

## Appendix 1 Search strategy

### Search strategy in PubMed

#1 "Intermittent Urethral Catheterization"[Mesh]  
 #2((((((((Intermittent Urethral Catheterization[Title/Abstract] OR (clean intermittent catheterization[Title/Abstract]) OR (Catheterization, Intermittent Urethral[Title/Abstract])) OR (Catheterizations, Intermittent Urethral[Title/Abstract])) OR (Intermittent Urethral Catheterizations[Title/Abstract])) OR (Urethral Catheterization, Intermittent[Title/Abstract])) OR (Urethral Catheterizations, Intermittent[Title/Abstract])) OR (Clean Intermittent Catheterization[Title/Abstract])) OR (Urethral Self-Catheterization[Title/Abstract])) OR (Self-Catheterization, Urethral[Title/Abstract])) OR (Self-Catheterizations, Urethral[Title/Abstract])) OR (Urethral Self Catheterization[Title/Abstract])) OR (Urethral Self-Catheterizations[Title/Abstract])  
 #3("Intermittent Urethral Catheterization"[Mesh]) OR (((((((Intermittent Urethral Catheterization[Title/Abstract] OR (clean intermittent catheterization[Title/Abstract]) OR (Catheterization, Intermittent Urethral[Title/Abstract])) OR (Catheterizations, Intermittent Urethral[Title/Abstract])) OR (Intermittent Urethral Catheterizations[Title/Abstract])) OR (Urethral Catheterization, Intermittent[Title/Abstract])) OR (Urethral Catheterizations, Intermittent[Title/Abstract])) OR (Clean Intermittent Catheterization[Title/Abstract])) OR (Urethral Self-Catheterization[Title/Abstract])) OR (Self-Catheterization, Urethral[Title/Abstract])) OR (Self-Catheterizations, Urethral[Title/Abstract])) OR (Urethral Self Catheterization[Title/Abstract])) OR (Urethral Self-Catheterizations[Title/Abstract]))  
 #4 transurethral indwelling catheterization  
 #5 "Urinary Retention"[Mesh]  
 #6 urine OR urinary  
 #7 retention  
 #8 (retention[Title/Abstract] AND (urine[Title/Abstract] OR urinary[Title/Abstract]))  
 #9 (((("Urinary Retention"[Mesh]) ) OR (Urinary Retention[Title/Abstract])) OR (Retention, Urinary[Title/Abstract])) OR (Urination Disorders[Title/Abstract])) OR (residual urine[Title/Abstract])) OR ((retention[Title/Abstract] AND (urine[Title/Abstract] OR urinary[Title/Abstract]))  
 #10

### Search strategy in Cochrane

#1 MeSH descriptor: [Intermittent Urethral Catheterization] explode all trees 20  
 #2 (clean intermittent catheterization):ti,ab,kw OR (Intermittent Urethral Catheterization):ti,ab,kw OR (Catheterization, Intermittent Urethral):ti,ab,kw OR (Catheterizations, Intermittent Urethral):ti,ab,kw OR (Intermittent Urethral Catheterizations):ti,ab,kw (Word variations have been searched) 356  
 #3 (Urethral Catheterization, Intermittent):ti,ab,kw OR (Urethral Catheterizations, Intermittent):ti,ab,kw OR (Clean Intermittent Catheterization):ti,ab,kw OR (Urethral Self-Catheterization):ti,ab,kw OR (Self-Catheterization, Urethral):ti,ab,kw (Word variations have been searched) 363  
 #4 (Self-Catheterizations, Urethral):ti,ab,kw OR (Urethral Self Catheterization):ti,ab,kw OR (Urethral Self-Catheterizations):ti,ab,kw (Word variations have been searched) 89  
 #5 #1 or #2 or #3 or #4 385  
 #6 (transurethral indwelling catheterization):ti,ab,kw OR (indwelling urinary catheter):ti,ab,kw (Word variations have been searched) 810  
 #7 MeSH descriptor: [Urinary Retention] explode all trees 454  
 #8 (urinary retention):ti,ab,kw OR (ischuria):ti,ab,kw OR (residual urine):ti,ab,kw OR (urine retention):ti,ab,kw (Word variations have been searched) 7312  
 #9 #7 or #8 7312  
 #10 #5 and #6 and #9 40

### Search strategy in Embase

- #1 'clean intermittent catheterization':ab,ti OR 'urethral catheterization':ab,ti OR 'catheterization, intermittent urethral':ab,ti OR 'catheterizations, intermittent urethral':ab,ti OR 'intermittent urethral catheterizations':ab,ti OR 'urethral catheterization, intermittent':ab,ti OR 'urethral catheterizations, intermittent':ab,ti OR 'urethral self-catheterization':ab,ti OR 'self-catheterization, urethral':ab,ti OR 'self-catheterizations, urethral':ab,ti OR 'urethral self catheterization':ab,ti OR 'urethral self-catheterizations':ab,ti 3114
- #2 'indwelling urinary catheter'/exp 7820
- #3 'indwelling urinary catheter'/exp OR 'indwelling urinary catheter':ab,ti OR 'transurethral indwelling catheterization':ab,ti 8328
- #4 'urine retention'/exp 33205
- #5 'urinary retention':ab,ti OR 'retention, urine':ab,ti OR ischuria:ab,ti OR 'urination disorders':ab,ti OR ((urine:ab,ti OR urinary:ab,ti) AND retention:ab,ti) OR 'residual urine':ab,ti36201
- #6 #4 OR #5 53250
- #7 #1 AND #3 AND #5 38

### Search strategy in Web of Science

- #1: urinary retention (Topic) OR retention, urine (Topic) OR ischuria (Topic) OR Urination Disorders (Topic) OR (urine OR urinary) AND (retention) (Topic) OR residual urine (Topic)23891
- #2: clean intermittent catheterization (Topic) OR Intermittent Urethral Catheterization (Topic) OR Catheterization, Intermittent Urethral (Topic) OR Catheterizations, Intermittent Urethral (Topic) OR Intermittent Urethral Catheterizations (Topic) OR Urethral Catheterization, Intermittent (Topic) OR Urethral Catheterizations, Intermittent (Topic) OR Clean Intermittent Catheterization (Topic) OR Urethral Self-Catheterization (Topic) OR Self-Catheterization, Urethral (Topic) OR Self-Catheterizations, Urethral (Topic) OR Urethral Self Catheterization (Topic) OR Urethral Self-Catheterizations (Topic) 2347
- #3: indwelling urinary catheter (Topic) OR transurethral indwelling catheterization (Topic) 2670
- #4: #1 AND #2 AND #3

### Search strategy in China CNKI

Subject: Intermittent catheterization, indwelling catheterization  
Qualification: Academic journals  
basis: disease types, population, intervention measures

### Search strategy in China Wanfang

Subject: Clean catheterization, indwelling catheterization  
Qualification: journal papers, medical and health screening  
basis: disease types, population, intervention measures

### Search strategy in China VIP

Retrieval: (K=(indwelling catheterization OR intermittent catheterization) OR T= indwelling catheterization OR T= intermittent catheterization) AND M= urinary retention  
Qualification: Medicine and health