



How do you say quality anesthesia care? **Certified Registered Nurse A-nes-the-tist**

Texas Association of Nurse Anesthetists • 512-495.9004 • www.txana.org • tana@txana.org

THE PROFESSION

CRNAs have provided quality, cost-effective anesthesia care for nearly 150 years.

- The FIRST anesthesia specialists were nurse anesthetists who began providing anesthesia in the U.S. in the late 1800s. Doctors began specializing in anesthesia care in larger numbers after World War II.
- CRNAs are qualified to practice independently, provide the full range of anesthesia care and administer all types of anesthesia.
- Patient outcomes are the same whether anesthesia is provided by a CRNA, an anesthesiologist supervised CRNA, or an anesthesiologist. The standard of care is the same regardless of who administers the anesthesia.

IMPACT ON HEALTH CARE

CRNAs provide access to essential health care services.

- CRNAs administer nearly 32 million anesthetics given to patients in the United States each year.
- 97% of all Texas counties with surgical or obstetrical services depend on CRNAs.
- Nurse anesthetists are the SOLE anesthesia providers in 74 rural Texas counties; this accounts for 48% of Texas counties with surgical or obstetrical services.
- 43% of ALL Texas hospitals rely on independent CRNA practice to ensure the provision of obstetrical, surgical, and trauma stabilization services.
- More efficient use of CRNAs in the U.S. could save over 50 million dollars in health care costs annually based on estimates of educational costs for anesthesia providers and statistics on average salaries.
- Ten CRNAs can be educated for the cost of educating one anesthesiologist therefore increasing access to anesthesia services ten-fold.

EDUCATION AND CERTIFICATION

- Specialty anesthesia education is received in one of the more than 109 accredited programs offering a Master's degree throughout the U.S.
- Texas is home to 5 nurse anesthesia programs, 3 of which are rated in the top 10 in the country. A minimum of 8 years of education and training is involved in the preparation of a CRNA.
- The US Army Graduate Program in Anesthesia Nursing at Fort Sam Houston, rated number 2 in the U.S, is the primary educational venue for the US Army for CRNAs. Military CRNAs continue to be the primary anesthesia provider in all theaters of operation from Iraq to Afghanistan.
- All nurse anesthetists must pass a board certification exam. CRNAs are the ONLY anesthesia providers that MUST be board certified in anesthesia in order to practice.

References

Michael Pine, MD, analyzed 404,194 cases in 22 states involving 8 types of common surgical procedures, and compared anesthesia mortality rates when the anesthesia was provided by an anesthesiologist alone, a CRNA directed by an anesthesiologist or a CRNA alone. When adjusted for risk, the authors concluded there was no difference among the three groups. [Source: Pine M, Holt, KD, Lou, Y (2003). Surgical mortality and type of anesthesia provider. *American Association of Nurse Anesthetist Journal*, 71, 109 – 116.]

The practice of anesthesia has become safer in recent years due to improvements in pharmacological agents and the introduction of sophisticated technology. Recent studies have shown a dramatic reduction in anesthesia mortality rate to approximately 1 per 250,000 anesthetics. In 1990, the Center for Disease Control (CDC) intended to conduct a research study on morbidity and mortality in anesthesia. Following a review of the anesthesia data, the CDC concluded that morbidity and mortality in anesthesia was too low to warrant the study.

In administering nearly 32 million of the anesthetics given annually, CRNAs have compiled an enviable safety record. Research for the past 28 years supports the competence of nurse anesthetists.

1. In a study mandated by the U.S. Congress and performed by the National Academy of Sciences, National Research Council, the report to Congress states: "There was no association of complications of anesthesia with the qualifications of the anesthetist or with the type of anesthesia." (House Committee Print No. 36, Health Care For American Veterans, page 156, dated June 7, 1977.)
2. A study concerning anesthetic-related deaths from 1969-1976 by Albert Bechtoldt, Jr. and the Anesthesia Study Committee, published in the North Carolina Medical Journal in April 1981, on page 257 states: "Therefore, when we calculated the incidence of anesthetic-related deaths for each group which administered the anesthetic we found that the incidence among the three major groups (the CRNA, the anesthesiologist and the combination of CRNA and anesthesiologist) to be rather similar."
3. The Stanford Center for Health Care Research conducted a 17-hospital intensive study of institutional differences. A report of the study stated that: "Thus, using conservative statistical methods, we concluded that there were no significant differences in outcomes between the two groups of hospitals defined by type of anesthesia provider." See Forrest WH Jr. "Outcome-The Effect of the Provider," at page 137 in Hirsh RA, et al (eds): *Health Care Delivery in Anesthesia*. 1980. Philadelphia: George F. Stickley Company.
4. A 1994 legislatively mandated study by the Minnesota Department of Health looked at the provision of anesthesia services by anesthesiologists and certified nurse anesthetists. The resulting assessment of the existing studies determined that there are no studies, either national or Minnesota- specific, that conclusively show a difference in patient outcomes based on type of anesthesia provider.
5. The Center for Health Economics Research (CHER) completed a report in January 1988 for the Health Care Financing Administration (HCFA). The purpose of the report was to assist HCFA in developing a fee schedule for CRNA direct Medicare reimbursement, effective January 1, 1989. CHER is an independent Boston-area based research organization that analyzes and evaluates federal health programs. As part of the report, CHER addressed the question of whether the quality of anesthesia care varies by the type of anesthesia provider. As part of its literature review, CHER reviewed three studies that have explicitly examined anesthesia outcomes by provider type. The CHER researchers concluded that "none of the studies detected significant differences in anesthesia outcomes among nurse anesthetists versus anesthesiologists."

Additional References

Smith et al., conducted a systematic search for, and critical appraisal of, primary research comparing safety and effectiveness of different anesthetic providers. Here is a notable quote from the article, which compares the literature (including the Silber and Pine studies) on relative safety of the two providers: "We have found no recent, high-level evidence that there are significant differences in safety between different anesthesia providers." [Source: A.F. Smith, M. Kane, and R. Milne (2004). Comparative effectiveness and safety of physician and nurse anesthetists: a narrative systematic review. *British Journal of Anesthesia*, 93, 4, 540-545.]

Estimates of potential annual cost savings are based on estimates on cost of education for anesthesia providers and statistics on average salaries.

Sources:

1. Correspondence from the director of Hospital Payment Policy, Health Care Financing Administration (HCFA) dated July 27, 1992, to Kathleen A. Michels, RN, JD, Director of Federal Government Affairs at the AANA.
2. 1995 AANA Membership Survey. Park Ridge, Illinois: American Association of Nurse Anesthetists. 1996.
3. Physician Compensation and Production Survey: 1995 Report Based on 1994 Data. Englewood, Colorado: Medical Group Management Association. July 1995.]