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OBJECTIVES: Complicated skin and soft tissue infections (cSTIs) are a common cause of morbidity at community and hospital levels. The present study aims at evaluating the costs and outcomes of antibiotic therapy for the treatment of cSTI in Italy.

METHODS: The study was designed as retrospective, multicentre, incidence-based and observational. The hospital perspective was considered. Seven hospitals were selected across the country and each hospital was asked to retrospectively recruit patients from January 2003 to August 2006. Hospitals were identified amongst those highly specialized in the treatment of infectious diseases and diabetic foot. The target population consisted of adult patients eligible to receive antibiotic therapy for cSTI that was due at least in part to gram-positive organism and that required hospitalization and parenteral antimicrobial therapy for at least 96 hours. Consistently with the study perspective, direct hospital costs have been identified and measured through a micro-costing approach. Clinical variables and cost data were drawn from patients’ medical records and registered on Case Report Forms. RESULTS: A cohort of 307 patients was enrolled. Failure of initial antibiotic therapy resulted in 23% of patients. Average treatment with antibiotics lasted for 14.3 days and full cost of admission totalled Euro 6404. The right choice of first line antibiotics could save up to 3000 Euro per patient in case of “failure” avoided, of which 889 Euro were avoidable costs, that is they could actually be saved in the very short-run. These could be ultimately increased by Euro 92 for each hospital day avoided because of faster antibiotic action. CONCLUSION: Hospital resources could be freed and patients’ outcomes improved if 1) the right antibiotic is immediately selected at patient’s admission, and 2) the quickest antibiotic ischosen in eradicating the infection.

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