Point-of-Care Ultrasound in Anesthesia Care: New AANA Practice Document Adopted by AANA Board of Directors

The American Association of Nurse Anesthetists (AANA) recently released a practice considerations document titled, “Point-of-Care Ultrasound in Anesthesia Care.” This resource describes common applications of point-of-care ultrasound (POCUS) in anesthesia care and considerations for Certified Registered Nurse Anesthetists (CRNAs) and facilities for developing strategies for training, implementation, and use of POCUS. The AANA also sought input from various stakeholders, including CRNA subject matter experts who provided insights into POCUS applications, AANA State Government Affairs, and AANA members who submitted input through the open comment period. The AANA Practice Committee provided clinical oversight and guidance and the document was ultimately adopted by the AANA Board of Directors at their November 2020 meeting.

CRNA Application of POCUS in Clinical Anesthesia
POCUS refers to the use of portable ultrasonography at a patient’s bedside for therapeutic and procedural (eg, image-guidance) and diagnostic (eg, symptom or sign-based examination) purposes. The AANA recognizes the importance of POCUS as a critical core skill that CRNAs should possess. CRNAs have the foundational knowledge, skills and abilities, which supplemented by professional development and life-long learning, provide the ability to use POCUS to guide patient care. Nurse anesthesia educational programs are encouraged to incorporate POCUS education and training into their preparation of CRNAs for entry into practice. CRNAs may also engage in professional development and life-long learning to obtain and enhance their expertise in POCUS.

This document highlights common applications of POCUS in clinical anesthesia that include, but are not limited to, airway ultrasound, lung ultrasound, focused cardiac ultrasound, gastric ultrasound, and abdominal ultrasound. POCUS may also be used for image guidance of anesthesia or anesthesia-related procedures to improve the safety and efficacy of interventions (e.g., central neuraxial and peripheral nerve blocks and vascular access). A graphic representation of various POCUS applications is depicted in the Figure.

POCUS Practice Considerations
The document summarizes practice considerations for integrating findings. The AANA also sought input from various stakeholders, including CRNA subject matter experts who provided insights into POCUS applications, AANA State Government Affairs, and AANA members who submitted input through the open comment period. The AANA Practice Committee provided clinical oversight and guidance and the document was ultimately adopted by the AANA Board of Directors at their November 2020 meeting.
POCUS into policy and CRNA practice. These practice considerations include, but are not limited to:

- **Professional Development:** Specific training and expertise are essential to operate POCUS effectively and safely to prevent adverse patient outcomes.
- **Training:** CRNAs can advance their clinical expertise and competency through various pathways, such as continuing education courses, workshops, self-study, mentored practice, and accredited fellowships, as well as other educational activities.
- **Credentialing and Privileging:** CRNAs should seek to become credentialed and privileged within their facility for the use of POCUS based on their facility credentialing and privileging requirements.
- **Maintaining Competence:** CRNAs may participate in multimodal, longitudinal programs that include online modules as well as proctored and repeated hands-on expert-guided training.
- **Documentation:** CRNAs document patient information, images (both normal and abnormal), and patient management in a timely manner.
- **Patient Education:** CRNAs and facilities provide appropriate patient education.
- **Equipment:** CRNAs and facilities monitor equipment performance and facilities complete manufacturer’s recommended maintenance.
- **Quality Assurance:** Facilities establish an interdisciplinary team, including a CRNA representative, responsible for providing POCUS training and oversight in image acquisition, interpretation, and mastery of skill.

Potential barriers to POCUS implementation and use are also discussed, including developing and maintaining competence, establishing curriculum standards for training, and managing unexpected diagnoses.

**Next Steps and Future Considerations**

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**Figure.** Available Perioperative Point-of-Care Ultrasound Examinations
Abbreviations: ETT, endotracheal tube; ICP, intracranial pressure.
During the open comment period, several reviewers identified additional needs for CRNAs related to POCUS, such as a standardized POCUS education and training curriculum for CRNAs. As POCUS continues to be integrated into anesthesia practice, the AANA will assess the professional development needs of members. Continuing education vendors are developing and establishing CRNA continuing education offerings, and the AANA may engage with the community of POCUS experts to facilitate a POCUS training program tailored specifically to the CRNAs.

REFERENCES

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“Point-of-Care Ultrasound in Anesthesia Care” is incorporated into the Professional Practice Manual for the CRNA and can be accessed at aana.com/practice/practice-manual or purchased at www.aana.com/book-store. For questions or comments, please contact the AANA Professional Practice Division at practice@aana.com.