### PICO Questions > Types of Evidence > Databases

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<td><strong>Therapy</strong>&lt;br&gt;“What is the best treatment or intervention?”</td>
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<td><strong>Prevention</strong>&lt;br&gt;“How can I prevent this problem?”</td>
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<td><strong>Diagnosis / Assessment</strong>&lt;br&gt;“What is the best way to assess or best diagnostic test for this patient?”</td>
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<td><strong>Causation</strong>&lt;br&gt;“What causes this problem?”</td>
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<td><strong>Prognosis</strong>&lt;br&gt;“What are the long term effects of this problem?”</td>
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<td><strong>Meaning</strong>&lt;br&gt;“What is the meaning of this experience for patients?”</td>
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#### Evidence Pyramid – Look for the highest level of evidence appropriate for your clinical question.

- **Level 1:** Systematic Reviews & Meta-analysis of RCTs; Evidence-based Clinical Practice Guidelines
- **Level 2:** One or more RCTs
- **Level 3:** Controlled Trials (no randomization)
- **Level 4:** Case-control or Cohort study
- **Level 5:** Systematic Review of Descriptive and Qualitative studies
- **Level 6:** Single Descriptive or Qualitative Study
- **Level 7:** Expert Opinion

**Use** CINAHL and Medline to find:
- Randomized controlled trials (RCT)
- Controlled Trials
- Case-control studies
- Cohort studies
- Descriptive studies
- Qualitative studies
- Instrument development research

**Use** Cochrane, CINAHL, and Medline to find:
- Systematic reviews
- Meta-analyses

**Use** CINAHL, NGC, Medline, Joanna Briggs Inst., Nursing, Healthcare, and Government Organizations to find:
- Clinical practice guidelines

**Use** Published clinical articles (not research based), peer institution practices, Expert clinician practices to find:
- Expert opinion
Evidence Pyramid - Levels of Evidence

**Level 1 Evidence**
- *Systematic Review or Meta-Analysis of Randomized Controlled Trials:* See box below for more information about systematic reviews and meta-analysis.

- *Clinical Practice Guidelines:* Systematically developed statements to assist clinicians and patients in making decisions about care; ideally the guidelines consist of a systematic review of the literature, in conjunction with consensus of a group of expert decision-makers, including administrators, policy makers, clinicians, and consumers who consider the evidence and make recommendations.

**Level 2 Evidence**
- *Randomized Controlled Trial (RCT):* A true experiment (i.e., one that delivers an intervention or treatment in which subjects are randomly assigned to control and experimental groups); the strongest design to support cause and effect relationships.

**Level 3 Evidence**
- *Controlled Trial:* experimental design that studies the effect of an intervention or treatment using at least two groups: one that received the intervention and one that did not; participants are NOT randomly assigned to a group.

**Level 4 Evidence**
- *Cohort Study:* A longitudinal study that begins with the gathering of two groups of patients (the cohorts), one that received the exposure (e.g., to a disease) and one that does not, and then following these groups over time (prospective) to measure the development of different outcomes (diseases).

- *Case-Control Study:* A type of research that retrospectively compares characteristics of an individual who has a certain condition (e.g., hypertension) with one who does not (i.e., a matched control or similar person without hypertension); often conducted for the purpose of identifying variables that might predict the condition (e.g., stressful lifestyle, sodium intake).

**Level 5 Evidence**
- *Systematic Review of Descriptive and Qualitative Studies:* See box below for more information about systematic reviews.

**Level 6 Evidence**
- *Single descriptive or qualitative study* 
  - *Qualitative research:* method that systematically examines a phenomenon using an inductive approach & exploration of meaning of phenomenon; purpose is to understand & describe human experience, explore meanings & patterns; data are often narrative.

**Level 7 Evidence**
- *Expert opinion:* Recommendations from persons with established expertise in a specific clinical area often based on clinical experience; not considered a research method because systematic (or critical) inquiry is lacking.

The level of evidence of systematic reviews and meta-analyses depends on the types of studies reviewed.

**Systematic Review:** A summary of evidence, typically conducted by an expert or expert panel on a particular topic, that uses a rigorous process (to minimize bias) for identifying, appraising, and synthesizing studies to answer a specific clinical question and draw conclusions about the data gathered.

**Meta-Analysis:** A process of using quantitative methods to summarize the results from multiple studies, obtained and critically reviewed using a rigorous process (to minimize bias) for identifying, appraising, and synthesizing studies to answer a specific question and draw conclusions about the data gathered. The purpose of this process is to gain a summary statistic (i.e., a measure of a single effect) that represents the effect of the intervention across multiple studies.