Learning appropriate use of antibiotics (PK/PD and guidelines): a CD-rom course for healthcare professionals and students
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ABSTRACT
Objectives: In a context of growing resistance and limited supply of new molecules, a rational use of antibiotics should be a high priority. Our objective is to train healthcare professionals and students in PK/PD and to develop an implementation of guidelines, which they could help to improve antibiotic use in both short and medium term.
Methods: We developed a PKPD - guidelines course on CD-rom, targeted to both physicians and pharmacists but also usable by students. The course was prepared by a team of 2 pharmacists, 1 clinical microbiologist, and 1 pharmacologist. Sources of information were (1) textbooks, review articles and guidelines of the International Society for Antimicrobial Pharmacology (ISAP www.isap.org) during the last 5 years; (2) national and 3 international guidelines for the management of respiratory tract and urinary tract infections.

Results: The abstracts organized in a series of Power Point presentations, covering in a progressive fashion the following topics: (i) basics in microbiology (in vitro properties of antibiotics); (ii) pharmacokinetics (definition of the main parameters); (iii) pharmacodynamics, (A) the concepts, (B) the methods and pertinent models, and (C) the data, including the parameters to take into account in the definition of the therapeutic index; (iv) the principles of rational use of antibiotics, with emphasis on patient characteristics and the appropriate use (including appropriate dosage) of antibiotics in (A) respiratory tract and (B) urinary tract infections.

Conclusions: This course provides continuous education in the pharmacology and pharmacochemistry of antibiotics, in a format usable for courses and seminars to both students and professionals.

INTRODUCTION
Optimizing the use of current antibiotics based on pharmacokinetics and pharmacodynamics and rational application of guidelines can contribute to the limitation of resistance development.

In this respect, education of students and healthcare professionals appears as a priority and can be facilitated by making available to them easy-to-consult informative supports.

OBJECTIVES
- To develop an educational programme in which pharmacists and infectious disease specialists train healthcare professionals and students in PKPD and in a correct implementation of guidelines.
- To distribute to people following this course a CD-rom as a support that can be consulted at any time.

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