EACS HIV Summer School 2016

Plenary 4:
Identifying the Research Question

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Performing research

- Conducting research costs time, money and resources (and ‘emotional energy’…)
- We want to conduct the “best” research we can and give ourselves the best chance of success
- What do we need to consider ***before starting our research and collecting our data?***

Where do ideas come from?

- Our own observations from clinical practice/individual cases
- Discussion with others
- Read, read, read (conferences, published literature)….
- Our previous research studies often generate more questions

Do I have a 'good' idea?

- Is the question interesting?
  - Am I only answering a question because the data is easy to access?
- Has the question already been answered?
  - **Completed work:** Literature review of published papers, search for policy documents, etc
  - **Ongoing work:** www.clinicaltrials.gov, study websites, conference proceedings
- What will my research add to the current knowledge?

Feasibility

- Is the study ethical?
- Is it likely I will successfully complete the project?
  - Number of participants required
  - Number of data items to be collected/accessible data source
  - Appropriate laboratory/administrative/statistical support
  - Able to complete in a reasonable time frame
- Are the results of the study likely to be of clinical relevance?

Potential clinical implications

- Could my research result in changes to clinical practice or policy?
- Will it add to the existing “body of evidence” on a research topic?
- Is my patient population such that my results are likely to be generalisable to other clinics/countries/ settings?
- Is the intervention / risk factor I am studying likely to be implementable in other places?

‘Good’ idea to research question

- Once we have decided on an idea, we then need to turn it into an answerable research question
- An appropriate research question needs to be precise, clear and focused
- **PICO[S]** is an approach sometimes used to develop research questions (particularly when conducting systematic reviews)

A focused research question

- What is the **P**OPULATION of interest?
- What is the **I**NTERVENTION?
- What is the **C**OMPARISON?
- What is the **O**UTCOME?
- What is the **S**TUDY DESIGN?

A focused research question

- What is the **P**OPULATION of interest?

How would I describe a group of patients similar to mine

- What is the **I**NTERVENTION?
- What is the **C**OMPARISON?
- What is the **O**UTCOME?
- What is the **S**TUDY DESIGN?

A focused research question

- What is the **P**OPULATION of interest?

- What is the **I**NTERVENTION?

Which main intervention(s), risk factor, exposure am I considering

- What is the **C**OMPARISON?

- What is the **O**UTCOME?

- What is the **S**TUDY DESIGN?

A focused research question

- What is the **P**OPULATION of interest?
- What is the **I**NTERVENTION?
- What is the **C**OMPARISON?

What is the main alternative to compare with the intervention

- What is the **O**UTCOME?
- What is the **S**TUDY DESIGN?

A focused research question

- What is the **P**OPULATION of interest?
- What is the **I**NTERVENTION?
- What is the **C**OMPARISON?
- What is the **O**UTCOME?

What can I hope to accomplish, measure, improve, or affect

- What is the **S**TUDY DESIGN?

A focused research question

- What is the **P**OPULATION of interest?
- What is the **I**NTERVENTION?
- What is the **C**OMPARISON?
- What is the **O**UTCOME?
- What is the **S**TUDY DESIGN?

What would be the best study design/methodology

Summary

- The first step in any research is to identify the question that we wish to answer
- We must also ensure that our research is feasible, and to consider the potential clinical implications of our project
- A good idea for research must then be turned into an answerable question that is focused and precise