing the line of no effect, small sample size and few events.