

# **PenARC Making Sense of Evidence Programme Sessions**

# Making sense of Evidence

Typical sessions include:

- 1 Introduction to Making Sense of Evidence
- 2 Critical Appraisal of a Randomised Control Trial (RCT)
- 3 Critical Appraisal of a Systematic Review
- 4 Tracking Down the Evidence

## Introduction to Qualitative Research Evidence

Typical sessions include:

- 5 Introduction to Qualitative Research Evidence
- 6 Critical Appraisal of Qualitative Studies.

# Introduction to Diagnostics Studies

Typical sessions include:

- 7 Introduction to Diagnostic Studies
- 8 Critical Appraisal of Diagnostic Studies

## 1. Introduction to Making Sense of Evidence

#### Talk (45 mins)

During this talk a tutor from our experienced team of clinicians and researchers will explain the importance of evidence based health care including how it was developed and why it is necessary.

Specific topics include -

- Understanding bias
- Hierarchy of research evidence for treatment
- interventions
- Demand for evidence based practice
- Principles of evidence based practice
- Structuring clinical questions

#### 2. Critical Appraisal of a Randomised Control Trial (RCT)

### Small group session (60-90 mins)

In this session we support participants to break down a clinical question into well recognised portions that are similar to how randomised control trials are reported in the literature. Through these exercises participants gain confidence in reading and understanding a randomised control trial. By using a critical appraisal check list participants learn short cuts in this process. Finally, these new skills are used to decide how the RCT evidence can be used to answer the clinical question.

- Break down a clinical question
- Apply PICO (structure problem according to: Population, Intervention, Comparison, Outcome)
- Critically appraise a randomised control trial
- Use a checklist
- Apply research evidence to clinical question

## 3. Critical Appraisal of a Systematic Review

#### Small group session (60-90 mins)

In this session we support participants to break down a clinical question into well recognised portions that are similar to how systematic reviews are reported in the literature. Through these exercises participants gain confidence in reading and understanding a systematic review and meta-analysis. By using a critical appraisal check list participants learn short cuts in this process. Finally, these new skills are used to decide how the systematic review evidence can be used to answer the clinical question.

By the end of this session you will be able to -

- Break down a clinical question
- Apply PICO (structure problem according to: Population, Intervention, Comparison, Outcome)
- Critically appraise a systematic review
- Use a checklist
- Apply research evidence to clinical question

## 4. Tracking Down the Evidence

#### Small group session (60 - 90 mins)

In this session we support participants to break down a clinical question into well recognised portions that are similar to how we set up searches to retrieve information from databases.

Using exercises we help participants to understand how databases differ and why they might choose one over another. By using structured searching techniques participants learn how to use their time more efficiently to obtain high quality information.

- Breakdown a clinical question into a search strategy
- Apply search strategies in different databases
- Locate databases that are most relevant for your work

#### 5. Introduction to Qualitative Research Evidence

#### Talk (45 mins)

During this talk a tutor from our experienced team of clinicians and researchers will introduce the basic principles of qualitative research and how it differs from quantitative research.

Using entertaining practical examples participants engage in learning about the meaning of experience and how this is important for understanding health problems.

### Specific topics include -

- Why qualitative research evidence is important
- Theory and methods in qualitative research
- Quality criteria
- Interviewing and thematic analysis

### 6. Critical Appraisal of Qualitative Studies

### Small group session (60-90 mins)

In this session we support participants to consider a clinical question and examine how this might be answered by a qualitative research study. Through discussion participants gain confidence in reading and understanding qualitative research studies. By using a critical appraisal check list participants learn short cuts in this process. Finally, these new skills are used to decide how the qualitative evidence can be used to answer the clinical question.

- Break down a clinical question
- Critically appraise a qualitative study
- Use a checklist
- Apply research evidence to a clinical question

## 7. Introduction to Diagnostic Studies

#### Talk (45 mins)

During this talk a tutor from our experienced team of clinicians and researchers will introduce the processes by which clinicians think about and make a diagnosis. Participants will understand what makes a good test and when it might be appropriate to use a test. Finally, these new skills will help participants know what a test result means for their patient.

Specific topics include -

- All tests are wrong some of the time
- The meaning of test results varies according to who is being tested
- Understanding the quality of a test

#### 8. Critical Appraisal of Diagnostic Studies

#### Small group session (60-90 mins)

In this session we support participants to consider a clinical question and examine how this might be answered by a diagnostic test study. Through discussion participants gain confidence in reading and understanding diagnostic test studies. By using a critical appraisal checklist participants learn short cuts in this process. Finally, these new skills are used to decide how the diagnostic study evidence can be used to answer the clinical question.

- Break down a clinical question
- Critically appraise a diagnostic test study
- Use a checklist
- Apply research evidence to clinical question
- Understand the terms 'sensitivity,' 'specificity,' 'positive and negative predictive values'