

**Date:** May 16, 2012

**Title:** Assessing Competency of the Direct Care Registered Nurse

**Clinical Question:**

<b>P</b>	<i>(Population/Problem)</i>	Among direct care registered nurses
<b>I</b>	<i>(Intervention)</i>	is a self–assessment instrument
<b>C</b>	<i>(Comparison)</i>	compared to a skills checklist
<b>O</b>	<i>(Outcome)</i>	more reliable and valid to assess competency?

[Definitions for terms marked with \\* may be found in the Supporting Information section.](#)

**Target Population for the Recommendation:** Direct care registered nurses

**Recommendation:** (See [Dimensions for Judging the Strength of the Recommendation](#))

It is recommended that a self-assessment instrument such as The Nurse Competence Scale (NCS) or The Six Dimension Scale of Nursing Performance be used to assess competency of direct care registered nurses (Meretoja, Isoaho & Leino-Kilpi, 2004a [2a]; Schwirian, 1978 [2a]).

Note 1: Use of a reliable and valid self-assessment instrument is desired (Cowan, et al., 2008 [2a]; Meretoja, et al., 2004a [2a]).

Note 2: Indicators of competent nursing practice must reflect current nursing practice (Watson, Stimpson, Topping & Porock, 2002 [1a]; Cowan, Wilson-Barnett, Norman & Murrells, 2008 [2a]; Meretoja, Erickson & Leino-Kilpi, 2002 [2a]).

**Discussion/Synthesis of Evidence Related to the Recommendation:**

There is no published literature identifying a skills checklist as a valid and reliable measurement of competence (Buckingham, 2000 [5]). The King's Nurse Performance Scale, a tool with a set of observable competence indicators in the form of a checklist was found to need further refinement to improve the strength of the instrument for measuring different domains of practice (Fitzpatrick, While & Roberts, 1997 [2a]). See Table: Characteristics of Instruments.

Three articles addressed the development and psychometric testing of nurse competency self-assessment instruments each suggesting acceptable degrees of validity and reliability for assessing nurse competence (Cowan, et al., 2008 [2a]; Schwirian, 1978 [2a]; Meretoja, et al., 2004a [2a]).

Three additional articles described the NCS's psychometric properties among different work environments providing evidence the NCS is a valid and reliable instrument for assessing nurse competence (Meretoja, et al., 2002 [2a]; Meretoja & Leino-Kilpi, 2003 [2a]; Meretoja, Leino-Kilpi & Kaira, 2004b [2a]).

While competency self–assessment instruments have been developed and reported in the literature for several decades, the major limitation identified in many of the studies was insufficient testing of the instruments for validity and reliability. In addition, many of the published studies were limited to small sample sizes. The definition of competence remains problematic and indicators of competence vary, which limits the comparison between identified studies (Watson et al., 2001 [1b]; Meretoja, Leino-Kilpi, 2001 [1a]).

**Table: Characteristics of Instruments**

Instrument	Kings Nurse Performance Scale (Fitzpatrick, While & Roberts, 1997 [2a])	The Six Dimensions Scale of Nursing Performance (Schwirian, 1978 [2a])	The Nurse Competence Scale (NCS) (Meretoja, et al., 2004a [2a])	The European Healthcare Training and Accreditation Network Questionnaire (EHTAN) (Cowan, et al., 2008 [2a])
Self- Assessment or Checklist	Checklist	Self- Assessment	Self- Assessment	Self- Assessment
Number of Items	53	52	73	108
Number of Competence Domains	7	6	7	8
Cronbach's Alpha value Range	< 0.80	0.844-0.978	.079-0.91	0.946-0.975
Acceptable Degree of Validity/Reliability	No	Yes	Yes	Yes

**Reference List:** (Evidence Level in [ ]); See [Table of Evidence Levels](#)

Arcand, L. L., & Neumann, J. A. (2005). Nursing competency assessment across the continuum of care. *Journal of Continuing Education in Nursing*, 36(6), 247-254. [5]

Buckingham, S. (2000). Review: Clinical competency: The right assessment tools? *The Journal of Child Health Care*, 4(19), 19-22. [5]

Cowan, D. T., Wilson-Barnett, J., Norman, I. J., & Murrells, T. (2008). Measuring nursing competence: Development of a self-assessment tool for general nurses across Europe. *International Journal of Nursing Studies*, 45(6), 902-913. [2a]

Cowin, L., Hengstberger-Sims, S., Eagar, S. Gregory, L., Andrew, S. & Rolley. (2008). Competency measurements: testing convergent validity for two measures. *The Journal of Advanced Nursing* 64(3).272-277. [2a]

Fitzpatrick, J. M., While, A. E., & Roberts, J. D. (1997). Measuring clinical nurse performance: Development of the king's nurse performance scale. *International Journal of Nursing Studies*, 34(3), 222-230. [2a]

Meretoja, R., Eriksson, E., & Leino-Kilpi, H. (2002). Indicators for competent nursing practice. *Journal of Nursing Management*, 10(2), 95-102. [2a]

Meretoja, R., Isoaho, H., & Leino-Kilpi, H. (2004a). Nurse competence scale: Development and psychometric testing. *Journal of Advanced Nursing*, 47(2), 124-133. [2a]

Meretoja, R., & Leino-Kilpi, H. (2001). Literature review: Instruments for evaluating nurse competence. *Journal of Nursing Administration*, 31(7), 346-352. [1a]

Meretoja, R., & Leino-Kilpi, H. (2003). Comparison of competence assessments made by nurse managers and practising nurses. *Journal of Nursing Management*, 11(6), 404-409 [2a]

Meretoja, R., Leino-Kilpi, H., & Kaira, A. (2004b). Comparison of nurse competence in different hospital work environments. *Journal of Nursing Management*, 12(5), 329-336. [2a]

Schwirian, P. M. (1978). Evaluating the performance of nurses: A multidimensional approach. *Nursing Research*, 27, 347-351. [2a]

Walsh, Ken. & FitzGerald, Mary, & McCutcheon, Helen. & University of Adelaide. Dept. of Clinical Nursing. & Queensland Nursing Council. & Joanna Briggs Institute for Evidence Based Nursing and Midwifery. (2001). *A systematic review of indicators of competence for practice & protocol for validation of indicators of competence/consultants...*, 79-81 [1a]

Watson, R., Stimpson, A., Topping, A., & Porock, D. (2002). Clinical competence assessment in nursing: A systematic review of the literature. *Journal of Advanced Nursing*, 39(5), 421-431. [1b]

Wright, D. (2005). *The Ultimate Guide to Competency Assessment*. Minneapolis, MN, Creative Healthcare Management [5]

## IMPLEMENTATION

### Applicability Issues:

Nurse competence plays a key role in quality care and outcomes however, nursing practice is complex and therefore difficult to measure. Defining competency is an obstacle in developing a “gold standard” for measuring competency of direct care RN’s. In addition, competence indicators must be relevant and validated with current nursing practice before implementing an existing competency self-assessment instrument or creating an organization specific competency self-assessment instrument.

### Outcome or Process Measures:

A self- assessment instrument is a formal component of the organizations nurse competency assessment process.

## SUPPORTING INFORMATION

### Background/Purpose of BES<sub>t</sub> Development:

Ensuring clinical competence goes beyond an organization’s expectation for quality and safety as it is also mandated by professional standards of practice and external regulatory agencies (Arcand & Neumann, 2005 [5]). A range of indicators and tools have been developed for competency assessment however variations in the meaning and definition affect interpretation of evidence regarding measures of reliability and validity (Cowin, et al., 2008 [2a], Watson, 2002 [1b]).

A housewide assessment of nurse competencies at Cincinnati Children’s Hospital Medical Center (CCHMC) determined not only a lack of consensus with the definition of competence but also the methods used to measure the competency of nurses across the organization. The assessment revealed that an extensive number of checklists were being used as the measure of initial and ongoing nurse competency.

In an effort to move from an extensive checklist driven method to a more global framework of competency assessment, as well as come to consensus with how competency would be defined at CCHMC, a task force comprised of in-house education consultants and unit based educators was developed. The literature suggests that self-assessment is linked to professional practice as it allows nurses to reflect upon their clinical practice, identify their strengths and monitor need for continuing professional development (Meretoja, et al., 2004a [2a]). In addition, self-assessment is probably the most common form of competency assessment and the most favored approach by nurses (Walsh, et al., 2001 [1a]).

The clinical question was developed to support the work of the competency task force determining whether a skills checklist versus a self-assessment instrument was more valid and reliable in measuring competence of nursing staff.

**Definitions:**

Competency is the application of knowledge, skills, and behaviors that are needed to fulfill organizational, departmental, and job specific requirements under varied circumstances within the work environment.

Competency assessment is comprised of/incorporates reliably measured outcomes that can be shown to differentiate performance under a variety of circumstances within the work environment (Wright, 2005 [5]).

**Search Strategy:**

**Databases:** CINAHL, Medline, ERIC, PsychLit

**Search Terms:** clinical competence, competence, evaluation, competency assessment, nurse, nursing, nurses, nurse competence, competency instrument, measurement, performance, self-assessment, assessment, skills, psychomotor skills, checklist, competency checklist

**Limits, Filters:** English

**Search Dates:** All dates prior to March 2012

**Date Search Done:** March 1, 2012

**Relevant CCHMC Evidence-Based Documents:** CCHMC Policy Competency Assessment IPA-14

**Group/Team Members:**

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**Conflicts of Interest were declared for each team member:**

- No financial conflicts of interest were found.
- No external funding was received for development of this BES<sub>t</sub>.
- The following financial conflicts of interest were disclosed:

**Note:** Full tables of the [LEGEND evidence evaluation system](#) are available in separate documents:

- [Table of Evidence Levels of Individual Studies by Domain, Study Design, & Quality](#) (abbreviated table below)
- [Grading a Body of Evidence to Answer a Clinical Question](#)
- [Judging the Strength of a Recommendation](#) (dimensions table below)

**Table of Evidence Levels** (see note above):

<b>Quality level</b>	<b>Definition</b>
1a† or 1b†	Systematic review, meta-analysis, or meta-synthesis of multiple studies
2a or 2b	Best study design for domain
3a or 3b	Fair study design for domain
4a or 4b	Weak study design for domain
5a or 5b	General review, expert opinion, case report, consensus report, or guideline
5	Local Consensus

†a = good quality study; b = lesser quality study

**Table of Language and Definitions for Recommendation Strength** (see note above):

<i>Language for Strength</i>	<i>Definition</i>		
It is strongly recommended that... It is strongly recommended that... not...	When the dimensions for judging the strength of the evidence are applied, there is high support that benefits clearly outweigh risks and burdens. (or <i>visa-versa</i> for negative recommendations)		
It is recommended that... It is recommended that... not...	When the dimensions for judging the strength of the evidence are applied, there is moderate support that benefits are closely balanced with risks and burdens.		
There is insufficient evidence and a lack of consensus to make a recommendation...			
<i>Given the dimensions below and that more answers to the left of the scales indicate support for a stronger recommendation, the recommendation statement above reflects the strength of the recommendation as judged by the development group. (Note that for negative recommendations, the left/right logic may be reversed for one or more dimensions.)</i>			
<b>Rationale for judgment and selection of each dimension:</b>			
<b>1. Grade of the Body of Evidence</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Moderate	<input type="checkbox"/> Low
<i>Rationale:</i>			
<b>2. Safety / Harm</b> (Side Effects and Risks)	<input checked="" type="checkbox"/> Minimal	<input type="checkbox"/> Moderate	<input type="checkbox"/> Serious
<i>Rationale:</i>			
<b>3. Health benefit to patient</b>	<input type="checkbox"/> Significant	<input checked="" type="checkbox"/> Moderate	<input type="checkbox"/> Minimal
<i>Rationale:</i>			
<b>4. Burden on patient to adhere to recommendation</b>	<input checked="" type="checkbox"/> Low	<input type="checkbox"/> Unable to determine	<input type="checkbox"/> High
<i>Rationale:</i>			
<b>5. Cost-effectiveness to healthcare system</b>	<input type="checkbox"/> Cost-effective	<input checked="" type="checkbox"/> Inconclusive	<input type="checkbox"/> Not cost-effective
<i>Rationale:</i>			
<b>6. Directness of the evidence for this target population</b>	<input checked="" type="checkbox"/> Directly relates	<input type="checkbox"/> Some concern of directness	<input type="checkbox"/> Indirectly relates
<i>Rationale:</i>			
<b>7. Impact on morbidity/mortality or quality of life</b>	<input type="checkbox"/> High	<input checked="" type="checkbox"/> Medium	<input type="checkbox"/> Low
<i>Rationale:</i>			

Copies of this Best Evidence Statement (BEST) and related tools (if applicable, e.g., screening tools, algorithms, etc.) are available online and may be distributed by any organization for the global purpose of improving child health outcomes.

Website address: <http://www.cincinnatichildrens.org/service/j/anderson-center/evidence-based-care/bests/>

Examples of approved uses of the BEST include the following:

- Copies may be provided to anyone involved in the organization's process for developing and implementing evidence based care;
- Hyperlinks to the CCHMC website may be placed on the organization's website;
- The BEST may be adopted or adapted for use within the organization, provided that CCHMC receives appropriate attribution on all written or electronic documents; and
- Copies may be provided to patients and the clinicians who manage their care.

Notification of CCHMC at [EBDMinfo@cchmc.org](mailto:EBDMinfo@cchmc.org) for any BEST adopted, adapted, implemented, or hyperlinked by the organization is appreciated.

**Please cite as:** Cincinnati Children's Hospital Medical Center: Best Evidence Statement-Assessing Competency of the Direct Care Registered Nurse, <http://www.cincinnatichildrens.org/svc/alpha/h/health-policy/best.htm>, BEST 129, pages 1-6, May 16, 2012.

This Best Evidence Statement has been reviewed against quality criteria by two independent reviewers from the CCHMC Evidence Collaboration. Conflict of interest declaration forms are filed with the CCHMC EBDM group.

Once the BES<sub>t</sub> has been in place for five years, the development team reconvenes to explore the continued validity of the guideline. This phase can be initiated at any point that evidence indicates a critical change is needed. CCHMC EBDM staff perform a quarterly search for new evidence in an horizon scanning process. If new evidence arises related to this BES<sub>t</sub>, authors are contacted to evaluate and revise, if necessary.

*For more information about CCHMC Best Evidence Statements and the development process, contact the Evidence Collaboration at [EBDMinfo@cchmc.org](mailto:EBDMinfo@cchmc.org).*

#### **Note**

**This Best Evidence Statement addresses only key points of care for the target population; it is not intended to be a comprehensive practice guideline. These recommendations result from review of literature and practices current at the time of their formulation. This Best Evidence Statement does not preclude using care modalities proven efficacious in studies published subsequent to the current revision of this document. This document is not intended to impose standards of care preventing selective variances from the recommendations to meet the specific and unique requirements of individual patients. Adherence to this Statement is voluntary. The clinician in light of the individual circumstances presented by the patient must make the ultimate judgment regarding the priority of any specific procedure.**