**Sytematic Literature Searching**

(Biotechnology MSc; Optional modul, Autumn Semester)

*Syllabus*

To cope with the rapid evolution of medicine, physicians need to remain abreast of the many new therapies and diagnostic tools that affect their practices. This requires knowledge and skills that make physicians able to retrieve available scientific evidence and to use it as an important pillar of decisions in the daily practice.

Students participating in the course will acquire background knowledge necessary for effective information retrieval during their later work as a doctor. They will learn how to formulate clinically relevant questions and how to retrieve scientific literature to answer these questions. They will get an insight into how scientists can collect results of already available clinical studies before starting their research and how it is possible to identify research gaps in a specific scientific field.

## *Lectures*

* 1. Role of scientific literature in the daily medical practice. Sources of health care information - Decsi Tamás
* 2. Basic searching: how to find scientific literature effectively for a focused question? - Lohner Szimonetta Ivett
* 3. Formulating a clinically relevant question - Lohner Szimonetta Ivett
* 4. Systematic reviews (definition, importance) - Lohner Szimonetta Ivett
* 5. Methods of developing a search strategy - Lohner Szimonetta Ivett
* 6. The MEDLINE database - Lohner Szimonetta Ivett
* 7. Systematic literature searching in MEDLINE (via Pubmed) - Lohner Szimonetta Ivett
* 8. Systematic literature searching in MEDLINE (via Ovid Medline) - Lohner Szimonetta Ivett
* 9. The Cochrane Library. Systematic literature searching in The Cochrane Library - Lohner Szimonetta Ivett
* 10. Systematic literature searching in other databases. Searching clinical trial registers (clinicaltrials.gov, EU Clinical Trials Register) - Lohner Szimonetta Ivett
* 11. Documentation of search steps. The PRISMA flow-chart - Lohner Szimonetta Ivett
* 12. Software that make systematic literature searching easier and faster - Lohner Szimonetta Ivett

**How to Read a Paper**

(General Medicine, Optional modul, Autumn Semester)

## *Syllabus*

The science of finding, evaluating and implementing the results of medical research can, and often does, make patient care more objective.

This course is intended for students who would like to find their way into the medical literature, assess scientific validity and practical relevance of the papers they find, and where appropriate, put the results into practice.

The main aim of the course is to help students to read and interpret medical papers better. The skills acquired during the course form the basics of evidence-based medicine.

## *Lectures*

* 1. Why read papers at all? - Lohner Szimonetta Ivett
* 2. Searching the literature - Lohner Szimonetta Ivett
* 3. Getting your bearings: what is this paper about? - Lohner Szimonetta Ivett
* 4. Assessing methodological quality - Lohner Szimonetta Ivett
* 5. Statistics for the non-statistician - Lohner Szimonetta Ivett
* 6. Papers that report trials of drug treatments and other simple interventions - Lohner Szimonetta Ivett
* 7. Papers that report trials of complex interventions - Lohner Szimonetta Ivett
* 8. Papers that report diagnostic or screening tests - Lohner Szimonetta Ivett
* 9. Papers that report questionnaire research - Lohner Szimonetta Ivett
* 10. Papers that summarise other papers (systematic reviews and meta-analyses) - Lohner Szimonetta Ivett
* 11. Papers that tell you what to do (guidelines) - Lohner Szimonetta Ivett
* 12. Getting evidence into practice - Lohner Szimonetta Ivett

**Theory and Practice of Evidence-based Medicine**

(Dentistry, Optional modul, Spring Semester)

## *Syllabus*

Evidence-based medicine (EBM) offers practical tools to solve the practical problems arising in clinical settings as well as in outpatient care. This course is aimed not only to summarise the basic knowledge of EBM, but to provide practical examples of the usefulness of EBM as well. Formulating of clinical questions, literature search strategies as well as critical appraisal of papers revealed by the search is discussed in detail.

## *Lectures*

* 1. Definition of evidence-based medicine. The role of evidence in medical praxis - Lohner Szimonetta Ivett
* 2. Study designs. Hierarchy of evidence - Lohner Szimonetta Ivett
* 3. Observational studies - Lohner Szimonetta Ivett
* 4. Interventional studies. Randomised controlled trials - Lohner Szimonetta Ivett
* 5. Planning and conducting a clinical trial - based on own experiences - Lohner Szimonetta Ivett
* 6. How to search for scientific literature efficiently? - Lohner Szimonetta Ivett
* 7. Systematic literature searching - Lohner Szimonetta Ivett
* 8. Summarizing data. Meta-analysis - Lohner Szimonetta Ivett
* 9. Critical appraisal of scientific literature - Lohner Szimonetta Ivett
* 10. The international Cochrane collaboration and Cochrane in Hungary - Lohner Szimonetta Ivett
* 11. Guideline development process - Lohner Szimonetta Ivett
* 12. Role of guidelines in everyday clinical praxis - Lohner Szimonetta Ivett