UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

The Medical Language

2122-1-F8203B031-F8203B031M

Learning objectives

The aim of the course is to prepare students for the most productive collaboration between biostatistics and physicians. To this end, it is necessary to focus on the progressive division of specialized medicine into different disciplines and on the increasingly complex articulation between medical history, laboratory tests, instrumental examinations and therapeutic alternatives. The analysis of studies from the medical literature and the study of some of the most important pathologies, from the etiology to the prognosis, are the main tools to introduce to the understanding of the medical activity.

Contents

Elements of Semeiotics: detection of symptoms and signs and connection with the anatomical, pathological and metabolic alterations that determine them. Diagnosis formulation process.

Value of clinical examinations in the diagnostic process: exemplification of diagnostic procedures of some important pathologies of internal medicine (venous thromboembolism, heart failure, diagnosis of secondary forms of arterial hypertension).

Collaboration between physicians and statisticians in population studies: exemplification of epidemiological study on blood pressure measurements in the general population, study of the correlation between blood pressure values obtained with different methods with other variables relevant to the determination of cardiovascular risk and study of their prognostic value.

Detailed program

- Questions of patients to the doctor in relation to the disease.

- Direct collection of clinical data

1) Family, physiological, remote and recent pathological anamnesis

2) detailed description of the objective examination

- Integration of direct clinical data with the results of laboratory and radiological tests in the formulation of clinical diagnosis.

- Interpretation of clinical tests: sensitivity, specificity, predictive values.

-Examples of diagnostic paths in important international pathologies of different nature:

1) Venous thromboembolism

2) Secondary forms of arterial hypertension

3) Heart failure

- Presentation and data interpretation of an epidemiological study on the general population concerning the values of blood pressure measured with different methods, their correlation with other variables in the definition of global cardiovascular risk and study of their prognostic value through the data of morbidity and general mortality and cardiovascular.

- Examples of different clinical relevance of the variability of biological parameters used in diagnostic processes.

Prerequisites

No formal prerequisite.

Teaching methods

The lessons will be videotaped (audio of the explanation and slides) and made available to students on the e-learning platform. If the university gives us the opportunity, there will be some face-to-face meetings between the teacher and students.

Assessment methods

Oral examination. This examination method is the one that best allows to verify the acquisition by the student of the ability to understand the nature of the diagnostic and/or therapeutic questions that the doctor has to face, as this is

of basic importance for the correct use of the statistical methodology in relation to the different types of clinical problems and for the optimization of the interaction between doctor and biostatistic. Any different decisions ordered by the University will be communicated at the appropriate time.

Textbooks and Reading Materials

The tools for preparing the exam are slides and video registrations available on the e-learning platform.

Semester

First semester, I cicle

Teaching language

Italian