

Guideline topic: Bacterial urinary tract infections

General comments

Unless otherwise indicated, all searches were limited to English language and adult humans. RCTs for the treatment questions were restricted to placebo or no-treatment controls. Searches were focused on bacteriuria, and excluded urethritis.

Search coverage

Patient searches

Databases covered:	Dates covered:
Cinahl	1995-2003
Embase	1995-2003
Medline	1995-2003
Total hits: 59	Sifted result:

Guidelines

Agency for Health Care Research and Quality (AHRQ)

<http://www.ahrq.gov/>

Canadian Medical Association

<http://mdm.ca/cpgsnew/cpgs/index.asp>

Centre for Clinical Effectiveness (Australia)

<http://www.med.monash.edu.au/healthservices/cce/>

Clinical Standards Board for Scotland (CSBS)

<http://www.clinicalstandards.org/>

Danish Institute for Health Technology Assessment (DIHTA)

<http://www.dihta.dk/>

Health Technology Assessment

<http://www.hta.nhsweb.nhs.uk/>

Health Technology Board for Scotland (HTBS)

<http://www.htbs.org.uk>

National Guideline Clearinghouse

<http://www.guidelines.gov/index.asp>

New Zealand Guidelines Group

<http://www.nzgg.org.nz/>

National Health and Medical Research Council (NHMRC) - Australia

<http://www.health.gov.au/nhmrc/publications/index.htm>

National Institute for Clinical Excellence (NICE)

<http://www.nice.org.uk/>

Swedish Council on Technology Assessment in Health Care (SBU)

<http://www.sbu.se/admin/index.asp>

Google search engine

<http://www.google.com/>

Total hits: 13

<p>Guidelines evaluated using AGREE instrument:</p> <p>Canadian Task Force on Preventive Health Care. The Canadian guide to clinical preventive health care : Chapter 9. Screening for asymptomatic bacteriuria in pregnancy</p> <p>Canadian Task Force on Preventive Health Care. Screening for asymptomatic bacteriuria in the elderly.</p> <p>CDC Guideline for Prevention of Catheter-associated Urinary Tract Infections</p> <p>College of Physicians and Surgeons of Manitoba. The evaluation of urinary tract infection.</p> <p>Prodigy guideline on lower urinary tract infections.</p> <p>University of Michigan Health System urinary tract infection guideline.</p> <p>Warren, J W, Abrutyn, E, Hebel J R,Johnson J R,Schaeffer A J,Stamm, W E. Guidelines for antimicrobial treatment of uncomplicated acute bacterial cystitis and acute pyelonephritis in women. Clin Infect Dis 1999;29;745-58</p> <p>None of these guidelines were rated as suitable for direct adoption.</p>													
<p>Systematic reviews</p> <table> <tr> <td><i>Databases covered:</i></td> <td><i>Dates covered:</i></td> </tr> <tr> <td>Cinahl</td> <td>1994 - 2002</td> </tr> <tr> <td>Cochrane Library</td> <td>Issue 4, 2002</td> </tr> <tr> <td>Embase</td> <td>1994 - 2002</td> </tr> <tr> <td>Medline</td> <td>1994 - 2002</td> </tr> <tr> <td><i>Total hits: 305</i></td> <td><i>Sifted result: 51</i></td> </tr> </table>		<i>Databases covered:</i>	<i>Dates covered:</i>	Cinahl	1994 - 2002	Cochrane Library	Issue 4, 2002	Embase	1994 - 2002	Medline	1994 - 2002	<i>Total hits: 305</i>	<i>Sifted result: 51</i>
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<p>RCTs</p> <table> <tr> <td><i>Databases covered:</i></td> <td><i>Dates covered:</i></td> </tr> <tr> <td>Cochrane Library</td> <td>Issue 1, 2003</td> </tr> <tr> <td>Embase</td> <td>1980 - 2002</td> </tr> <tr> <td>Medline</td> <td>1966 - 2003</td> </tr> <tr> <td><i>Total hits: 186</i></td> <td><i>Sifted result: 41</i></td> </tr> </table>		<i>Databases covered:</i>	<i>Dates covered:</i>	Cochrane Library	Issue 1, 2003	Embase	1980 - 2002	Medline	1966 - 2003	<i>Total hits: 186</i>	<i>Sifted result: 41</i>		
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<i>Economic studies</i>	
<i>Databases covered:</i>	<i>Dates covered:</i>
NEED	Searched January 2004
Embase	1980 - 2003
Medline	1980 - 2003
<i>Total hits: 73</i>	<i>Sifted result: 17</i>
<i>Search strategies</i>	
<p>The following are listings of the main Medline strategies used for this guideline. All conventions and symbols are from the Ovid implementation of Medline. Strategies used in other databases were substantially the same, though different terminology may have been used to take account of different thesaurii used in non-Medline databases.</p> <p>Search filters were added to identify studies of a particular type (guideline, systematic review, etc.) Listings of the search filters used by SIGN can be found on the SIGN Web site.</p>	

Treatment strategy

1. exp urinary tract infections/
2. urinary tract infection\$.tw.
3. uti.tw.
4. cystitis/ or cystitis, interstitial/
5. pyelonephritis/
6. dysuria.tw.
7. perinephric abscess.tw.
8. bacteriuria/
9. cystitis.tw.
10. pyelonephriti\$.tw.
11. exp urinary tract/
12. exp bacterial infections/
13. 11 and 12
14. or/1-10,13
15. *Urethritis/
16. 14 not 15
17. Vaccinium macrocarpon/
18. cranberr\$.tw.
19. (acidification adj2 urine).mp.
20. Drinking/
21. exp Water-Electrolyte Balance/
22. Potassium Citrate/
23. or/17-22
24. exp Urinary Tract Infections/dh, th [Diet Therapy, Therapy]
25. 16 and 23
26. 24 or 25
27. exp Pregnancy/
28. pregnant wom?n.tw.
29. pre-term lab?r.tw.

30. exp Fetal Death/
31. abortion, spontaneous/ or embryo loss/
32. fetal loss.tw.
33. foetal loss.tw.
34. (loss adj2 (fetus or foetus)).tw.
35. (kidney adj (damage or failure)).tw.
36. or/27-35
37. 16 and 36
38. limit 37 to (human and english language and all adult < 19 plus years >)
39. anti-infective agents/ or antibiotics/ or anti-infective agents, local/ or anti-infective agents, urinary/ or antiviral agents/
40. antimicrobial.mp.
41. 16 and (39 or 40)
42. exp Urinary Tract Infections/dt [Drug Therapy]

UTI in pregnancy strategy

****Link bacteriuria with pregnancy*

- 1 bacteriuria/
- 2 bacteriuria.tw.
- 3 1 or 2
- 4 exp Pregnancy/
- 5 pregnant women/
- 6 pregnant wom?n.tw.
- 7 prenatal.ti.
- 8 antenatal.ti.
- 9 or/4-8
- 10 3 and 9

****Identify general diagnostic studies*

- 11 exp "Sensitivity and Specificity"/
- 12 sensitivity.tw.
- 13 specificity.tw.
- 14 exp DIAGNOSIS/
- 15 exp PATHOLOGY/
- 16 ((pre test or pretest) adj probability).tw.
- 17 post test probability.tw.
- 18 predictive value\$.tw.
- 19 likelihood ratio\$.tw.
- 20 false negative\$.tw.
- 21 false positive\$.tw.
- 22 screening.tw.
- 23 (diagnosis or diagnostic).tw.
- 24 (diagnosis or diagnostic).af.
- 25 exp Mass Screening/
- 26 or/11-25

****Identify techniques specific to bacteriuria*

- 27 clinical decision making.mp.
- 28 clinical decision rule\$.tw.
- 29 exp Microscopy/
- 30 Cell Culture/
- 31 exp Reagent Kits, Diagnostic/
- 32 dipstick\$.mp. or (dip adj stick\$.tw.
- 33 stick test\$.ti.

- 34 near patient test\$.tw.
- 35 or/27-34
- 36 Bacteriuria/di [Diagnosis]
- 37 10 and (26 or 35 or 36)
- 38 limit 37 to (human and english language and all adult < 19 plus years>)

This search was subsequently extended to cover all UTIs, excluding only urethritis.

UTI in catheterised patients

- 1. bacteriuria/
- 2. bacteriuria.tw.
- 3. 1 or 2
- 4. Urinary Tract Infections/
- 5. urinary tract infection\$.tw.
- 6. uti.tw.
- 7. cystitis/ or cystitis, interstitial/
- 8. pyelonephritis/
- 9. dysuria.tw.
- 10. pyelonephri\$.tw.
- 11. exp urinary tract/
- 12. exp bacterial infections/
- 13. 11 and 12
- 14. or/3-10,13
- 15. clinical decision making.mp.
- 16. clinical decision rule\$.mp.
- 17. cdr.mp.
- 18. exp microscopy/
- 19. cell culture/
- 20. exp reagent kits, diagnostic/
- 21. dipstick\$.mp. or (dip adj stick\$.tw.
- 22. near patient test\$.mp.
- 23. or/15-22
- 24. 14 and 23
- 25. exp urinary tract infections/di
- 26. 24 or 25
- 27. Catheterization/
- 28. exp Urinary Tract/
- 29. 27 and 28
- 30. Urinary Catheterization/
- 31. catheteri?ation.tw.
- 32. catheter.mp.
- 33. urin\$.mp.
- 34. (ureteral or urethral or urethral).tw.
- 35. (31 or 32) and (33 or 34)
- 36. 29 or 30 or 35
- 37. 24 and 36