



AANA Foundation and AANA Joint Research Program Overview with Suggested Areas of Research

Research Agenda

The mission of the AANA Foundation is to advance the science of anesthesia through education and research by serving as the philanthropic arm of the AANA. One of the goals of the AANA Foundation is to support new and seasoned investigators in nurse anesthesia through grants, fellowships and post doctoral fellowships as well as research that supports nurse anesthesia.

The AANA Foundation's program of research includes:

- Healthcare policy
- Science of anesthesia
- Education
- Practice/Clinical
- Leadership

I. Research Priorities

Valuable input from the AANA membership guides the AANA Foundation in establishing research priorities. Input from the members has led to the development of research topics focusing on health services research. A health services research agenda has been set and prioritized to include the following questions:

1. What are healthcare executives (CEOs, CFOs, CMOs, and CNOs) perceptions of CRNA anesthesia services and how do they value the cost of care provided by CRNAs in their institutional settings? (variations by type of hospital, location by state, location by rural versus city)
2. Has patient access to care (surgical, obstetrical, endoscopy, dental services and pain management) improved in states that have opted out of physician supervision?
3. Does legislative adoption of the APRN consensus model result in an increased scope of practice for APRNs?
4. How do legislators and other key decision makers perceive the influence of CRNAs (or APRNs)? What can be done in the policy arena to be more effectual/influential?
5. What is the most efficient and cost-effective model of various patient, provider and payer mixes?
6. What are the outcomes of patient cared for in exclusively CRNA-staffed Veterans Affairs (VA) health care facilities compared with VA facilities using other anesthesia staffing models?

II. Additional Research Topics

Additional targeted areas for funding include education, practice and clinical. Listed below are topics for consideration:

➤ Healthcare Policy

1. Determine the impact of nurse anesthesia care regarding (i.e., cost effectiveness, quality):
 - a. Hospital readmissions
 - b. Per-patient Medicare costs
 - c. Quality outcome as measured by (quality measure)
 - d. Geographical variation of [per patient Medicare costs/delivery of another (service)/per capita CRNA or anesthesiologist population] by [state/Medicare service area]
 - i. Example – Examine the impact of overall per-patient Medicare costs based on quality and geographical variation
 - ii. Example – Examine the variation in reimbursement [Medicaid/Medicare/commercial insurance plan] reimbursement for CRNA services vary within states and among states based on specific services
 - e. Identify how payment claims for CRNA services vary among state Medicare and Medicaid service areas in pain management
2. Examine the variability of the CRNA's scope of practice in each state
 - a. Examine the impact that limiting CRNA scope of practice would have on cost and access
3. Assess CRNA practice patterns (specialty anesthesia services) identified by locale
4. Explore how the implementation of health reform (i.e. ACSs/other share savings plans/payment innovations) may affect CRNA practice and reimbursement

➤ Practice and Clinical

1. Examine the comparative effectiveness of healthcare providers performing specific procedures including central line insertions, ultrasound and arterial-line placements
2. Evaluate the impact of teamwork and hand offs related to patient safety
3. Assess the role of the CRNA regarding surgical site infections
4. Determine the top 10 activities anesthesia providers can do to reduce administrative costs while upholding optimal patient safety
5. Analyze the current literature detailing the competency and technical skills of CRNAs
6. Assess the impact that clinical relationships have between healthcare providers on improving patient care (Supervision – medical direction of CRNAs for cases involving intubation, etc.)
7. Identify which situations or scenarios enable CRNAs to be or become the best patient advocate: mass casualty, incident preparedness and the role of CRNAs
8. Describe role that RNs play in continuous epidural infusion
9. Determine if changes in surgical scheduling impact non-routine events (error prevention)
10. Determine the cost and quality of anesthesia services based on the type of organizational arrangements of the anesthesia practice (solo, group, faculty practice arrangements, salaried etc.) that influence compensation, retention in practice, age at retirement and professional satisfaction
11. Analyze the potential impact of the restructuring of organizations and reimbursement of the nurse anesthesia care given different health reform options (ex. Bundled payment, ACOs)
12. Assess the impact of the differences in patient characteristics, practice settings, practice arrangements, case complexity and types of procedures on safety and quality

13. Create demonstration projects to evaluate innovative practice models that may improve care and the practice of nurse anesthesia in the future
14. Explore various models of practice arrangements and environments that may led to an ideal practice environment based on cost and outcomes

➤ **Education**

1. Analyze the comparative effectiveness of different types of innovative educational models for the preparation of nurse anesthetists on student satisfaction and performance and ultimately on performance measures reflecting safety, quality of care and health outcomes for patients served
2. Determine the value of the clinical doctorate (assess the measurable difference)
3. Examine the current design of the DNP curriculum for “best practices” in DNP education
4. Determine if critical thinking skills can be taught, measured and/or predicted
5. Assess the effectiveness of simulation on student education as well as on continuing education, maintenance and competency for CRNAs
6. Examine the effectiveness of current criteria for admission into a nurse anesthesia program, i.e. applicant’s behavior, attitude, etc. that could be used as a way to assist educators
 - a. Measure of maturity
 - b. Promising individuals for leadership positions