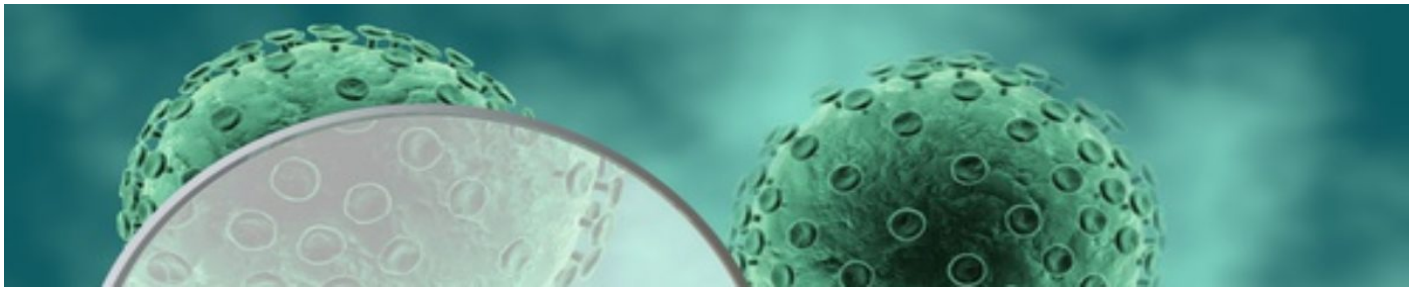
CAS in Clinical Research



Diagnostic Studies

Facilitators

Dr. Anne W.S. Rutjes, Prof. Marcel Zwahlen, Institute of Social and Preventive Medicine (ISPM), University Bern

Description

This course will focus on the design, analyses and interpretation of diagnostic test accuracy (DTA) studies. DTA studies evaluate the performance of a diagnostic test, for example to gauge how good a test is at discriminating between diseased and non-diseased persons.

This course starts with a basic introduction to what a DTA study is and what estimates such as sensitivity and specificity mean. Practicals will be used to calculate estimates of diagnostic accuracy on paper and using STATA. Some calculations to plan study size will be addressed. Thereafter, the course participants are introduced to variations in designs explaining the merits but also pitfalls of specific design choices. Sources of bias and variation will be discussed in detail.

Objectives

- Understand the different objectives and designs of DTA studies
- Understand the main ways to quantify diagnostic test accuracy and reliability
- Understand potential risks of bias and concerns regarding applicability of DTA study results
- Understand design options in case no generally accepted reference standard is available to compare your test of interest to (e.g. latent class analysis)
- Understand the concepts underlying different approaches to statistical analyses of DTA studies, including sample size calculations
- Describe estimates and interpret results from DTA studies appropriately
- Understand necessary element for high quality of reporting (STARD)

Dates

8 - 10 June, 2022

Equipment

Participants should bring their own portable computers. Prior to the course, we will provide instructions regarding the installation of the software packages (STATA) that will be used in the course.

Contact:

Course coordination: Ann Walser

Address: ISPM Bern
Mittelstrasse 43, CH-3012 Bern

Telephone: +41 31 631 58 94
Email: casclinresearch@ispm.unibe.ch
Website: www.cas-clinicalresearch.ch

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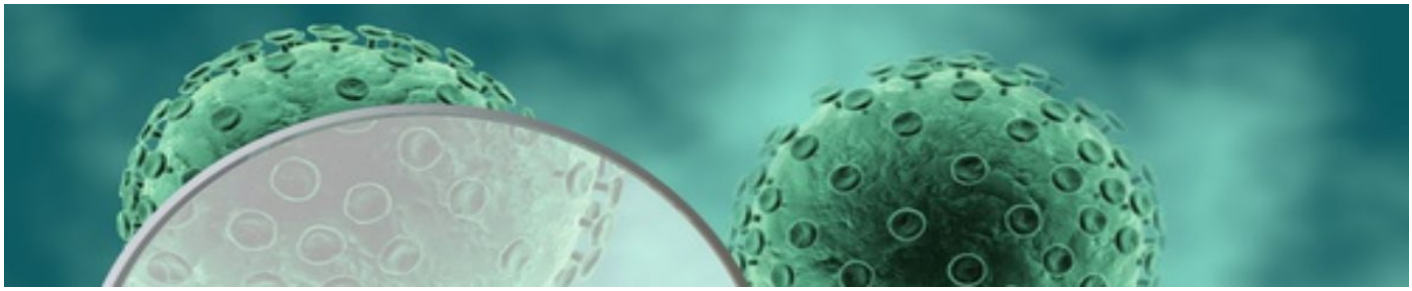

Course Structure

The course will run over three days and consists of a mixture of lectures, discussions and (computer) practicals.

Assessment

Outline of a study protocol, group work

Credits

1 ECTS

Preliminary Work: 4 h, Contact: 20 h, Wrap-Up Work: 0 h

(1 ECTS corresponds to appr. 25-30 hours' work)

Location

University of Bern, Mittelstrasse 43, Room: tbd

Max number of participants 30

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