

# The Clinical Question and Information Resources

## Answering the Clinical Question: Critical Appraisal- Survival Skills

### Define the Clinical Question.

1. Patient, Population or Problem
2. Intervention, Prognostic Factor Exposure
3. Comparison Intervention (if appropriate)
4. Outcome you would like to measure or achieve
5. **Type of Question you are asking**
6. **Type of Study you would want to find**

As a fundamental part of your thinking about the elements of the clinical question, you need to decide what 'type' of question you are asking, as well as what kind of study you would love to find. This is because you will need to consider those questions when you are moving on to the next step of selecting and finding your resources.

### What types of questions may we come up with?

<u>Question Type</u>	<u>Possible Study Designs</u>
1. Clinical Examination	Prospective cohort, blind comparison to Reference Standard
2. Diagnostic Testing	Prospective cohort, blind comparison to Reference Standard
3. Prognosis	Cohort Study (can be in the context of an RCT) > Case Control > Case Series
4. Therapy	RCT is really the only way we want to answer this question
5. Etiology / Harm	RCT (if possible and ethical) > Cohort Study > Case Control > Case Series
6. Prevention	RCT > Cohort Study > Case Control > Case Series
7. Cost	Economic Analysis
8. Self-Improvement/Education	
9. Quality Improvement	
10. Health Services Research	
11. Differential Diagnosis	

Question to Consider:

**Was the type of study the strongest that could have been performed under the circumstances?**

Remember that it may not be either practical or ethical to use certain methodologies depending on the question. For example, it would not be ethical to randomize someone to a harmful treatment. Likewise, it may not be possible to do a prospective trial for an outcome that either takes years to develop or is very rare.

### Types of Studies:

#### **Experimental Design:**

##### **Randomized Control Trial (RCT)**

Randomization should ensure that comparison groups are equal

This is an experimental method

#### **Non- Experimental Design:**

**Cohort Study:** follow one or more groups of individuals who have not yet suffered the adverse event and monitor the number of outcomes that occur over time. These need to be done when it is either not ethical or not practical to randomly assign patients to be "exposed" to something. Observational Design can be prospective or retrospective.

**Case Control Study:** Collection of "cases" who have suffered the outcome and "controls" who have not. Investigators count the number of patients with a prognostic factor in the cases and the controls. These need to be done when the outcome of interest is rare or takes a long time to develop.

**Case Series and Case Reports:** Reports of patient scenarios that do not provide any comparison group.