SAGES peritoneal dialysis access guideline update 2023

Appendix B Search strategy

<table>
<thead>
<tr>
<th>Summary: Run dates:</th>
<th>4/2/20, 4/10/20, 7/17/20, 10/22/20, 4/26,28/21, 9/29/21; post-extraction review 2/13/23</th>
</tr>
</thead>
<tbody>
<tr>
<td>Librarian:</td>
<td>Holly Ann Burt</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OVERALL SEARCH RESULTS</th>
<th>1968</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total items identified by database searches</td>
<td></td>
</tr>
<tr>
<td>Items located by handsearching trials, databases, and references</td>
<td>65</td>
</tr>
<tr>
<td>Total trials identified in searches</td>
<td>30</td>
</tr>
<tr>
<td>Total duplicates identified (across KQs, by HAB, in Endnote, in Covidence)</td>
<td>1322</td>
</tr>
<tr>
<td>Total unique items screened</td>
<td>681</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Final Review</th>
<th>44</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total articles identified by database searches (Post extraction)</td>
<td></td>
</tr>
<tr>
<td>Total articles after removal of duplicates</td>
<td>42</td>
</tr>
</tbody>
</table>

**Additional search terms to those listed below:** Languages: English, Studies: No limit

**Database searched (Coverage)**

<table>
<thead>
<tr>
<th>Systematic Reviews</th>
<th>Clinical Trials</th>
<th>Medicine</th>
</tr>
</thead>
</table>


**Pediatrics**

**1. Laparoscopic peritoneal dialysis in children**

<p>| Run Date: | 4/2/20 |</p>
<table>
<thead>
<tr>
<th>Based on 2010 search</th>
<th>Concept A</th>
<th>Concept B</th>
<th>Concept C</th>
</tr>
</thead>
<tbody>
<tr>
<td>MESH terms</td>
<td>Peritoneal dialysis</td>
<td>Catheters, indwelling</td>
<td></td>
</tr>
<tr>
<td>Text words</td>
<td>Peritoneal Dialysis</td>
<td>Catheters Indwelling</td>
<td></td>
</tr>
</tbody>
</table>

Additional terms: Species: Humans / Ages: Birth to 18 yr / Publication years: 2013 to 2020

<table>
<thead>
<tr>
<th>Database:</th>
<th>Final equivalent search strategies</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>PubMed 2010 search</td>
<td>(&quot;catheters, indwelling&quot;) AND peritoneal dialysis Filters: Publication date from 2013/01/01 to 2020/12/31; Humans; English; Child: birth-18 years</td>
<td>---</td>
</tr>
<tr>
<td>EMBASE</td>
<td>(&quot;peritoneal dialysis&quot;/exp OR 'peritoneal dialysis') AND ('indwelling catheters'/exp OR 'indwelling catheters') AND [english]/lim AND [2013-2020]/py AND [humans]/lim AND [(newborn)/lim OR [infant]/lim OR [child]/lim OR [preschool]/lim OR [school]/lim OR [adolescent]/lim)</td>
<td>14</td>
</tr>
</tbody>
</table>
### Cochrane

((mh "Peritoneal Dialysis") OR (Peritoneal Dialysis):ti,ab,kw) AND ("indwelling catheter"):ti,ab,kw OR [mh "catheters, indwelling"]) AND (Child):ti,ab,kw OR [mh child] OR (adolescent):ti,ab,kw [mh adolescent]) - with Publication Year from 2013 to 2020, with Cochrane Library publication date from Jan 2013 to Dec 2020, in Trials.

### ClinicalTrials.gov

catheter | Peritoneal Dialysis | Child

Run Date: 7/17/20: see Adult search. Hand searched pediatric items were added to Covidence.

### Database Search strategies

<table>
<thead>
<tr>
<th>Database</th>
<th>Search strategies</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>EMBASE</td>
<td>(&quot;Peritoneal dialysis&quot;/exp OR &quot;peritoneal dialysis&quot;) AND (&quot;catheter&quot;/exp OR catheter OR &quot;catheterization&quot;/exp OR catheterization) AND (&quot;laparoscopy&quot;/exp OR laparoscopy OR 'hernia'/exp OR hernia OR 'reoperation'/exp OR reoperation OR 'second look surgery'/exp OR 'second look surgery' OR 'revision'/exp OR revision) AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study') AND (2005:py OR 2006:py OR 2007:py OR 2008:py OR 2009:py OR 2010:py OR 2011:py OR 2012:py) AND ((child)/lim OR [embryo]/lim OR [fetus]/lim OR [infant]/lim OR [newborn]/lim OR [preschool]/lim OR [school]/lim) NOT ((conference abstract)/lim OR [animals]/lim)</td>
<td>30</td>
</tr>
<tr>
<td>Cochrane</td>
<td>(Peritoneal Dialysis):ti,ab,kw OR [mh &quot;Peritoneal Dialysis&quot;]) AND (catheterization):ti,ab,kw OR (catheter):ti,ab,kw OR (catheters):ti,ab,kw OR [mh &quot;Catheters&quot;]) AND (Hernia):ti,ab,kw OR [mh &quot;Hernia&quot;] OR (Laparoscopy):ti,ab,kw OR [mh &quot;Laparoscopy&quot;] OR [laparoscopic]:ti,ab,kw OR [mh &quot;reoperation&quot;] OR [reoperation]:ti,ab,kw OR (reoperations):ti,ab,kw OR (revision):ti,ab,kw OR [mh &quot;Second-Look Surgery&quot;] with Publication Year from 2005 to 2012, with Cochrane Library publication date from Jan 2005 to Dec 2012, in Trials – Hand searched not adult</td>
<td>4</td>
</tr>
</tbody>
</table>

Run Date: 4/26/21
### Database: PubMed

<table>
<thead>
<tr>
<th>Search strategies</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABOVE NOT ((&quot;1900/01/01&quot;[PDAT] : &quot;2020/03/31&quot;[PDAT]))</td>
<td>5</td>
</tr>
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</table>

**Run Date:** 9/29/21

### Database: PubMed

<table>
<thead>
<tr>
<th>Search strategies</th>
<th>Results</th>
</tr>
</thead>
</table>

### EMBASE

<table>
<thead>
<tr>
<th>Search strategies</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>(&quot;Peritoneal dialysis&quot;/exp OR 'peritoneal dialysis') AND ('catheter'/exp OR catheter OR 'catheterization'/exp OR 'catheterization') AND ('laparoscopy'/exp OR laparoscopy OR 'hernia'/exp OR hernia OR 'reoperation'/exp OR 'reoperation' OR 'second look surgery'/exp OR 'second look surgery' OR 'revision'/exp OR revision) AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR [systematic review]/lim OR [meta analysis]/lim OR [clinical study]/lim OR 'case report'/exp OR 'case report' OR 'case study'/exp OR 'case study') AND ([child]/lim OR [embryo]/lim OR [fetus]/lim OR [infant]/lim OR [newborn]/lim OR [preschool]/lim OR [school]/lim) AND [2005-2021]/py) NOT ((conference abstract)/lim OR [animals]/lim)</td>
<td>83</td>
</tr>
</tbody>
</table>

### Q1 SEARCH RESULTS

| Total items identified by database searches | 319 |
| Additional items located by handsearching | 10 |
| Total trials identified in searches | 8 |
| Total duplicates found | 154 |
| **Total items screened** | 167 |

**Post extraction Review – Run date: 2/13/23**

| PubMed | 3 |

### Adults

#### 2. Laparoscopic peritoneal dialysis in adults

<table>
<thead>
<tr>
<th>Run Date: 4/2/20</th>
<th>Concept A</th>
<th>Concept B</th>
<th>Concept C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on 2010 search</td>
<td>Peritoneal dialysis</td>
<td>Laparoscopy</td>
<td>Catheters Catheterization</td>
</tr>
<tr>
<td>Textwords</td>
<td>Peritoneal dialysis</td>
<td>Laparoscopy</td>
<td>Catheter OR Catheters Catheterisation</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------</td>
<td>-------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td><strong>Additional terms:</strong></td>
<td>Species: Humans / Ages: 19 yr + / Publication years: 2013 to 2020</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Database</strong></th>
<th><strong>Search strategies</strong></th>
<th><strong>Results</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>PubMed 2010 original</td>
<td>Search ((peritoneal dialysis) AND laparoscopy) AND ((catheters) OR catheterization) Filters: Publication date from 2013/01/01 to 2020/12/31; Humans; English; Adult: 19+ years</td>
<td>-----</td>
</tr>
<tr>
<td>EMBASE</td>
<td>(&quot;peritoneal dialysis'/exp OR 'peritoneal dialysis') AND ('laparoscopy'/exp OR 'laparoscopy') AND ('catheterisation'/exp OR 'catheterization' OR 'catherter'/exp OR 'catherter') AND [english]/lim AND [2013-2020]/py AND [humans]/lim AND ([young adult]/lim OR [adult]/lim OR [middle aged]/lim OR [aged]/lim OR [very elderly]/lim)</td>
<td>121</td>
</tr>
<tr>
<td>Cochrane</td>
<td>([mh &quot;Peritoneal Dialysis&quot;] OR (Peritoneal Dialysis):ti,ab,kw) AND (Laparoscopy):ti,ab,kw OR [mh Laparoscopy]) AND ((catheter):ti,ab,kw OR [mh Catheters] OR (catheterization):ti,ab,kw OR [mh Catheterization]) - with Publication Year from 2013 to 2020, with Cochrane Library publication date from Jan 2013 to Dec 2020, in Trials</td>
<td>5</td>
</tr>
<tr>
<td>ClinicalTrials .gov</td>
<td>laparoscopy</td>
<td>Peritoneal Dialysis</td>
</tr>
</tbody>
</table>

**Run Date:** 4/10/20

<table>
<thead>
<tr>
<th>Concept A</th>
<th>Concept B</th>
<th>Concept C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peritoneal dialysis</td>
<td>Catheters</td>
<td>Reoperation Second-look surgery Laparoscopy</td>
</tr>
<tr>
<td>Catheterization</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Additional terms:** Species: NOT animals / Ages: ALL / Publication years: 2012 to 2020

<table>
<thead>
<tr>
<th><strong>Database</strong></th>
<th><strong>Search strategies</strong></th>
<th><strong>Results</strong></th>
</tr>
</thead>
</table>

**Run Date:** 7/17/20

<table>
<thead>
<tr>
<th>Concept A</th>
<th>Concept B</th>
<th>Concept C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peritoneal dialysis</td>
<td>Catheters</td>
<td>Hernia</td>
</tr>
<tr>
<td>Database:</td>
<td>Search strategies</td>
<td>Results</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| PubMed    | (((Hernia[mh] OR Hernia[TW]) AND (Catheters[mh] OR Catheterization[mh] OR Catheter* [tw]) AND 
("peritoneal dialysis"[mh] OR "peritoneal"[tw] AND "dialysis"[tw]) OR 
"peritoneal dialysis"[tw])) NOT 
((("1900/01/01"[PDAT] : "2012/12/31"[PDAT]) OR 
dogs[tiab]) | 57 |
| Run Date: 10/11/20 |
| PubMed    | ((("Peritoneal dialysis"[mh] OR 
"peritoneal dialysis"[tw] AND "dialysis"[tw]) AND 
(Catheters[mh] OR Catheterization[mh] OR catheter* [tw]) AND 
reoperation [tw] OR revision [tw] OR Laparoscopy[mh] OR laparoscopy*[tw]) NOT 
((("1900/01/01"[PDAT] : "2004/12/31"[PDAT]) OR 
("2013/01/01"[PDAT] : 
"2020/12/31"[PDAT]) OR 
"animals"[MH:noexp] NOT "humans"[MH]) OR rat[tiab] OR 
(pediatric [tiab] NOT adults[tiab])) | 152 |
| EMBASE    | ("peritoneal dialysis'/exp OR 'peritoneal dialysis') AND ('catheter'/exp OR 
catheter OR 'catheterization'/exp OR 'laparoscopy'/exp OR 'hernia'/exp OR 
'hernia' OR 'reoperation'/exp OR 'second look surgery'/exp OR 'second look 
surgery' OR 'revision'/exp OR 'revision') AND ('practice guideline'/exp OR 'practice guideline' OR [cochrane review]/lim OR 
[systematic review]/lim OR [clinical study]/lim OR 'case report'/exp OR 
'case report' OR 'case study'/exp OR 'case study') AND (2005:py OR 2006:py OR 
([conference abstract]/lim OR [animals]/lim OR [child]/lim OR [embryo]/lim OR 
[fetus]/lim OR [infant]/lim OR [newborn]/lim OR [preschool]/lim OR [school]/lim) | 157 |
| Run Date: 4/28/21 |
| Cochrane  | ("Peritoneal Dialysis":ti,ab,kw OR [mh "Peritoneal Dialysis"]) AND 
(catheterization):ti,ab,kw OR (catheter):ti,ab,kw OR (catheters):ti,ab,kw OR [mh 
"Catheters") AND ([mh "Hernia"] OR (hernia):ti,ab,kw OR [mh "Laparoscopy"] OR 
(Laparoscopy):ti,ab,kw OR (Laparoscopic):ti,ab,kw OR [mh "reoperation"] OR 
(reoperation):ti,ab,kw OR (reoperations):ti,ab,kw OR (revision):ti,ab,kw OR [mh 
"Second-look Surgery"])) with Publication Year from 2005 to 2012, in Trials | 7 |
| Run Date: 9/29/21 |
| PubMed    | ABOVE - NOT ("1900/01/01"[PDAT] : "2020/03/31"[PDAT]) | 19 |
| Run Date: 9/29/21 |
| PubMed    | ("Peritoneal dialysis"[mh] OR ("peritoneal"[tw] AND "dialysis"[tw]) OR 
"peritoneal dialysis"[tw]) AND (Catheters[mh] OR Catheterization[mh] OR 
catheter* [tw]) AND (Hernia[mh] OR hernia[tw] OR | 350 |
<table>
<thead>
<tr>
<th>Database</th>
<th>Search Query</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADULT</td>
<td>Total items identified by database searches</td>
<td>1649</td>
</tr>
<tr>
<td>SEARCH</td>
<td>Additional items located by handsearching</td>
<td>55</td>
</tr>
<tr>
<td>RESULTS</td>
<td>Total trials identified in searches</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Total duplicates found</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Total items screened</td>
<td>578</td>
</tr>
</tbody>
</table>

Post extraction Review – Run date: 2/13/23, dates: 2021-2020

**PubMed**

<table>
<thead>
<tr>
<th>Search Query</th>
<th>Results</th>
</tr>
</thead>
</table>
Appendix C Preferred Reporting Items for Systematic Reviews and Meta-Analyses Diagrams

KQ1. Adult

*Six items were added during the second screening (572–6–578)*
**KQ2. Adult**

Records identified through database searching

- ClinicalTrials.gov/NLM (n = 10)
- Cochrane Library/Cochrane (n = 17)
- Embase/Elsevier (n = 813)
- PubMed/NLM (n = 1128)

(n = 1968 including Adult = 1649 and Urgent Start = 18)

Records after duplicates and trials are removed

(n = 681 including Adult = 578)

Additional articles identified through handsearching trials and citation searching

- ClinicalTrials.gov/NLM (n = 18)
- Cochrane Library/Cochrane (n = 3)
- PubMed/NLM (n = 15)
- Citation searching (n = 29)

(n = 65 including Adult = 55)

Remainder of unique records

(n = 103)

Adult records in initial screening

(n = 572)*

Full-text articles assessed for eligibility

(n = 226)

Records available for second screening

(n = 127 Including Urgent Start = 17)

Adult with Urgent Start full-text articles assessed for eligibility

(n = 18 with 1 database addition)

Studies included in appraisal/guideline/recommendations

(n = 16)

Records excluded

(n = 346)

Full-text articles excluded

(n = 99)
- 19 Low numbers
- 16 Wrong study design
- 14 Non-English
- 13 Wrong intervention
- 11 SR - Citations searched
- 8 Abstract only
- 7 Paediatric population
- 4 Case report
- 3 Wrong comparator
- 3 Wrong outcomes
- 1 Wrong patient population

Full-text Urgent Start articles excluded

(n = 2)
- 1 Wrong outcomes
- 1 Wrong study design

*Six items were added during the second screening (572-6-578)
KQ3. Adult

Records identified through database searching
- ClinicalTrials.gov/NLM (n = 10)
- Cochrane Library/Cochrane (n = 17)
- Embase/Elsevier (n = 813)
- PubMed/NLM (n = 1128)
(n = 1968 including Adult = 1649 and Concomitant Surgeries = 6)

Records after duplicates and trials are removed
(n = 681 including Adult = 578)

Additional articles identified through handsearching trials and citation searching
- ClinicalTrials.gov/NLM (n = 18)
- Cochrane Library/Cochrane (n = 3)
- PubMed/NLM (n = 15)
- Citation searching (n = 29)
(n = 65 including Adult = 55)

Remainder of unique records
(n = 103)

Adult records in initial screening
(n = 572)*

Full-text articles assessed for eligibility
(n = 226)

Records available for second screening
(n = 127 Including Concomitant Surgeries = 6)

Adult with Concomitant Surgeries full-text articles assessed for eligibility
(n = 6)

Studies included in appraisal/guideline/recommendations
(n = 5)

Records excluded
(n = 346)

Full-text articles excluded
(n = 99)
- 19 Low numbers
- 16 Wrong study design
- 14 Non-English
- 13 Wrong intervention
- 11 SR - Citations searched
- 8 Abstract only
- 7 Paediatric population
- 4 Case report
- 3 Wrong comparator
- 3 Wrong outcomes
- 1 Wrong patient population

Full-text Concomitant Surgeries articles excluded
(n = 1)
- 1 Abstract only

*Six items were added during the second screening (572-16-578)
KQ4. KQ5. & KQ6. Adult

**Literature Search**
- Records identified through database searching
  - ClinicalTrials.gov/NLM (n = 10)
  - Cochrane Library/Cochrane (n = 17)
  - Embase/Elsevier (n = 813)
  - PubMed/NLM (n = 1128)
  - (n = 1968 including Adult = 1649 and Technique = 83)

**Records after duplicates and trials are removed**
(n = 681 including Adult = 578)

**Additional articles identified through handsearching trials and citation searching**
- ClinicalTrials.gov/NLM (n = 18)
- Cochrane Library/Cochrane (n = 3)
- PubMed/NLM (n = 15)
- Citation searching (n = 29)
  - (n = 65 including Adult = 55 and Technique = 1)

**Remainder of unique records**
(n = 103)

**Screening**
- Adult records in initial screening (n = 572)*

**Full-text articles assessed for eligibility**
(n = 226)

**Records available for second screening**
(n = 127 including and Technique = 81)

**Eligibility**
- Adult with Technique full-text articles assessed for eligibility
  (n = 84 with 2 database additions and 1 handsearched addition)

**Included**
- Studies included in appraisal/guideline/recommendations
  (n = 62)

**Records excluded**
(n = 346)
- Full-text articles excluded (n = 99)
  - 19 Low numbers
  - 16 Wrong study design
  - 14 Non-English
  - 13 Wrong intervention
  - 11 SR - Citations searched
  - 8 Abstract only
  - 7 Paediatric population
  - 4 Case report
  - 3 Wrong comparator
  - 3 Wrong outcomes
  - 1 Wrong patient population

**Full-text Technique articles excluded**
(n = 22)
- 12 Wrong intervention
- 3 Wrong outcomes
- 2 Single Arm <50pts
- 2 Wrong study design
- 1 Abstract Only
- 1 Overlapping patients with another included study
- 1 Wrong patient population

*Six items were added during the second screening (572 - 578)
KQ7. Adult

Records identified through database searching
ClinicalTrials.gov/NLM (n = 10)
Cochrane Library/Cochrane (n = 17)
Embase/Elsevier (n = 813)
PubMed/NLM (n = 1128)
(n = 1968 including Adult = 1649 and Salvage = 17)

Records after duplicates and trials are removed
(n = 681 including Adult = 578)

Records identified through handsearching trials and citation searching
ClinicalTrials.gov/NLM (n = 18)
Cochrane Library/Cochrane (n = 3)
PubMed/NLM (n = 15)
Citation searching (n = 29)
(n = 65 including Adult = 55)

Remainder of unique records
(n = 103)

Adult records in initial screening
(n = 572)*

Full-text articles assessed for eligibility
(n = 226)

Records available for second screening
(n = 127 including Salvage = 17)

Records excluded
(n = 346)

Full-text articles excluded
(n = 99)
19 Low numbers
16 Wrong study design
14 Non-English
13 Wrong intervention
11 SR - Citations searched
8 Abstract only
7 Paediatric population
4 Case report
3 Wrong comparator
3 Wrong outcomes
1 Wrong patient population

Adult with Salvage full-text articles assessed for eligibility
(n = 17)

Studies included in appraisal/guideline/recommendations
(n = 17)

*Six items were added during the second screening (572+6=578)