

Course Co-ordinator:
Hilde Buttiëns
Course Director:
Jef Van den Ende
Course Secretary:
Titania Vandevelde
SCREM@itg.be
Tel: +(32)3 2476661
Fax: +(32)3 2476573

Clinical research in low to middle income countries is at the moment often implemented by specialized (foreign funded) institutions involving local and expatriate staff who pursue an academic career. Local clinicians in national and regional hospitals (even district hospitals) are often operationally involved in the data collection. This leads often to frustration as it becomes a mechanic business. Clinicians, however, are aware that there is much information they could use themselves to do “low scale” research to enhance their own decision making. While the former academically oriented clinicians develop their research skills through doctoral study programs the latter miss training opportunities covering their needs. The SCREM aims at filling this gap.

The SCREM targets professionals who are responsible for clinical quality assurance, for local guideline and/or algorithm development and for coaching junior staff in clinical research. More specifically: medical superintendents, heads of clinical or nursing departments, heads of laboratories and pharmacists, all in referral and/or reference hospitals, thesis supervisors in medical schools/faculties, nursing and laboratory schools, public health staff in charge of development of national or regional clinical guidelines.

1. COURSE PROGRAMME

Content

Starting from a practical question participants encountered in their clinical work, a critical analysis of literature is done and an applied research protocol is identified at the start of the course.

The following contents will be contextualized individually and/or in small groups:

- approaches to clinical reasoning ;
- clinical epidemiology, strength of clinical arguments (signs and symptoms), threshold theory and basics of diagnostic decision making ;
- basics of clinical research: from observation to hypothesis, from hypothesis to type of study and sampling study populations ;
- literature search, levels and types of evidence, pitfalls in research (bias in hypothesis, in inclusion, in analysis, in interpretation, in applicability) ;
- use of MS Excel and introduction to Stata 10 and Reference Manager ;
- applied statistics ;
- ethical aspects of research ;
- research funding ;
- introduction to principles of Good Clinical Practice (GCP) ;
- principles of evidence-based medicine
- introduction to construction and evaluation of guidelines/algorithms/scoring systems;
- presentation and communication skills ;

Learning objectives:

At the end of this course the participant should be able to:

A. Evaluate published scientific clinical research in relation to its relevance in a concrete low resource setting ; this includes the ability to:

- retrieve published articles relative to the research question ;
- determine the level of evidence presented in the article ;
- evaluate articles for scientific correctness and soundness ;
- evaluate available evidence for theoretical applicability in clinical reasoning in a concrete setting.

B. Design research projects in the field of etiology of health problems, effectiveness and efficiency of diagnostics, clinical management and disease prevention in low resource settings. This includes the ability to:

- identify an appropriate research question, that finally will lead to a better quality of clinical care at different health system levels ;
- select an appropriate study design, including study population and statistical tests ;
- outline a research proposal ;
- understand the principles of clinical data management;
- perform a basic statistical analysis and present its results;
- master the dialogue with the statistician for more complex statistical analyses.

C. Communicate the results to both professional and scientific communities:

- write an abstract ;
- compose a power point presentation ;
- present to an audience.

D. Through seminars on “selected topics” the participant will furthermore gain basic comprehension of:

- pitfalls of implementation of research projects ;
- basic principles of Good Clinical Practice (GCP) and ethics in clinical research ;
- writing a research grant application including budget and identifying sources of funding for small-scale research projects ;
- basic principles for writing an article ;
- basic rules for transforming gathered evidence into guidelines, algorithms and scoring systems ;
- valuation of guidelines.

2. TEACHING METHODS

Training in research skills and EBM is a question of “learning by doing”, so the course will not be a “rushing through a lot of information” but a hands-on introduction to research and EBM based on a personal project. This method will allow participants to learn while practicing. The personal project should start from an observed problem in clinical practice. For this problem, a survey of the literature, a research protocol or a proposal of guidelines might be distilled. The course will mainly use adult learning methods. This means a problem oriented training in small groups with regular plenary sessions, coached by a tutor. Consultants will be invited to discuss specific problems: laboratory aspects, ethics, statistics, funding etc. based on the different protocols developed by participants, taking them as field examples.

3. EVALUATION AND CERTIFICATE

Evaluation consists of a portfolio assessment (70%) based on the following products: - literature review, abstract, critical reading and personal project (protocol/guideline/algorithm) - and the presentation and defense of the personal project (30%).

Upon successful completion of this course, students are awarded an ITM Certificate in Clinical Research and Evidence-based Medicine.

4. DURATION OF THE COURSE

The program lasts 6 weeks starting from the first Monday of November.

For a work load of maximum 45 hours, some 26 hours will be contact hours: the major part will be group work alternated with plenary sessions, commented by experts. One morning a week will be systematically free for personal work.

5. LANGUAGE

The course is organized in English. Students should be able to read and interpret perfectly English texts. Non-native English speakers or participants who did not use English as course language during previous academic studies should reach a TOEFL score 580 (paper based), 230 (computer based), or an IETLS of 6.5.9 ECTS credits.

6. ADMISSION REQUIREMENTS AND APPLICATION PROCEDURE

The course is intended for the following persons:

- holders of a medical or a paramedical university degree of min 240 ECTS credits ;
- with a minimum of two years professional experience in the clinical field ;
- with past or current involvement in one of the following fields:
 - research and/or application of EBM,
 - development of clinical guidelines and/or algorithms,
 - coaching of medical or paramedical theses in health sciences,

(SCREM)

- teaching clinical epidemiology / EBM ;
- with knowledge of descriptive and inferential (bivariate) statistics and basic clinical epidemiology ;
- with basic computer skills: MS Word, PowerPoint, Excel ;
- with good understanding and expressing abilities in English (proof to be provided if university education has not been done in English: TOEFL 580 (paper-based) or 230 (computer-based) or IELTS 6.5).

No more than 16 participants will be admitted. A selection will be made through the following criteria:

- personal motivation ;
- personal project (described shortly in the application form under 'motivation' a research or EBM project you'd like to work on during the training ;
- enrolment in the MIH/tropEd curriculum ;
- publications ;
- collaborating with or working in a partner institution.

Incomplete applications will not be considered (e.g. missing signature or attachments). The application form can be downloaded from www.itg.be > teaching and training. Applications should reach us no later than 1st of May.

7. TUITION FEE AND SCHOLARSHIPS

You will find information on the exact fee in the general ITM course overview table of our brochure or on our website www.itg.be (teaching & training > course overview > short courses). The fee covers tuition and all course materials. This does not include accommodation and living expenses.

A limited number of scholarships will be available from DGDC. Only participants from developing countries are eligible. The scholarships are awarded on a competitive basis. After approval of your application, the registration fee should be paid into the ITM's account nr. 220-0531111-72 (Fortis, Warandenberg 3, 1000 Brussel), BIC/SWIFT: GEBABEBB, IBAN BE 38 2200 5311 1172).