Central and Peripheral Venous Cannula - Audit

Audit of central and peripheral venous catheter insertion in Radiology Department

# Introduction

Insertion of central venous catheters and PICC (Peripherally Inserted Central Venous Catheter) by medical or nursing staff in ward side rooms is associated with a variable and unknown success rate. Some patients are referred to radiology if trained staff are not available, if attempts to access a suitable vein have failed or if the cannula cannot be advanced into the central veins. Two radiologists currently provide a second line insertion service using ultrasound and fluoroscopy with a 100% success rate. Limitations on theatre time, medical and nursing staff availability hinder the delivery of a faster service. For a number of reasons, catheter insertion is regarded by radiologists as non-core work, non-urgent and cases are frequently delayed by other interventional work.

# Aim

This study aimed to assess the extent of the problem and quantify the delay to patient care resulting from delays in treatment.

# Method

All requests for catheter placement in radiology were logged over a 3 month period. Patient details, the reason for the catheter and the delay from receipt of the request card to line insertion were collected prospectively.

# Results

A total of 45 patients were included in this audit of whom 86% were in-patients. 73.3% of the procedures were performed by the Radiology Department, 17.8% were cancelled for various reasons and 8.9% were inserted elsewhere.

56.8% of the catheters were for intravenous antibiotics, 27.3% for chemotherapy, 6.8% for dialysis and 4.5% for TPN (total parenteral nutrition).

Mean waiting time for catheter insertion by radiology was 8.9 days representing a mean of 7.1 days working days. Case note review identified a further delay of one day from writing the request card to receipt of the card in radiology.

# Conclusion

Mean delay of nearly 10 days for insertion of PICC lines will mean that patients will have multiple peripheral cannulas inserted, causing considerable discomfort and distress. In some cases, antibiotic, nutritional or dialysis therapy may be delayed. These factors may contribute to additional workload for clinical staff and bed shortages.

# Further action

* Improve service within existing radiology budget
* Continue pressure for management to fund a vascular access team
* Apply for BMedSci student project to investigate and assess costs more fully
* Re-audit if and when situation changes