

The objectives of this survey were to estimate the prevalence of PVC and PVC-associated infections on peripheral wards of a large tertiary care hospital in Germany. The collected data may be utilized for a tailored infection prevention intervention in the future” Aghdassi et al (2019).

Abstract:

BACKGROUND: Bloodstream infections (BSI) are among the most frequently documented healthcare-associated infections (HAI). Central and peripheral venous catheters (CVC and PVC) are relevant risk factors for BSI. Although the risk for BSI is higher for CVC, PVC are utilized more frequently and are therefore relevant in the context of HAI prevention. Robust data on the prevalence of PVC and associated infections in German hospitals are scarce to this date. The objectives of this survey were to estimate the prevalence of PVC and PVC-associated infections on peripheral wards of a large tertiary care hospital in Germany. The collected data may be utilized for a tailored infection prevention intervention in the future.

METHODS: A point prevalence survey was conducted on peripheral wards of a tertiary care hospital with more than 3.000 beds. Data were collected between August 2017 and February 2018. Standardized data collection forms were used for collecting ward, patient and PVC-related data. As endpoints, prevalence of patients with PVC, PVC-associated infections and PVC without usage in the 24 h prior to the survey and without documentation of intended usage in the 24 h after the survey (“unused PVC”) were chosen. For data analysis, Kruskal-Wallis test was employed for continuous variables and Chi-squared test or Fisher’s exact test for categorical variables. Multivariable analysis and logistic regression were performed for the endpoint unused PVC.

RESULTS: Data from 2.092 patients on 110 wards were collected. The overall prevalence of patients with PVC was 33%. Infections were recorded in 16 patients. Except one case of BSI, these were all local infections at the site of insertion. Of 725 documented PVC, 77 (11%) were unused PVC. Multivariate analysis and logistic regression revealed wards with the practice of regularly obtaining blood from PVC, PVC with dirty or loose insertion dressing, pediatric ward specialty and last inspection of the PVC more than 1 day ago as significant risk factors for unused PVC.

CONCLUSIONS: A substantial proportion of patients presented with a PVC on the day of survey. Too few infections were recorded to allow for more detailed analyses. Various risk factors for unused PVC were identified. We hereby present a solid method to obtain an overview about PVC use and to increase awareness for PVC-associated risks. The limitations of point prevalence surveys have to be recognized.

You may also be interested in...

[Full Story](#)

Reference:

Aghdassi, S.J.S., Schröder, C., Gruhl, D., Gastmeier, P. and Salm, F. (2019) Point prevalence survey of peripheral venous catheter usage in a large tertiary care university hospital in Germany. *Antimicrobial Resistance and Infection Control*. January 17th. eCollection 2019.

doi: 10.1186/s13756-019-0468-8.