



GUEST EDITORIAL

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Advancing Evidence-Based Nurse Anesthesia Practice

The American Association of Nurse Anesthetists (AANA) is committed to advancing evidence-based nurse anesthesia practice. This determination is evident across multiple activities within the Association. This editorial describes the AANA's evidence-based policy and process for the development of those practice-related documents that require approval from the

AANA Board of Directors. Additionally, several of the Association's initiatives geared toward fostering the advancement of evidence-based nurse anesthesia practice are described.

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The past decade has brought further attention to the need for safe and appropriate healthcare by the American public. This highlight has been prompted by many factors, including economics and the Institute of Medicine's call for adherence to an evidence-based approach to care.¹ In response, the AANA Board of Directors (BOD) recognized a need to ensure that the profession's Certified Registered Nurse Anesthetist (CRNA) members continue to practice in an evidence-based manner.

In 2007, the BOD approved an Association objective to develop a plan to advance evidence-based (EB) nurse anesthesia practice. The first step toward completion of this objective occurred when then-President Wanda O. Wilson, CRNA, PhD, charged the AANA Practice Committee (PC) with the responsibility for developing an EB policy and process for practice-related documents that require AANA BOD approval. In doing so, Wilson and the BOD sought to create a highly structured process that would ensure the use of the best available evidence whenever a practice-

related document is created or revised. This systematic EB process would also serve as a basis for analyzing and resolving important issues for the profession and clinical practice as the body of knowledge affecting nurse anesthesia care continues to grow exponentially. The AANA EB process would also minimize individual biases that might occur while the rigor and quality of available evidence is assessed.

Defining Evidence-Based Nurse Anesthesia Practice

As the Practice Committee considered its charge, the need to define "evidence-based nurse anesthesia practice" and its essential critical elements was identified. Definitions of EB practice were sought by reviewing the nursing and medical literature over the past 3 decades, as well as writings from other healthcare and healthcare-related disciplines, including physical therapy, occupational therapy, sociology, and psychology. After analyzing these definitions, the PC recommended a definition of evidence-based practice to the AANA BOD based on the work of Sackett et al.² As approved by the BOD, EB

nurse anesthesia practice is defined as the "integration and synthesis of the best research evidence with clinical expertise and patient values"² in order to optimize the care of patients receiving anesthesia services. Best research evidence is:

...clinically relevant data, information and research (often taken from the basic sciences of medicine and nursing) including patient-centered research into the accuracy and precision of diagnostic tests (including clinical examinations), utilizing the power of prognostic markers, and the efficacy and safety of therapeutic, rehabilitative and preventive regimens.²

Patient values are "unique preferences, concerns, and expectations each patient brings to a clinical encounter and which must be integrated into clinical decisions in order to serve the patient."² Clinical expertise is "the ability to use our clinical skills and past experience to rapidly identify each patient's unique health state and diagnosis, their individual risks and benefits of potential interventions, and their personal values and expectations."² Anesthesia services are those activities within the scope of practice of a CRNA. This definition encompasses the 3 critical constructs associated

with any EB definition (ie, best evidence, patient preferences, and expertise). It is important for practitioners to remember that no 1 aspect of this triad is emphasized over another; it is the integration of the 3 that best reflects practice in an EB framework.

AANA Evidence-Based Policy

The above definition appears within the AANA BOD-approved policy. The appropriate use of Association resources combined with the amount of evidence produced in a relatively short period of time prompted the PC to also define the timeframe for post-adoption review of these documents. That is:

All documents that are BOD-adopted under this process will be reassessed post-adoption in order to identify critically new evidence, and to assure continued relevancy of the document to the profession. BOD-adopted position statements will be reviewed every three years post-adoption; practice guidelines will be reviewed every five years post-adoption; practice standards will be reviewed every five years post-adoption; and all other documents (e.g., considerations or algorithms) will be reviewed every four years post-adoption.

AANA Evidence-Based Process

The PC then outlined the necessary steps to consistently and thoroughly analyze and resolve a specific topic or issue. As approved by the BOD, the AANA EB process has 5 distinct phases (Figure). Each phase has been ascribed a time range for completion and has a specific purpose.

As the phases of the process were developed, the PC recognized that some urgent issues may necessitate a redirection of Association resources. Other important issues, however, may not rise to the level of needing immediate attention and resources. As a result, critical questions were developed for use during phase 1 to help assess the level of import of an issue. These questions include:

- Is there a current AANA document in place that addresses the issue? (If yes, is there a need to

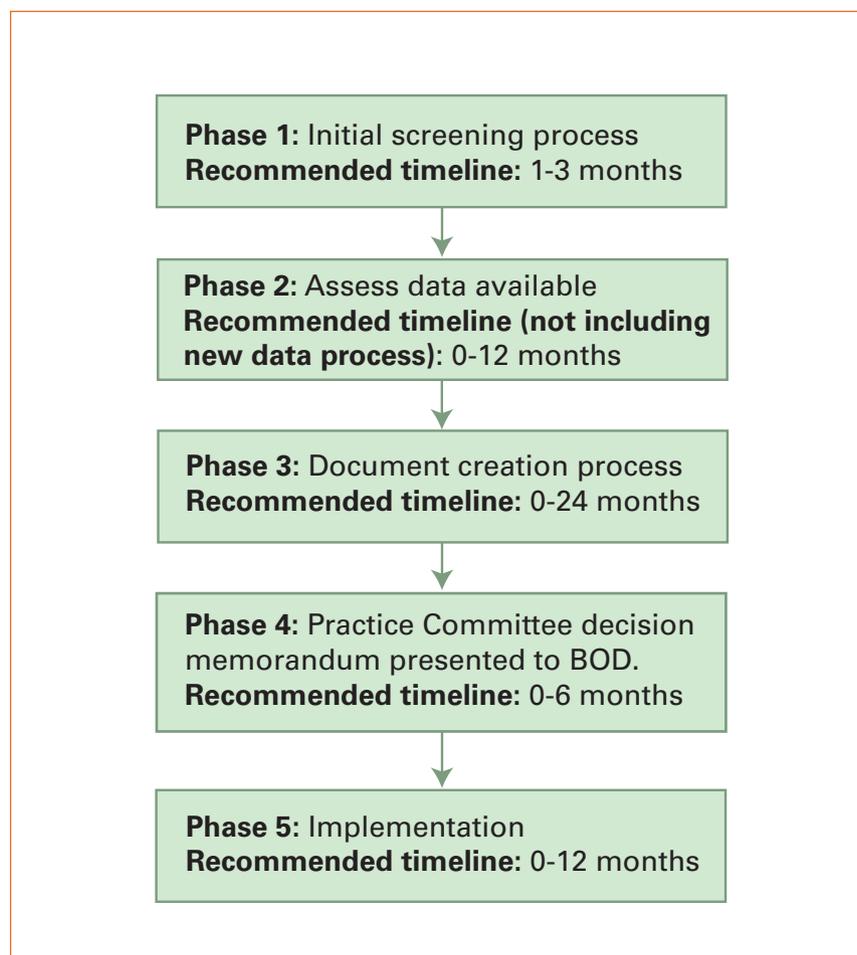


Figure. AANA Evidence-Based Process for the Development of Practice-Related Documents

BOD indicates AANA Board of Directors.

revise this document to address patient safety issues or professional issues?)

- Does addressing this issue potentially impact access to care, cost of care, and/or other population-based health factors?
- Is this a high-volume problem (eg, many members of the population currently or projected to be affected), or is a subpopulation defined?
- Is there an external document by another group available to address this issue?
- What resources (direct and indirect) will be required to generate a review of this issue?
- Is this an appropriate project for the PC, or will this require a task force or an external consultant?

During phase 2, a thorough assessment and ranking of all available evidence should be completed. This includes evaluation of both quantitative and qualitative literature, as well as the gray literature (eg, Internet, popular media). To support this effort, the PC conducted an in-depth assessment of currently available evidence ranking tools in use by other groups. With BOD approval, the PC chose to follow the levels of evidence ranking tool in use by the University of Oxford's Centre for Evidence-based Medicine⁴ for this process. This tool is also for use by other BOD-approved groups conducting an assessment of the available literature in order to create practice-related documents (eg, task forces).

Phase 3 of the EB process involves creation of a document in the most appropriate format (eg, position statement versus a guideline). The determination of document format is based on the purpose of the document and the outcome of the assessment and critique of the available evidence. Generally, it is also during this phase that the opinions of various communities of interest may be sought by the PC or a task force. For future reference as the process is followed, the PC identified the various communities of interest (eg, the AANA membership, the Council on Accreditation of Nurse Anesthesia Educational Programs [COA]) that may be consulted to provide input as documents are developed. For example, review and revision of a seminal document such as the AANA Scope and Standards for Nurse Anesthesia Practice would require the formation of a task force, separate from the PC. At a minimum, this task force would seek input from the membership, the COA, and the National Board on Certification and Recertification of Nurse Anesthetists (NBCRNA) in some manner during the document's processing. The PC chose not to specify how or to what extent input from these communities of interest would be obtained. Instead, the PC believed that it was most appropriate for a convened task force to determine the best method to consult with a given group.

Phase 4 characteristically involves development of all supporting materials (eg, evidence review summary report, master bibliography, literature search strategy summary) documenting the PC or the task force's decisions in creating the particular practice-related document. These materials go forth to the BOD as part of the overall decision memorandum for consideration and action. Finally, phase 5 involves implementation of any actions required by the BOD, such as adoption of the revised document.

Issue or Document Prioritization Process

In addition to developing the AANA EB policy and process, the PC also evaluated all currently existing documents within the AANA *Professional Practice Manual for the Certified Registered Nurse Anesthetist* (PPM) and other pertinent clinical practice issues that are not explicitly addressed within the manual in order to prioritize these items. This step was undertaken in order to develop a recommendation to the BOD regarding which documents or issues should be addressed first. The PC used a 4 quadrant schematic intended to provide a visual aid to assist in assessing the level of Association resources necessary for the completion of a project (eg, low to high) with the perceived urgency or degree of impact the issue or document may have for the profession (low to high). Those projects identified as requiring a low level of resources with a low degree of urgency were labeled as "possibly/reconsider"; the projects with a low level of resources and a high degree of urgency were classified as "no-brainers/quick wins"; projects with high resource and low urgency levels were classified as possibly "drop?"; and the projects requiring a high level of resources with a high urgency for the profession were considered "more strategic." This last category included projects that needed to be simplified or divided into phases in order to better manage them. Once all issues and documents were classified, the PC developed a prioritization schema that outlined the planned scope of work for practice-related projects through fiscal year 2017. The PC has already begun work on this BOD-approved scope of work, and members will continue to see many PPM documents reviewed and revised each year.

Association Evidence-Based Activities

In order to continue progress toward advancing evidence-based

nurse anesthesia practice, the membership needs ready access to timely documents and resources. With this objective in mind, the entire AANA PPM is transitioning onto the AANA website for member-only access. Currently, some selected PPM documents are available on both the public and member portions of the website. Going forward, as a benefit of membership, the complete manual will be free and available online to members only, and a key number of selected PPM documents will continue to be available on the public side. This transition is being undertaken to facilitate members' easy access to practice-related documents and to ensure that the members have the most up-to-date version of the manual's contents. All individual PPM documents will be available in an easy-to-download and print PDF format on the website. If a member does not want to print the PPM individual contents on his or her own, an option to purchase an entire copy for a reduced price will still exist as a benefit of membership.

In addition to moving the PPM online, the BOD has approved other activities aimed at advancing evidence-based nurse anesthesia practice. These include:

- Development of several evidence-based related, 1-hour PowerPoint online educational modules.
- Development of EB-related informational AANA *NewsBulletin* items.
- Redesign and expansion of the practice area of the AANA website to create areas for EB-related resources, quality-related items (eg, National Quality Forum, National Priorities Partnership), other practice resources, and facility accreditation programs (eg, The Joint Commission, Healthcare Facilities Accreditation Program content).
- Development of an electronic method for members to identify gaps in the literature that they have dis-

covered through the course of their exploration.

- Development of electronic resources describing the link between EB practice and quality or performance measure development.
- A listing of performance measures that CRNAs may encounter within practice.
- Development of an online repository of researchable questions that may be accessed by members and is based upon evidence gaps identified internally or by members.
- Development of an online repository of external EB resources, with hyperlinks when available, on the AANA website.

Summary

As the AANA continues its quest to drive EB nurse anesthesia practice, the members can expect to see an increasing number of resources avail-

able on the AANA website. The AANA currently has 3 task forces that are in the process of beginning their work: (1) Infection Control, (2) Perioperative Safety, and (3) Scope and Standards. As these and other task forces proceed with their work, it is critical that AANA members respond to the various queries issued by the Association. Input from CRNA clinicians who are the front-line providers of high-quality anesthesia services will not only ensure that the end users have input into the development of practice documents, but they also will secure the clinical expertise component essential to advancing evidence-based nurse anesthesia practice.

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