Removing the Blindfold: Has Fluoroscopy Guidance Influenced Thrombosis Rates?

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Introduction
Peripherally inserted central catheter [PICC] related thrombosis is well documented, ranging from 1 - 40% depending on clinical management and assessment. There are a range of contributing factors which include vein to catheter ratio, patient disease processes, thrombosis history, site placement and PICC tip position. PICC tip position proximal to the lower third of the superior Vena Cava (SVC) has been shown to increase the risk of thrombosis. PICC insertion under fluoroscopy enables clinicians to visualise the tip during real time X-ray for optimal positioning. The Gold Coast University Hospital [GCUH] has a nurse led PICC insertion and management team [PICC Chicks] which has begun a new practice of fluoroscopy guided PICC insertion.

Objectives
This poster will present the adult thrombosis rates by fluoroscopic guided PICC tip positioning and recommendations for clinical practice.

Method
The GCUH PICC Chicks have maintained a database of PICC insertions and management over ten years, information includes demographics, PICC size, site, clinical information and complications. Thrombosis rates have been collected and collated yearly from 2010 to 2015.

Results
Thrombosis rates from the years preceding fluoroscopy ranged from 0.3% - 3.5%. Currently thrombosis rates remain below this at 1.8% with the new practice of PICC insertion with fluoroscopy.

Conclusion
The decrease in PICC related thrombosis rates since moving to fluoroscopic PICC tip positioning to the Cavo-atrial junction provides evidence to support this practice, however due to the multiple contributing factors for thrombosis it is difficult to establish that this is the sole reason for this reduction.