Developing collaborative working to improve patient care and experience with vascular access devices

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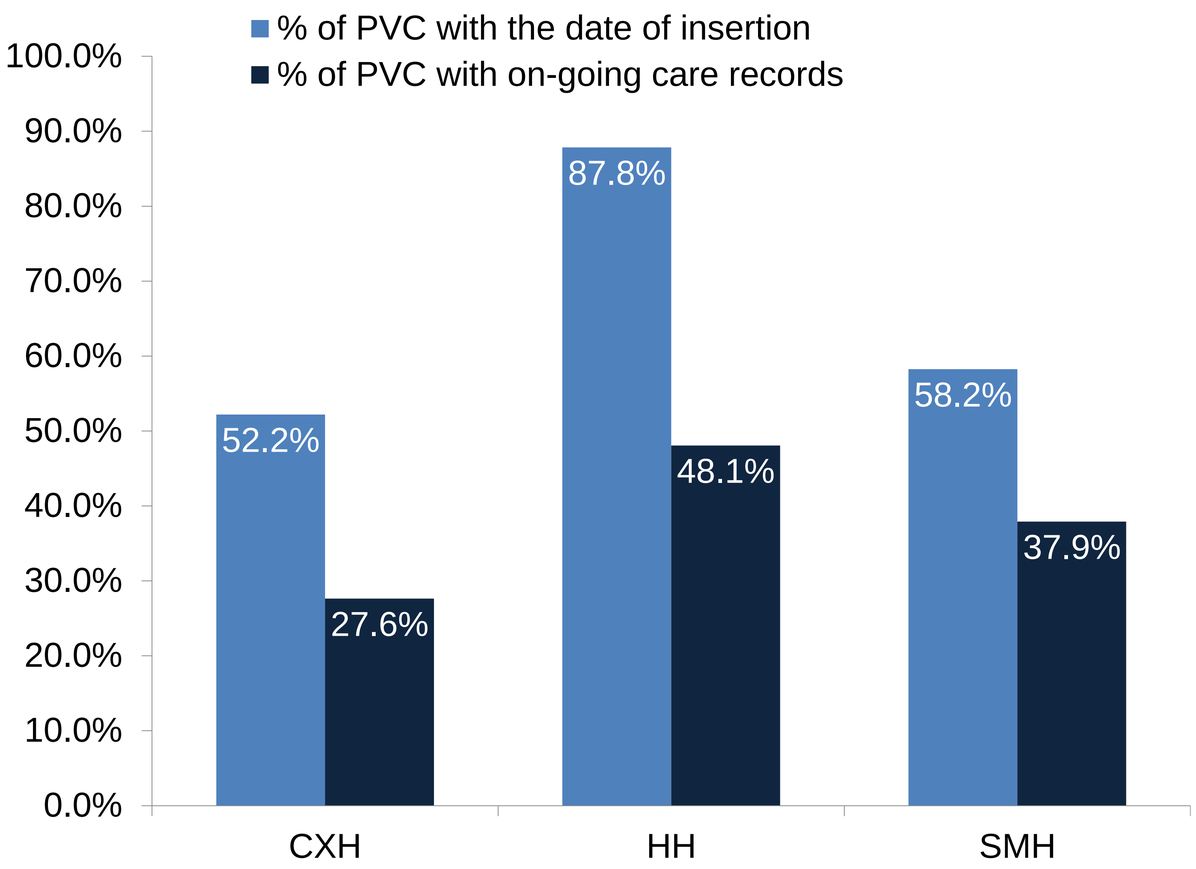
Introduction

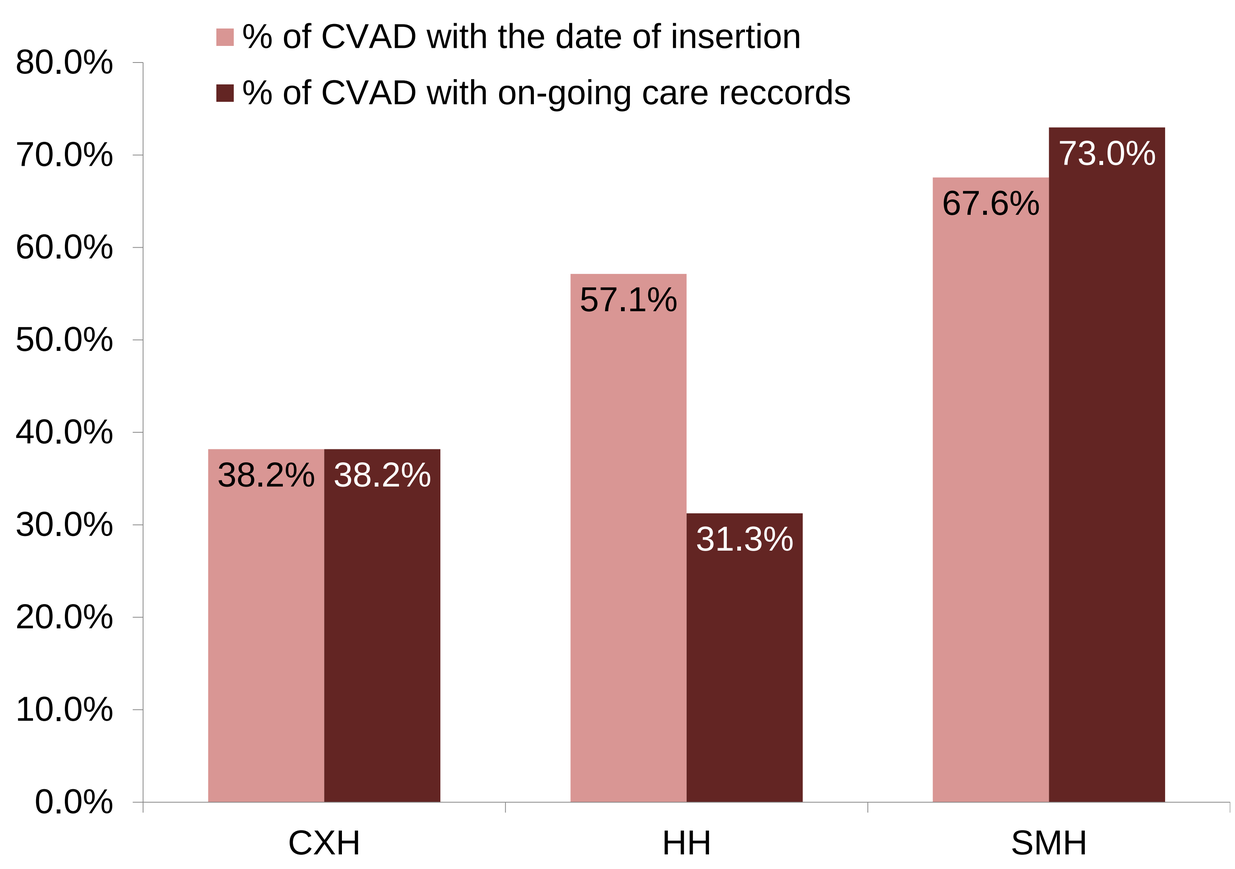
Vascular and urinary catheters can be associated with infection. To supplement regular data collection around high impact intervention care bundle data, a point prevalence survey of peripheral venous cannula (PVC) and central vascular access devices (CVAD) to determine adherence to guidelines [1] was performed by the vascular access and epidemiology teams. Data was also collected on urinary catheter prevalence.

Method

Using a Trust-approved data collection sheet, teams of two went to the clinical areas. One reviewed the patient whilst the other accessed electronic patient records (EPR). Where there was no insertion record we asked the patient when the device was inserted and by whom. The audit was conducted over a two week period in March 2017 across our multi-sited organisation.



Graph 1: PVC insertion records vs. on-going care documentation



Graph 2: CVAD insertion records vs. on-going care documentation

Results

The number of patients reviewed was 1261, with 591 (46.9%) PVC and 204 (16.2%) CVAD in situ. Visual inspection for signs and symptoms indicating a complication rate of 16% for PVC and 8% for CVAD; however the absence of documentation in EPR meant this was not always evidenced. 184 (84.0%) PVC, (graph 1) & 62 (74.7%) CVAD , (graph 2)with on-going care documentation also had an insertion record, which suggests that nursing staff are more likely to follow up when an insertion record is present. Only just over 60% PVC and CVAD were clinically indicated on audit day. 22.4% patients had multiple PVC in the previous 96 hours and 6.7% patients had multiple attempts to insert the PVC being audited. 6.1% patients had both a PVC and CVAD. It has been estimated that 15–25% of hospitalised patients have a urinary catheter inserted during their stay. [1] The prevalence of urinary catheters at the time of audit was 174 (13.8%).This data is now being matched with antibiotic prescribing for urinary tract infections and clinical isolates of urine to establish the incidence of catheter related urinary tract infections.

Conclusion

The low number of complications with vascular access devices including infection suggests adherence to the care bundle approach for insertion, although documentation is a focus for improvement. Urinary catherisation was less common than anticipated.

References

1. Loveday, et al. *Epic 3: National Evidence-Based Guidelines for Preventing Healthcare Associated Infections in NHS Hospitals in England* (2014) Journal of Hospital Infection Epic3 Guidelines

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