



#IVTEAM #Intravenous literature: Lenchus, J.D., Carvalho, C.M., Ferreri, K., Sanko, J.S., Arheart, K.L., Fitzpatrick, M. and Issenberg, S.B. (2013) Filling the void: defining invasive bedside procedural competency for internal medicine residents. *Journal of Graduate Medical Education*. 5(4), p.605-12.

Abstract:

BACKGROUND: Residents perform invasive bedside procedures in most training programs. To date, there is no universal approach for determining competency and ensuring quality and safety of care.

OBJECTIVE: We developed and implemented an assessment of central venous catheter insertion competency for internal medicine and internal medicine-pediatrics residents, using measurements for knowledge, skill, and attitude and linking them to procedural outcomes.

METHODS: We conducted a cohort study of a 4-week, resident-run procedure service from July 2007 through June 2011 at a large academic medical center. Knowledge was assessed by using a written test, technical skill by using a checklist, and attitude by self- and supervisor assessments of residents' confidence and capability. Competence was defined as (1) a minimum written test score (70%); (2) a perfect checklist score; (3) a resident's self-assessed confidence and capability scores of 4 or 5 of 5; and (4) faculty rating of the resident's confidence and capability as 5 of 5. A composite success rate was based on procedural outcomes (eg, completed procedures, less than 3 forward needle passes, and complication

rate) and was compared to the checklist scores.

RESULTS: A total of 148 internal medicine and medicine-pediatrics residents inserted 639 catheters, and 53 (36%) achieved competence by the end of 4 weeks. Residents judged to be competent by checklist scores had a higher composite success rate than those deemed not competent.

CONCLUSIONS: Our multi-factorial criteria used to define central venous catheter insertion competency effectively discriminated between residents judged to be competent and those judged not competent, using data from procedural outcomes.

Other intravenous and vascular access resources that may be of interest (External links - IVTEAM has no responsibility for content).

Guide for intravenous chemotherapy and associated vascular access devices from Macmillan.
An example of peripheral cannulation OSCE from OSCE Skills.

