

**904. Multidrug-Resistant Gram-Negative Bacteria (MRGN) in Intensive Care Units - Results from the German National Surveillance System for Nosocomial Infections (KISS)**

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**Background.** The increasing incidence of infections and colonization with MRGN will put new challenges to health-care systems. It is important to adjust national health-care guidelines in response to the resistance situation. To obtain quantitative data on the current MRGN infection situation, a new national surveillance system for MRGN in German hospitals was initiated in early 2013.

**Methods.** The KISS module on Surveillance of MDROs (Multi drug resistant organism) allows for the documentation of colonization and infection with MDRO on intensive care units (ICUs). For each ICU colonization or infection, these bacteria (genus and species) is entered into the surveillance system. Furthermore, the user reports whether the MDRO was imported to or acquired on ICU. The present data

consist of the surveillance data from 2013. In this analysis we focused on 4MRGN bacteria. The term 4MRGN was defined by the German federal institute for disease control and prevention in 2012 and pools organisms with a combined resistance to 4 antibiotic groups: acyl-ureidopenicillins, 3./4. generation-cephalosporins, carbapenems and fluoroquinolones.

**Results.** In 2013, 339 ICUs conducted a surveillance on 4MRGN. They reported 892 cases, of which 546 (61,2%) cases were imported and 356 (38.8%) were acquired. 505 (56.6%) cases were colonizations, and 387 (43.4%) cases were identified as infections. 354 (70.2%) cases of the colonizations (192 [49.6%] of the infections) were imported, and 151 (29.9%) cases were acquired on the unit (195 [50.4%] of the infections). Overall prevalence of 4MRGN was 0.30 cases per 100 patients, and prevalence at admission was 0.19 per 100 patients. Incidence density of infections with 4MRGN was 0.15 infections per 1,000 patient days. 498 cases (55.8%) of 4MRGN were *Pseudomonas aeruginosa*, 245 (27.4%) cases were *Enterobacteriaceae* and in 116 cases (13.0%) the species was *Acinetobacter baumannii*. The remaining 33 cases were *Stenotrophomonas maltophilia*.

**Conclusion.** This surveillance system allows an analysis of the current resistance situation of 4MRGN in Germany. Changes in the occurrence of 4MRGN can be detected in detail. This offers a chance to respond early to newly emerging pathogens on a national level and to establish effective prevention measures.

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