



EVIDENCE SYNTHESIS IRELAND

An introduction to systematic reviews of diagnostic test accuracy (Online)

Background

As for any healthcare intervention, medical tests require thorough evaluation. Identifying the accuracy of a test is a key step in the evaluation process. Understanding other ways in which tests affect the clinical management of patients is also important – a new test may be more acceptable to patients, easier to administer, or provide a faster diagnosis or treatment.

The accuracy of a test is a measure of how well it differentiates those with a disease or condition from those who do not. Different, sometimes complex, study designs can be used to evaluate diagnostic accuracy. Measures of accuracy are also not fixed properties of a test and may not be transferable across different populations and settings. A systematic review aims to provide an overview of currently available evidence about a test's diagnostic accuracy. A basic understanding of study designs, potential sources of bias, and factors that might affect the applicability of a study's findings, are essential to ensure that the included studies answer a relevant review question.

Aim

To provide an introduction to systematic reviews of diagnostic test accuracy.

Objectives

The objective of this workshop is to provide an understanding of study designs to evaluate the accuracy of a test and the essential components of a systematic review of diagnostic test accuracy.

Date:

29th April 2024

Time:

10:00 – 12:00

Skill Level:

Introductory

Facilitator:

Jac Dinnes, PhD

Senior Research Fellow
in Test Evaluation

Test and Prediction group,
Institute of Applied Research,
University of Birmingham UK

Places:

**30 places available for
individuals who are
resident on the island of
Ireland**

Fee:

General €50

Student €25

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Learning outcomes

In this course participants will be enabled to:

- describe the key differences between systematic reviews of interventions and systematic reviews of test accuracy
- be aware of study designs used to estimate and compare the accuracy of tests
- be aware of the sources of bias and variation that occur in test accuracy studies
- be aware of the approaches used for meta-analysis of test accuracy and interpretation of meta-analytic estimates

The workshop does not cover how to conduct a meta-analysis of test accuracy studies.

Teaching strategies

The workshop will consist of a mixture of short presentations and practical exercises.

Course content

- a. What is diagnostic test accuracy and why does it vary?
- b. Defining the clinical testing pathway (formulating a review question)
- c. Quality assessment of test accuracy studies
- d. Understanding meta-analyses of test accuracy studies

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