

## Appendix 1: Search strategy used in study

Searches for the following two clinical questions were run as one search.

- **What is the clinical and cost effectiveness of different types of long term indwelling urinary catheters (silicone, hydrogel coated or impregnated) on urinary tract infections, bacteraemia, frequency of catheter change, encrustations and blockages, mortality, and patient preference?**
- **What is the clinical and cost effectiveness of different types of long term urinary intermittent self catheters (non-coated, hydrophilic or gel reservoir) on urinary tract infections, bacteraemia, frequency of catheter change, encrustations and blockages, mortality, and patient preference?**

The search constructed by combining the columns in the following table using the AND Boolean operator

Population	Intervention / exposure	Comparison	Study filter used	Date parameters
Long term urinary catheters	Catheter types		Systematic reviews and RCTs (Medline and Embase only)	2002 to 18/04/2011

### Medline search terms

1. Urinary Catheterization/
2. (((urinary or urethr\$ or indwelling or suprapubic or bladder) adj catheter\$) or (intermittent adj2 catheter\$)).ti,ab.
3. or/1-2
4. Randomized-Controlled-Trials/ or Random-Allocation/ or Double-Blind-Method/ or Single-Blind-Method/ or exp Clinical-Trials as topic/ or Cross-Over-Studies/ or Prospective-Studies/ or Placebos/
5. (Randomized-Controlled-Trial or Clinical-Trial or Controlled-Clinical-Trial).pt.
6. (((clinical or control or controlled) adj (study or trial)) or ((single or double or triple) adj (blind\$3 or mask\$3)) or (random\$ adj (assign\$ or allocat\$ or group or grouped or patients or study or trial or distribut\$)) or (crossover adj (design or study or trial)) or placebo or placebos).ti,ab.
7. ((Case-Reports not Randomized-Controlled-Trial) or Letter or Historical-Article or Review-Of-Reported-Cases).pt.
8. exp Animal/ not Human/
9. or/17-19
10. or/20-21
11. 22 not 23

### **Embase search terms**

1. exp ureter catheter/ or exp urinary catheter/
2. exp bladder catheterization/ or exp ureter catheterization/
3. (((urinary or urethr\$ or indwelling or suprapubic or bladder) adj catheter\$) or (intermittent adj2 catheter\$)).ti,ab.
4. or/1-3
5. Clinical-Trial/ or Randomized-Controlled-Trial/ or Randomization/ or Single-Blind-Procedure/ or Double-Blind-Procedure/ or Crossover-Procedure/ or Prospective-Study/ or Placebo/
6. (((clinical or control or controlled) adj (study or trial)) or ((single or double or triple) adj (blind\$3 or mask\$3)) or (random\$ adj (assign\$ or allocat\$ or group or grouped or patients or study or trial or distribut\$)) or (crossover adj (design or study or trial)) or placebo or placebos).ti,ab.
7. Case-Study/ or Abstract-Report/ or Letter/ or (case adj report).tw. or conference abstract.pt.
8. (exp Animal/ or Nonhuman/ or exp Animal-Experiment/) not exp Human/
9. 30 or 31
10. 32 or 33
11. 34 not 35

### **Cinahl search terms**

- S1 mh Urinary Catheterization
- S2 urinary n1 catheter\* or urethr\* n1 catheter\* or indwelling n1 catheter\* or suprapubic n1 catheter\* or bladder n1 catheter\* or intermittent n2 catheter\*
- S3 S1 or S2

### **Cochrane search terms**

- #1 MeSH descriptor Urinary Catheterization, this term only
- #2 (((urinary or urethr\* or indwelling or suprapubic or bladder) NEAR catheter\*) or (intermittent NEAR/2 catheter\*)):ti,ab,kw
- #3 (#1 OR #2)

### **Medline search terms**

1. (impregnat\$ or silicon\$ or latex or coat\$ or silver or hydrogel or hydrophilic or uncoat\$ or non coat\$ or gel reservoir\$).ti,ab.

### **Embase search terms**

1. (impregnat\$ or silicon\$ or latex or coat\$ or silver or hydrogel or hydrophilic or uncoat\$ or non coat\$ or gel reservoir\$).ti,ab.

### **Cinahl search terms**

- S1 impregnat\* or silicon\* or latex or coat\* or silver or hydrogel or hydrophilic or uncoat\* or noncoat\* or gel reservoir\*

### **Cochrane search terms**

- #1 (impregnat\* or silicon\* or latex or coat\* or silver or hydrogel or hydrophilic or uncoat\* or noncoat\* or gel reservoir\*):ti,ab,kw

An additional search was preformed for the following question:

- **In patients performing intermittent catheterisation, what is the clinical and cost effectiveness of non-coated catheters reused multiple times compared to single-use on urinary tract infections, bacteraemia, frequency of catheter change, encrustations and blockages, mortality, and patient preference?**

The search constructed by combining the columns in the following table using the AND Boolean operator

Population	Intervention / exposure	Comparison	Study filter used	Date parameters
Intermittent catheterisation	Single-use catheters	Multiple use catheters		No date restrictions, search run up to 18/04/2011

#### Medline search terms

1. Urinary Catheterization/
2. (intermittent adj2 catheter\$).ti,ab.
3. or/1-2
4. (sterile or "single use " or single-use).ti,ab.
5. (clean or "multi use" or multi-use or "multiple use\$" or reuse\$).ti,ab.
6. (("multi use" or multi-use or "multiple use\$" or reuse\$) adj2 catheter\$).ti,ab.
7. 6 or (4 and 5)
8. 3 and 7

#### Embase search terms

1. intermittent catheterization/
2. (intermittent adj2 catheter\$).ti,ab.
3. (sterile or "single use" or single-use).ti,ab.
4. (clean or "multi use" or multi-use or "multiple use\$" or reuse\$).ti,ab.
5. (("multi use" or multi-use or "multiple use\$" or reuse\$) adj2 catheter\$).ti,ab.
6. 5 or (3 and 4)
7. or/1-2
8. 6 and 7

#### Cinahl search terms

- S1 (MH "Urinary Catheterization, Intermittent")
- S2 intermittent n2 catheter\*
- S3 S1 or S2
- S4 sterile or single use or single-use
- S5 clean or multi use or multi-use or multiple use\* or reuse\*
- S6 reuse\* n2 catheter\* or multi use n2 catheter\* or multi-use n2 catheter\* or multiple use\* n2 catheter\*
- S7 S4 and S5

S8        S6 or S7  
S9        S3 and S8

**Cochrane search terms**

- #1        MeSH descriptor Urinary Catheterization, this term only
- #2        (intermittent NEAR/2 catheter\*):ti,ab,kw
- #3        (#1 OR #2)
- #4        (sterile or "single use" or single-use):ti,ab,kw
- #5        (clean or "multi use" or multi-use or "multiple use\*" or reuse\*):ti,ab,kw
- #6        (#4 AND #5)
- #7        (("multi use" or multi-use or "multiple use\*" or reuse\*) NEAR/2  
catheter\*):ti,ab,kw
- #8        (#6 OR #7)
- #9        (#3 AND #8)