

Faculty of Medicine



MED2331 Medical imaging and clinical biology : Strategy of utilisation

[16.5h] 2 credits

This course is taught in the 1st semester

Teacher(s): Olivier Devuyst, Michel Lievens, Bernard Van Beers
Language: French
Level: Second cycle

Aims

To provide clinicians and prescriptors, as well as test providers, with objective elements and tools to evaluate and optimize the rationale, choice, and strategy of testing in the diagnostic procedure.

Main themes

Theoretical explanation of the different methods used to evaluate diagnostic tests. Illustration of the concepts by exemples taken from medical imaging and biological tests. Analysis of the strategy of utilization (cost-benefit analysis) of diagnostic tests.

Content and teaching methods

The course addresses the theoretical elements used for evaluating diagnostic tests : concepts of reference, relativity, range of normality, sensitivity and specificity, predictive value, bayesian analysis, decision-making, cost-efficacy analysis. These concepts are illustrated by exemples taken from the fields of medical imaging and clinical biology, in the context of common clinical syndromes. The course also includes an analysis of the strategies of prescription of diagnostic procedures based on the recommandations of the European Community and the Americian College de Radiology. This course is actually a complement to the course of semiology and to the clinics dispensed during MED21.

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

Written examination combined with oral evaluation

References : 1. Sox HC, Medical decision making, Butterworths ; 2. Grenier B, Evaluation de la décision médicale, Masson ; 3. Kassirer JP et Kopelman RI, Learning clinical reasoning, Williams & Wilkins ; 4. Friedland DJ et al, Evidence-based medicine, Lange ; 5. Weinstein, Clinical decision analysis, Saunders.