

Abstract

The aim of this study is to assess the compliance with evidence based medicine of the practices of administration of perioperative surgical chemoprophylaxis in the Emilia Romagna region. Prospective study of 1 month duration including 31 of the 36 public hospital existing in the region. For all the patients admitted to one of the 121 participating units and undergoing a surgical operation, data were collected on the surgical prophylaxis administered, including type of antibiotic, time of administration and duration. Surgical prophylaxis was given in 4,946 surgical operations of the 6,167 included in the study. The median frequency of surgical prophylaxis administration was 81% ranging from 67% to 97% in different Local Health Authorities. Chemoprophylaxis was given also for surgical operations where, according to systematic literature reviews, the cost-benefit ratio is absolutely unfavourable to the use of antibiotics. In 2,120 cases (42.9%) the time of administration was not perioperative and, thus, differed from the recommended practice: in 264 cases (5%), antibiotics were administered after the operation. In 42.6% of the cases the duration of administration was not a short-term prophylaxis, being longer than 24 hours: in these 2,108 cases, the median duration was 4 days ranging from 1 to 90 days. In 48% of the cases cefazolin was administered; in 1,347 cases (23.4%), instead, a third or fourth generation cephalosporin was used. The survey pointed out an overuse of antibiotics, both for indications and duration, even when clear evidences of efficacy are lacking; moreover, the criteria for selection of specific antibiotics frequently did not take into account the risk of selecting antimicrobial resistance strains.