

Introduction to medical research: essential skills

Overview of the course:

This is an introductory level course for health professionals that provides an overview of key steps and common methods in medical research and its publication. The course is divided into four modules that each last four hours:

1. Research planning: before you start your research project
2. Research design and protocol
3. Statistical thinking
4. Research publication and dissemination

Booking through:
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Module 1: Research planning: before you start your research project

Presenters: Sally Hopewell, Shona Kirtley, Iveta Simera, Donald Mackay, Health Care Libraries (HCL) team

Module overview: This module provides the foundation for getting involved in medical research: from the basic underlying principles of good research conduct, to the practicalities of starting to build the literature base underpinning your research project.

By the end of this module participants should have a clearer idea of what medical research involves, what are the key ethical and governance issues, how to turn their research idea into a specific research question, and how to systematically collect and synthesise literature to support further research project design and planning.

Module 2: Research design and protocol

Presenters: Doug Altman, Gary Collins, Iveta Simera

Module overview: This module will introduce the main types of study design and the skills required to critically appraise a research study. It will also cover the development of an appropriate and robust design and practical issues around writing a protocol.

By the end of this module participants will be better able to identify and critically appraise reports of the main types of research, and judge which designs are most appropriate to address a range of research questions.

Module 3 : Statistical thinking

Presenters: Doug Altman, Gary Collins, Iveta Simera

Module overview: This module will be an introduction to basic principles of statistical thinking: such as understanding sampling, and how to make inferences from samples to populations.

By the end of this module participants will have a clearer idea of how to organise statistical information, understand the concepts of probability, risk and uncertainty and have a clearer appreciation of statistical inference.

Module 4: Research publication and dissemination

Presenters: Elizabeth Wager, Iveta Simera, HCL (based in the Cairns Library at the JR) outreach team member or a colleague from the RSL.

Module overview: This module will explain the process of getting research published in peer-reviewed journals and conferences.

By the end of this module participants will be more able to plan a publication, identify appropriate target journals, be aware of the major reporting and publishing guidelines, understand the peer review process.