Mapping the healthcare structures and the practice of guidelines for infection prevention and control staff in the Dutch-German border region in 2016

Annette Jurke, Corinna Glasner, Dagmar Rocker, Inka Daniels-Haardt, Alexander W. Friedrich

Infectious disease epidemiology, NRW Centre for Health, Bochum, Germany, Department of Medical Microbiology, University Medical Center Groningen, Groningen, Netherlands, Department Communicable Diseases, The Governmental Institute of Public Health of Lower Saxony, Hannover, Germany, Health protection, health promotion, NRW Centre for Health, Bochum, Germany

Background: Since 2013, EU patients have a right to seek healthcare anywhere in the EU. Little is known on the influence of differences in acute healthcare structures on infection prevention. Moreover, guidelines and realization of those for infection prevention and control (IPC) staff differ and might impact the quality of healthcare. We performed an analysis of those parameters in the Dutch-German border region.

Materials/methods: We compared the healthcare structures with respect to the number of hospitals, hospital beds and inpatient cases per inhabitants in 2016. For the German border region hospitals (GBH) we extracted annual quality records of hospitals from the Federal Joint Committee. For the Dutch border region hospitals (DBH) the data was requested at press offices of hospitals. We used population statistics and survey data in fulltime equivalents on staff in GBH in 2015.

Results: There are more than 4 times more hospitals, hospital beds and inpatient cases per inhabitants in the German than in the Dutch region. Both guidelines recommend similar number of IPC staff. Twenty out of 29 DHB (76.9%) fulfill the Dutch IPC staff guideline for infection control doctors (ICD), 23 (88.5%) for infection control nurse (ICN). Nine out of 35 GBH (25.7%) adhere to the German IPC staff guideline for ICD. All GBH have at least one ICD as an external consultant; 21 (60.0%) have enough ICN. Estimating the actual numbers of IPC staff in DBH with the German guideline, 21 DBH (80.8%) fulfill them for ICD and 19 (73.1%) for ICN. If the Dutch IPC staff guideline would be valid in GBH, 14.5% for ICD and 40.0% for ICN would fulfil it.

Conclusions: The observed large differences in acute healthcare structures in the Dutch-German border region cannot be explained by the different population density. There are more and smaller hospitals in Germany hampering the employment of sufficient IPC staff. The fourfold more inpatient cases per inhabitants in the German region enhance the exposure to healthcare, antibiotics and MDRO. Co-operation in education of IPC staff and recognition of degrees could facilitate closing the gap of supply and demand in IPC staff at both sides.