Module 7

Assessing the Impact of Medical Technologies on Health

Module Workbook

2017 - 2018 academic year
Module 7 (ECO00058M)

Assessing the Impact of Medical Technologies on Health

Module Workbook

2017 - 2018 academic year

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STRUCTURE OF THE CERTIFICATE, DIPLOMA AND MSC PROGRAMMES

Module 1
Basic Economic Concepts

Module 2
Health Economics: Concepts and Analysis

Module 3
Introduction to Health Care Evaluation

Module 4
The Economics of Health Care Systems

Module 5
Statistics for Health Economics

Module 6
Further Topics in Economic Evaluation

Module 7
Assessing the Impact of Medical Technologies on Health

Module 8
Outcome Measurement and Valuation

Module 9
Decision Analysis for Health Technology Assessment

PG Certificate

PG Diploma

MSc
STRUCTURE OF MODULE 7: Assessing the Impact of Medical Technologies on Health

- **Unit 7.1**
  Measuring the Effect of an Intervention

- **Unit 7.2**
  Observational Study Designs

- **Unit 7.3**
  Experimental Methods for Economic Evaluation

- **Unit 7.4**
  Introduction to Systematic Review

- **Unit 7.5**
  Meta-analysis

- **Unit 7.6**
  Clinical Epidemiology of Diagnostics
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Guide to Module 7

Learning aims and objectives

This is a Level 7(M) module. Please refer to the Programme Handbook for full details about compensation criteria.

Learning aims
To develop your understanding of the methods for assessing the effectiveness of health technologies.

Learning objectives
Upon successful completion of the module you should be able to:

- Outline and explain a range of advanced methodological issues in assessing the impact of medical technologies on health for inclusion in economic evaluation studies.
- Explain and understand the key concepts in epidemiology.
- Explain different types of study design and their respective advantages and disadvantages.
- Explain and understand the principles behind randomised trials.
- Undertake a systematic review of the impact of medical technologies on health.
- Undertake a meta-analysis and understand its use in summarising the results of studies of similar interventions.
- Explain the approaches to evidence synthesis and the criteria for assessing when each is appropriate.
- Explain how to undertake an evaluation of diagnostics and screening.

In addition to these, you should ensure that you can meet the learning objectives outlined at the start of each unit.
Credits, timing and assessed work

The module is worth 20 credits and should take approximately 200 hours to complete over the 12 weeks of study, including the module assessment (see below). The following is a guide to the amount of time you might spend on each unit, although you are of course free to fit your study time to your own circumstances.


The two pieces of assessed work are taken from exercises in the workbook. They are:

- Assessed work piece 1: Exercise 7.4
- Assessed work piece 2: Exercise 7.10

Please note that programme staff are under no obligation to mark assessed work that is submitted late. This applies to all modules.

Module assessment

The assessment for this module will be by open exam in week 12. The module may be compensated in certain circumstances. Please read the Programme Handbook carefully for regulations regarding assessment and award at MSc level.
Module 7: Assessing the Impact of Medical Technologies on Health

On-line learning: Yorkshare

The module is supported by the Yorkshare Academic Suite located at:
https://vle.york.ac.uk.

You can access this using the username and password which will be separately supplied.

Module 7 is delivered using narrative slides, that is, for each unit there will be a set of PowerPoint slides, with an accompanying voice-over presentation. The slides used for each presentation are contained in this workbook.

Reading

References to additional reading are provided at the end of each unit. These may be ordered from the University of York’s library or you might find them in your local UK Libraries Plus library. Some of them can be found in the library’s on-line journals pages (via the ‘Library’ link on Yorkshare), and some may be made available in a selective resource list on Yorkshare. If you work in the NHS, your local professional librarian may prove helpful.

Where possible, you are advised to obtain the essential reading cited in the workbook well in advance of each unit.

Essential reading is marked with a *.

Teaching methods

The teaching methods for use in the MSc build on those used in the Postgraduate Certificate and Postgraduate Diploma programmes.
Module 7: Assessing the Impact of Medical Technologies on Health

Module 7 comprises six learning units and will be taught over approximately 12 weeks. For each unit there is a section in the workbook which details the learning objectives, copies of the slide-set, two or three exercises for each unit for discussion on Yorkshare and a reading list of compulsory and additional readings. The module also has two pieces of work for assessment, as detailed on page 2.

The teaching methods differ in format from those used in the Postgraduate Certificate and the Postgraduate Diploma programmes to reflect recent advances in the way many distance learning programmes are being delivered. Materials will be delivered using narrated slides: for each unit of each module there will be a set of PowerPoint slides with an accompanying voice-over presentation, which will be available on Yorkshare to download or stream.

You are expected to undertake self-directed, independent study, under the guidance of your tutor. The timetable noted on page 2 provides guidance on how long you are expected to take studying each unit, including watching and understanding the presentations, working through the exercises, reading and undertaking any assessed work. Please view the “Introduction to the MSc in Economic Evaluation for HTA” presentation on Yorkshare before beginning your MSc studies. This presentation provides an overview of the MSc and the different modules and units at this level, an overview of the format of the MSc and our expectations of you in undertaking the MSc.