

Editorial



Clinical Practice Guidelines Can Be Valuable Sources of Evidence

The most recent American Association of Critical-Care Nurses (AACN) Practice Alert was published in February 2023 on the topic of manual prone positioning in adult patients.¹ A Practice Alert is a type of clinical practice guideline, which can be a valuable source of evidence because content experts have done the heavy lifting by applying the evidence-based practice (EBP) process to systematically appraise and synthesize the best available evidence.² These guidelines also include grading of the overall strength of the evidence and provide specific recommendations for clinical practice. Unlike an EBP project that may only discuss 1 clinical question at a time, clinical practice guidelines typically contain a collection of practice recommendations on a topic.²

Clinical practice guidelines became more popular following the origin of EBP in the 1990s. Until that time practice recommendations were based mostly on expert opinion guided by available research evidence and clinical expertise. As EBP evolved, increased rigor was added to ensure that guideline development followed concise methodologies and included plans to revise and sustain recommendations over time.^{3,4} The Institute of Medicine suggests that only

systematic reviews, the highest level of evidence based on randomized controlled trials (RCTs), be used to guide clinical practice²; however, this approach is often not feasible in nursing practice. Although rigorous RCTs are the highest level of research design, this design is often not used to answer nursing research questions due to ethical concerns and/or the high volume of resources needed to execute these studies. Best available evidence includes any high-quality evidence that can be synthesized to gain a better understanding of best practices. Ideally, clinical practice guidelines should be developed by a diverse panel of experts using a transparent process to minimize bias and provide ratings for the quality and strength of the evidence used. When possible, these guidelines should also incorporate patient and family preferences and values.²

Clinical practice guidelines typically target a specific population, such as critical care patients, and are specific to a clinical question, such as what is the best method to manually prone critically ill, adult patients? These practice guidelines provide recommendations for a standardized approach to clinical care, based on the best available evidence and a goal of improving patient outcomes. Like a systematic review, these guidelines synthesize the best available evidence to help clinicians understand the supporting evidence behind specific clinical practices. Clinical practice guidelines may be overlooked as a source of evidence because they are not considered primary research and, therefore, may not be identified on evidence hierarchies.⁵ However, EBP experts have suggested that high-quality practice guidelines may help to bridge the gap between research and practice.⁶

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In addition to the major critical care associations, other organizations may have direct influence on critical care practices, such as the Centers for Disease Control and Prevention and ASPEN (American Society for Parenteral and Enteral Nutrition). For example, the Society of Critical Care Medicine and ASPEN developed collaborative guidelines to guide practice for enteral nutrition in acute and critically ill adults⁷ and children.⁸ Using a guideline from a recognized national or international source helps to standardize care and ensure that practices are goal directed to improve patient outcomes. One of the most well-known guidelines in critical care is the Surviving Sepsis Campaign, a collaborative effort by the Society of Critical Care Medicine and the European Society of Intensive Care Medicine.^{9,10} This guideline originated in 2001 and has been updated several times as new evidence has evolved. Practice recommendations familiar to critical care nurses include starting antibiotics within 1 hour of sepsis recognition (with or without shock), the use of crystalloids for first-line fluid resuscitation, and the use of vasopressors to increase mean arterial pressure to 65 mm Hg.^{9,10}

Supporting evidence for individual practice recommendations is assessed separately; therefore, ratings may differ between practice recommendations made within the same guideline. The Surviving Sepsis Campaign rates recommendations as strong, weak, best practice, or no recommendation. These ratings describe the confidence of the guideline developers that the true effect of the recommendation is close to the estimate of the measured effect in the research literature.¹¹ Rating criteria also vary among professional organizations, so reviewing the legend associated with individual guidelines is necessary to fully understand the criteria associated with individual ratings.

The AACN Practice Alerts use a grading system based on the AACN levels of evidence. At the time of writing, the AACN levels of evidence tool combines both the level and quality of the evidence, described as A, B, C, D, E, or M ratings.¹² The manufacturer (M) rating may be unique to AACN's levels of evidence. Use of new medical devices in critical care practice is initially based on manufacturer recommendations. In the AACN levels of evidence, an M rating is considered the lowest level of support for a clinical practice, but it is a starting point based on US Food and Drug Administration approval for use of a specific medical device. As more research is performed on the

use of a device, clinical practice recommendations may evolve over time and eventually be based on research evidence versus the M rating. Clinicians should focus their efforts on specific practice recommendations supported by the highest overall ratings, meaning they are based on strong or moderate evidence and have the potential to mitigate risk, improve patient outcomes, and save lives.

Clinical practice guidelines must be assessed for quality and usefulness.¹³ Available tools to help maintain the rigor of guidelines during the development and/or evaluation process include the Grading of Recommendations Assessment, Development and Evaluation (GRADE) and Appraisal of Guidelines for Research and Evaluation (AGREE) tools.¹⁴⁻¹⁶ Before investing time to implement practice changes, it is important to assess guideline quality. Experts suggest that 2 people should appraise the guideline independently to increase reliability of the review.¹⁷ Several AGREE tools are available to assess guideline quality, including an abbreviated tool, the AGREE Global Rating Scale Instrument (AGREE GRS). This tool assesses 4 core guideline items: (1) development process, (2) presentation style, (3) completeness of reporting, and (4) clinical validity.^{17,18} In addition, guideline evaluators are asked to rate the overall quality of the guideline, indicate if they recommend use of the guideline, and indicate whether the guideline is of sufficient quality to use in their professional decision-making.^{17,18}

Critics of clinical practice guidelines express concern about the variability in quality as well as the notion that they encourage cookie-cutter medicine, recommending consistent practices for all patients within a specific population. As with EBP, it is important to assess individual practice recommendations within the context of expert opinion and patient and family values and preferences. For example, a practice to administer antibiotics within 1 hour to a patient who is demonstrating signs of sepsis should be performed regardless of the patient's cultural background, in contrast to a practice recommendation to include families in a patient room during resuscitative efforts. The family presence recommendation is more nuanced and requires individualized assessment of the situation and the family by the clinical team.

Nurses should seek quality practice guidelines to support their clinical practice but at the same time be aware that evidence is dynamic and changes over time. There is no evidence to suggest the ideal frequency to

reassess clinical practices because it depends on the timing and abundance of new research evidence on a specific topic. Some experts say guidelines should be reassessed every 6 months to 5 years.⁴ When new research evidence is published on a specific practice, it is important to critically appraise the study and assess the overall quality of the evidence before comparing any new findings with existing practice recommendations.

Last, just because a guideline exists, it does not mean that it is being used in practice or used as intended. Practice audits and/or monitoring of patient outcomes at the unit level may be helpful to determine whether best practices are being used. Depending on the scope of practice, some guideline recommendations will require a provider's order, others may follow nurse-driven protocols, and others, such as the AACN Practice Alert on ST-segment monitoring,¹⁹ can be independently implemented by nurses.

I hope this editorial will pique your curiosity to explore clinical practice guidelines that are relevant to acute and critical care practice. With the increasing volume of published evidence, it takes a village to locate, appraise, and synthesize the best available evidence to support clinical practice. **CCN**



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The statements and opinions contained in this editorial are solely those of the Editor.

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