Methodology and Practical Application of Economic Evaluation and HTA in Health Care
Prof. Bernard Burnand, Prof. Finn Børßum Kristensen, Prof. Mike Drummond, Marco Barbieri

CONTENT OF THE COURSE

Part 1 (Prof. Burnand, Prof. Kristensen)
The course is designed as a comprehensive introduction to the concepts, methods, and application of health technology assessment. Specific topics covered include: 1) Concepts: What is health technology? The multidisciplinary nature of HTA: contributing sciences. The link between policy and HTA. Role and place of evidence-based healthcare in healthcare systems. 2) Methods: An overview of HTA methods – divided into main components: Evidence-based healthcare, general and clinical epidemiology, critical appraisal of clinical literature, systematic reviews - principles and pitfalls, benefit / risk assessment and considerations, grading evidence, role and place of quantitative and qualitative assessments assessing organisational, patient and social aspects of technology application in healthcare, economic evaluation as part of HTA. 3) Application: using HTA in different contexts and jurisdictions, cross-border collaboration in HTA, Stakeholder involvement and successful HTA interaction with healthcare policy and decision making.

Examples and case studies are used to illustrate the main points and considerable emphasis is placed on learning through group work and exercises.

Part 2 (Prof. Drummond, Marco Barbieri)
The course is designed as an introduction to the concepts, methods, and application of economic evaluation in health care. Specific topics that will be covered include: an overview of economic evaluation methods, cost and benefit estimation, economic evaluation using patient-level data, economic evaluation using decision-analytic modelling, and using economic evaluation in healthcare decision-making. Numerous examples and case studies are used to illustrate the main points and considerable emphasis is placed on learning through group work and exercises. There will be ample opportunity for students to discuss any issues or problems they have already encountered in the field of economic evaluation. The course will be of particular benefit to those working in the health care sector who have a need to present a case for funding or reimbursement of particular health care treatments or programs.

OBJECTIVES

Part 1
By end of this course participants will have the knowledge and skills needed to be able to effectively appraise HTA reports and HTA processes in various contexts and to effectively use the information coming from HTA.

Part 2
At the end of the course, the student will:
- be familiar with the concepts, methods and applications of economic evaluation in healthcare;
- understand costing methodology and the different approaches to valuing the benefits of health treatments;
- be able to undertake a critical appraisal of published studies;
- understand the limitations of clinical trials as a vehicle for economic evaluation;
- be familiar with decision-analytic modelling approaches, including the construction of decision trees and Markov models;
- appreciate the main issues in the use of economic evaluation in health care resource allocation decisions, including the reimbursement of health technologies;
- have an appreciation of future developments in the theory and application of economic evaluation in health care.
PREREQUISITES
The course is intended for graduate students who have a background in public management, economics, or the health disciplines. No previous knowledge of HTA is assumed.
The course is intended for graduate students (or equivalent) who have a background in economics, or the health disciplines. Some previous knowledge of economic evaluation is desirable, although this can be acquired through the pre-reading that is offered with this course. Some work experience in the health care sector is desirable, but not essential.

PEDAGOGICAL METHOD
Lectures, interactive exercises, group discussions

ASSESSMENT PROCEDURE
Part 1: Group presentation (15 min) and discussion (15-20 min) on last day.
Part 2: Written examination

COURSE CONTENT AND STRUCTURE

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<td>Monday 11am – 1pm</td>
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<td>Lecture</td>
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<td>Thursday 11am – 1pm</td>
<td>Introduction to economic evaluation</td>
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<td>Benefit measurement Utility estimation exercise Economic evaluation and social values</td>
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<td>Economic evaluation alongside clinical trials</td>
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<td>Decision-analytic modeling (2) Modeling exercise</td>
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<td>International transferability of economic evaluations</td>
<td>Lectures, discussion and group work</td>
<td>Saturday 2pm – 5pm</td>
<td>Using economic evaluation in decision-making Course assessment</td>
<td>Lecture</td>
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CURRICULUM VITAE

Prof. Bernard Burnand
MPH, Yale University School of Medicine (1989).
Head, Healthcare evaluation Unit and Clinical epidemiology Centre (teaching centre of the International Clinical Epidemiology Network – INCLEN), Institute of social and preventive medicine, Lausanne University Hospital, since 1996.
Director of Cochrane Switzerland, Branch of the Cochrane Collaboration, since 2010.
Member of the “Swiss Federal Commission for Healthcare Procedures of the Mandatory Health Insurance” since 2008.
Founding Member of the Guideline-International-Network (2002).
Co-Chair of IMECCHI (International MEthodology Consortium on Coded Health Information), since 2008.
Chair of the Improving Healthcare Knowledge Translation Consortium (Unil), since 2011.

Prof. Finn Børlum Kristensen
Chairman of the executive committee, European Network for Health Technology Assessment (EUnetHTA) and director of its coordinating secretariat, Danish Health and Medicines Agency, Denmark since 2009. Adjunct professor in health services research and health technology assessment at University of Southern Denmark from 1999. Formerly director of the Danish Centre for Health Technology Assessment (DACEHTA), National Board of Health, Denmark 1997–2009.

Dr. Mike Drummond is Professor of Health Economics and former Director of the Centre for Health Economics at the University of York. His particular field of interest is in the economic evaluation of health care treatments and programmes. He has undertaken evaluations in a wide range of medical fields including care of the elderly, neonatal intensive care, immunization programmes, services for people with AIDS, eye health care and pharmaceuticals. He is the author of two major textbooks and more than 600 scientific papers, has acted as a consultant to the World Health Organization and was Project Leader of a European Union Project on the Methodology of Economic Appraisal of Health Technology. He has been President of the International Society of Technology Assessment in Health Care, and the International Society for Pharmacoconomics and Outcomes Research. He is currently a member of the Guidelines Review Panels of the National Institute for Health and Clinical Excellence (NICE) in the UK, and is a Principal Consultant for OptumInsight. His most important publications are:

Marco Barbieri, M.Sc. is an Honorary Research Fellow at the Centre for Health Economics, University of York (UK) and a Associate Researcher of CRES (Economics and Health Research Centre), University Pompeu Fabra, Barcelona (Spain). He holds a B.Sc. in Economics from the University of Bologna (Italy) and an M.Sc. in Health Economics from the University of York (UK). He spent two years working as a Research Fellow at the Centre for Health Economics, University of York, where he has undertaken a wide range of research including cost-effectiveness modelling in rheumatoid arthritis and cardiovascular disease, study of patient preference measurement and the application of evidence to decision making in health care. He has been involved in several health technology assessments, including systematic reviews of economic evaluations of treatments for bipolar disorder and for second-line advanced ovarian cancer. His particular field of interest is associated with issues of transferability of data among jurisdictions.