



“This study evaluates existing published tools on this procedure and systematically summarizes key competencies for the assessment of this technical skill” Ma et al (2014).

#### Reference:

Ma, I.W.Y., Sharma, N., Brindle, M.E., Caird, J. and McLaughlin (2014) Measuring competence in central venous catheterization: a systematic-review. SpringerPlus. 3(33).

#### **Full Text**

Central venous catheter competencies reviewed [@ivteam #ivteam](http://ctt.ec/vq0n9+)

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#### Abstract:

**Objectives:** Central venous catheterization is a complex procedural skill. This study evaluates existing published tools on this procedure and systematically summarizes key competencies for the assessment of this technical skill.

**Methods:** Using a previously published meta-analysis search strategy, we conducted a systematic review of published assessment tools using the electronic databases PubMed, MEDLINE, Education Resource Information Center (ERIC), the Cumulative Index to Nursing and Allied Health Literature (CINAHL), Excerpta Medica, and Cochrane Central Register of Controlled Trials. Two independent investigators abstracted information on tool content and

characteristics.

Results: Twenty-five studies were identified assessing a total of 147 items. Tools used for assessment at the bedside (clinical tools) had a higher % of items representing “preparation” and “infection control” than tools used for assessment using simulation ( $67 \pm 26\%$  vs.  $32 \pm 26\%$ ;  $p = 0.003$  for “preparation” and  $60 \pm 41\%$  vs.  $11 \pm 17\%$ ;  $p = 0.002$  for “infection control”, respectively). Simulation tools had a higher % of items on “procedural competence” than clinical tools ( $60 \pm 36\%$  vs.  $17 \pm 15\%$ ;  $p = 0.002$ ). Items in the domains of “Team working” and “Communication and working with the patient” were frequently under-represented.

Conclusion: This study presents a comprehensive review of existing checklist items for the assessment of central venous catheterization. Although many key competencies are currently assessed by existing published tools, some domains may be under-represented by select tools.

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