To perform a retrospective analysis of interventional radiologic implantation of CVPS and PICC lines in a large patient population including a cost analysis of both methods as well as an investigation the learning curve in terms of the interventions’ durations” Rotzinger et al (2017).

Abstract:
Background: Placement of central venous port catheters (CVPS) and peripherally inserted central catheters (PICC) is an integral component of state-of-the-art patient care. In the era of increasing cost awareness, it is desirable to have more information to comprehensively assess both procedures.

Purpose: To perform a retrospective analysis of interventional radiologic implantation of CVPS and PICC lines in a large patient population including a cost analysis of both methods as well as an investigation the learning curve in terms of the interventions’ durations.

Material and Methods: All CVPS and PICC line related interventions performed in an interventional radiology department during a three-year period from January 2011 to December 2013 were examined. Documented patient data included sex, venous access site, and indication for CVPS or PICC placement. A cost analysis including intervention times was performed based on the prorated costs of equipment use, staff costs, and expenditures for disposables. The decrease in intervention duration in the course of time conformed to the learning curve.

Results: In total, 2987 interventions were performed by 16 radiologists: 1777 CVPS and 791 PICC lines. An average implantation took 22.5 ± 0.6 min (CVPS) and 10.1 ± 0.9 min (PICC lines). For CVPS, this average time was achieved by seven radiologists newly learning the procedures after performing 20 CVPS implantations. Total costs per implantation were €242 (CVPS) and €201 (PICC lines).

Conclusion: Interventional radiologic implantations of CVPS and PICC lines are well-established procedures, easy to learn by residents, and can be implanted at low costs.

Reference:
January 1st.
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