Appendices

Appendix (A): Infographic of inguinal hernioplasty evolution from 18th century up to present.
### Appendix (B): Results and keywords used for search in Pubmed, Scopus, and CINHAL.

<table>
<thead>
<tr>
<th>Searched terms</th>
<th>Pubmed</th>
<th>Scopus</th>
<th>CINAHL</th>
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<tr>
<td>“Inguinal hernia repair”</td>
<td>6,205</td>
<td>7,580</td>
<td>889</td>
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<tr>
<td>“Inguinal herniorrhaphy”</td>
<td>2,838</td>
<td>3,595</td>
<td>99</td>
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<tr>
<td>“Inguinal hernioplasty”</td>
<td>3,614</td>
<td>4,554</td>
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<tr>
<td>“Single-port”</td>
<td>1,863</td>
<td>3,318</td>
<td>465</td>
</tr>
<tr>
<td>“Single-incision”</td>
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<td>742</td>
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<td>“Conventional total extraperitoneal”</td>
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<tr>
<td>“Multi-port”</td>
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<td>2,614</td>
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<tr>
<td>“Multi-incision”</td>
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**TOTAL ARTICLES FOUND** 32 ARTICLES
Appendix (C): Pubmed database search

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<tr>
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<td>Add</td>
<td>Search cosmetic</td>
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<td>Add</td>
<td>Search complications</td>
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<td>Search conventional</td>
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<td>Search single-port</td>
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</tbody>
</table>

Appendix (D): Scopus database search

Document search results

Appendix (E): CINAHL database search

Appendix (F): Articles chosen for review


Appendix (G): Evidence-Based Practice Pyramid

**Evidence-Based Practice Pyramid**

1. **Systemic Review**
   - A type of literature review that collects and critically analyzes multiple research studies or papers.

2. **Randomised Controlled Trials**
   - A study in which people are allocated at random (by chance alone) to receive one of the several clinical interventions.

3. **Consort Studies**
   - A type of longitudinal study (panel study) that sample a cohort (a group of people who share a defining characteristic, typically who experienced a common event in a selected period, such as birth or graduation), performing a cross-section at intervals through time.

4. **Case-Control Studies**
   - A type of observational study in which two existing groups differing in outcome are identified and compared on the basis of some supposed causal attribute.

5. **Case Series, Case Reports**
   - Case series may be consecutive or non-consecutive, depending on whether all cases presenting to the reporting authors over a period. Case reports: Unusual or novel occurrence.

6. **Editorial, Expert Opinion**
   - Editorial is an often-unassigned opinion piece written by the senior editorial staff or publisher of a newspaper, magazine, or any other written document. Expert opinion is a belief or judgment about something given by an expert on the subject.
Appendix (H): The Critical Appraisal Skills Programme (CASP 2017)

11 questions to help you make sense of a trial

How to use this appraisal tool

Three broad issues need to be considered when appraising the report of a randomised controlled trial:

- Are the results of the trial valid?  (Section A)
- What are the results?              (Section B)
- Will the results help locally?     (Section C)

The 11 questions on the following pages are designed to help you think about these issues systematically.

The first two questions are screening questions and can be answered quickly. If the answer to both is yes, it is worth proceeding with the remaining questions.

There is some degree of overlap between the questions, you are asked to record a yes, no or can’t tell to most of the questions. A number of prompts are given after each question. These are designed to remind you why the question is important. Record your reasons for your answers in the spaces provided.

There will not be time in the small groups to answer them all in detail!

These checklists were designed to be used as educational tools as part of a workshop

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A Are the results of the trial valid?

**Screening Questions**

1. Did the trial address a clearly focused issue?  
   - Yes  
   - Can't tell  
   - No  

   **Consider:** An issue can be focused in terms of:  
   - The population studied  
   - The intervention given  
   - The comparator given  
   - The outcomes considered

2. Was the assignment of patients to treatments randomised?  
   - Yes  
   - Can't tell  
   - No  

   **Consider:**  
   - How was this carried out, some methods may produce treatment allocation unconvincing  
   - Was the allocation concealed from researchers?

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Is it worth continuing?

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**Detailed questions**

3. Were patients, health workers and study personnel blinded?  
   - Yes  
   - Can't tell  
   - No  

   **Consider:**  
   - Health workers could be: clinicians, nurses etc  
   - Study personnel – especially outcome assessors

4. Were the groups similar at the start of the trial?  
   - Yes  
   - Can't tell  
   - No  

   **Consider:** Look at:  
   - Other factors that might affect the outcome such as age, sex, social class, these may be called baseline characteristics

5. Aside from the experimental intervention, were the groups treated equally?  
   - Yes  
   - Can't tell  
   - No
6. Were all of the patients who entered the trial properly accounted for at its conclusion?
  - Yes
  - Can't tell
  - No

   Consider:
   - Was the trial stopped early?
   - Were patients analysed in the groups to which they were randomised?

---

7. How large was the treatment effect?

   Consider:
   - What outcome was measured?
   - Is the primary outcome clearly specified?
   - What results were found for each outcome?
   - Is there evidence of additive or multiplicative outcomes?

---

8. How precise was the estimate of the treatment effect?

   Consider:
   - What are the confidence limits?
   - Were they statistically significant?

---

(C) Will the results help locally?

9. Can the results be applied in your context?
   - Yes
   - Can't tell
   - No

   Consider:
   - Do you have reason to believe that your population of interest is different to that in the trial?
   - If so, in what way?

---

10. Were all clinically important outcomes considered?

    Consider:
    - Is there other information you would like to have seen?
    - Was the need for (or lack of clarity) about?

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11. Are the benefits worth the harms and costs?

    Consider:
    - Even if this is not addressed by the trial, what do you think?
POSAS Patient scale
The Patient and Observer Scar Assessment Scale v2.0 / EN

Date of examination: ____________________________
Observer: ____________________________________
Location: _____________________________________
Research / study: ________________________________

Name of patient: ________________________________
Date of birth: __________________________________
Identification number: ____________________________

1. How big is the scar now compared to the past few weeks?
[ ] not at all [ ] very much

2. How much has the scar grown in the past few weeks?
[ ] not at all [ ] very much

3. How much does the scar differ from the scar of your normal skin at present?
[ ] not at all [ ] very much

4. How much does the scar differ from your normal skin at present?
[ ] not at all [ ] very much

5. How much does the scar differ from your normal skin at present?
[ ] not at all [ ] very much

6. How much does the scar differ from your normal skin at present?
[ ] not at all [ ] very much

7. What is your overall opinion of the scar compared to normal skin?
[ ] not at all [ ] very much

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# POSAS Observer scale

The Patient and Observer Scar Assessment Scale v2.0 / EN

## Date of examination:  

**Observer:**

**Location:**

**Research / study:**

## Name of patient:

**Date of birth:**

**Identification number:**

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![Diagram of human body with skin compartments indicating different parameters](image)

### Parameters and Categories

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vascularity</td>
<td>Pale</td>
</tr>
<tr>
<td>Pigmentation</td>
<td>White</td>
</tr>
<tr>
<td>Thickness</td>
<td>Thick</td>
</tr>
<tr>
<td>Relief</td>
<td>Hard</td>
</tr>
<tr>
<td>Fluctuality</td>
<td>Upper</td>
</tr>
<tr>
<td>Surface Area</td>
<td>Expansion</td>
</tr>
</tbody>
</table>

### Overall Opinion

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

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**Explanation:**

The observer scale of the POSAS consists of six items: vascularity, pigmentation, thickness, relief, fluctuation, and surface area.

**Explanatory notes on the items:**

- **Vascularity:** Presence of vessels in scar tissue assessed by the amount of redness, tested by the amount of blood flow after touching with a piece of gauze.
- **Pigmentation:** Presence or absence of scar pigment [melanocyte] applied gently to the scar with moderate pressure to eliminate the effect of vascularity.
- **Thickness:** Distance between the epidermal-dermal border and the epidermal surface of the scar.
- **Relief:** The extent to which surface irregularities are present.
- **Fluctuation:** Superness of the scar tested by wrinkling the scar between the thumb and the index finger.
- **Surface Area:** Surface area of the scar relative to the original wound area.

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