Supplement 5. Risk of bias (ROB) assessments for included studies

Summary of ROB for studies of screening effectiveness

First Author, Year	Selection					Comparability		Outcome				Total Score[a] (max 9)	Selective Outcome Reporting[b]
	Representativeness of exposed cohort	Selection of non-exposed cohort	Ascertainment of exposure	Outcome not present at start of study (pyelonephritis/ other outcomes)	Total	Comparability of cohorts	Total	Assessment of outcome	Adequacy of length of follow-up	Adequacy of follow-up of cohorts	Total		
Gérard, 1983	1	1	0	0/1	3	0	0	1	1	1	3	6	Suspected[c]
Gratacós, 1994	1	1	0	0/1	3	0	0	1	1	1	3	6	Suspected[d]
Rhode, 2007	1	1	1	0/1	4	1	1	1	1	1	3	8	Suspected[e]
Uncu, 2002	1	1	1	0/1	4	0	0	1	1	0	2	6	Not suspected[f]

[a]Assessed using the Newcastle-Ottawa Quality Assessment Scale[31]

[b]Assessed due to concern regarding reporting bias in the studies, but assessment not included in the total score

[c]Did not report on fetal abnormalities

[d]Did not report on spontaneous abortion, perinatal mortality, preterm delivery or fetal abnormalities

[e]Did not report on spontaneous abortion, perinatal mortality, or fetal abnormalities

[f]Reported on all outcomes, including fetal death >20 weeks of gestation (eligible for perinatal mortality)

ROB for studies of screening effectiveness

Domain	Author's judgement	Support for judgement
Gérard, 1983 (cohort)		
Representativeness of the exposed cohort	1	Included all pregnant women who visited the clinic at <25 wks GA.
Selection of the non-exposed cohort	1	Formed retrospectively, pregnant women attending the clinic in the 10 previous months (before implementation of screening).
Ascertainment of exposure	0	Not reported.
Outcome not present at start of study (pyelonephritis/other outcomes)	0/1	Not ascertained for pyelonephritis, other outcomes could not have been present at the start of the study.
Comparability of the cohorts	0	No evidence of comparability.
Assessment of outcome	1	Appear to have used a chart review.
Adequacy of length of follow-up	1	Follow-up until delivery and for 3-6 months post-partum for those with ≥2 instances of asymptomatic bacteriuria.
Adequacy of follow-up of cohorts	1	No loss to follow-up.
Selective outcome reporting[b]	suspected	Did not report on fetal abnormalities.
Total score (maximum 10)	6	
Gratacós, 1944 (cohort)		
Representativeness of the exposed cohort	1	All pregnant women presenting to the clinic at <25 wks GA between January 1991 and December 1992.
Selection of the non-exposed cohort	1	Women who visited the same clinic in years (January 1987 to December 1990) before implementation of the screening program.
Ascertainment of exposure	0	Not reported.
Outcome not present at start of study (pyelonephritis/other outcomes)	0/1	Not ascertained for pyelonephritis, other outcomes could not have been present at the start of the study.
Comparability of the cohorts	0	No evidence of comparability.
Assessment of outcome	1	Used a chart review – 'was recorded for 6 years'.
Adequacy of length of follow-up	1	Followed-up until delivery.
Adequacy of follow-up of cohorts	1	10 (6.9%) lost to follow-up.
Selective outcome reporting[b]	suspected	Did not report on spontaneous abortion, perinatal mortality, preterm delivery or fetal abnormalities.
Total score (maximum 10)	6	
Rhode, 2007 (cohort)		
Representativeness of the exposed cohort	1	All pregnant women who enrolled for care and delivered after August 15, 2002.
Selection of the non-exposed cohort	1	All pregnant women who enrolled for care at the same practice and delivered before August 15, 2002.

Domain	Author's judgement	Support for judgement
Ascertainment of exposure	1	Used delivery records.
Outcome not present at start of study (pyelonephritis/other outcomes)	0/1	Not ascertained for pyelonephritis, other outcomes could not have been present at the start of the study.
Comparability of the cohorts	1	Compared 10 demographic factors, showing that groups were similar.
Assessment of outcome	1	Used a chart review.
Adequacy of length of follow-up	1	Followed-up until delivery of the patient left the practice.
Adequacy of follow-up of cohorts	1	112 (4.6%) lost to follow-up.
Selective outcome reporting[b]	suspected	Did not report on spontaneous abortion, perinatal mortality or fetal abnormalities.
Total score (maximum 10)	8	
Uncu, 2002 (cohort)		
Representativeness of the exposed cohort	1	All pregnant women <32 wks GA seen at an antenatal outpatient clinic.
Selection of the non-exposed cohort	1	Women who visited the clinic prior to the start of the screening study.
Ascertainment of exposure	1	Used delivery records.
Outcome not present at start of study (pyelonephritis/other outcomes)	0/1	Not ascertained for pyelonephritis, other outcomes could not have been present at the start of the study.
Comparability of the cohorts	0	No evidence of comparability.
Assessment of outcome	1	Used delivery records.
Adequacy of length of follow-up	1	Follow-up until post-delivery.
Adequacy of follow-up of cohorts	0	Not reported.
Selective outcome reporting[b]	not suspected	Reported on all outcomes, including fetal death >20 wks GA (eligible for perinatal mortality).
Total score (maximum 10)	6	

GA: gestational age; wks: weeks

[a]Assessed using the Newcastle-Ottawa Quality Assessment Scale

[b]Assessed due to concern regarding reporting bias in the studies, but assessment not included in the total score

Summary of ROB for studies of women's outcome valuation

First Author, Year	Did the study address a clearly focused question / issue?	Is the research method (study design) appropriate for answering the research question?	Is the method of selection of the subjects clearly described?	Could the way the sample was obtained introduce bias?	Was the sample of subjects representative of the population to which the findings will be referred?	Was the sample size based on pre-study considerations of statistical power?	Was a satisfactory response rate achieved?	Are the measurements (questionnaires) likely to be valid and reliable?	Was the statistical significance assessed?	Are confidence intervals given for the main results?	Could there be confounding factors that haven't been accounted for?	Can the results be applied to your organization?
Butters, 1990	1	1	1	2	1	2	1	2	1	3	1	1
Kazemier, 2015	2	2	1	3	1	2	2	2	3	3	2	3
Lupattelli, 2014	1	1	1	1	1	2	2	2	1	1	3	1
Mashayekhi, 2009	1	1	1	1	1	2	2	2	1	3	1	1
Nordeng, 2010	1	1	1	1	1	2	2	2	1	3	2	1
Sanz, 2000	1	1	3	2	1	2	2	2	1	3	1	1
Sharma, 2006	1	1	3	2	1	2	2	1	1	3	1	1
Twigg, 2016	1	1	1	1	1	2	2	1	1	3	1	1

[a]Assessed using a tool developed by the Center for Evidence-based Management[32] for cross-sectional studies (surveys)

1=Yes, 2=Can't Tell, 3=No

ROB for studies of women's outcome valuation

Domain	Author's judgement*	Support for judgement
Butters, 1990 (cross-sectional survey)		
Clearly focused question/issue	1	Awareness of the effects of commonly used drugs, cigarettes and alcohol on the fetus
Appropriate research method (study design)	1	Cross-sectional survey of women in postnatal wards
Selection of subjects clearly described	1	Provides inclusion and exclusion criteria, outlines selection methods
Sampling method introduces bias	2	Sampling was not random, may be consecutive
Sample of subjects representative of the population	1	Included women who were recently post-partum
Sample size based on pre-study considerations of statistical power	2	Not reported
Satisfactory response rate	1	Response rate was 87%
Questionnaires are likely to be valid and reliable	2	Validation of survey questions was not reported
Statistical significance assessed	1	Chi-square analysis
Confidence intervals for main results	3	No confidence intervals reported
Confounding factors not accounted for	1	Confounders were not addressed with study design or analysis
Applicability of the results	1	Identifies areas for further education in this population
Kazemier, 2015 (Prospective multi-centre screening cohort with embedded treatment RCT; valuation of outcomes obtained/reported in cross-sectional manner)		
Clearly focused question/issue	2	To assess maternal and neonatal consequences of treating and not treating asymptomatic bacteriuria in pregnancy; however, no direct examination of outcome valuation set out in protocol or study methods
Appropriate research method (study design)	2	Appears to be cross-sectional for information regarding why eligible women did not consent to participate in treatment trial
Selection of subjects clearly described	1	Clear inclusion and exclusion criteria for screening cohort and treatment RCT, with study flow documented
Sampling method introduces bias	3	Various clinics, hospitals and ultrasound centres in the Netherlands
Sample of subjects representative of the population	1	Women 18 years or older with singleton pregnancy without symptoms of urinary tract infection.
Sample size based on pre-study considerations of statistical power	2	Sample size estimates reported in statistical analysis, but none specified for cross-section of women for outcome valuation
Satisfactory response rate	2	Authors did not report response rate specifically for cross-section of women who declined treatment. Of 255 ASB-positive women, 163 received no treatment (of whom 155 did not want treatment for specified reason), but authors do not report if those who participated in treatment trial were asked/provided reason(s)

Questionnaires are likely to be valid and reliable	2	Validation of reason(s) for dissenting not reported
Statistical significance assessed	3	Fisher's exact test for outcomes from screening cohort and treatment trial; no significance for outcome valuation data
Confidence intervals for main results	3	CI's reported for outcomes from screening cohort and treatment trial; no CI's for outcome valuation data
Confounding factors not accounted for	2	Assessed confounders for outcomes from screening cohort and treatment trial, but not for outcome valuation data
Applicability of the results	3	Medication avoidance for asymptomatic conditions in pregnancy among Dutch women acknowledged by study authors to align with Dutch guidelines (not routinely screening and treating women with ASB); may be more applicable for the Netherlands but not for Canada where routine screening and treatment is standing practice
Lupattelli, 2014 (cross-sectional survey)		
Clearly focused question/issue	1	Association of health literacy and risk perception
Appropriate research method (study design)	1	Cross-sectional survey of pregnant women
Selection of subjects clearly described	1	Self-selection, voluntary internet survey
Sampling method introduces bias	1	Informal sampling method – self-selection was not random or consecutive
Sample of subjects representative of the population	1	Pregnant women with internet access
Sample size based on pre-study considerations of statistical power	2	Not reported
Satisfactory response rate	2	Large n, no response rate reported
Questionnaires are likely to be valid and reliable	2	Validation of survey questions was not reported
Statistical significance assessed	1	Mann-Whitney U test, Spearman's rank correlation coefficient, logistic regression
Confidence intervals for main results	1	Reported in Table 3
Confounding factors not accounted for	3	Adjusted for confounders in statistical analysis
Applicability of the results	1	Health literacy is significantly associated with adherence to pharmacotherapy in pregnant women
Mashayekhi, 2009 (cross-sectional survey)		
Clearly focused question/issue	1	Awareness of pregnant women on the effects of drugs during pregnancy
Appropriate research method (study design)	1	Cross-sectional survey of pre and postnatal women
Selection of subjects clearly described	1	Reports selection methods
Sampling method introduces bias	1	Sampling was not random or consecutive
Sample of subjects representative of the population	1	Included pre and postnatal women in hospital wards

Sample size based on pre-study considerations of statistical power	2	Not reported
Satisfactory response rate	2	Large n, no response rate reported
Questionnaires are likely to be valid and reliable	2	Validation of survey questions was not reported
Statistical significance assessed	1	Chi-square, Student's t-test, Pearson correlations, ANOVA
Confidence intervals for main results	3	Not reported
Confounding factors not accounted for	1	Confounders were not addressed with study design or analysis
Applicability of the results	1	Identifies roles for pharmacists in education of this population
Nordeng, 2010 (cross-sectional survey)		
Clearly focused question/issue	1	Women's perception of risk during pregnancy
Appropriate research method (study design)	1	Cross-sectional survey of pregnant women and mothers
Selection of subjects clearly described	1	Self-selection, voluntary internet survey
Sampling method introduces bias	1	Informal sampling method – self-selection was not random or consecutive
Sample of subjects representative of the population	1	Pregnant women and young mothers (child less than 5 years) with internet access
Sample size based on pre-study considerations of statistical power	2	Not reported
Satisfactory response rate	2	Large n, no response rate reported
Questionnaires are likely to be valid and reliable	2	Validation of survey questions was not reported
Statistical significance assessed	1	Linear regression, ANOVA, Student's t-test
Confidence intervals for main results	3	Confidence intervals were available in graph format only
Confounding factors not accounted for	2	Addressed in limitations
Applicability of the results	1	Indicates women overestimate risks and more education in this area is needed.
Sanz, 2000 (cross-sectional)		
Clearly focused question/issue	1	Drug utilization in pregnant women
Appropriate research method (study design)	1	Cross sectional, visual analogue scale
Selection of subjects clearly described	3	Selection methods are not reported for all populations
Sampling method introduces bias	2	Not reported for all populations
Sample of subjects representative of the population	1	Pregnant women attending out-patient clinic at a hospital
Sample size based on pre-study considerations of statistical power	2	Not reported
Satisfactory response rate	2	Small n, no response rate reported
Questionnaires are likely to be valid and reliable	2	Validation of VAS questions was not reported
Statistical significance assessed	1	Mann-Whitney U, Kruskal Wallis, Chi-squared

Confidence intervals for main results	3	Only in graph format
Confounding factors not accounted for	1	Confounders were not addressed with study design or analysis
Applicability of the results	1	Pregnant women have high perceptions of teratogenic risk
Sharma, 2006 (cross-sectional survey)		
Clearly focused question/issue	1	Drug utilization in pregnant women
Appropriate research method (study design)	1	Cross-sectional survey of pregnant women
Selection of subjects clearly described	3	Selected from an antenatal clinic but no sampling methods
Sampling method introduces bias	2	Not reported
Sample of subjects representative of the population	1	Pregnant women
Sample size based on pre-study considerations of statistical power	2	Not reported
Satisfactory response rate	2	Large n, no response rate reported
Questionnaires are likely to be valid and reliable	1	Women's statements were confirmed through medical records when available
Statistical significance assessed	1	Chi-squared test
Confidence intervals for main results provided	3	Not reported
Confounding factors not accounted for	1	Confounders were not addressed with study design or analysis
Applicability of the results	1	Education of women of child-bearing age regarding benefits and harms of drug use during pregnancy is needed
Twigg, 2016 (cross-sectional survey)		
Clearly focused question/issue	1	Risk perception of medications in pregnant women and relationship with use
Appropriate research method (study design)	1	Cross-sectional survey of pregnant women and new mothers
Selection of subjects clearly described	1	Self-selection, voluntary internet survey
Sampling method introduces bias	1	Informal sampling method – self-selection was not random or consecutive
Sample of subjects representative of the population	1	Pregnant women or women <1 year post-natal with internet access
Sample size based on pre-study considerations of statistical power	2	Not reported
Satisfactory response rate	2	Large n, no response rate reported
Questionnaires are likely to be valid and reliable	1	Used validated BMQ-General questionnaire
Statistical significance assessed	1	Chi-square, Fisher's exact test, Mann-Whitney U, Independent t-test
Confidence intervals for main results	3	No confidence intervals for the main results, descriptive statistics only
Confounding factors not accounted for	1	Adjustment for confounding not reported in design or analysis

Applicability of the results	1	Medication use by pregnant women is impacted by beliefs about risk

[a]Assessed using a tool developed by the Center for Evidence-based Management for cross-sectional studies

* 1=Yes, 2=Can't Tell, 3=No

ANOVA: analysis of variance; ASB: asymptomatic bacteriuria; BMQ: beliefs about medicine questionnaire; n: sample size; RCT:randomized clinical trial; VAS: visual analogue scale

Summary of ROB for studies of treatment effectiveness

Study	Sequence Generation	Allocation Concealment	Blinding of Participants and Personnel[1]	Blinding of Outcome Assessors[1]	Incomplete Reporting[2]	Selective Reporting[3]	Other Bias[4]	Overall Risk of Bias*
Brumfitt 1975								
Elder 1966								
Elder 1971								
Foley 1987								
Furness 1975								
Gold 1966								
Kass 1960								
Kazemier 2015								
Kincaid-Smith 1965								
Little 1966								
Mulla 1960								
Pathak 1969								
Thomsen 1987								
Williams 1969								
Wren 1969								

[a] Assessed using the Cochrane Risk of Bias[34] tool

[1] For the blinding domains, objective outcomes were considered to be at lower ROB than subjective outcomes

[2] For the incomplete reporting domain, 10-30% loss to follow-up were considered as Unclear ROB if no apparent between groups or reasons were provided

[3] For the selective reporting domain, a default of Low ROB was used for selective reporting when this was undetected or not highly suspected

[4] Assessed as: Low risk of bias if no other sources of bias are identified, High risk of bias if other sources of bias detected such as: participant characteristics (baseline imbalances), study design characteristics (crossover, cluster-randomized, or blocked randomization in trials without blinding); Unclear risk of bias assessment not applicable for this domain.

* Assessed as: Low if all domains are assessed as low, Unclear if at least one domain is assessed as unclear and no domains are assessed as high, or High if at least one domain is assessed as high.

Legend:

- Low risk
- Unclear risk
- High risk

ROB for individual studies of treatment effectiveness

Domain	Author's judgement	Support for judgement
Brumfitt, 1975 (RCT)		
Random sequence generation	Unclear	No description of the sequence generation process, how women were assigned to treatment or placebo, unequal numbers in treatment and placebo groups.
Allocation concealment	Unclear	No information provided to judge.
Blinding of participants and personnel	Low	"…were given placebo under double-blind conditions". Method not described in sufficient detail. Objective outcomes.
Blinding of outcome assessment	Low	"…were given placebo under double-blind conditions". Method not described in sufficient detail. Objective outcomes.
Incomplete outcome data	High	Inconsistencies in total number of women not explained (number of <2500g babies provided for 413/326 bacteriuric women); results not provided for pyelonephritis for all women in treated group (only subset).
Selective reporting	High	Results not provided for pyelonephritis for all women allocated to treatment.
Other bias	Low	Insufficient information to judge.
Overall risk of bias	High	
Elder, 1966 (RCT)		
Random sequence generation	Unclear	"…a random sequence". Insufficient information to judge.
Allocation concealment	Unclear	No information provided to judge.
Blinding of participants and personnel	Low	"…double-blind trial"; no information provided to judge. Objective outcomes.
Blinding of outcome assessment	Low	"…double-blind trial"; no information provided to judge. Objective outcomes.
Incomplete outcome data	Low	Information provided on women lost to follow-up, reasonably balanced between groups.
Selective reporting	High	Result not provided for pyelonephritis for all participants; no pregnancy outcomes (GA, birthweight).
Other bias	Low	Insufficient information to judge.
Overall risk of bias	High	
Elder, 1971 (CCT)		
Random sequence generation	High	"…alternate bacteriuric…were assigned."
Allocation concealment	High	Participants were allocated by alternation.
Blinding of participants and personnel	Unclear	"identical-appearing placebo"; insufficient information to judge.
Blinding of outcome assessment	Unclear	"identical-appearing placebo"; insufficient information to judge.
Incomplete outcome data	Unclear	Insufficient information to judge.
Selective reporting	Unclear	Unable to judge; twin deliveries were excluded.
Other bias	Low	Insufficient information to judge.
Overall risk of bias	High	
Foley, 1987		

Domain	Author's judgement	Support for judgement
Random sequence generation	Low	Allocated to treatment or no treatment by "toss of a coin".
Allocation concealment	Unclear	No information to judge.
Blinding of participants and personnel	Unclear	No description of any attempt at blinding; not placebo-controlled. Objective outcomes.
Blinding of outcome assessment	Unclear	No description of any attempt at blinding; not placebo-controlled. Objective outcomes.
Incomplete outcome data	Unclear	Loss to follow-up: 19%; no reasons provided for missing outcome data.
Selective reporting	High	No pregnancy outcomes (GA, birthweight).
Other bias	Low	Insufficient information to judge.
Overall risk of bias	High	
Furness, 1975 (RCT)		
Random sequence generation	Unclear	"by random allocation"; no additional information to judge.
Allocation concealment	Unclear	No information to judge.
Blinding of participants and personnel	Unclear	Not placebo-controlled. Objective outcomes.
Blinding of outcome assessment	Unclear	No information to judge.
Incomplete outcome data	High	20/226 women withdrawn from trial, no details provided. All women included in outcome of pyelonephritis, 17% loss to follow-up or low birthweight and GA at delivery.
Selective reporting	Unclear	Unable to separate incidence of pyelonephritis during pregnancy and puerperium; results combined.
Other bias	Low	Insufficient information to judge.
Overall risk of bias	High	
Gold, 1966 (CCT)		
Random sequence generation	High	Women allocated to treatment based on study number: odd number treatment, even number control.
Allocation concealment	High	Allocated to treatment based on study number.
Blinding of participants and personnel	Unclear	Placebo-controlled; no further details provided. Objective outcomes.
Blinding of outcome assessment	Unclear	No information to judge. Objective outcomes.
Incomplete outcome data	Low	Does not appear to be any loss to follow-up.
Selective reporting	Unclear	No definition provided for prematurity.
Other bias	Low	Insufficient information to judge.
Overall risk of bias	High	
Kass, 1960 (CCT)		
Random sequence generation	High	"alternate women received a placebo".
Allocation concealment	High	Allocation based on alternation: "alternate women received a placebo".

Domain	Author's judgement	Support for judgement
Blinding of participants and personnel	Low	Placebo was used and "the nature of the treatment was not known to the patient or to the attending obstetrical staff".
Blinding of outcome assessment	Unclear	Although a placebo was used, no further details are provided on blinding of outcome assessment. Objective outcomes.
Incomplete outcome data	Unclear	40 (21%) women were not enrolled either because they were >32 weeks GA before treatment could be started (n=30), or already received treatment for symptomatic infection (n=10). Loss to follow-up: 23 (11%) for pyelonephritis and low birthweight, no details provided; 69 (34%) for long-term persistent bacteriuria.
Selective reporting	Unclear	3 women had subsequent pregnancy and were reassigned to their original treatment group included in the analysis. In 5 placebo patients, symptomatic disease was assumed but no symptoms were documented. Not all women in symptomatic group were confirmed to have fever. Women treated for infections other than that in the urinary tract were included in the symptomatic group if they had cleared their bacteriuria.
Other bias	Low	Insufficient information to judge.
Overall risk of bias	High	
Kazemier, 2015 (RCT)		
Random sequence generation	Low	Random assignment in 1:1 ratio; computer-generated list with random block sizes of 2/4/6 participants.
Allocation concealment	Low	Women, treating physicians and researchers remained unaware of bacteriuria status and treatment allocation. Central allocation - unmasking of treatment allocation was possible by 24h telephone service.
Blinding of participants and personnel	Low	Double-blinded. Women, treating physicians and researchers remained unaware of bacteriuria status and treatment allocation. Objective outcomes.
Blinding of outcome assessment	Low	Outcomes recorded by participants on questionnaires, and from data provided by hospitals and midwives up to 6 weeks post-delivery.
Incomplete outcome data	Low	ITT and dropout rate <10% (12/255 ASB-positive)
Selective reporting	Low	Cost-effectiveness was outlined in protocol but not reported in final study methods or results.
Other bias	Low	No other sources of bias identified.
Overall risk of bias	Low	
Kincaid-Smith, 1965 (RCT)		
Random sequence generation	Unclear	No description of sequence generation process.
Allocation concealment	Low	"a code of instructions to the pharmacist ensured that the trial remained double-blind despite…alterations in therapeutic regimen".
Blinding of participants and personnel	Low	"a code of instructions to the pharmacist ensured that the trial remained double-blind despite…alterations in therapeutic regimen".
Blinding of outcome assessment	Low	"a code of instructions to the pharmacist ensured that the trial remained double-blind despite…alterations in therapeutic regimen".
Incomplete outcome data	Unclear	240 women initially identified as bacteriuric; no information available on 55 (23%) women randomized to treatment but not included in the analysis because of poor compliance (attended infrequently or failed to take tablets continuously).
Selective reporting	Unclear	Insufficient information to judge.

Domain	Author's judgement	Support for judgement
Other bias	Low	Insufficient information to judge.
Overall risk of bias	Unclear	
Little, 1966 (RCT)		
Random sequence generation	Unclear	No information to judge.
Allocation concealment	Unclear	Allocation to treatment or control was drawn for "a pool of sealed envelopes containing a slip of paper", but there was no information provided to ensure appropriate safeguards to prevent investigators being aware of the treatment group.
Blinding of participants and personnel	Unclear	Participants in the control group "were given placebo"; no further details provided. Objective outcomes.
Blinding of outcome assessment	Unclear	No information to judge. Objective outcomes.
Incomplete outcome data	Low	No missing outcome data.
Selective reporting	Unclear	Insufficient information to judge.
Other bias	Low	Insufficient information to judge.
Overall risk of bias	Unclear	
Mulla, 1960 (RCT)		
Random sequence generation	Unclear	No description of sequence generation process.
Allocation concealment	Unclear	Women were "randomly divided into two groups"; no other details provided
Blinding of participants and personnel	Unclear	Not placebo-controlled. Objective outcomes.
Blinding of outcome assessment	Unclear	No information to judge. Objective outcomes.
Incomplete outcome data	Low	No missing outcome data.
Selective reporting	High	No definition for outcome of cystopyelitis; no pregnancy outcomes (GA, birthweight).
Other bias	Low	Insufficient information to judge.
Overall risk of bias	High	
Pathak, 1969 (RCT)		
Random sequence generation	Unclear	"on a random basis". Insufficient information provided to permit further judgement.
Allocation concealment	Unclear	Method of concealment not described.
Blinding of participants and personnel	Unclear	No information to judge.
Blinding of outcome assessment	Unclear	No information to judge.
Incomplete outcome data	Low	Missing outcome data balanced; reasons similar and unlikely to have introduced bias.
Selective reporting	High	No pregnancy outcomes (GA, birthweight).
Other bias	Low	Insufficient information to judge.
Overall risk of bias	High	
Thomsen, 1987 (RCT)		

Domain	Author's judgement	Support for judgement
Random sequence generation	Unclear	Described as "randomly allocated" but no description of the sequence generation process.
Allocation concealment	Unclear	Method of concealment of allocation not described.
Blinding of participants and personnel	Unclear	Placebo-controlled, described as "double-blinded" but no additional data. Objective outcomes.
Blinding of outcome assessment	Unclear	Described as "double-blinded" but no specific information provided to ensure outcome assessment was blinded. Objective outcomes.
Incomplete outcome data	Low	No missing outcome data.
Selective reporting	Unclear	Insufficient information to judge.
Other bias	Low	Insufficient information to judge.
Overall risk of bias	Unclear	
Williams, 1969 (RCT)		
Random sequence generation	Unclear	"allocation at random"; no additional information to judge.
Allocation concealment	Unclear	No information to judge.
Blinding of participants and personnel	Unclear	No blinding, outcome may have been influenced by lack of blinding. No treatment group was given antibiotics to take if symptoms of infection developed. Objective outcomes.
Blinding of outcome assessment	Unclear	No blinding; assessment of outcome (pyelonephritis) may have been influenced by knowledge of treatment allocation. Objective outcomes.
Incomplete outcome data	Unclear	No explanation for unequal group sizes; no information provided on any missing data. An unknown number of women in the control group were given antibiotic treatment if they developed symptoms of UTI.
Selective reporting	High	No pregnancy outcomes (GA, birthweight).
Other bias	Low	Insufficient information to judge.
Overall risk of bias	High	
Wren, 1969 (CCT)		
Random sequence generation	High	Women "were divided into two groups, alternate patients being treated".
Allocation concealment	High	Women "were divided into two groups, alternate patients being treated".
Blinding of participants and personnel	Unclear	No blinding; knowledge of treatment group may have influenced outcome; women in untreated group who developed clinical UTI (33/90) were given antibiotics at the choice of the obstetrician, continued to delivery in 50% of cases. Objective outcomes.
Blinding of outcome assessment	Unclear	No blinding; however, outcome of birthweight unlikely to be influenced by lack of blinding.
Incomplete outcome data	Low	10 (6%) women not included in outcomes: 2 sets of twins excluded, 6 moved and 2 could not be traced, 3 delivered before antibiotics could be started, 1 refused treatment.
Selective reporting	Unclear	Insufficient information to judge; outcome of pyelonephritis not reported.
Other bias	Low	Insufficient information to judge.
Overall risk of bias	High	

[a]Assessed using the Cochrane Risk of Bias tool
ASB: asymptomatic bacteriuria; g: gram(s); GA: gestational age; UTI: urinary tract infection