A university based model of a nurse anesthesia educational program is described, with emphasis on its development in a graduate degree framework. Steps in developing a university based program are outlined.

Nurse anesthesia educational programs are found in three settings: in a hospital, in a hospital affiliated with an institution of higher learning (regionalized model) and in a university. The university based model will be discussed, emphasizing its development in the framework of a graduate degree.

Many university based programs began as certificate programs in university hospitals. A number of these programs have moved into a master's degree framework. The first university based nurse anesthesia program to offer a master's degree was at UCLA in 1978. Currently, there are 21 university based nurse anesthesia programs, 16 of which offer a master's degree (7 in nursing, 7 in nurse anesthesia and 2 other). Five university based programs remain in the certificate framework and offer no academic degree at this time. Although there are a significant number of programs of nurse anesthesia that affiliate with universities and offer a master's degree (regionalized model), they are not the focus here.

In this model, the university is the controlling institution. It has the primary fiscal responsibility for operating expenses and faculty salaries. However, program governance is often shared by several entities, including graduate schools, departments of anesthesiology and an academic unit such as a school of nursing or school of allied health. Consequently, the operating budget for these programs usually comes from a variety of sources.

The university is composed of separate schools or colleges, such as nursing, medicine and arts and sciences. The chief academic officer of these schools is a dean. The school/college is made up of departments, which generally house programs. On occasion, departments may be further delineated into divisions. Therefore, university programs may be found in a variety of locations within an academic institution, as depicted in Figure 1.

A nurse anesthesia program may be found in any of these schools within a university. In addition to the organizational structure within the department and school, the program may have a formal relationship with the graduate school. In some instances, a program of nurse anesthesia may be located in the graduate school, and the primary fiscal responsibility rests with this school.

If a program of nurse anesthesia is also a department, then the program director becomes the departmental chairperson, as at the University of Kansas.

Some universities may have specific guidelines for the development of departments (in contrast to programs) that detail particulars of their composition, including the number of core faculty.

Because many programs do not have the requisite number of faculty to be freestanding departments, they are located within an existing department with similar goals and interests such as anesthesiology (UCLA) or surgical nursing (Rush University). In this example, both program directors are directly responsible to their respective departmental chairpersons. Most programs of nurse anesthesia also have an informal or formal relationship with the hospital administration in the university hospital or medical center.

The practice of nurse anesthesia dictates that a relationship must exist between the program of nurse anes-
Thesia and the department of anesthesiology in the hospital where a clinical practicum is acquired. This relationship may even require an affiliation agreement in those instances where the department and the program are located in different schools within the university, such as the school of medicine and the school of nursing.

Clinical experience is generally obtained through the university hospital and its affiliated hospitals. If the variety of clinical experience does not meet minimum criteria, then external affiliations with other institutions may be sought. The CRNA program director and faculty are generally employees of the university, specifically of the department and school or college where the program is housed.

Depending on the particular academic setting, faculty may have salaried or non-salaried academic appointments. In order for CRNA faculty to hold an academic appointment, minimum criteria, as established by the university, must be met, e.g., a baccalaureate degree or master's degree. Departmental/school/college and university criteria for faculty appointments vary considerably from one institution to another, and each program must adhere to the requirements of the university in which it is located.

Curriculum design is dictated primarily by the policies of the department/school/college where the program is housed. Council on Accreditation requirements are considered in course development, but the council cannot dictate the course design and structure to the university.

All degrees require a minimum number of credits or unit hours. This number varies from institution to institution but, generally speaking, most nurse anesthesia programs exceed the minimum number of credit hours required for the graduate degrees offered at the university. In fact, graduate nurse anesthesia students are often required to take far more than the traditional number of graduate credits for a given degree. That is, they must take the required courses to meet professional certification requirements in addition to those required to receive a degree from their sponsoring department.

To develop a university based program of nurse anesthesia, a need must first be demonstrated and the most appropriate academic unit for affiliation must be identified. The dean of the school identified must have all necessary information regarding the administration of the program, e.g., proposed operating budget requirements, number of faculty required and salaries, secretarial and other support staff needs, equipment, space (office and research), anticipated student enrollment and proposal for support of students if any and grant history/proposals for the maintenance of the program. The program must conform to the mission and goals of the academic unit.

If the program is not to be located within the department of anesthesiology, evidence of support from the chairpersons of the departments of anesthesiology of the parent and affiliated hospitals must be obtained. The impact of the program of nurse anesthesia upon any preexisting anesthesiology residency program must also be evaluated.

More than likely, it will be necessary to work with the graduate school of the university in the development of the program and its course requirements. The type of degree to be offered by the program department must be considered. An existing degree within the university should be utilized, if appropriate. Development of an identified (tagged) degree may be a lengthy process, requiring approval from the state board of regents or other similar body, and therefore unfeasible (e.g., doctoral degrees in nurse anesthesia).

Ultimately, programs of nurse anesthesia should be located in and operated by departments and schools that afford maximum reimbursement potential for services rendered by both CRNA faculty and student nurse anesthetists. At this juncture, this ideal organizational structure remains elusive, because of the rapidly changing face of Medicare and third-party reimbursement as well as governmental funding for graduate medical education.