

**O045**

**Oral Session**

**Monitoring antibiotic use**

**HOSPITAL ANTIBIOTIC USE IN EUROPE: ARE COMPARISONS RELEVANT?**

**C. Dumartin**<sup>1</sup>, K. De With<sup>2</sup>, P. Parneix<sup>3</sup>, A.M. Rogues<sup>1</sup>

<sup>1</sup>Inserm 657, Bordeaux University, Bordeaux, France ; <sup>2</sup>Infectious diseases, University Hospital, Dresden, Germany ; <sup>3</sup>HCAI prevention and control centre, University Hospital, Bordeaux, France

**Objectives:** Surveillance of antibiotic (AB) use in the European Union (EU) has been promoted through the European Surveillance of Antimicrobial Consumption project (now ESAC-Net) for more than 10 years. However, not all Member States (MS) provide AB use in the hospital sector. Moreover, relevance of total population as denominator for hospital use may be questioned. National systems set up by MS to monitor hospital AB use in relation with hospital activity indicators were identified in order to analyse methods used for data collection. We also aimed at determining whether data were suitable for international comparisons as recommended at the European level and by the Transatlantic Taskforce on Antimicrobial Resistance (TATFAR).

**Methods:** Information on national systems for AB use surveillance in hospitals in 2010, 2011 and /or 2012 was gathered from national health institutions' websites and from literature. The search was limited to data available in English, French, German, Spanish or Italian. The scope of surveillance (hospitals, antibiotic classes), unit of measure and denominator used were analysed and results were compared.

**Results:** Data on hospital AB use in relation with activity indicators were available in 6 MS at the national level and in one region in Italy. In Belgium, Slovenia and Spain, last available data dated back from 2009 or earlier. Surveillance included AB for systemic use (J01 according to WHO classification) in acute care hospitals. In addition, data on other antimicrobials and/or others hospitals were collected in some MS. Use was measured in number of defined daily doses (DDD, WHO ATC/DDD classification) and collected from hospital pharmacies (sales or dispensing data). Activity was expressed as the number of patients-days (PD) and of admissions and was retrieved from hospitals or from national databases. Antimicrobial use in acute care hospitals was 57, 58, 62, 71, 86 and 93 DDD/100 PD in Germany, France, Sweden, Netherlands, Ireland and Denmark in 2011/2012. Differences in data presentations hampered comparisons of usage patterns for some antibiotic classes.

**Conclusion:** We identified differences and common features in monitoring methods. In addition, differences in hospital resources should also be considered when interpreting usage data. However, comparisons highlighted differences in the pattern of use. In the context of cross-border transfer of patients and spread of resistant bacteria, more comparable information on the way antibiotics are used in European hospitals is needed, namely regarding broad-spectrum antibiotics.