# Critical Appraisal of Clinical Trials Course – a Narrative

This course is designed for general surgical trainees to pass the academic viva in their FRCS exam, and I think it has developed from there. I volunteered to attend as part of NURC but also to further develop my own interest in research. It was divided into 2 sections, the morning providing a good grounding in critical appraisal of journals and study design in brief. The afternoon session focussed on systematic review in particular the Cochrane collaboration. This course was different to the talk Prof Stansby gave NURC, was equally stimulating and provided a few seeds for ideas for our research group.

The morning session involved a brief overview of critically appraising a paper, and then went into the various aspects of research design such as study types, what you are looking at proving or disproving and how you interpret data with a brief mention of the various statistical tests. We had a useful discussion regarding ethics and NHS R&D which is essential in order to conduct a research study if ethics is required (Sr Wilson). Prof Flather delivered a thought provoking talk on sources of bias which made us aware of all the less obvious ones.

The afternoon session was delivered by the Cochrane collaboration PVD group .We discussed how the Cochrane group produce a review and then were given free reign to produce our own ideas to explore within a review.

Steps of a Cochrane Systematic Review involves:

1. Define the question with PICOS in mind – as per Prof Pickard’s talk in the first meeting

2. Plan eligibility Criteria

3. Plan methods

4. Search for studies

5. Apply eligibility criteria

6. Collect data

7. Assess studies for risks of bias

8. Analyse and present results

9. Interpret and draw conclusions

10. Improve and update review

Cochrane reviews differ from systematic reviews due to the vigorous nature of the review process and regular updates.

To define a question we spent time discussing PICOS and as discussed with Prof Pickard you should bear this in mind when setting up a research idea.

Define your question and then use the following criteria for your study:

Types of Participants

Types of Interventions

Types of Comparisons

Types of Outcomes

Types of Studies

We came up with some good urology ideas and perhaps we could discuss them further at NURC.

Overall this was an extremely useful day providing a good grounding for:

1. Interpreting a paper

2. How to go about following an idea through from conception to study to completion

I hope we can use what we learnt in providing rigour to our studies developed in NURC.

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