

HAP29 Research

The trainee will be able to search and critically appraise the literature, understand relevant statistical methods and understand research designs. Trainees will be able to formulate a researchable question and be able to undertake a clinical topic review and related personal work

Knowledge	Assessment Methods	GMP Domains
<p>CT3 onwards</p> <p>Know how to critically appraise the primary literature (especially therapy, diagnostic and meta-analysis papers)</p> <p>Be able to search the common databases (Medline, EMbase, CINAHL and Cochrane Library)</p> <p>Understand hypothesis testing including type I and II errors</p> <p>Understand the common parametric & non-parametric tests and confidence intervals</p> <p>Understand RR, AR, NNT and diagnostic test descriptions (sensitivity, specificity, likelihood ratios, PPV, NPV)</p> <p>Sample size estimation and power calculation</p>	<p>Paeds CTR</p> <p>Critical Appraisal SAQ</p> <p>FCEM (from ST4 onwards)</p>	<p>1</p>
<p>Understand the common research designs: RCTs, cohort studies, case studies and diagnostic studies</p>	<p>E, CTR</p>	<p>1</p>
<p>Understand the difference between statistical significance and clinical significance</p>	<p>E, CTR</p>	<p>1</p>
<p>Be able to select the right design for the right question</p>	<p>E, CTR</p>	<p>1</p>
<p>ST4 onwards</p> <p>Understand the key characteristics of a good research question suitable for a Clinical Topic Review. Know the CEM guidance for such a review</p> <p>Understand the principles of guideline development</p>	<p>Review of CTR work- part of ARCP yr 4&5</p>	<p>1</p>

<p>NB Those trainees with a desire to undertake research will need to:</p> <ul style="list-style-type: none"> ▪ Liaise with experienced researchers and develop their knowledge relating to hypothesis formulation, research design, ethical approval, grant application processes and the standard research paper layout ▪ Develop writing skills working with experienced authors ▪ Know the common funding sources, e.g. College/BAEM, NHS R&D, MRC, and Wellcome Foundation ▪ Should seek guidance on an academic career from their local School of Emergency Medicine 		1
Skills		
Become expert at literature appraisal by practice	E, CTR	1
Able to develop suitable topic for Clinical Topic Review by use of literature searches and refinement of original question	E, CTR	1
Timetabling of CTR work to ensure comprehensive literature review and sufficient time to complete personal work	E, CTR	1
Behaviour		
<p>Appreciate the importance of literature appraisal at an early stage of training and actively seeks those skills.</p> <p>Develop a researchable topic suitable for CTR at the beginning of HST</p>	E, CTR	2