Finding Evidence-based information
The process to finding evidence-based information

- Analyse your topic
- Plan your search
- Decide where to search
- Evaluate and Manage
Analyse your case study

- Break the research question into parts/concepts
- Use the PICO Search Strategy Form

---

**PICO Search Strategy worksheet**

1. Write out your (clinical) question

   _____________________________________________

   _____________________________________________

   _____________________________________________

2. Define your question into concepts/parts using PICO

   P: Population/Problem
   _____________________________________________

   I: Intervention/Phenomenon of Interest
   _____________________________________________

   C: Comparison
   _____________________________________________

   O: Outcome
   _____________________________________________

3. List the main concepts/parts of the question in the first line.
Plan your search - create a smart search strategy

- Source keywords/alternative terms
- Subject Headings

- Smart search techniques
  - Truncation
  - Variant spellings
- Consider date parameters
Hierarchy of evidence – types of information

What type of Journal article is it?

<table>
<thead>
<tr>
<th></th>
<th>Effectiveness</th>
<th>Appropriateness</th>
<th>Feasibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>• Systematic review</td>
<td>• Systematic review</td>
<td>• Systematic review</td>
</tr>
<tr>
<td></td>
<td>• Multi-centre studies</td>
<td>• Multi-centre studies</td>
<td>• Multi-centre studies</td>
</tr>
<tr>
<td>Good</td>
<td>• RCT</td>
<td>• RCT</td>
<td>• RCT</td>
</tr>
<tr>
<td></td>
<td>• Observational studies</td>
<td>• Observational studies</td>
<td>• Observational studies</td>
</tr>
<tr>
<td>Fair</td>
<td>• Uncontrolled trials with dramatic results</td>
<td>• Descriptive studies</td>
<td>• Descriptive studies</td>
</tr>
<tr>
<td></td>
<td>• Before and after studies</td>
<td>• Focus groups</td>
<td>• Focus groups</td>
</tr>
<tr>
<td></td>
<td>• Non-randomized controlled trials</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>• Descriptive studies</td>
<td>• Expert opinion</td>
<td>• Expert opinion</td>
</tr>
<tr>
<td></td>
<td>• Case studies</td>
<td>• Case studies</td>
<td>• Case studies</td>
</tr>
<tr>
<td></td>
<td>• Expert opinion</td>
<td>• Studies of poor methodological quality</td>
<td>• Studies of poor methodological quality</td>
</tr>
</tbody>
</table>

Hierarchy of evidence: ranking of research evidence evaluating health care interventions.

Source:
• CINAHL (& MEDLINE) covered in NCS1102 Week 2

• Need a refresher then go to the Nursing Library Guide - the Databases/Journals tab:  
  http://ecu.au.libguides.com/nursing/journal-articles-databases

• Evidence-based health Library Guide:  
  Database guides & Assistance  

Note: a complex search strategy may not be required but you must consider alternative terms and variant spellings.
Where to search – Databases

Significant Health Science Databases:

- CINahl
- MEDLINE
- THE JOANNA BRIGGS INSTITUTE
- Cochrane Library
- BMJ Best Practice

Australian specific Health Databases:
- Informit Health Collection
- Australian Public Affairs Full text
CINAHL & MEDLINE EBP specifics

• search can be restricted to:
  • evidence based practice
  • evidence based medicine reviews
  • clinical queries.

OR

• Use the drop down menu next to Publication Type to restrict the search to:
  • clinical trials,
  • evidence based care sheets,
  • guidelines,
  • systematic reviews,
  • meta-analysis,
  • practice guidelines
  • random controlled trials.
In addition to the common filters available CINAHL and MEDLINE also include the ability to refine search results by information type – such as specific evidence-based information.
EBP information type in CINAHL and MEDLINE

refine in the Publication Type drop-down box to:

- EBM reviews
- systematic reviews
- clinical trials
- meta-analysis.
Refining by EBP information type in JBI
Cochrane Systematic reviews are considered to be the Gold standard in research.

Many hospital policies and procedures are based on Cochrane Systematic Reviews.
Refining by EBP information type in Trip

- Trip database is a clinical search engine that searches across high-quality research evidence to support clinical practice and/or care.

- Searching Trip is similar to searching in Google.
Refining by EBP information type in Trip

Note: Trip includes where the evidence sits in the hierarchy of evidence pyramid
EBP information type in PubMed
YOU will always need to evaluate the information found and analyse the content in line with the information type.

Remember the Hierarchy of evidence table.
Keep looking for alternative terms

**Intravenous Therapy: Cannula Removal**

14/10/2016

**Author**

Jennifer Ong, BPharm (Hons)

**Summary**

**Question**

What is the best available evidence regarding safe removal of intravenous cannula?

**Clinical Bottom Line**

Intravenous cannulas are also known as vascular access devices, peripheral intra-vascular devices (PIVD), peripheral intravenous devices, peripheral venous catheters, or intravenous (IV) lines. Many bloodstream infections are related to intravenous cannula use, and serious morbidity and mortality associated with IV devices have been documented.
Scan the references at the end of articles/summaries etc.

This article is also cited in the Department of Health policy.
Hints and tips

Note: this is a research article which draws on a range of evidence including RCT’s and multi-centre studies.
Summary of Recommendations: Guidelines for the Prevention of Intravascular Catheter-related Infections

Naomi P. O’Grady; Mary Alexander; Lillian A. Burns; E. Patchen Dellinger; Jeffrey Garland; Stephen O. Heard; Pamela A. Lipsett; Henry Masur; Leonard A. Mermel; Michele L. Pearson; ... Show more

Published: 01 May 2011 Article history ▼

Topic: catheter-related infection, guidelines, catheter device, prevention
Issue Section: IDSA Guideline
The process to finding evidence-based information

1. Analyse your topic
2. Plan your search
3. Decide where to search
4. Evaluate and Manage