



This study demonstrates the ease and feasibility of collecting detailed descriptive data on central line insertion and its immediate complications in the UK over two weeks” Wong et al (2018).

Abstract:

BACKGROUND: Central venous catheters are inserted ubiquitously in critical care and have roles in drug administration, fluid management and renal replacement therapy. They are also associated with numerous complications. The true number of central venous catheters inserted per year and the proportion of them associated with complications are unknown in the UK.

METHODS: We performed a prospective audit at five hospitals, as a feasibility pilot for a larger, nationwide audit. Using a novel secure online data collection platform, developed earlier and adapted for this project, all central venous catheters inserted for patients admitted to the Intensive Care Units were documented at five pilot sites across the UK.

RESULTS: A total of 117 data collection forms were submitted. Users found the electronic data collection system easy to use. All data fields were ready for analysis immediately after data input. Out of the 117 central venous catheters, 17 were haemodialysis catheters and five pulmonary artery introducers. Experienced practitioners (at least three years’ experience) inserted 85% of the central venous catheters. The site of insertion was the internal jugular vein for 80%, femoral for 12% and subclavian for 8% of central venous

catheters. Most central venous catheters were inserted in ICU (49%) or theatres (42%). Ultrasound was used for 109 (93%) of central venous catheter insertions and its use was not associated with fewer complications. In 15 cases venopuncture was attempted more than once (all with ultrasound) and this was associated with significantly increased risk of complications. There were eight immediate complications (6.8%): five related to venopuncture and inability to pass a guidewire, two carotid artery punctures and one associated with significant arrhythmia.

CONCLUSION: This study demonstrates the ease and feasibility of collecting detailed descriptive data on central line insertion and its immediate complications in the UK over two weeks. In our proposed nationwide audit, organisation-level data on local policies and standard operating procedures is required to complete the picture on this important aspect of intensive care practice.

Full Text

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Reference:

Wong, A.V., Arora, N., Olusanya, O., Sharif, B., Lundin, R.M., Dhadda, A., Clarke, S., Siviter, R., Argent, M., Denton, G., Dennis, A., Day, A. and Szakmany, T. (2018) Insertion rates and complications of central lines in the UK population: A pilot study. *Journal of the Intensive Care Society*. 19(1), p.19-25.

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