# CLUSTER 2: TROPICAL MEDICINE AND CLINICAL DECISION MAKING (TMCDM)

(Course leader: Emmanuel Bottieau)

# General description

The short course "Tropical Medicine and Clinical Decision Making" is organised for medical doctors. This course focuses on descriptive pathology, clinical and laboratory practices and clinical decision-making (CDM) adapted to low-resource settings and tropical district hospitals.

This specialised clinical course is primarily designed for medical doctors who are not from and have no or little professional experience in (low-resource) tropical settings. It may also be suited for physicians from the South looking for a useful update in tropical medicine, with a strong focus on clinical decision-making. Finally, it could be considered as a specialised course worthwhile for clinicians working or planning to work in non-tropical settings with travelers and migrants. Exceptionally, other health care professionals can be admitted (read more in the section on admission criteria).

The course may stand on its own, but can also be combined with the Short Course "Introduction to International Health" the latter being designed for a broader range of health professionals and providing a complementary perspective (beyond clinical care) in the field of international health. This course and the short course Introduction to International Health together constitute the Postgraduate Certificate in Tropical Medicine and International Health (TM&IH).

#### NUMBER OF CREDITS

10 ECTS

## **CONTENT**

- Descriptive pathology of tropical diseases, emerging diseases and diseases with a worldwide distribution such HIV/AIDS and opportunistic infections, tuberculosis and sexually transmitted infections, in adults: history, pathophysiology, clinical presentation, diagnosis and treatment
- Micronutrient deficiencies and malnutrition
- Tropical aspects of major clinical specialties: paediatrics, dermatology, ophthalmology, gynaecology
- Laboratory skills focusing on use and maintenance of a microscope, normal elements of blood, microscopic examination of body fluids for main parasites
- Clinical decision-making. Introduction and exercises in the building blocks of clinical reasoning; predictive power, thresholds, Bayes theorem on a logarithmic scale, complex parallel weighted reasoning; integration of newly acquired disease knowledge in existing scripts and of new scripts in a personal diagnostic framework

### **LEARNING OBJECTIVES**

At the end of this course, participants should be able to:

- explain the epidemiological, clinical and laboratory features of tropical diseases and micronutrient deficiencies in a tropical setting
- explain the specificities of clinical presentation and management of tuberculosis and HIV infection (and related diseases) in tropical settings
- analyse the performances and pitfalls of laboratory tests in a tropical district hospital and interpret their results within a given clinical context
- search and discuss online didactic information on relevant and updated clinical or diagnostic procedures, in low-resource settings
- make a sound differential diagnosis and plan adequate clinical management, adapted to tropical hospital settings with scarce resources

### TEACHING AND WORKING METHODS

The course uses a combination of state of the art lectures, interactive classes, individual study and exercises, coached teamwork and practical laboratory work and problem-based learning.

The lecturers have extensive experience overseas and come from all departments of the ITM. Distinguished external lecturers complement specific areas of expertise. Next to the teaching staff, participants receive support from the course coordinator for academic and programmatic aspects of the course. Their field experience and scientific work feeds extensively into the course.

### MODE OF STUDY

This course (component) is organized:

- Face-to-face (Antwerp)

#### ASSESSMENT AND ASSESSMENT CRITERIA

Assessment takes place in week 8 and 10.

#### Week 8

- a multiple choice questions exam: 100 questions covering all clinical subjects (55%)
- a laboratory practice exam (15%)

#### Week 10

• an oral exam (30%) on clinical decision-making: divided in (1) a presentation of a diagnostic panorama and (2) resolution of a clinical case

### LITERATURE

Illustrated Lecture Notes on Tropical Medicine, Creative Commons License Attribution, document available after registration at <a href="https://www.itg.be/E/illustrated-lecture-notes">https://www.itg.be/E/illustrated-lecture-notes</a>

#### **NUMBER OF CREDITS**

10 ECTS

#### OTHER STAFF INVOLVED

Over 20 lecturers are contributing to this course. The majority belonging to the Department of Clinical Sciences at ITM, see 3 components below:

First Component: "Descriptive Pathology": Emmanuel Bottieau, Steven Van Den Broucke, Johan Van Griensven, Lut Lynen, Chris Kenyon, Veerle Huyst, Ralph Huits, Clinical Sciences Department, ITM. Erika Vlieghe, University of Antwerp; Emilie Macher, MSF-Switzerland, Geneva; Oluwakemi (« Kemi ») Ogundipe, MSF-Belgium; Daan Van Brusselen MSF and UGent; Eglantine Lebas, St. John's Institute of Dermatology, Guy's and St. Thomas' Hospital and Royal London Hospital; Séverine Caluwaerts, gynaecology for MSF and part-time clinician at the HIV clinics of ITM; Stefan De Smedt, AZ Sint-Maarten Hospital, Belgium

Second Component: "Clinical and laboratory practice": Anali Conesa-Botella, Idzi Potters, Clinical Sciences Department ITM.

Third Component: "Clinical decision-making": Filip Moerman, Citadelle Liège; Emmanuel Bottieau, Steven Van Den Broucke, Eric Florence, Clinical Sciences Department ITM.

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