Choosing the Best Evidence to Guide Clinical Practice: Application of AACN Levels of Evidence

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Evidence-based nursing care is informed by research findings, clinical expertise, and patients' values, and its use can improve patients' outcomes. Use of research evidence in clinical practice is an expected standard of practice for nurses and health care organizations, but numerous barriers exist that create a gap between new knowledge and implementation of that knowledge to improve patient care. To help close that gap, the American Association of Critical-Care Nurses has developed many resources for clinicians, including practice alerts and a hierarchal rating system for levels of evidence. Using the levels of evidence, nurses can determine the strength of research studies, assess the findings, and evaluate the evidence for potential implementation into best practice. Evidence-based nursing care is a lifelong approach to clinical decision making and excellence in practice. (*Critical Care Nurse*. 2014;34[2]:58-68)

The idea of sharing clinical experiences to improve patient care is not new to nurses. Florence Nightingale published her observations on cleanliness, nutrition, and fresh air in *Notes on Nursing*[1] in 1860. Her work was the start of evidence-based nursing practice. More than 150 years and thousands of research studies later, the use of evidence to guide nursing practice is the expected standard of practice for both individual nurses and health care organizations. *Scope and Standards of Practice*[2] and *Code of Ethics*[3] of the American Nurses Association both call for nurses to incorporate research evidence into clinical practice. Schools of nursing have added content on evidence-based practice to their curricula.[4] Despite these efforts, barriers inhibit implementation of changes based on published evidence into bedside patient care. Overall, the barriers involve the characteristics of the nursing profession, organizational dynamics, and the nature of the research.[5,6] Studies[7,8] have consistently indicated that a nurse's inability to both determine what evidence is ready for implementation into practice and then successfully develop processes to sustain an evidence-based practice change is a barrier.

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In this article, we provide a brief history of the involvement of the American Association of Critical-Care Nurses (AACN) in evidence-based practice, explain the recent clarifications added to the 2009 AACN levels of evidence, and provide examples of how to change bedside practice in the clinical setting.

History of AACN Involvement in Evidence-Based Practice

Currently, AACN is the largest specialty nursing organization and a leader in the movement to improve patient care by applying the best scientific evidence. In 1995, AACN began to publish Protocols for Practice, an evidence-based resource for clinical nurses. Each protocol provides a guide for appropriate selection of patients, use and application of management principles, initial and ongoing monitoring, discontinuation of therapies or interventions, and selected aspects of quality control. The protocols have covered topics such as hemodynamic monitoring and care for patients treated with mechanical ventilation. Subsequently, a volunteer workgroup was formed to connect clinicians with research to improve care of critically ill patients. The original research workgroup, known since 2007 as the Evidence-Based Practice Resources Workgroup (EBPRWG), focused on developing resources that synthesized current research. Resources were made readily available and in an easy-to-use format for use in care decisions at the bedside (eg, laminated pocket-sized cards for clinicians). The work of this group has continued for more than 2 decades. Current products available to AACN members include protocols for practice; practice alerts with tool kits, PowerPoint presentations, and audit tools; pocket card references; and defined levels of evidence for clinical nursing practice.

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Evolution of AACN Levels of Evidence

The amount and availability of research supporting evidence-based practice can be both useful and overwhelming for critical care clinicians. Therefore, clinicians must critically evaluate research before attempting to put the findings into practice. Evaluation of research generally occurs on 2 levels: rating or grading the evidence by using a formal level-of-evidence system and individually critiquing the quality of the study. Determining the level of evidence is a key component of appraising the evidence.[5,9,10] Levels or hierarchies of evidence are used to evaluate and grade evidence. The purpose of determining the level of evidence and then critiquing the study is to ensure that the evidence is credible (eg, reliable and valid) and appropriate for inclusion into practice.[10] Critique questions and checklists are available in most nursing research and evidence-based practice texts to use as a starting point in evaluation.

The purpose of determining the level of evidence and then critiquing the study is to ensure that the evidence is credible (eg, reliable and valid) and appropriate for inclusion into practice.

The most common method used to classify or determine the level of evidence is to rate the evidence according to the methodological rigor or design of the research study.[10,11] The rigor of a study refers to the strict precision or exactness of the design. In general, findings from experimental research are considered stronger than findings from nonexperimental studies, and similar findings from more than 1 study are considered stronger than results of single studies. Systematic reviews of randomized controlled trials are considered the highest level of evidence, despite the inability to provide answers to all questions in clinical practice.[11,12] For example, AACN and other organizations have done extensive research on healthy work environments. This topic would not be examined in a randomized controlled trial because of ethical and practical considerations. Randomly assigning nurses to work in various healthy or unhealthy work

Table 1 2012 American Association of Critical-Care Nurses levels of evidence with revisions to 2008 hierarchy

Category	Level	Description
Experimental evidence	A	Meta-analysis or metasynthesis of multiple controlled studies with results that consistently support a specific action, intervention, or treatment (systematic review of a randomized controlled trial)
	B	Evidence from well-designed controlled studies, both randomized and nonrandomized, with results that consistently support a specific action, intervention, or treatment
	C	Evidence from qualitative, integrative reviews, or systematic reviews of qualitative, descriptive, or correlational studies or randomized controlled trials with inconsistent results
Recommendations	D	Evidence from peer-reviewed professional organizational standards, with clinical studies to support recommendations
	E	Theory-based evidence from expert opinion or multiple case reports
	M	Manufacturer's recommendation only

environments could have an adverse effect on the quality and safety of patients receiving care. Therefore, most of the studies on healthy work environments have involved descriptive or qualitative study designs. Although the less rigorous design places descriptive and qualitative studies at a lower level than that of randomized control trials on the AACN rating system, the lower level is the highest level of evidence that the information on healthy work environments can ethically and practically provide.

AACN Evidence-Rating System

As interest in promoting evidence-based practice has grown, many professional organizations have adopted criteria to evaluate evidence and develop evidence-based guidelines for their members.[5,12] A task force formed by AACN developed the organization's original rating scale, which used Roman numerals; lower numerals represented lower levels of evidence. In 1995, the time of the original AACN rating scale, only a few other organizations had published levels of evidence. Other professional hierarchies used a reverse order, with lower Roman numerals reflecting higher levels of evidence. This difference led to confusion among practitioners who were trying to use the original rating system in the clinical setting.[13]

Clinicians must determine the clinical relevance of the research (ie, if the results are applicable to and feasible in clinical practice).

In 2008, AACN challenged the EBPRWG to review the rating system and make recommendations for improvement. The result was an alphabetical hierarchy in which the highest form of evidence was ranked as A and included meta-analyses and meta-syntheses of the results of controlled trials. Evidence from controlled trials was rated B. Level C evidence included findings from studies with a variety of research designs (Table 1). As in the previously published rating system, the 2008 system included results of theory-based evidence, expert opinion, and multiple case reports as level E evidence. Rapid advances in technology resulted in many products being used solely on the basis of the manufacturers' recommendations. M was used to represent the body of practice recommendations provided by industry.[14]

When the 2008 hierarchy of evidence was published, AACN welcomed feedback from its members about the changes. Since then, members have asked for clarification on the hierarchy, particularly an explanation of the rating of systematic reviews. Most rating systems rank systematic reviews of well-designed randomized controlled trials as the highest level of evidence. Many members thought that systematic reviews were misplaced at level C within the AACN levels of evidence. The request for clarification was referred to the 2011 annual meeting of the EBPRWG for review and discussion.

Changes to the AACN Levels of Evidence in 2011

The 2011-2012 EBPRWG responded to the concerns of AACN members by revising the 2008 levels of evidence. In recognition that the strength of a systematic review depends on the rigor of the studies included in the review, the workgroup distinguished between the 2 types of systematic reviews: randomized control trials and reviews of other studies. Systematic review of randomized controlled

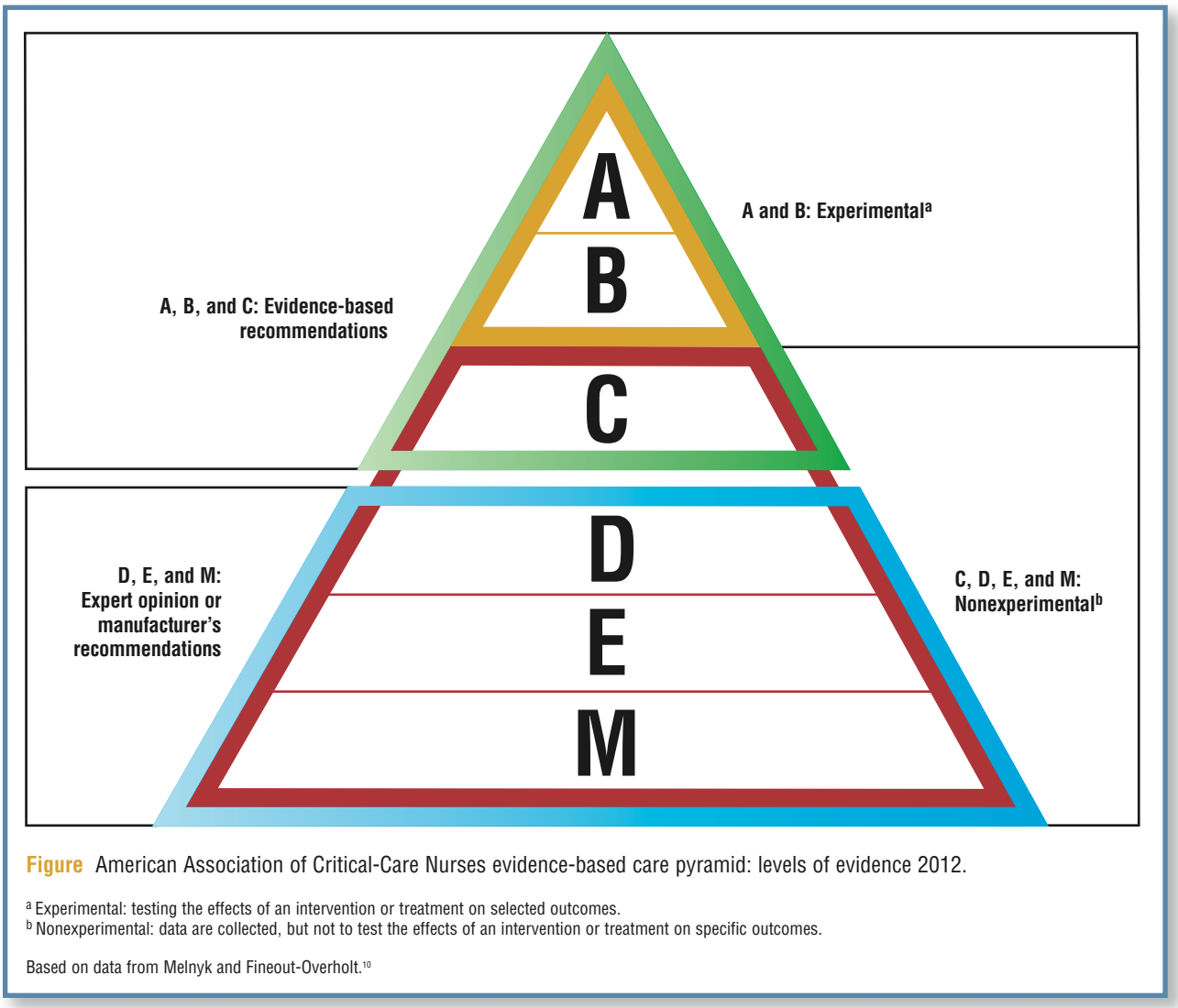

Figure American Association of Critical-Care Nurses evidence-based care pyramid: levels of evidence 2012.

[a] Experimental: testing the effects of an intervention or treatment on selected outcomes.
[b] Nonexperimental: data are collected, but not to test the effects of an intervention or treatment on specific outcomes.

Based on data from Melnyk and Fineout-Overholt.[10]

trials was added to level A, the highest level of evidence. This change makes the AACN system consistent with other published hierarchies used to rate evidence (eg, American Heart Association[15]). Systematic reviews of qualitative, descriptive, or correlational studies remained within level C, the highest level for nonexperimental studies. Also, the distinction between experimental and nonexperimental studies in the hierarchy was clarified.

A schematic was developed to illustrate that levels A and B are for studies with an experimental design. Levels A, B, and C are all based on research (either experimental or nonexperimental designs) and are considered evidence. Levels D, E, and M are considered recommendations drawn from articles, theory, or manufacturers' recommendations (see Figure). Table 2 gives an overview of the different types of research study designs and the definitions that were used by the workgroup to guide placement of study designs within the levels of evidence system.

Levels of Evidence and AACN Practice Alerts

The level of evidence is used to rate the strength of the study design, but it does not give clinicians information about relevance to practice. In addition to rating the studies on the basis of the design used, clinicians must also analyze and critique the individual studies for strengths and weaknesses. For instance, the results of a randomized controlled trial (level B) that did not follow strict criteria for selecting participants or patients might be biased. The findings of this type of study would not be as strong as those of a randomized controlled trial in which adherence to random selection was rigorous. Before implementing research into practice, clinicians

Table 2 Level of evidence, types of research studies, definitions, strengths, limitations, and examples

Level of evidence	Type of study	Definitions[a]	Strengths
A	Meta-analysis	A technique for quantitatively integrating the results of multiple similar studies addressing the same research question	Statistical summary of articles of the same topic in research; process of using quantitative methods to summarize the results from multiple studies
A C	Systematic review If quantitative study If qualitative study	A rigorous synthesis of research findings on a particular research question obtained by using systematic sampling and data collection procedures and a formal protocol	Review by experts in the field of all the research on a topic, who rigorously appraise the studies and offer the conclusion to support an intervention or not
B	Randomized controlled trial	A full experimental test of an intervention, involving random assignment to treatment groups	True experimental study in which the researchers are often blinded to which patients or participants are receiving an intervention; the strongest design for examining the cause and effect of an intervention; reduces bias
C	Cohort study	A nonexperimental design in which a group of people (a cohort) is followed over time to study outcomes	Prospective longitudinal study that examines 2 groups of patients or participants (the cohort)
C	Case-controlled study	A nonexperimental research design involving the comparison of a case and a matched control[5]	Longitudinal study that retrospectively compares characteristics of an individual who has a certain type of condition that may not be very common; often used to identify variables that may predict the etiology or the course of a disease
C	Integrative review	Reviews of qualitative studies, often taking the form of metasyntheses, which are rich sources for evidence-based practice	Compilation of studies that are reviewed and summarized; may incorporate research and nonresearch articles
C	Metasynthesis	Interpretive translations produced from the integration or comparison of findings from qualitative studies on a specific topic	Compilation of qualitative studies looking for the common themes among similar research studies
C	Qualitative research	Investigation of phenomena, typically in an in-depth and holistic fashion, through the collection of rich narrative materials by using a flexible research design	Method to develop a greater understanding of a topic using many different methods such as observation or interview

[a] Based on Polit and Beck.[5] In an experimental design, the researcher controls the variable by randomly assigning patients or participants to different treatment conditions. In nonexperimental studies, the researcher collects data without introducing an intervention (also called observational).

should examine individual studies to determine if the results were obtained by using sound (reliable and valid) scientific methods. Last, clinicians must determine the clinical relevance of the research (ie, if the results are applicable to and feasible in clinical practice). This evaluation or critique takes time to complete and is a learned skill that is developed with guided practice.

The purpose of each AACN practice alert is to address both nursing and multidisciplinary activities of importance. The topic selected for each alert is important to the care of acutely and critically ill patients or their environments. Practice alerts do the following:

- Close the gap between research and practice
- Provide guidance
- Standardize practice
- Identify and inform about new advances and trends AACN practice alerts are defined as "succinct, dynamic directives supported by authoritative evidence to ensure excellence in practice and a safe and humane work environment."[16] The alerts are short directives designed for easy reference. Each one includes the scope and impact of a problem or topic, expected practice and nursing actions, supporting evidence for change, additional resources for implementation, and references. Because practice is dynamic, the practice alerts are reviewed and updated to reflect any research-based changes.[16]

To help members use research findings and apply them to practice, AACN began to develop practice alerts that present an overview of the current research evidence

Limitations	Examples
Usually lengthy; combines like research studies	Cochrane Reviews
Only as good as the search methods and databases used	Coventry et al Sex differences in symptoms presentation in acute myocardial infarction: a systematic review and meta-analysis. *Heart Lung*. 2011;40(6):477-491.
Time-consuming May require more sophisticated statistical analysis	Colnaghi et al Nasal continuous positive airway pressure with heliox in preterm infants with respiratory distress syndrome. *Pediatrics*. 2012;129(2):e333-e338.
Observational No intervention performed May include attrition	Dickson The relationship of work, self-care, and quality of life in a sample of older working adults with cardiovascular disease. *Heart Lung*. 2012;41(1):5-14.
Retrospective	Cox Predictors of pressure ulcers in adult critical care patients. *Am J Crit Care*. 2011;20(5):364-375.
Not as rigorous as systematic reviews; review limited to the literature	Fisher Opioid tapering in children: a review of the literature. *AACN Adv Crit Care*. 2010;21(2):139-145.
Interpreted by the researcher	Palacious-Ceña et al Patients, intimate partners and family experiences of implantable cardioverter defibrillators: qualitative systematic review. *J Adv Nurs*. 2011;67(12):2537-2550.
Some believe it to be less rigorous	Hall et al The experiences of patients with pulmonary artery hypertension receiving continuous intravenous infusion of epoprostenol (Flolan) and their support persons. *Heart Lung*. 2012;41(1):35-43.

in a practical, easy-to-read guide for critical care nurses. The first practice alerts were published in 2004.

A process was developed to ensure that the alerts represent a translation of evidence and best practices. Ideas for topics are generated from questions that AACN members have asked the organization's clinical practice experts, AACN leaders, other members, and/or the EBPRWG. A modification of the Delphi technique, a widely used method for achieving unified opinion, is used to rank the importance of clinical questions. Criteria for ranking include incidence, prevalence, patient care implications, and timeliness.

After topics are generated, the EBPRWG and AACN determine the names of experts in the clinical area of interest and commission the writing of the practice alert. Using standard guidelines prepared by AACN, the clinical experts write the practice alert and submit it to the EBPRWG for review and feedback. EBPRWG members seek feedback from their clinical peer network to assess the congruency of the proposed practice alert with clinical practice and available research. Clinicians are also asked to comment on the applicability of the practice alert's recommendations to patient care.

When the clinical review has been completed, revisions are completed if indicated. Then, communications experts at AACN prepare the practice alert for distribution to AACN members via the AACN website. Sample PowerPoint presentations to be used for education are prepared and can be downloaded for immediate use (eg, see the presentation for venous thromboembolism

CASE 1

Using a Practice Alert to Revise Current Practice

Some staff members in the intensive care unit (ICU) wanted to modify the visitation guidelines for the unit and so approached the nurse manager with their concerns. Many families of ICU patients desire unrestricted contact with their loved one, and the hospital guidelines currently allowed 24/7 family presence in the ICU. However, patients cannot always communicate their desire for family presence. Some nurses in the unit were concerned about patient privacy and interruption of therapies, whereas others welcomed the 24/7 family presence. The manager reviewed the AACN practice alert on family presence in the adult ICU[18] and did the following:

1. Summarized the 4 expected practices in the alert and compared them with the ICU's policies.
    - Facilitate unrestricted access to hospitalized person for a chosen support person
    - Ensure that hospital policy promotes the presence of a chosen support person
    - Evaluate policies to be sure they are nondiscriminatory
    - Establish policies to limit family presence when safety is a concern or presence would be detrimental to medical therapies
2. Shared the Supporting Evidence section from the practice alert with the staff members who raised concerns about the current policy. Discussed the recommendations for nursing actions and tried to help the staff gain perspective on the controversies and history behind the recommendations.
3. Asked staff/unit governance members (practice council) to develop recommendations based on the Actions for Nursing Practice in the practice alert.
    - Are there practices that could be adopted from the recommendations?
    - Is there an opportunity to introduce this topic during orientation?
    - Are there other units who would want to collaborate on this issue?
    - Is there a compliance problem with visitation/presence on the part of staff or on the part of visitors?

After deliberation and discussion, the nurses who originally brought up the concerns identified several practice areas on which to focus. They convinced the nurse educator and preceptors to add content from the practice alert on family presence in the ICU to the orientation checklist. A multidisciplinary team, including the medical director and a social worker, participated in enhancing and clarifying the visitation policy. Staff members determined that the mandate for open access had caused the original dissatisfaction. After review, they found a way that fit their workflow to identify the family spokesperson and communicate the current evidence.

prevention[17]). Audit tools to help monitor compliance with a change in practice are provided and help clinicians determine if a change is being implemented as planned. For example, the audit tool for venous thromboembolism prevention provides 3 questions to use during a chart review to determine if best practices have been implemented at the bedside.[17]

Understanding how the evidence in a practice alert is evaluated and how the recommendations are made provides users the confidence to implement the Actions for Practice section of the practice alert in individual care settings. Case 1 is an example of a practice alert and how information in the alert might be used in clinical practice.

Published practice alerts are reviewed and revised by the EBPRWG on a cyclical basis (at least every 3 years) to determine the relevance to practice, the need to update the references, and to ensure that the recommendations reflect the current evidence. Each practice alert is reviewed and evaluated by selected members of the EBPRWG by using a standardized evaluation tool. The findings are shared with the 10-member EBPRWG for feedback. Recommendations are made to continue publishing the practice alert with minimal changes or to make major revisions based on new evidence. Either the original expert author or a newly commissioned expert completes major revisions, and the practice alert goes through the approval process as if it were a new alert.

Future new and revised practice alerts will also include information on the search strategy used for the systematic review conducted by the author of the practice

CASE 2

Using a Practice Alert to Institute a New Practice

Patients are often hospitalized and admitted to critical care units unexpectedly because of life-threatening illnesses. After admission, the patient's environment, daily routines, and control of activities of daily living are completely changed. The clock and calendar on the wall are both reminders of time and date, but the surroundings and the many health care workers that a patient encounters are unfamiliar. With the addition of unknown procedures and outcomes and a wakeful noisy environment, anxiety prevails. These circumstances all culminate in the patient experiencing a sense of unknown and a loss of independence, changes that can lead to challenging, unsafe behaviors.

New studies conclude that awareness and early recognition of delirium may be key components in care and management of patients when the goal of care is fewer hospital days and decreased mortality.[23-26] A patient may awaken in the night, think he or she is at home, and get out of bed with the intent of going to the kitchen. Although this behavior may be normal for the patient, it might be assessed by health care providers as confusion and the patient might be given a benzodiazepine. Historically, nursing practice to prevent the onset of delirium and falls has been to reorient the patient to circumstances, institute early mobilization when possible, discontinue use of invasive devices (eg, urinary catheter), and provide a sitter if necessary. Calling one of the patient's family members to visit or sit with him or her was another common strategy.

Nurses in this medical-surgical ICU recently noticed an increased use of lorazepam (Ativan) and self-extubations that they think are related to delirium. A small team of nurses decided to explore evidence-based interventions to decrease the incidence of delirium on their unit.

The first step was to search the AACN website and find the practice alert on assessment and management of delirium. The nurses reviewed the practice alert, found the information helpful and credible, and decided to post the practice alert in the ICU. Nurses on the unit noticed that a gap existed between their current practices in caring for patients with delirium and the evidence. Input from the nurses was solicited for possible improvements in practice. Next a committee was formed to make recommendations for changes in practice to nurse leaders and the medical director. With consensus from nursing and medical leaders, a new nursing policy was written, and education about the practice change was planned.

In an educational offering, the nurses explained the clinical problem to ICU staff members and demonstrated use of the Richmond Agitation-Sedation Scale[27] and the Confusion Assessment Method for the ICU.[28] Information was provided on predisposing and precipitating factors of delirium and on medications that put patients at risk. Spontaneous awakening trials; spontaneous breathing trials; and involvement of respiratory, physical, and occupational therapies for patients receiving mechanical ventilation were included in the planned practice change.

The results of specific research trials discussed in the practice alert were reviewed for relevance to the clinical problem; these trials included Maximizing Efficacy of Targeted Sedation and Reducing Neurological Dysfunction (MENDS),[29] Safety and Efficacy of Dexmedetomidine Compared With Midazolam (SEDCOM),[30] Awakening and Breathing Controlled (ABC),[31] and Modifying the Incidence of Delirium (MIND).[32]

Plans were made to sustain the change, including presentation of evidence-based care of ICU patients with delirium during nursing orientation and clinical competency requirements. The Richmond Agitation-Sedation Scale[27] and the Confusion Assessment Method for the ICU[28] could be included in patients' assessments at the time of admission if a patient had predisposing factors for delirium. The assessment results were included in daily rounds of those patients who met the criteria for delirium.

alert. This useful information allows the user to examine the comprehensiveness of the review, databases searched, publication years included in the search, and the specific search terms that were used in deriving the evidence reported in the recommendations of the alert.[19-21]

With practice alerts, critical care nurses have evidence-based guidelines and implementation strategies at their fingertips and know the strength of the evidence on which the recommendations were based. Case 2 describes using the AACN practice alert on delirium[22] to

CASE 3
Change in Clinical Practice Based on Expert Opinion and Manufacturers' Recommendations

A nurse in a spinal trauma unit recognized that the incidence of skin breakdown was high. Patients in the unit were acutely ill and immobile, making them at increased risk for pressure ulcers. Fecal incontinence adds to that risk. A new fecal containment device was purchased, and a nurse was charged with developing a procedure for use of the device. The nurse and his team of caregivers began to explore what needed to be done to write the new procedure and disseminate it to the ICU staff members. The vendor agreed to offer in-service education on the product, but the guidelines for nursing care extend beyond the specific practical details of product insertion.

The nurse reviewed the *AACN Procedure Manual for Critical Care*[33] and the manufacturer's instructions for use of the fecal containment device. The evidence found was rated as level D (expert opinion) and level M (manufacturer's recommendations). Procedures that are developed on the basis of evidence gleaned from expert opinion and manufacturers' recommendations may be the only information available for new products and practices. The nurse recognized that publications may be outdated and that a search of the most current literature for pertinent research was a priority. He was obligated to do a thorough literature search to verify concurrence among sources and findings.

The nurse appreciated that the practices might be fluid and could change over time as clinical use of the product led to new clinical studies and outcomes analysis. After reviewing all the available recommendations for the use of the fecal containment device, he decided to adapt or adopt the procedure from the *AACN Procedure Manual for Critical Care*. He wrote the procedure and included references from the manufacturer's recommendations, the AACN manual, and other current research. He was careful to note on the procedure that the levels of evidence were D and M. He made plans for disseminating and educating staff about the new procedure. When exploring the literature on the subject of fecal incontinence containment, the nurse recognized that the use of this device would present an opportunity for clinical research that would add a higher level of evidence to the knowledge base. He made a note to discuss this prospect with his colleagues and the clinical nurse specialist.

initiate a new practice with high level of evidence on a medical-surgical ICU.

Use of Evidence From Nonexperimental Research

The AACN levels of evidence tool also guides nurses in rating evidence based on nonexperimental research. Nurses often must make practice decisions that are based on the recommendations of experts or manufacturers. Experts in nursing practice have a comprehensive and authoritative knowledge of a particular area of nursing. These experts are regionally, nationally, or internationally recognized as authorities and have published supporting scholarly work related to their areas of nursing. Although manufacturers may sponsor research related to their products, bias due to implicit financial interests is an overriding factor when considering the research findings and recommendations.

With practice alerts, critical care nurses have evidence-based guidelines and implementation strategies at their fingertips and know the strength of the evidence on which the recommendations were based.

In itself, a low level of evidence such as level M (manufacturers' recommendations) does not mean that the recommendations are not the current best practices. Often manufacturers' recommendations are specific ways to use the equipment based on internal quality assurance, for example, a blood filter that is manufactured to last for a certain number of hours or a patient warmer that is calibrated so that a specific setting warms the patient to a normal temperature. In addition, many pieces of equipment used by clinicians have been approved by the Food and Drug Administration and have practice recommendations related to the approval process to ensure patients' safety. Typically approval requires a

considerable body of research and consensus of recognized experts. Case 3 describes using the AACN levels of evidence to assess information obtained from expert opinions or manufacturers' recommendations.

Summary

The 2011-2013 EBPRWG continued the tradition of previous workgroups to move research to the patient bedside. Member of AACN provided feedback about the AACN levels of evidence published in 2009 that prompted a revision to further assist clinicians. The AACN rating system for levels of evidence is illustrated by the evidence-based care pyramid. The purpose of the schematic is to help bedside nurses determine the strength of evidence on the basis of the research methods and design. Clinicians must critically evaluate research before attempting to implement the findings into practice. The clinical relevance of any research must be evaluated as appropriate for inclusion into practice.

The process for preparing practice alerts has been standardized so that clinicians can trust the recommendations and put them to immediate use at the bedside. Typically, practice alerts are reviewed and/or revised every 3 years, but new research may elicit an immediate review and revision. Members of the current workgroup have focused on shifting the use of scientific evidence from a research or evidence-based practice project to a practical guide for everyday nursing practice. Each practice alert has current resources for managers and clinicians to use for education, implementation, and evaluation of best practices. These resources include PowerPoint presentations, audit tool kits, and access to current literature. To that end, evidence-based patient care becomes a lifelong approach to clinical decision making to improve clinical outcomes and includes use of best evidence, clinical expertise, and values of patients and their families. The goal to implement best evidence to guide clinical practice is possible for the AACN community. CCN

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