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Abstract (poster session)

Current management of patients hospitalised with complicated skin and soft tissue infections across Europe (2010–2011): assessment of clinical practice patterns and real-life effectiveness of antibiotics (REACH study)

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Objectives: Data on the management of hospitalised complicated skin and soft tissue infections (cSSTIs) are limited. REACH (NCT01293435) was a retrospective, observational cohort study aiming to provide data on current clinical management of moderate to severe cSSTIs in European hospitals. Methods: Data were collected from 129 sites in ten European countries. The population comprised patients ≥ 18 years, hospitalised between March 2010 and February 2011 with a cSSTI requiring intravenous antibiotic treatment. Variables were collected via an electronic Case Report Form. Results: The total population included 1996 patients; mean age 60.6 years; 57.8% male, 1154 from university hospitals, 842 from non-university hospitals. Based on information in the patient records, 78.0% (n=1557) of patients reported ≥ 1 co-morbidity or receiving relevant medications in the 3 months prior to hospitalisation (64.3%; n=1284); 29.9% (n=596) had received antibacterials/antivirals. One-quarter of infections (25.6%; n=510) were recurrences and 10% (n=199) were nosocomial. Microbiological diagnosis was available for 51.1% (n=1020) of patients, revealing Gram-positive cocci in 68.9% (n=703) (9.9% [n=101] methicillin-resistant *Staphylococcus aureus*, 26.9% [n=274] methicillin-sensitive *S. aureus*) and Gram-negative bacilli in 33.6% (n=343) of patients. Once hospitalised, patients were usually treated on Day 1 (81.6% [n=1629] empirically and 17.3% [n=346] with a specific therapy). The most common antibiotic agent used, alone or in combination, was amoxicillin–clavulanate (29.9%; n=596) followed by piperacillin–tazobactam (18.2%; n=364). Treatment failure (defined as a need for antibiotic change) was reported in 46.6% (n=930) of patients (mortality rate 3.4%). Failure of initial therapy was more common in patients with co-morbidities vs those without (49.3%; n=767 vs 37.1%; n=163), in university vs non-university hospitals (49.7%; n=573 vs 42.4%; n=357) and in patients with nosocomial vs non-nosocomial cSSTI (53.3%; n=106 vs 45.9%; n=824). Surgery was required by 37% (n=739) of patients. Initial treatment with piperacillin–tazobactam was associated with a failure rate of 49.6% vs 31.7% for amoxicillin–clavulanate. Outcomes varied by country; treatment failure varied between 55.6% in Italy and 33.8% in the Netherlands. Conclusions: These data give a current view of management of cSSTIs in European hospitals in 2011 and provide evidence of a high failure rate of initial antibiotic therapy.