An aid to interpreting ITS-KISS reference data

I. Reference data to device utilization rates and infection rates

ITS-KISS reference data include data from January 2005 to December 2009. There are nine variations of reference data, one for all ICUs without taking the type of unit into account, and eight for the following types: interdisciplinary in a hospital with fewer than 400 beds; interdisciplinary in a house with at least or more than 400 beds; surgical; internal medicine; neurosurgical; and cardiosurgical. Cardiology ICUs are classified among the ICUs for internal medicine; traumatology ICUs are classified among the surgical ICUs, for the time being.

ICUs are classified by treatment of the majority of patients.

For each variant, data are given as to the number of ICUs in the variant; the total number of months in surveillance; the total number of patients; the total number of patient-days; the average length of stay; and tables for device-utilization, device-associated infection rates and the most common pathogens for device-associated infections by percentage.

Table 1: Device utilization rates

For urinary catheters, central vascular catheters (CVC) to 31 Dec 2007 and from 1 Jan 2008, invasive mechanical ventilation (INV), non-invasive mechanical ventilation (NIV) from Jan 2008, and ventricular drainage from Jan 2008 the following data are given: the number of ICUs; the total number of patient-days; the total number of device-days, and the average, 25% quantile, median and 75% quantile device utilization rates for the ICUs.

Each ICU can benchmark its own data against the reference data to determine into which quantile it falls.

Table 2: Device-associated infection rates

For urinary catheter-associated UTI in general (D1, D2, D3); symptomatic UTI (D1); asymptomatic bacteriuria (D2); CVC-associated bloodstream infections (B1, B2) to 31 Dec 2007 and from 1 Jan 2008 (from which B2 only for children ≤ 12 months was included); INV-associated and NIV-associated (from 1 Jan 2008) respiratory infections (C1a, C1b, C1c, C1d, J1); pneumonia (C1a-d); and bronchitis (J1) as well as VD-associated meningitis, the following data are given:

- Total number of ICUs
- Total number of device-associated infections
— Average device-associated infection rates
— 25% quantile, median and 75% quantile for device-associated infection rates

Each ICU can benchmark its own data against the reference data to determine into which quantile it falls. Values above the 75% quantile should be considered comparatively high rates and should draw attention to possible problems in hygiene management.

II. Reference data to pathogen statistics

Table 3: Most common pathogens for device-associated infections by percentage

The number and percentage of device-associated infections for the most common pathogens are given here, divided by pathogen and type of infection. The order of these pathogens reflects their frequency without taking the type of infection into account.