Planning a search using PICO

Here is a search scenario:

_Are antibiotics more effective than watchful waiting in children under 5 with otitis media?_

To identify the keywords to use in your search, use the PICO grid.

- **P** is Participants, Problem, or Patients
- **I** is Intervention
- **C** is Comparison
- **O** is Outcome

You may not have all four elements, but you will need at least two.

In this example:

**P** (be specific)  _Children under 5 with otitis media_

**I**  _Antibiotics_

**C**  _Watchful waiting_

**O**  _no specific outcome_

You can build on the PICO grid to help you identify synonyms, and to identify limits:

<table>
<thead>
<tr>
<th>Keyword</th>
<th>Synonyms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P</strong> Otitis media</td>
<td>Ear infections, Earache, Mastoiditis</td>
</tr>
<tr>
<td><strong>I</strong> Antibiotics</td>
<td>Antibacterial agents, Antimicrobial agents [names of specific agents]</td>
</tr>
<tr>
<td><strong>C</strong> Watchful waiting</td>
<td></td>
</tr>
</tbody>
</table>

**Limits**

- **Age**  _Children under 5_
- **Gender**  _either_
- **Human**  _yes_
- **Language**  _your choice_
- **Date range**  _Your choice – last five years?_
- **Publication type**  _Systematic review, if one is available; RCT_

Variants of PICO include PICOT (T is time within which the outcome will be observed, or study type) and PICOS (S is study type).
Other grids are available but the idea is the same. Some are listed here and the Library has one, PIMO, for statistical studies.

For more help with systematic reviews please email librarians@le.ac.uk