

Division of Epidemiology & Biostatistics
School of Public Health & Family Medicine
University of Cape Town

Short course:

Diagnostic & Prognostic Research: the state of the art

23-27 November 2015; 8.30 – 16.00



Professors Carl Moons & Johannes Reitsma
*Julius Centre for Health Sciences and Primary Care
University Medical Centre & Utrecht University*

Course description

Diagnostic research in the past focused particularly on estimating the sensitivity and specificity of individual diagnostic tests. This course will demonstrate that this so called ‘test research’ is not necessarily the same as diagnostic research. Furthermore, we will widen the horizon by proposing modern methods of diagnostic and prognostic research and data analysis in which a specific test or biomarker result can and should be considered in the context of other patient information or test results. These methods enable (i) direct estimation of individual probabilities of disease presence (diagnosis) or incidence (prognosis) based on all available information and (ii) evaluation of the extent to which a particular diagnostic or prognostic test or marker has true added value in clinical or public health practice.

Target audience

This course is suitable for academics/professionals and advanced postgraduate students who are undertaking or have completed Masters-level training in epidemiology, biostatistics, clinical research or related disciplines. Intermediate-level understandings of study design, measurement concepts, and regression models are required to complete the course.

Programme

The course takes place over 5 days, with morning lectures and afternoon practical sessions. A course reader is provided on the first day, and pre-readings for Days 2-5 are required.

- *Day 1:* principles of diagnostic practice and diagnostic research
- *Day 2:* overview of design issues (including validity and power estimation) of a diagnostic study
- *Day 3:* statistical analyses of a diagnostic study, including a practical with an existing data set
- *Day 4:* meta-analysis of diagnostic accuracy studies, including a practical with an existing data set
- *Day 5:* principles of prognostic research, the differences with diagnostic research and an overview of design and data analysis issues

Local faculty:

- Professor Landon Myer (Division of Epidemiology & Biostatistics & CIDER, UCT)
- Dr Molebogeng X. Rangaka (University College London & Department of Medicine, UCT)
- Dr Andre Kengne (Programme on Cardiovascular & Metabolic Diseases, Medical Research Council)

Venues at the UCT Faculty of Health Sciences:

- *Lectures:* Seminar Room 1, SPH&FM, Falmouth Building, Entrance 5
- *Practicals:* Health teaching lab 3, New Learning Centre

Registration is free of charge but spaces are limited.

To apply, please email a brief CV/biosketch to Ncebekazi Jwaqu (ncebakazi.jwaqu@uct.ac.za). To request more information, please contact Landon Myer (landon.myer@uct.ac.za).