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Abroad News

# Advanced Practice Nurses in Women's Health

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This time I write about two professions: Genetic Counselor and Certified Registered Nurse Anesthetist.

## Genetic Counselor

Genetic counselors are nurses or health professionals with specialized graduate degrees and experience in the areas of genetic and counseling. Most enter the field from a variety of disciplines, including nursing, biology, genetics, psychology, public health, and social work.

The term of genetic counseling was first used in 1947 at the University of Minnesota.

By 1951, genetic counseling was offered in at least 10 centers in the United States.

This growth in the number of centers providing genetic counseling occurred although no formal training programs existed in clinical genetics or genetic counseling.

The first class of master's degree genetics counselors graduated from Sarah Lawrence College in 1971. Now 25 master's level genetic counseling programs exist in the United States. The National Society of Genetic Counselors, formed in 1979, now has more than 2000 members.

The definition of genetic counseling is a communication process that deals with the human problems associated with the occurrence or risk of occurrence of a genetic disorder in a family. This process involves an attempt by one or more appropriately trained person to help the individual or family to comprehend the medical facts including the diagnosis, probable course of the disorder, and the available management.

Genetic counseling is typically provided by a team of genetics specialists that includes clinical geneticists (often physicians), medical geneticists with a PhD, genetics fellows, genetics counselors, and in a growing member of cases, advanced practice genetics nurse specialist. This group of people provides genetics education and counseling for individuals and families affected by specific genetic disorders, such as Down syndrome, neural tube defects, cystic fibrosis, muscular dystrophy, Huntington's disease, Alzheimer's disease, and inherited cancer.

Genetic counselors are the group of people who provide genetic counseling. They frequently speak to clients about complex scientific and emotional topics. They work as members of a health care team providing information and support to families who have members with birth defects or genetic disorders and to families who may be at risk for a variety of inherited conditions. They investigate the problem present in the family, interpret information about the disorder, analyze inheritance patterns and risk of recurrence, review available options with the family, serve as patient advocates,

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and engage in research activities. Thus, genetic counselors wear two hats: they are scientists and they are counselors.

Genetic counselors also translate technical information about inherited health disorders into language that can be understood by the average person. They provide information to help the patients arrive at the best decision for them. One method of obtaining genetic information in the women's health area is through amniocentesis, percutaneous umbilical blood sampling and chorionic villi sampling.

Education for genetic counselors may start as early as high school. It should begin by taking college level courses like biology, physiology, chemistry, and statistics. Even taking English classes will help develop written communication skills and confidence in speaking.

Educational requirements for the nurse would be a master's degree or doctorate with advanced education in genetics such as that offered through the National Institutes of Health. The American Board of Genetic Counseling (ABGC) certifies genetic counselors and accredits genetic counseling training programs. Certification in genetic counseling is available by the ABGC. Requirements include documentation of the following: a graduate degree in genetic counseling; clinical experience in an ABGC approved training site or sites; a log book of 50 supervised cases; and successful completion of both the general and specialty certification examination. Where licensing and certification are not mandated for genetic counselors, most employers expect a genetic counselor to be certified by the ABGC. Genetic counselors are hired by many university medical centers, public hospitals, health maintenance organizations, diagnostic laboratories, and physicians in private practice.

The core competencies and skills needed are as follows: knowledge of inherited diseases and the ability to counsel parents and families regarding genetic possibilities; critical thinking skills; collaborative team practice skills; deep sensitivity to patient and family concerns; listening skills; and maturity. Even though salary is highly variable in the United States, this field is expected to grow much faster than average professions for many years to come.

The data produced by the Human Genome Project will create new ethical dilemmas as new genetic tests become available. This, in turn, will create an increased need for individuals who can help patient understand the options these developments present, as well as their associated risks.

## Certified Registered Nurse Anesthetist

The nurse anesthetist was one of the earliest advanced practice roles in the United States: Nurses started administering anesthesia as early as 1889. The CRNAs and nurse midwife are the oldest of the advanced practice specialties for nurse and are already well accepted in the medical community. They experience varying levels of acceptance from physicians, although the public in general likes the care they receive from the CRNAs.

A CRNA is a registered nurse who has advanced educational preparation, including classroom and laboratory instruction and supervised clinical practice, in the delivery of anesthesia to clients in a variety of practice settings, including hospitals, ambulatory surgical centers, birthing centers, and clinics.

The American Association of Nurse Anesthetists, founded in 1931, established a certification program for nurse anesthetists in 1945 and an accreditation program for educational programs for nurse anesthesia in 1952. A baccalaureate degree has been required for certification as a CRNA since 1987, and a master's degree is required since 1998.

Certified Registered Nurse Anesthetists like any advanced practice nurses fill a need for quality primary care services at an affordable cost to clients in both rural and urban settings. As the functions of any other advance practice nurses, CRNAs overlap with those of primary care physicians, the need to delineate the nursing and medical roles becomes important to collegial and collaborative practice.

Many CRNAs working with physician Anesthesiologists administer more than half of the anesthesia given to clients in the United States. In some settings, such as birthing centers and ambulatory surgical centers, CRNAs may deliver anesthesia independently to clients with uncomplicated vaginal deliveries or minor surgeries. CRNAs maintain an affiliation with a

physician Anesthesiologist for consultation prior to or during the delivery of anesthesia to a client.

Here is an overview of a CRNA program. Students are instructed with the standards set by the Council on Accreditation of Nurse Anesthesia Educational Program. Applicants are required to enroll in the Anesthesia for Nurses/Master of Science in Nurse Anesthesia. A few nursing schools in the USA offer this program.

In order to be qualified for admission, the applicant must be a graduate of an accredited baccalaureate or higher generic nursing program or hold a bachelor of science degree in a basic or appropriate health science; must have academic preparation and licensure as a registered nurse; have a minimum of two years as an RN in an adult critical care setting, such as ICU, CCU, SICU, MICU NICU, and such; and submit satisfactory scores of the Graduate Record Examination; and complete prerequisite course including general chemistry, organic or biochemistry, anatomy, physiology physics or statistics.

Further the applicant should have a score of ~1000 (~500 on verbal and math). Provisional acceptance is considered with prerequisite courses or bachelor's degree completion pending at the time of interview. The applicant must submit complete application, references, supplemental materials, application fee and official transcripts of all college work.

To be eligible, the applicant must have at least two years of adult intensive care experience as a registered nurse. However, unit designations vary among hospitals. Consideration may be given for Emergency Department, Recovery Room or Pediatric/Neonatal ICU experience, but only as partial fulfillment of acute nursing requirements. The applicant is required to have current ACLS and PALS certification. Upon graduation, all candidates must take the certification examination prior to practice.

Many programs for CRNAs seem to be two and half year long and curricula vary through out the United States. In a nut shell, human anatomy, life support measures, applied human physiology, research methods; basic principles of anesthesia practice, pharmacology of anesthetic drugs, ethics for nurse anesthetists, and many anesthesia practicum. Many hospitals surrounding the school accommodate the students for practicum.

In my opinion, CRNAs are in the highest demand in the current health care arenas.

No doubt that they are currently listed as highest paid nurses.