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## Administrative Manual for Schools of Nurse Anesthesia: A Research and Development Study

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ADMINISTRATIVE MANUAL FOR  
SCHOOLS OF NURSE ANESTHESIA:  
A RESEARCH AND DEVELOPMENT STUDY

by

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A culminating project  
submitted in partial fulfillment  
of the requirements of the Masters Degree  
Health Care Administration

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## PREFACE

Upgrading the quality of care is of constant concern for the health care administrator. To implement this process the administrator must understand the services rendered by each provider.

The information supplied in the following pages will provide the background material for the administration and identify one of the seldom recognized health care professionals.

The nurse anesthetist has not only been rejected by the professional association by which she is licensed to practice--the registered nurse--but also the academic community, and the physician with whom she is allied professionally.

Yet in the "Survey of Anesthesia Services: 1971"<sup>1</sup> compiled jointly by the American Hospital Association, American Society of Anesthesiologists, and the American Association of Nurse Anesthetists, 48.5% of the anesthesia services in the United States were administered by the certified registered nurse anesthetist (CRNA\*), while only 38.5%

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<sup>1</sup>Delores E. Biggins, Alice Bakutis, Vella G. Nelson, and Martha Petraitis. "Survey of Anesthesia Services: 1971." Journal of American Association of Nurse Anesthetists (October 1971), pp. 371-379.

\*Nurse who receives a postgraduate education in officially approved schools of nurse anesthesia, passes a national qualifying examination, and becomes a member of the regulating organization--American Association of Nurse Anesthetists.

were delivered by her physician associate, and 13.1% by people untrained in the art of anesthesia services.

As a member of the health care profession for thirty years as a registered nurse and twenty of those years as a nurse anesthetist, I have been an active clinical practitioner, educator, political activist, and a professional representative in nursing and anesthesia.

Some of the reasoning and logic behind my decision to become both a registered nurse and a nurse anesthetist were very dramatic and seem appropriate to discuss at this time. As I relate my experiences they illustrate some of the problems confronted by the nurse anesthetist in the health care field.

#### 1. Background

As a young child my brother and I had diphtheria. This was in the days before antibiotics. One early morning my brother became unable to breathe because of mucous in his throat and chest. The nurse administered artificial respiration until the doctor arrived to do a tracheotomy to relieve the obstruction caused by the mucous. Needless to say, this was a very impressive sight, as the two of us were housed in the same room. My decision on a nursing career was made that day, and as I grew older this desire never changed. I entered nurse's training at the age of seventeen.

My introduction into the field of anesthesia was as a student nurse. All the anesthesia services at the hospital where I trained were administered by nurse anesthetists. The lady in charge of the anesthesia department was Jesse E. Compton, CRNA. She was the epitome of the professional nurse and, as an administrator, ran a department with outstanding anesthesia services. There were no deaths from anesthesia in

this hospital during my three years of training.

She had encouraged me to become a CRNA at the time I was in nursing school, but several of my friends went to a small 100 bed hospital in East Texas and I followed.

I was in charge of the operating room where the anesthesia was administered by a nurse anesthetist. On her days off the surgeons would administer the anesthesia, although none had any formal training in anesthesia.

One Saturday afternoon, a truckload of Mexican immigrant workers, after having lunch, was involved in a wreck. There were many injuries, but none really serious or life threatening. One of the workers was a very young woman about eight months pregnant who spoke no English. Her shoulder was dislocated and she had a few simple lacerations. The surgeon anesthesiologist for the day decided to give her a single dose of sodium pentothal to anesthetize her for the reduction of the dislocated shoulder. No one had learned, in all the confusion, that everyone had just had lunch. This is very important for the anesthetist to know because aspiration of stomach contents, while asleep, can cause death. Upon induction, the pregnant woman vomited because of her full stomach and promptly aspirated and died. Resuscitation was unsuccessful because the physician did not know how to intubate the patient and, for some reason, a tracheotomy was not administered.

By the time communication could be completed with the family to do a Caesarean Section, the baby was also dead. When a pregnant woman is killed by certain specific causes, her baby will generally survive if it is removed from her abdomen within three to seven minutes.

The psychological trauma from this ordeal made me feel partly responsible as a concerned professional nurse, but I didn't know how to respond to the incident, and the call of the west with a double increase in salary prompted me to move to West Texas.

Again I was put in charge of the operating room. Here, part of my duty was administering the anesthesia for tonsillectomies while assisting the surgeon. We were using open drop ether with insufflation. Ether is an agent with a wide range of safety.

One day while operating on a young child, the child developed respiratory distress from the anesthesia with blood and mucous in the throat. Although we saved the child, I realized the doctor who was supervising the surgery and anesthesia did not know how to intubate the child.

After these two very dramatic incidents involving the administration of anesthesia, I decided to save my money and become a nurse anesthetist.

During the years as a student nurse I became politically active. I organized the first student participation at a national meeting of the League of Nursing Education in Galveston, Texas in 1948.

As a nurse anesthetist, I have held many offices in my professional organization in the state of California. As President (1974-75) of my professional organization, the California Association of Nurse Anesthetist, I lobbied and helped process a bill to identify nurse anesthetists as a health care provider in the health care industry. At the present time, as Chairman of the Government Relations Committee for the California Association of Nurse Anesthetists, Inc., I have directed

the reintroduction of a bill to identify the nurse anesthetist as a health care provider, as our last legislative attempt was vetoed by the governor.

Our present legislation is California Assembly Bill No. 1171. It is to identify the nurse anesthetist as a health care provider. The Bill has passed the Assembly side of the House but must now be rewritten for clarification and acceptance by the physician groups before being presented to the Senate Health and Welfare Committee. A member from each of the following professional societies will rewrite the Bill: California Medical Association, California Society of Anesthesiologists, California Hospital Association, Government Employees Association, and the California Association of Nurse Anesthetists. I will be the spokesman, as Chairman of the Government Relations Committee (CANA), for the nurse anesthetists.

This Bill is opposed by the largest and most powerful medical lobby in California--the California Medical Association--and one of its specialist groups--the California Society of Anesthesiologists.

One of the most gratifying experiences of my adult life was testifying before the California legislative bodies at the Capitol in Sacramento. Knowing that my testimony was being recorded for history before this austere group was overwhelming. It was indeed a thrill that I will long remember when the Chairman to the Committees said, . . . "state your name and the group you are representing" . . . before testifying. This testimony was being presented to help clarify the identify of the nurse anesthetist.

My involvement in the educational branch of anesthesia began

while I was employed as a clinical anesthetist for Kaiser Hospitals. In 1971 the Kaiser Foundation Hospitals in Southern California were having problems staffing nurse anesthetists. I was asked by the regional director of the Southern California Permanente Medical Group to recruit nurse anesthetists at a local meeting attended by nurse anesthetists from the western states.

After an unsuccessful recruiting trip, my report was as follows:

- There were no nurse anesthetists to recruit in our immediate area, and all future advertisements for job placement should be done in the national professional magazines and papers.
- Increase the monthly wages to come more in line with the local community where nurse anesthetists are employed doing the same type of anesthesia coverage.
- Develop a school of nurse anesthesia, recruiting students from the local area. These students, as future nurse anesthetist staff, would, upon graduation: (1) stay with Kaiser Foundation Hospitals as staff of (2) fill a position in the local community that a Kaiser staff member might leave the Kaiser staff to fill.

After reviewing this report, I was asked by the Regional Director of Southern California Permanente Medical Group to do a feasibility study for a proposed school of nurse anesthesia for the Kaiser Foundation Hospitals. After completing this study and presenting it to the Regional Director of SCPMG, I was asked to be director of the school which was the first school of nurse anesthesia in the state of California.



Using the guidelines of the American Association of Nurse Anesthetists, Programs of Nurse Anesthesia for accreditation<sup>2</sup> and education,<sup>3</sup> I developed the curriculum for a two year program in nurse anesthesia with the aid of an advisory committee used on a consultant basis. Successful completion of this program enables the student to challenge the national certifying exam for nurse anesthetists and become a member of the professional organization.

As director of the school program, I am responsible for the planning, organizing, directing, coordinating, budgeting, and staffing of the anesthesia school. I report to a board of directors.

In developing this program I have applied the principles of Koontz and O'Donnell's Principles of Management,<sup>4</sup> and Terry's Principles of Management,<sup>5</sup> and used McGebony's Principles of Hospital Administration<sup>6</sup> to give me guidelines from the health care industry.

To add background and expertise to my ability to manage the educational program, I obtained a teacher's certificate by acquiring

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<sup>2</sup>American Association of Nurse Anesthetist's Council on Accreditation, Accreditation Policies and Procedures for Programs of Nurse Anesthesia, December 1974.

<sup>3</sup>American Association of Nurse Anesthetist's Council on Accreditation, Educational Standards and Guidelines for Programs of Nurse Anesthesia, December 1974.

<sup>4</sup>Harold Koontz and Cyril O'Donnell. Principles of Management. San Francisco: McGraw-Hill, 1968.

<sup>5</sup>George R. Terry, M. D. Principles of Management. Homewood, Illinois: Richard D. Irwin, Inc., 1968.

<sup>6</sup>John T. McGebony. Principles of Hospital Administration. New York: G. P. Putman's Sons, 1969.

the required academic units at California State University at Northridge in 1974.

It was my personal opinion that to be the administrator of a school one should also have the basic background in education to fully understand the needs and requirements for such a project.

My personal opinions were borne out in 1976. That year the American Association of Nurse Anesthetist's Council on Accreditation, which is the accrediting body designated by the United States Department of Health, Education and Welfare, stated all faculty members must have appropriate preparation in the area of curriculum and instruction by 1980.<sup>7</sup>

The objective of this paper is to develop an administration manual for schools of nurse anesthesia. To develop an understanding and grasp the importance of this project one must first cultivate an understanding of how medical education has evolved in the United States. It is also important to develop an understanding of how management has been involved in this transition.

Both physician and nurse education began as a servitude-type education, mostly as a one-to-one association. It is this transition of the management of the educational process that has led to the need of an administration manual for schools of nurse anesthesia.

In listening to Murray Bowen's discussion at the California Family Study Foundation,<sup>8</sup> one begins to see a similarity of his family

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<sup>7</sup>AANA, Council on Accreditation, Educational Standards and Guidelines for Programs of Nurse Anesthesia, December 1974, p. 32.

<sup>8</sup>Murray Bowen. Lecture at the California Study Foundation, 1976.

history work and the history of the peer group of professionals in anesthesia. It is because of this psychological association that I relate the historical data in this paper. This subject will be elaborated on later in Chapter II.

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## CHAPTER I

### INTRODUCTION

It is my personal belief that the present format for educational growth for nurse anesthetists has not brought the professional recognition justly deserved by professional peers, physician associates, and/or the health care industry.

#### 1. Purpose of the Study

The purpose of this study is to produce an administration manual that will aid schools of nurse anesthesia in providing the academic and clinical growth for their students to become accomplished health care providers, recognized by the community for the service they render.

The scope of my paper will focus on the administration and/or management of the academic process of nurse anesthesia.

My personal bias concerning the practice of anesthesia is that nurse anesthetists must be independent practitioners, knowing all the parameters of physiology and pharmacology.

The proper administration of nurse anesthesia schools would proliferate this concept.

This practice should be performed in a community of anesthesiologists and nurse anesthetists. The nurse anesthetist should have the availability of consultation from the anesthesiologist. The anesthesiologist is a physician and, as such, has a medical background the nurse

anesthetist lacks. Each should be equally proficient in anesthesia with both technical skills and academic background. Only by common knowledge in anesthesia will the nurse anesthetist be able to consult with the anesthesiologist about anesthesia complications that may possibly be foreseen or arise at the time of a case.

Both professionals must accept each for what their academic and professional background is, and each, in fact, must be that professional, to gain respect from his peers and professional associates.

In the pages that follow, it is my desire to aid the reader in developing an understanding of one of the professional dilemmic problems of the health care industry.

## 2. Socialization of the Nurse Anesthetist

As part of the health care industry, it is my belief that the nurse anesthetist must achieve certain goals in order to be recognized by the public in general and by her professional associates, especially the anesthesiologist.

These goals must include the embracement of the academic community.

The anesthesiologist and the registered nurse have both been confronted with challenges from the academic community. The registered nurse still has some problem areas being challenged by the university.

The nurse anesthetist must develop a sound educational program. It must be administered by staff with backgrounds in administration and education equivalent to professionals in other fields of science, providing the same types of service and accepted by the academic community at large.

The American Association of Nurse Anesthetists has been the recognized accrediting agency for schools of nurse anesthesia since 1955, and has developed basic guidelines for the academic program. Guidelines for administering the program have never been laid out in a definitive manner. In the American Association of Nurse Anesthetist's Council on Accreditation, Educational Standards and Guidelines for Programs of Nurse Anesthesia, December 1974, a definite reference was made to the fact that each director of the nurse anesthesia school program shall develop and maintain an administration manual.

Meeting the challenge by the academic community can be helped by the development of a manual for administering programs of nurse anesthesia and by producing educational media such as video-tape cassettes for instructional programs.

There is need for the socialization of the role of the nurse anesthetist. She must be identified and accepted by the health care industry, and she must develop an image in the community.

By identifying the role of the nurse anesthetist, a more direct approach can be taken for reimbursement for services. This could be one method to reduce the increased costs of health care and the escalating spiral in our total economy.

### 3. Limitations

Some of the areas to be discussed, such as legislation and statistics for the practice of anesthesia as it relates to patient care, will be from an experiential viewpoint, because research data is not available.



The health care industry has grown so fast that some of the providers have not had studies to help provide information for comparison studies. Also, some of the comparison studies are poor because the factors used are really unrelated to the day to day practice in the health care industry.

One specific area is distribution of anesthesia services. In Dr. Harold Carron's studies on "Anesthesia Manpower in the United States," he states that in California there are 13 CRNA's and anesthesiologists per 100,000 population.<sup>9</sup> There is no mention in the entire chapter that one fifth of all the anesthesiologists in the United States practice in California.

#### 4. Assumptions

High cost of health care has become one of our government's biggest problems.

From the off-line bibliographic citation list generated by Medlar II, only 17 articles give specific statistics as they relate to the anesthesia health care provider. Only one of the articles, Anesthesia Manpower 1980 by Alan L. Fitzgibbon presents the very important fact that by 1980 there will be a serious shortage of nurse anesthetists.<sup>10</sup> The fact was brought out in the article that the estimates do indeed reflect a real situation. The situation is evidenced by the existence of a large number of small hospitals located primarily in rural areas where nurse

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<sup>9</sup>Harold Carron, M. D. "Anesthesia Manpower in the United States." Clinical Anesthesia, vol. 10/3, Chapter 11, p. 251.

<sup>10</sup>Alan L. Fitzgibbon. "Anesthesia Manpower 1980." Anesthesiology Review. August 1977.

anesthetists are often overutilized due to the unavailability of anesthesiologists and the inefficient use of anesthesiologists in larger hospitals located in primarily urban areas where nurse anesthetists are probably underutilized.

To government leaders health care is a wasteful and inefficient industry. Anesthesia, as part of that total industry, has the same problem.

The nonprofit hospitals, with high investments in standby equipment, services, and educational programs committed to serving the very ill and the very poor, lose to the small entrepreneurial hospitals important revenue generated by the more routine cases.

In the past the professionals in the health care industry have not had the demands of the public at large, as they have at the present, for quality of care.

With better overall utilization of the nurse anesthetist, the high cost of health care should be reduced.

Also, by efficient management of the educational process for nurse anesthetists, a further reduction can be foreseen. The cost of the educational process for a nurse anesthetist would include registered nurse (two to five years), and two years in a nurse anesthesia program; whereas the anesthesiologist would include medical school (six years) and two years as an anesthesiology resident. Education of the health care providers is part of the total cost of health care.

## CHAPTER II

### HISTORICAL DATA

In Murray Bowen's tapes from the February 1976 lecture and discussion at the California Family Study Foundation, he expounded upon his theories of the value of family history. In other words, an individual's behavior and thought processes are viewed in a total system that encompasses historical and contemporary familial and environmental influences. His theories on family systems are valued by geneologists as well as therapists.<sup>11</sup>

To develop an understanding and comprehend the present identity crisis of the nurse anesthetist, one not only needs to know the history of the nurse anesthetist but also of the health care industry. As a small component of this huge health care field, the nurse anesthetist is directly affected by a multiplicity of factors in carrying out her professional duties. To help develop an understanding, let us draw a comparison in the health care family. For the sake of drawing the parallel to the family unit, the physician certainly could be identified as the father figure to develop this unit, and one could draw many similarities to the family from that point on.

The point I wish to make is, as Bowen theorizes that there are certain characteristics of family history one must know and accept, there are also certain health care history characteristics one must know and accept to understand the present position of the health care industry.

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<sup>11</sup>Murray Bowen, audio tapes, February 1976.

This short critique, as we turn back the pages of history, is to help the reader develop a quantitative view of the development of the health care industry.

### 1. Biblical Record of Health Care

The historical documentation by probably the most influential collection of books in human history, the Bible, is an accord of divine action and laws. It is the sacred writings of Judaism and Christianity.

The Bible recorded some of the first health laws which had a very important role in the development of western culture and the evolution of many eastern cultures.

The first five books of the Old Testament were the Pentateuch or Torah (Law).<sup>12</sup> The books were Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. These books contained laws that helped maintain the general well-being of the people of each community.

In Rashi, Commentaries on the Pentateuch, Rashi, a Rabbi who was born around 1105 B. C. and died 1040 B. C., identified a total of 613 health laws which became part of the Torah, the Jewish laws. These laws defined personal hygiene, a mechanism for quarantine and communicable disease, labor health laws, consanguineous marriage laws, and the laws for medical practice.<sup>13</sup>

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<sup>12</sup>The Torah, The Five Books of Moses, Philadelphia: The Jewish Publication Society of America, 1962, 2d ed.

<sup>13</sup>Chaim Pearl. Rashi, Commentaries on the Pentateuch. New York: W. W. Norton Co., Inc., 1970.

Many of the Orthodox Jews still live by these laws today which were written at least a thousand years before the Christian Calendar began.

These laws were very explicit in detail as outlined in Rashi, Commentaries on the Pentateuch.

In Genesis, the dietary laws are discussed. It states:

"Every moving thing that lives shall be food for you; as the green herbs have I given you all. I did not permit Adam to eat meat, only green herbs. But to you (Noah) I have permitted everything."

Genesis further states certain guidelines:

"Only flesh with the life thereof, which is the blood thereof, shall you not eat."

The Bible here prohibits eating the limb of a living creature, that is to say, "so long as its soul (life) is there, you shall not eat its meat." By then connecting the phrase "the blood thereof 'to' with the life thereof," we read the prohibition of eating the blood of a living animal.<sup>14</sup>

Other laws that regulated the hygiene of these people were cited in Genesis 17:12:

"And he that is eight days old shall be circumcised among you, every man and child in your generation, he that is born in the house, or bought with money of any stranger, which is not of thy seed."<sup>15</sup>

In Chapter 12 of Leviticus is a further discussion on hygiene.

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<sup>14</sup> Chaim Pearl, p. 36.

<sup>15</sup> The Holy Bible (Clarified Edition). Authorized King James Version. Chicago: Consolidation Book Publishers, 1960, p. 12.

It interprets a period of time for "the purification of women after childbirth."<sup>16</sup>

It continues on in Leviticus to relate to the laws regarding quarantine and communicable diseases. It describes the laws to guide the lepers; the rites and sacrifices in cleaning the lepers. In Chapter 13 it states the laws and tokens whereby the priest is to be guided in recognizing lepers. In Chapter 14 the rites and sacrifices are described, and in Chapter 15 it discusses the uncleanness of men and their descendants.<sup>17</sup>

Most regulations on behalf of the worker were expressions of religious conviction in Deuteronomy, or a reflection of the ancient concept that a ruler was supposed to be a father to his people.<sup>18</sup>

Moreover, religious and health objectives may be inextricably intermingled throughout the first five books of the Old Testament. For example, laws regulating medical practice and consanguineous marriage are specified in Leviticus. In Numbers it prohibits consanguineous marriages and the merging of functions in priests and shaman.<sup>19</sup>

The above examples are only a few of the health laws that are identifiable in the Old Testament. These examples illustrate the very thin line between religion and the laws pertaining to health. At this

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<sup>16</sup> Ibid., pp. 92-99.

<sup>17</sup> Torah, pp. 200-210.

<sup>18</sup> The Holy Bible, pp. 149-179.

<sup>19</sup> Ibid., pp. 83-148.

period of time they are one and the same; cleanliness was next to Godliness, as the old saying goes. Good health was accepted as God-given.

## 2. The Egyptian and Early Andean Civilizations

The Egyptian ruins, dating from the Middle Kingdom (2100-1700 B. C.), had medical libraries attached to most of the larger temples.

With their largely vegetarian diet and ample sunshine, the Egyptians might be expected to have been one of the healthiest nations of antiquity. They may indeed have been so, but pathological examinations of mummies have shown that they, too, suffered from a diversity of complaints; waterborne diseases then, as now, took their toll, and fly-borne eye afflictions often led to blindness. Diseases that were known at that time were cases of tuberculosis, appendicitis, rheumatism and gout, hydrocephalus, and clubfoot. Ramses V died, it seems, of small-pox.<sup>20</sup>

Seemingly because of the knowledge of the waterborne diseases, there were strict rules regulating bathroom facilities and sewage systems.

The "materia medica" prescribed for illness during that period, was often unpleasant (i.e., the blood of mice, and fly excreta), but the beneficial effects of certain drugs had been noted, and it is clear that side by side with the traditional "medico-magical" treatments of disease

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<sup>20</sup>Barbara Mertz. Red Land, Black Land: The World of The Ancient Egyptians. New York: Coward-McCann, Inc., 1966, pp. 239-250.

had grown up a considerable body of scientific knowledge based on therapeutics and health rules.

It must be remembered that what chance has preserved from archaeological finds can be only a fraction of the whole body of Egyptian regulations on health. A great part of the recording was done by priests in the temples.

In each locality the god had his temple, or "divine castle," staffed by his "servants"--the priests--who ministered to his daily wants. In return for these services, the gods protected his people, insured the fertility of their fields and herds, and saw to their well-being. In default, he might visit his wrath upon them in the form of plague, famine, or other disaster. Religion, the temple, and God was directly related throughout early Egyptian history to the health care of the people.

During the same period of time the Andean civilization developed and flourished in the highlands of northwestern South America.

The Andean civilization was founded on agriculture, permitting a large and sedentary population with leisure time to devote to cultural improvement between harvest and sowing.<sup>21</sup>

The Incas were preceded by possibly 4,000 years of agrarian people who gradually developed high cultures; these are known only by archaeological excavations. For practically our entire knowledge of

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<sup>21</sup>J. Alden Mason. The Ancient Civilizations of Peru. Baltimore: Penguin Books, 1964, pp. 160-213.



Andean civilization is that of the Inca. The incredibly rapid expansion of the Inca empire began about the fifteenth century A. D.

The empire was a "welfare state" with complete regimentation. No one starved but there was little initiative; no one changed his location or worked to improve his lot. The land was public and apportioned annually to families in relation to their size. It was divided into three classes: the product for the state, the church, or the people; although the people were required to cultivate for all. The harvests of state lands went into storehouses for the use of the nobility, the army, and men engaged in other public services, and for the people in time of crop failure or other calamity. In lieu of taxes every man was periodically called to service in the army or on public works such as building roads or temples, or mining.

Religion was highly organized with numerous priesthoods and many temples to the sun. The priests conducted elaborate ceremonies often lasting for many days, performed sacrifices, made divinations, consulted oracles, and heard confessions.

Medicine and surgery were rather highly developed. Skulls were frequently trephined; but whether to relieve fractures or to release demons is not clear. The Inca had no system of writing, and all knowledge and lore was orally transmitted. However, numerical records were kept on knotted cords called quipu, which were used primarily for such purposes as censuses. These numerical record-aids were also used for a system of roads with storehouses of food and equipment located at short intervals. The community water supplies and sewage systems were outstanding works of engineering and architecture. With the careful

statistical aid the health and welfare of each community was assured of food, clothing, water, and disposal of sewage.<sup>22</sup>

In this welfare state, religion still played an important part in the rules and regulations that were developed for health by this ancient civilization. The god figure was the sun.

### 3. Hippocrates

Hippocrates was a Greek physician who was born about 400 B. C. He was regarded traditionally as the "father of medicine." He was the author of a number of medical works known as the "Hippocratic Collection." One of the books from this collection was known as "Air, Water and Places." This was probably written during his early studies in the famous temple of Asclepius at Cos.<sup>23</sup>

I mention Hippocrates to bring into perspective the profound effect he had on medicine. His book on "Air, Water and Places" served for more than 2,000 years as the basic text on epidemiology and the theory of disease. We must also look at the psychological implications that were being planted during this early era showing the physician as the father image.

Hippocrates' outstanding contribution to medicine certainly did deem his being depicted as the "father of medicine," but it is my belief that as future writers illuminated his name as "father," a psychological

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<sup>22</sup>Wendell C. Bennett and Junius B. Bird, *Andean Culture History*, 2d and reviewed ed. New York: American Museum of Natural History, Handbook Series No. 15, 1960.

<sup>23</sup>Edwin Burton Levine. Hippocrates. New York: Twayne Publishers, 1971, p. 37.

association of the image of father was placed on all physicians.

Aristotle had mentioned the name of Hippocrates in his book "Politics." This relates the philosophy of politics and medicine. This relating the association of politics and medicine was going along hand in hand even at this period of time.

The Greek laws prescribed principles of personal hygiene and were responsible for the Roman's development of public sanitation. These rules of public sanitation were also part of the period of Hippocrates.<sup>24</sup>

#### 4. Establishment of Christianity

The emphasis of the early Christian church upon spiritual matters, and the belief that disease and death were the wages of sin, stood as a major obstacle to a positive program for public health and social reform.

During the formative period of modern western history, roughly from the beginning of the sixteenth to the middle of the eighteenth century, Christianity participated in many of the movements of cultural and political expansion.

Citing the theological conflicts of the Reformation and the political conflicts that followed is evidence of the dangers of religious intolerance; representatives of this group gradually introduced disestablishment, tolerance, and religious liberty into the western countries. In this movement they were joined by various Christian individuals and groups that advocated religious freedom.

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<sup>24</sup>D. Eliot. Hippocrates, Scientific Papers; Physiology, Medicine, Surgery, Geology. New York: Colliers, 1961.

This movement started the crusade to bring medical science back into focus of scientific-based knowledge and away from the dogma of the church.

### 5. The Industrial Revolution

The socio-cultural accompaniments of the Industrial Revolution are closely interrelated to its technological and economic aspects. Not only did the Industrial Revolution enable man to produce more, travel faster, and communicate more rapidly, but it also provided him with more material conveniences. In its early stages, however, the Industrial Revolution seemed to have deepened man's poverty and misery.<sup>25</sup>

In the domestic system of manufacturing the laborer usually had a garden to provide him with food, even when there was no work to be done. With his removal to the city, the worker became entirely dependent upon the functioning of machines for his subsistence.

Workers labored long hours for miserable wages and lived in ugly, unsanitary tenements.

The change was slow to come, but laws to protect the worker were eventually enacted. These laws not only protected the worker's health but also his safety while working.

The Industrial Revolution and the hospital as a public institution were evolutions of the time during the eighteenth century. For the first time the patient was being treated in a public institution.

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<sup>25</sup>Arnold Toynbee. The Industrial Revolution. Boston: Beacon Press, 1968, p. 157.

I should mention at this time there were two factors during this era that probably caused a change of image for the physician. First, for the first time during the Industrial Revolution, large groups of people were brought together to work in factories with poverty and health conditions at a very low ebb. And second, the physician started the transition away from the close family contact which he had cherished before when all visits to the sick were made in the home. Now the physician would see the patient in the hospital, and many did not form that close family connection they had had with all members of the family before.

As I have discussed in this chapter, politics, religion, and economics has had a deep influence on medicine.

Health laws have played a very important role in developing our early civilization. As I stated, in the early centuries (5757 B. C.), health laws were a common part of the everyday life of both the Jewish and Christian cultures.

With the evolution of civilization, the records of health programs were being developed in the old world by the Egyptians and Greeks and in the new world by the Incas. The delegation of responsibility of health was placed upon the church or religious figurehead of the community.

The emphasis of the relationship of health and the church, and the belief that disease and death were the wages of sin, stood as a major obstacle to a positive program for public health and social reform.

In the eighteenth century, the Industrial Revolution caused a tremendous increase in urban population. As previously stated, this

increase in disease and slum conditions caused these urban people to be faced with poverty and frequent unemployment. This was the beginning of medical relief by laws which started the trend of health care being directed by the state and not the church. Public health and hygiene began to attract the attention of the public at large.

This brief overview of the history of the development of health care was to give some perspective to the relationship of the physician to the modern day practice of medicine.

A reflection of the ancient concept from Deuteronomy that a ruler was supposed to be a father to his people, so did the physician express his responsibilities to medicine by emulating the father figure in health care.

Hippocrates was depicted as the "father of medicine" which further illuminated the psychological image of father for the physician.

The Industrial Revolution began the trend to displace the physician from his close relationship with the patient and family. With this displacement the physician directed his father image toward the hospital and administration of total health care.

To grasp an understanding of the administrative responsibilities of any part of the health care industry it seems pertinent to understand the structure to which you are committed.

To develop an administrative manual one must perceive the authority of the structure to which a service will be provided.

## CHAPTER III

### ACADEMIC BACKGROUND OF THE PROVIDER OF ANESTHESIA SERVICES AND ADMINISTRATION OF THOSE SERVICES

Our founding fathers in the United States, even before the signing of the Declaration of Independence, already saw the importance of laws to regulate health care and the education of those providing health services.

It is appropriate at this time to unfold the medical educational process as it relates to management in its developing stages. This will help the reader understand the atmosphere that health care was founded upon and why certain ideas were probably generated during the early years in this country.

#### 1. Benjamin Franklin

One man who stood out in this effort was Benjamin Franklin. He did much to advance medicine and public health care.

Philadelphia, like other major cities, was having an influx of people in the mid-eighteenth century. Many became ill because of poverty conditions caused by unemployment and lack of food.

Franklin appealed for public support for hospitals to care for these unfortunate citizens.

His argument was that the hospitals would provide a means of restoring sick individuals to a useful place in society. He went on to

say that hospitals may serve the community by acquainting physicians with a greater variety of disease than they might otherwise encounter. These institutions could offer a training ground for young and inexperienced physicians. The hospital would also afford better and cleaner surroundings at a cost for hospital care less than that of private lodging.<sup>26</sup>

It was Benjamin Franklin's appeal for public support that brought about the first public hospital.

By Franklin's support of the enactment into law of the establishment of the first public hospital, he also created the environment for the development of institutions for medical education.<sup>27</sup>

Before the eighteenth century there was little organized medical teaching in the United States. Those who wished to become doctors first became apprentices; they could then also attend classes in anatomy, botany, and chemistry--the tripod of learning upon which medicine was then founded. Those who could afford it, studied and even graduated at one of the European universities.

There were no regulations regarding medical education, and one of the most common prerequisites for becoming a physician was the price of a sign from the local sign maker to identify you as such.

## 2. Medical Advances, Surgery and Anesthesia

Perhaps the greatest medical advance was in the nineteenth

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<sup>26</sup>I. Bernard Cohen. Benjamin Franklin: His Contributions to the American Tradition. Indianapolis: Bobbs-Merrill, 1953, pp. 152-173.

<sup>27</sup>Ibid., p. 199.



century, certainly it was the most spectacular. This was the conclusive demonstration that certain diseases, as well as the infection of surgical wounds, were directly caused by minute living organisms. This effected a complete revolution in the practice of surgery.

The most famous contribution by the United States to medical progress at this same period was undoubtedly the introduction of general anesthesia.

The introduction of anesthesia by Morton in 1846 was dramatic and convincing. Few medical discoveries have been as rapidly and universally accepted. Within three weeks of Morton's demonstration, ether was being used in London. The impact of the discovery of anesthesia on the course of medicine was profound, with the most obvious and immediate effect on surgery. Until anesthesia developed, surgery was heroic, almost cruel exercise to be carried out as rapidly as possible, and only in the most robust patients. Anesthesia allowed surgery to develop procedures for the cure of disease and the restoration of function.

### 3. Development of the Anesthesiologist's Professional Image

Greene discusses in "Anesthesia and the University," that, unfortunately, anesthesia got off on the wrong foot as a profession. The reasons are related to the circumstances of anesthesia's discovery, to events within the field and to ether itself as the first anesthetic. In short, anesthesia was born with a poor professional image which thereafter worsened. Of more than historic interest, this inauspicious beginning adversely influenced the attitudes of the medical profession and lay public for the next hundred years and impeded its development into a

true science.<sup>28</sup>

Some of the reasons Greene gave were that anesthesia was not discovered by a physician but by a dentist and that the number of surgical operations performed at that period of time was negligible. He also reasoned that physicians and surgeons deliberately produced pain so infrequently that pain represented a problem of relatively low priority. In the nineteenth century dentists were not highly regarded by physicians and were considered by them to be inferior professionally. Probably, if a surgeon had discovered anesthesia, the professional image of anesthesia would have been different from the outset.<sup>29</sup>

An example of this was in England in 1847 when the very eminent Scottish surgeon and obstetrician, Sir James Simpson, discovered chloroform anesthesia at the University of Edinburgh. Simpson was a powerful, opinionated, and fearless crusader. He was respected by his contemporary physicians and the lay power structure of the era, including its reigning monarchs. By the magnitude of his personality and stature, Simpson dictated in no uncertain terms when chloroform was to be used, how it was to be used, and by whom it was to be administered.<sup>30</sup>

While in the United States there was no such forceful guiding figure associated with the introduction of ether anesthesia. In the absence of some type of authoritative direction, the administration of

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<sup>28</sup>Nicholas M. Greene, M. D. Anesthesia and the University. Philadelphia: J. B. Lippincott Co., p. 8.

<sup>29</sup>Ibid., pp. 8-10.

<sup>30</sup>Thomas E. Keyes. The History of Surgical Anesthesia. New York: Schuman's, 1945, pp. 22-107.

anesthetics in the United States became relegated to what was often the lowest common denominator. For years the only physicians who gave anesthesia in the United States were those too junior and inexperienced to be trusted with anything else. Failing that, a medical student, an orderly, or a member of the patient's family would do as well.

As I view this identity problem, another factor should also be considered. The two anesthetic agents being used were pharmacologically different. Chloroform had a very short range of safety, and there was need for someone to understand the pharmacology of the drug in order to administer the anesthetic; cardiac arrest came with respiratory arrest. While with the use of ether, which had a very wide range of safety, respiratory arrest came before cardiac arrest. When the patient stopped breathing, the one administering the anesthetic would stop dripping the ether and there was no great harm done to the patient. The patient would soon start breathing again. The patient with the chloroform anesthetic would be dead when he stopped breathing, generally speaking.

The professional background of the discoverers of anesthesia helped set the stage for development of a negative attitude on the part of the medical profession and even the public at large toward the practice of anesthesia. The negative attitude was compounded by the behavior of those involved in the discovery of anesthesia, physician and dentist alike. Almost immediately after its discovery there erupted an unseemly controversy about who should get the credit. Seldom has such a noble discovery fallen so rapidly to such a humble station of abuse, condemnation, and insult. The synopsis of this tragedy included attempts to patent ether, lawsuits and countersuits, and intemperate and bitter

letters in the lay press and the medical journal. There was even a Congressional investigation. The roles were played by Morton and Wells--dentists--and Crawford Long--physician and surgeon--as well as other players of lesser importance. The controversy about who should get credit for the discovery of anesthesia raged over half a century, generating an extraordinary degree of bitterness and hostility. It led to the insanity of one of the participants, the early death of another by suicide, and finally, the loss of respect for all.

Who among reasonable and thinking men of that time could possibly consider anesthesia seriously when it was surrounded by such wrangling and loud quarreling. The controversy not only detracted from the luster of the discovery, but also tarnished its reputation for years to come.

Aside from the controversy associated with the discovery of anesthesia and the professional standing of those involved in its discovery, other factors were at work which also significantly affected how anesthesia was practiced and regarded. One of the outstanding points among these was that anesthesia appeared to lack the professional challenge necessary to attract the attention of the physician and scientist of that era. And as I have stated before, this lack of professional appeal in anesthesia was influenced by certain of the pharmacologic properties of the anesthetic used, ETHER.

In the late nineteenth century, the physician specialist in anesthesia in the United States still had not realized professional

stature.<sup>31</sup> The reasons now being given were: (1) the subordinate position necessarily assumed by the anesthetist, (2) the more lucrative and distinguishing situations open in other phases of medical practice to the man unhandicapped by poor health or psychological adjustments, (3) the limitations of the practice in any but large urban centers, and (4) the low remuneration for any but the extremely skillful person with good connections. It was then, as it still is now, being discovered that a poor substitute was the general practitioner whose limited supervised experience was in his day time practice, when his concentration as he poured ether was more often on the field of the operation than on the patient where it should have been. The poorest substitute was the medical student or house doctor who was getting his experience to become a surgeon.<sup>32</sup>

#### 4. Introduction of Nurse Anesthetists

With no fuss, and perhaps totally unaware of the controversy raging about physicians and physicians-to-be-anesthetists at the turn of the century, certain surgeons in the United States had accepted in this capacity a group of persons for whom they had learned to have respect, and from whom they had obtained commendable assistance and service--the Catholic Hospital Sisters.

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<sup>31</sup>F. W. Hewitt. "The Past, Present, and Future of Anesthesia," Practitioner, 57:347, 1896.

<sup>32</sup>Marmaduke Shield. "The Need for Better Instruction in the Administration of Anesthetics," Practitioner, 57:387, 1896.

The records, fragmentary as they are, give a glimpse of what was undoubtedly a prevailing practice in many Catholic hospitals and also show the beginning of a trend. The physicians would go to the hospital with their assistants to give the anesthesia, but then they would need the assistant for something else and would teach the Sister how to give the anesthesia.<sup>33</sup>

At another Catholic hospital in Rochester, Minnesota, the lay nurse anesthetist was to gain national recognition. The versatile country physician, William Worrell Mayo and his two sons of international fame, saw no reason why an intelligent nurse should not make an able anesthetist, and they undertook this project.<sup>34</sup>

The self image for the nurse anesthetist in the early days at the Mayo Clinic was of the highest esteem. The nurses were selected by the physicians for their above-normal intelligence. The setting where they administered anesthesia was the citadel of surgery, and they were praised for their ability by the most respected surgeons in the United States.

It was a Mayo Clinic nurse anesthetist who authored one of the first articles of substance about clinical anesthesia in the United States. Alice Magaw, who had been taught by Charles H. Mayo, brought fame to the Mayo Clinic at a time when poor anesthesia was the major

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<sup>33</sup>One Hundred Years of Franciscan Pioneering. Springfield, Ill., Hospital Sisters of St. Francis, 1944, p. 30.

<sup>34</sup>Virginia Thatcher. History of Anesthesia: With The Emphasis on the Nurse Specialist. Philadelphia: J. B. Lippincott Co., 1953, p. 53.

worry of most surgeons. Her first article appeared in the St. Paul Medical Journal,<sup>35</sup> and a more conclusive article followed in the Journal of Surgery, Gynecology and Obstetrics, "A Review of Over Fourteen Thousand Surgical Anaesthesias."<sup>36</sup>

Although Alice Magaw made the public aware of the lay nurse anesthetist with her outstanding publications for that era, it was Agatha Cobourg Hodgins who realized the need for broader clinical and academic knowledge for the lay nurse anesthetist to increase her expertise.

George Crile (1864-1943), a dynamic surgeon at the Lakeside Hospital in Cleveland, selected nurse Agatha Hodgins to be his anesthetist,<sup>37</sup> as was the practice for many of the leading surgeons of that era.

In Dr. Crile's Autobiography he tells the following story:

"I drew Miss Hodgins aside and presented to her what amounted to be annunciation. She had received no warning whatever about the plan to make her my special anesthetist, but she told me promptly that she would undertake it if I would remember always that she was giving her best. . . Miss Hodgins and I had our own experimental school. In order that she might become familiar with the symptoms of death, I started her to work administering anesthetics to rabbits and dogs. From anesthetizing rabbits, she learned to anesthetize young babies. Her skill in amusing them with toys or my watch while she allowed the gas to play gently over the child's face until the sandman closed his eyes and he slipped back on the pillow was extraordinary. . . In the beginning

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<sup>35</sup> Alice Magaw. "Observations on 1,092 Cases of Anesthesia from Jan. 1, 1899 to Jan. 1, 1900." St. Paul Medical Journal, 2:306, 1900.

<sup>36</sup> Alice Magaw. "A Review of Over Fourteen Thousand Surgical Anaesthesias." Journal of Surgery, Gynecology and Obstetrics, 3:795, 1906.

<sup>37</sup> George Crile. An Autobiography. ed. Grace Crile. Philadelphia: Lippincott, 1947.

the interns were none too willing to relinquish the work to a nurse. One day I came upon an intern putting a big, six-foot patient under an anesthetic while Miss Hodgins struggled to hold the patient down. On my suggestion he reversed the order of the procedure. This was one of Miss Hodgins's earliest anesthetics."38

Although the Mayo Clinic and Cleveland Clinic were two of the main training grounds for lay nurse anesthetists, the specialty was growing.

An article appeared in the American Journal of Nursing in 1911:

"Many of the best surgeons in America are employing graduate nurses as their anesthetists, notably among them being the Drs. Murphy and Ochsner of Chicago, and Dr. Crile of Cleveland. . . After daily observation for several weeks of the administration of nitrous oxide gas and oxygen, at the clinic of Dr. Crile at Lakeside Hospital, and after witnessing, as a private student, nearly 100 gas-oxygen anesthetics by Dr. Charles K. Teter, of Cleveland, I am convinced that this gas-oxygen method is the safest of all anesthetics in the hands of an expert, and the most dangerous in the hands of one not an expert. Dr. Crile refuses to allow an intern to give the gas-oxygen and insists upon its administration by his specially-trained and experienced graduate nurse."39

##### 5. Development of Nursing Educational Programs

Although Florence Nightingale trained nurses in England after the Crimean War in 1854, there were no trained nurses in the United States during the Civil War, and most of the nursing was done by untrained

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<sup>38</sup>Ibid., pp. 195, 199.

<sup>39</sup>Frances Truckey. "Anaesthesia and Anesthetics." American Journal of Nursing, 11:803, 1911.



volunteers and by orderlies drawn from among the enlisted men,<sup>40</sup>

The erroneous public image of Florence Nightingale as the kindly, soothing, ministering angel of Scutari has been a double-edged sword for the nursing profession. Great public support was elicited for nursing, but the picture was so firmly implanted that, in spite of tremendous medical developments and social changes, the nurse was still seen in her nineteenth-century role.

The basic education of the nurse covered a period between two and six years in nursing schools. Undoubtedly, there is a need to clarify and interpret the preparation and activity of the nurse. Until this clarification for nursing as a whole takes place, misunderstanding will exist regarding the difference in role and function with a basic baccalaureate preparation.

It is a paradox that, whereas other occupations in America accorded the prestigious title of profession have long since established the bachelor's degree as a minimum prerequisite for practice, professional nursing continues, despite historic and bitterly fought battles, to rely overwhelmingly on the services of persons who have not received a college education.

The years 1899 and 1909 are significant in the history of nursing education. They mark the first steps by nursing into the American institutions of higher learning. In those years, respectively, a course in hospital economics for qualified graduate nurses was inaugurated

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<sup>40</sup>Cecil Woodham-Smith. Florence Nightingale, 1820-1910. Philadelphia: McGraw-Hill, 1950, pp. 95-114.

at Teachers College, Columbia University, and a university-controlled school of nursing was established at the University of Minnesota. This was a significant event showing a readiness, somewhat halting and ambivalent, on the part of colleges and universities to relinquish all philosophies and values to develop new ones. But, over and above signifying the opening of a new era for nursing, these events bear witness to certain more general and encompassing social movements of the time: the ethics of professional service, the demands for greater equality for women in political life, employment and education, and the proselytizing force of a powerful new view of life and the times of science. Only on the crest of such a cultural transformation was nursing able to win for itself the privileges and responsibilities of higher education. Before attaining even a truncated version of them, however, numerous obstacles within the universities and within nursing itself had to be overcome; and for nursing at least, many of these obstacles have persisted to the present day.<sup>41</sup>

Although these turn-of-the-century events were important for American nursing, at the same time it is clear that, in and of themselves, they signify a good deal less than bona fide acceptance by the university of responsibility for the professional education of nurses.

This situation was not only a problem in America, but the Canadian government was also bewildered. Since university nursing education depended on funds channeled through the provincial governments,

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<sup>41</sup>Fred Davis, Virginia L. Olisen, and Elvi Waik Whittaker. "Problems and Issues in Collegiate Nursing Education." The Nursing Profession: Five Sociological Essays. New York: John Wiley and Sons, Inc., 1967, pp. 138-175.

it was essential that the needs of nursing be interpreted clearly. It was inevitable that through the lack of clear interpretation of the need for and the role of the baccalaureate-prepared nurse, there would be financial difficulties for university degree programs.<sup>42</sup>

The university nursing programs were handicapped by the lack of qualified staff. Nurses did move into graduate studies within university schools of education, but remained quite outside the university nucleus for genuine graduate training in nursing.

The diversity of educational backgrounds found among the staff of university schools of nursing made it difficult for them to understand the university setting. This individual lack of basic understanding made for difficulty in the collective interpretation of the strengths of the basic baccalaureate program.

For a variety of reasons nursing educators have generally moved slowly into approaches of planning and teaching. Nursing is new in professional education and tends to have a stronger commitment to nursing than education. Nursing has moved from a clinical, acute care setting in which patient care, rather than the education of student nurses, has been the primary goal of institutions of higher learning.

Gertrude Torres, in her discussion on "Flexibility in Nursing Education," states:

"Increasing flexibility within nursing programs can be categorized into two broad areas: (a) changing curricula and (b) new teaching/learning approaches. Both of these

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<sup>42</sup>M. Kathleen King. "The Development of University Nursing Education." Nursing Education in a Changing Society. ed. Mary O. Innis. Buffalo: University of Toronto Press, 1970, pp. 68-85.

areas need to be reviewed and revitalized in terms of a dynamic society and changes in education in general if the revision of a nursing program is to move toward greater flexibility."<sup>43</sup>

Nursing education has moved toward teaching theory, concepts, and generalization rather than emphasizing bits and pieces of knowledge.

Greater emphasis has been given to the use of media as a way of increasing other types of teaching methodology. Some nursing programs are developing learning centers or laboratories, others are utilizing the multimedia offerings within the library. The multimedia systems include autotutorial and instructional software such as video-cassettes. There is also closed circuit television from clinical facility to classroom.<sup>44</sup>

#### 6. Development of Nurse Anesthesia Educational Programs

In the late eighteenth century both physician and dentist were experimenting with this new relief from pain for surgery. The word anaesthesia--state of insensibility to pain--was just being placed in Daniel Webster's Dictionary by Oliver Wendell Holmes.<sup>45</sup>

At this same period of time nursing as a profession was just beginning to arrive at a period of emulation of other professionals;

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<sup>43</sup>Richard M. Jacobs, et al. "Flexibility in Nursing Education." A Flexible Design For Health Professions Education. New York: John Wiley and Sons, Inc., 1975, p. 94.

<sup>44</sup>Ibid., pp. 93-97.

<sup>45</sup>Keyes, pp. 30-31.

although the academic community had not really received nursing as a scholarly endeavor. Most of the programs were hospital-based and the nurse was still placed in subservient roles. A new type of nurse was being lauded.

The doctors from the Mayo Clinic started using nurses in this new role of administering anesthesia at St. Mary's Hospital in Rochester, Minnesota.<sup>46</sup>

There were few anesthetic agents available for the anesthetist. Ether was the most popular, probably because of its wide range of safety and the need for minimum equipment.<sup>47</sup> Nitrous oxide had been found to be a more pleasant agent for inhalation and certainly more acceptable to the patient than ether.<sup>48</sup> Regional anesthesia was just beginning to find a place in the field of anesthesia.<sup>49</sup> And the use of narcotics and adjunctive drugs was being researched for accessories to this young, growing profession of anesthesia.<sup>50</sup>

Anesthesia equipment and machines were certainly in their infancy. Ether required only a small gauzed cone for administration. With the

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<sup>46</sup>Thatcher, pp. 56-57.

<sup>47</sup>S. Griffith Davis. "The Administration of Ether by The Drop Method." Maryland Medical Journal, 50:171, 1907.

<sup>48</sup>Vincent J. Collins, M. S., M. D. Principles of Anesthesiology. Philadelphia: Lea and Febiger, 1972, p. 1,071.

<sup>49</sup>J. L. Corning. "Spinal Anaesthesia and Local Medication of the Cord." New York Medical Journal, 42:483, 1885.

<sup>50</sup>H. A. Royster. "Scopolamine-morphine-ethyl-chloride-ether Anesthesia." Surgery and Gynecology, 18:282, 1906.

advent of nitrous oxide, machines were being developed with pressure bags and percentage control values for delivery of the gas agent. The need for specially-trained personnel for the delivery of anesthesia was becoming more critical.

The Mayo Clinic with respect to open drop ether anesthesia and Lakeside Hospital for the nitrous-oxygen technique had become the mecca for education in anesthesia. Those being educated were primarily women. The reliable and conscientious surgical or operating room nurse,<sup>51</sup>

At the Mayo Clinic was Alice Magaw, at the Lakeside Hospital was Agatha Hodgins, and now in the Government Service was the first appointed anesthetist, Emma J. Ochsner, sister of two famous surgeons--A. J. Ochsner and Edward H. Ochsner. The year was 1910. They were all important characters in the development of education in anesthesia for the nurse.

In 1910 several Philadelphia Hospitals sent trained nurses to the Mayo Clinic for a two month period of instruction in anesthesia.

Meanwhile, in New York, poor anesthesia turned the attention of several chiefs of surgery to nurses. The period of instruction had increased, and the nurses were now required to spend a period of three months at Mayo Clinic. The areas for instruction were also increasing. Massachusetts General Hospital in Boston, and Barnes Hospital in St. Louis afforded periods of instruction for nurses in anesthesia.

The change occurring in both the methods of producing and the

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<sup>51</sup>Arthur Dean Bevan. "The Choice of the Anesthetic." The Journal of the American Medical Association, 57:1821, 1911,

administering of anesthesia had created an active interest among hospital administrators. A report given at a 1911 convention for the American Hospital Association gave the following statistics about administration of anesthesia: of the hospitals surveyed, 25 percent employed nurse anesthetists. Other findings revealed that the nurse anesthetist's duties were to instruct interns in administration of anesthesia, to be in charge of supplies, and to administer anesthetics.<sup>52</sup>

Running parallel with the wholehearted acceptance of the nurse anesthetist in many quarters and an equal antagonism of her in others, was the raising of doubts about the legality of her administration of anesthesia. At the same time, the whole question of the proper education of anesthetists, nurses, and physicians alike became a matter of serious concern.

At the twelfth annual convention of the Nurses Associated Alumnae of the United States, it was requested that a paper be given on nurse anesthesia. Florence Henderson,<sup>53</sup> a nurse anesthetist from the Mayo Clinic, presented the paper, and Agatha Hodgins of the Lakeside Hospital in Cleveland led the discussion.

The discussion turned immediately to the current practices of instruction and the weaknesses in the system.

The subject of training both nurses and physicians in anesthesia

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<sup>52</sup>Willis G. Really. "Present Methods of Giving Anaesthetics in Hospitals." Transactions of the American Hospital Association, 13:262, 1911.

<sup>53</sup>Florence Henderson. "The Nurse as an Anaesthetist." American Journal of Nursing, 9:947, 1909.

had already been brought up for discussion at the meeting of the American Hospital Association in 1906 by Henry M. Hurd.<sup>54</sup> He suggested that an effort be made to give nurses a much more careful period of instruction in the use of anesthetics.

Agatha Hodgins went home from the nurses convention with a problem to solve. She had previously read J. M. Baldy's letter in the American Journal of Nursing about not having training schools for the instruction of anesthesia with specific curricula.<sup>55</sup>

World War I interrupted Miss Hodgins' plans. She joined Dr. Crile's American Ambulance group and went to Europe where she trained English nurses, American nurses, and some French physicians,<sup>56</sup> in the art of administering anesthesia.

#### 7. Types of Educational Programs for Nurse Anesthetists

Before World War I, true postgraduate courses in anesthesia had been established in at least four hospitals in the United States. One of the schools was in Portland, Oregon at St. Vincent's Hospital. The course lasted six months and included instruction in anatomy, the physiology of the respiratory tract, and the pharmacology of the anesthetic drugs, as well as training in the administration of the then commonly

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<sup>54</sup>Henry M. Hurd. "Medical Organization of General Hospitals." Transactions of the American Hospital Association, 8:72, 1906.

<sup>55</sup>J. M. Baldy. "Letter." American Journal of Nursing, 9:133, 1908.

<sup>56</sup>Crile, pp. 199-250.



used anesthetic agents. A similar course in anesthesia was offered to graduate nurses at the New York Post-Graduate Hospital which lasted six months. Each student administered anesthesia for 400 cases, attended the heart clinics and lectures by physicians, and did experimental work with cadavers which included the passing of laryngeal tubes.<sup>57</sup>

The educational programs in anesthesia for nurses in the first quarter of this century were divided into three types: (1) a course of instruction given to graduate nurses in the hospital in which they were employed as anesthetists, (2) periods of instruction given without fees at a hospital where they were allowed to observe and sometimes give a few anesthetics under supervision, and (3) those instructions given by the manufacturers and demonstrators of gas machines, who often traveled around the country to sell and teach the operation of these machines to anyone who would buy.<sup>58</sup>

With the commitment of the United States into World War I, the Acting Surgeon General directed the various military hospitals to build a strong department of anesthesia. The first group of nurses was trained in a course of anesthesia at the Mayo Clinic. Subsequent groups were trained at Walter Reed General Hospital where the Army established its own training program.<sup>59</sup>

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<sup>57</sup>New York Post-Graduate Hospital, 29th Annual Report, 1912-1913, p. 21.

<sup>58</sup>Thatcher, p. 93.

<sup>59</sup>Medical Department of the United States Army in the World War, Washington, U. S. Government Printing Office, 1927, vol. 13, p. 291.

The Navy utilized similarly established training programs for teaching nurses the fundamental principles of anesthesia. This course was headquartered at the Pennsylvania Hospital in Philadelphia.

The Army's outline of instruction included lectures and demonstrations.<sup>60</sup> It also included the following didactic program: (1) The purpose and mechanism of the circulation of blood, physiologic significance of blood pressure and pulse, and the importance of this knowledge in anesthesia, (2) The purpose and mechanism of respiration, the physiologic change that takes place in the lungs, and the regulation of respiration to etherization, (3) The nerve mechanism in connection with circulation and respiration and how etherization modifies this, (4) Physiology of anesthesia; the effect of the anesthetic upon blood pressure and respiration and the different stages of anesthesia, (5) Physiologic compensation during anesthesia; the adaptation of the anesthesia to the surgical procedure, and (6) Accidents occurring during anesthesia; overetherization, shock, and hemorrhage.

#### 8. The Anesthesiologist and the University

Our counterpart in the medical field--the anesthesiologist--was making slow progress. At the beginning of the twentieth century, when universities and medicine were establishing definitions and priorities of academic relations, anesthesia was left out.

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<sup>60</sup>Medical Department of the United States Army in the World War. Washington: U. S. Government Printing Office, 1927, vol. 13, p. 320.

The attitudes of universities were being set as to what constituted medical science. For the first time the heritage of anesthesia exerted a negative influence on its development as a scientific discipline and, therefore, on its future relations with the American university.

The surgeons of that era were so dynamic and marked with courage and daring for encountering a desperate enterprise such as surgery that their hero and father image was insurmounted by the anesthetist who really made it all possible by making the patient immobile and without pain so the surgeon could operate.

It was not until 1933 that the first university department of anesthesia was established in the United States.

The indifference of the American universities toward anesthesia throughout much of the early part of the twentieth century was understandable. The field represented a professional void.

Although there were many great discoveries in the field of anesthesia in regard to equipment--Ralph M. Waters, development of soda lime in carbon dioxide absorption; R. von Foregger, development of four hanger yoked anesthesia machine; J. A. Heidbrink, pressure valves on the anesthetic machine; Brian C. Sword, closed circle filter method of anesthesia--only one was researched in a university setting. This was Dr. R. M. Waters in the department of anesthesia at the University of Wisconsin.<sup>61</sup>

Waters had a vision of anesthesia different from those who had

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<sup>61</sup>Greene, pp. 44-46.

preceded him. He saw beyond the technical limitations of anesthesia, recognized its rich academic potential, and saw the necessity of applying the principles of laboratory research to the practical solution of clinical problems.

The turning point for the physician anesthetist was around the war years of World War II. The number of physicians entering anesthesia grew by leaps and bounds. The professional qualifications of those in the specialty improved at an equal rate. Even the name was changed. The physician anesthetist became the anesthesiologist, and the study and practice of anesthesia by physicians became anesthesiology.

The American Board of Anesthesiology became an independent Board in 1941. It had been an affiliate of the American Board of Surgery. This Board was now responsible for determining qualifications of anesthesiologists. It not only became the certifying Board but also became involved in establishing criteria of acceptability of educational programs for physicians in residency training in anesthesiology.

The only major organization in anesthesiology devoted solely to academic pursuits was the Association of University Anesthetists. Founded in 1953 with a membership limited to less than 100 but with fewer than 60 members until 1965, this Association existed as an elitist organization for the intellectual and scientific benefit of its members, all of whom were full time university anesthesiologists and most of whom were senior members of the anesthesiology faculty within their institutions.

The war years of the 1940's brought to the surface several facts which I think changed the role in the military of those administering

anesthesia. It was estimated at the time the United States entered the war that there were only fifty qualified anesthesiologists in the military service. The military recognized anesthesia as an area of critical shortage, especially after the disastrous anesthetic misadventure associated with the care of casualties at Pearl Harbor. The military trained physicians to cover this void and many stayed in anesthesia after the war. In addition, in the course of managing battle casualties, many physicians who were not anesthetists became aware of the critical role of anesthesia first. This all created a new attitude toward the anesthesiologist.<sup>62</sup>

The anesthesiologist still had other psychological hurdles to overcome. Anesthesia for the first cardiac surgery in the United States was given by Olive Berger, and for the first chest surgery by Helen Lamb, both nurse anesthetists. Much of the anesthesia for developing surgery of those years was given by the surgeon's private nurse anesthetist.

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<sup>62</sup>Carron, pp. 254-255.

## CHAPTER IV

### THE PSYCHOLOGICAL IMPACT OF HEALTH CARE: THE CONSUMER AND THE PROVIDER

To gain more insight into the nurse anesthetist's struggle for identity, I would like to describe some of the psychological implications with which both the provider and the consumer in health care are confronted.

Medicine has made fantastic advances in the last century. The discovery that minute living organisms caused infection and disease revolutionized surgery.

With the discovery of ether, a new health care provider was introduced. The provider being developed came from two different educational backgrounds, one was physician and the other was nurse.

One must understand some of the psychological interventions in health care to better understand the administrative problems of the nurse anesthetist.

#### 1. Employee/Patient/Equipment

All too often in the enthusiasm for new equipment, new facilities designed to provide better care for patients, or new operating techniques, there has been forgotten the basic truth that equipment, buildings and techniques have no meaning without people to operate them. The supervision and welfare of these workers are part of management's responsibility.

Management should provide adequately for trained, happy, well-adjusted employees who bring to the hospital industry the greatest return possible for the investment and, to themselves, the highest psychological achievement of which they are vocationally capable.<sup>63</sup>

Hospital personnel, whether administrative, medical staff, research worker, or general employee, are all concerned with one goal outside of themselves--providing the best possible in-patient care. It is unfortunate that administration has frequently lost sight of the fact that patient care is dependent upon the skills and attitudes not only of the hospital personnel with whom the patient is in contact, but also upon the skills and attitudes of the many workers whom the patient may never see. The degree to which the personnel policies of the hospital make possible some realization of the best goals in personnel administration for all employees will be an important factor in determining the level of patient care.

Patients, like those who care for them, are people too. This very fact increases the necessity for adequate training of the personnel who will contact them. Not only must employees be given adequate training in professional skills necessary to perform their daily tasks, but they also must be trained, to whatever degree necessary, in the psychological adjustments needed for getting along with people, not only their co-workers but also with sick and frightened people.

Administration deals with people in all parameters involved in their employment situations. Whether these situations be in factory,

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<sup>63</sup> Harry K. Tootle. Employees are People. New York: McGraw-Hill, 1947, pp. 1-22.

store, or hospital, there are certain basic principles which apply. Industry and business have been more alert than hospitals in recognizing the need for specialized skill in handling problems that arise out of employment and employee-employer relations.

## 2. Staffing Changes

After World War II, with an increase in the number of anesthesiologists, many hospitals, pressed by the medical community and medical-legal implications, employed anesthesiologists to be chairmen of departments of anesthesia staffed by nurse anesthetists.

Many problems confronted the anesthesiologist that he was not properly prepared to handle. Management skills were not part of his academic background, and he was not equipped to handle the psychological problems that confronted the department in general. He was generally a neophyte in the profession of anesthesia and his subordinates, the nurse anesthetists, were old pros with many years of practice and outstanding technical skills.

The anesthesiologist had the theoretical background in anesthesia but quite often lacked ability in technical skills. You can already get a picture of the problems confronting all involved. A nurse anesthetist was not willing to relinquish the head of the table to the anesthesiologist when one might have to assist the anesthesiologist when in trouble. An example of this would be the anesthesiologist's inability to intubate a patient while the nurse anesthetist could readily accomplish it.

The surgeon who was, at this period of time, called "the captain of the ship," and had for years a good working relationship with the nurse anesthetist, was not ready to embrace his fellow colleagues with



open arms. The surgeon could see a possibility in the future of a challenge for his position as "captain of the ship," and could also see a possible replacement of his "father image."

The increasing size of operating units in hospitals had made it impossible to continue the old employer-employee relationship in which the worker and employer worked side by side, knowing each other as individuals, and understanding the problems with which each was faced. In the small hospital such a relationship is still possible, but in our expanding hospital programs more and more units are becoming too large to benefit by a nearness of worker and administrator.

It is true that in some large institutions department heads have been introduced to function as a "link" between top level administration, but in most cases these department heads are interested mainly in production and often are in need of training in the psychological aspects of human relations involved in their own work situations.<sup>64</sup>

The replacement of nurse anesthetists by anesthesiologists was handled very poorly in many institutions.

There were many nurse anesthetists with years of seniority being replaced with the newly certified anesthesiologist. I personally know a CRNA that had been employed for eighteen years as head of the anesthesia department in a large hospital, losing not only her job but her pension when replaced by an anesthesiologist who was a close friend's son.

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<sup>64</sup> Mortimer R. Feinburg, PhD. Effective Psychology for Managers. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1965, pp. 53-89.

Such traumatic incidents were happening throughout the United States in the early 1950's and 1960's which imposed a greater division between these two providers of anesthesia care--the anesthesiologist and the nurse anesthetist.

This division was not caused just by the replacement of CRNA's by anesthesiologists but also by the manner in which this process was being carried out by top management.

### 3. Team Concept

At the same time many traumatic incidents were happening causing disastrous psychological problems, there were departments being developed with shared responsibilities by the anesthesiologist and nurse anesthetist.

The total patient was being considered by the anesthesia department. The development of a plan of care for the patient that would provide optimum anesthesia care was now being initiated; the team concept, with total patient care covering not only the immediate anesthesia but psychological preparation for the patient prior to surgery as well. This plan also included a visit to the patient's room the day after surgery.

The team concept of a mixed anesthesia department--nurse anesthetist and anesthesiologist--was being embraced by some of the larger prepaid health insurance plans in the early 1950's. A high standard of anesthesia coverage was being provided with a low morbidity rate. The cost to the patient was also greatly reduced with better anesthesia coverage.

The psychological needs of the consumer were being fulfilled in a wide range of departments, not only the operating room. The obstetrical patient was being supported in the delivery room. Intensive care, pulmonary care, and acute medicine now had the availability of anesthesia coverage for cardio-pulmonary resuscitation in times of need.

In the prepaid health insurance plans, the military and government hospitals, this concept worked, generally speaking. There is always the possibility of having unqualified staff, which would certainly cause a problem if the anesthesiologist or nurse anesthetist could not fulfill the position assumed. The possibility of unqualified staffing in these settings probably happened no more frequently than in any other industry where part of the work force was supplied by professional people.

The depression years of the early 1930's caused many problems both socioeconomic and sociopolitical to this team concept. The break in the team concept probably was caused by the economics in the 1930's which led to the political aspects that clouded the future of anesthesia care in the United States.

In the next two chapters I will discuss the sociopolitical and socioeconomic aspects of anesthesia care.

## CHAPTER V

### SOCIOPOLITICAL ASPECTS

The nurse anesthetist stepped into the role of "nurse specialist" about one hundred years before the name became popular. Because of this step forward out of the typical servitude role of nurse, the nurse anesthetist was confronted with many of the political problems the nurse specialist or nurse practitioner is now being faced with in today's practice.

The first political confrontation was naturally with our physician colleague with whom we share a patient service. This confrontation was delayed for a long period of time because the supply of both anesthesiologist and nurse anesthetist did not reach the demand of needed patient service.

The depression years of the early 1930's set the stage for the first confrontation. A female nurse anesthetist was hired to supply a patient service in anesthesia in an area where the anesthesiologist had supplied the total patient service.

During this same period the registered nurse was also openly expressing a dislike of the role the nurse anesthetist had taken. Undertones of this dislike had been voiced since the beginning of the twentieth century. It all came to a head in the early 1930's when the nurse anesthetists asked for separate meeting rooms at a national meeting

for registered nurses. They were refused separate space because many of the registered nurses felt the nurse anesthetist was trying to play doctor. Need for the extended role of the nurse was still unknown at this period of time.<sup>65</sup>

The nurse anesthetist, outraged by such a decree from the registered nurse, requested meeting space at the annual meeting of the American Hospital Association. This idea was accepted, and for many years the two organizations met jointly in annual conventions. The nurse anesthetist and the hospital administrator had already formed a strong alliance. The anesthesiologist did not yet comprehend a hospital-based practice, and the nurse anesthetist, already hospital-based as a registered nurse, fit right into the hospital structure.

By having the loyalties of the nurse anesthetist in alliance with the hospital, the hospital association would now have administrative control over one of the areas--anesthesia--which formerly had been controlled by the physician.

The wheels also were being set in motion in the 1930's for a political arm for the nurse anesthetist. This political arm was the development of a national organization; the organization was the National Association of Nurse Anesthetists.<sup>66</sup> The organization placed emphasis on (1) the establishment of educational standards for postgraduate schools of anesthesia (2) establishing requirements to conform to an accepted criterion of education (3) state registration, putting the right of the

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<sup>65</sup>Thatcher, pp. 185-195.

<sup>66</sup>AANA, Council on Accreditation, Educational Standards and Guidelines for Programs of Nurse Anesthesia, December 1974, pp. 1-2.

nurse anesthetist to practice her vocation beyond criticism, (4) constant effort toward improving the quality of the work by means of study and research, thus affording still greater protection to the patient, and (5) the dissemination of information by publishing a periodical of theoretical information and a bulletin of general information.

Between 1933 and 1940, after a name change by the organization to the American Association of Nurse Anesthetists (AANA), the mechanics for establishing both a national qualifying examination for membership and a program for evaluation of nurse anesthesia was explored. The first qualifying examination was held in 1945.<sup>67</sup>

An accreditation program for schools of nurse anesthesia was initiated in 1952, having been endorsed by the American Hospital Association (AHA) with the provision that its Council on Professional Practice would act in an advisory capacity.

On December 20, 1955, under the signature of Commissioner Brownell of the Department of Health, Education and Welfare, the AANA was notified that it would be recognized as the accrediting agency for all programs of nurse anesthesia.

The alliance for joint annual conventions with the AHA was held intact until 1975. At that time, by mutual agreement, the two associations decided to break the long-standing relationship. Both organizations had grown in size to the point where hotel accommodations were almost impossible to find for a joint meeting. This convention had become the

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<sup>67</sup>Thatcher, pp. 189-250.

largest held in this country. The hospital association each year had added paraprofessional groups associated with both direct and indirect delivery of health care to its national convention, and few cities were capable of housing such a large convention.

As the joint convention had grown, our association had been confronted by fewer and fewer displays on the convention floor that were scientifically oriented to anesthesia.

At the first annual meeting organized entirely for the nurse anesthetist, they were able to attract more than seventy scientific displays. The membership attendance at this meeting doubled the previous year's (1,152 vs. 2,373). I organized and chaired the committee for the first annual meeting held separately from the hospital association.

Earlier in this chapter I mentioned the confrontation with our anesthesiologist colleagues during the early 1930's. I would now like to expand on this a little further.

The nation's financial troubles helped precipitate the legal battle between the nurse anesthetist and the anesthesiologist.

A well-known Los Angeles surgeon had gone to the Mayo Clinic to recruit a young lady to be his personal anesthetist. This filled a position for which an anesthesiologist would have been able to receive remuneration. This also was an affront to the anesthesiologist himself. Here was a well-known surgeon using the services of what the anesthesiologist felt was a less qualified provider. The nurse anesthetist was also a woman who did not have the responsibilities of the head of a household. During this time of depression money was a big factor.

The legal battle that followed was victory for the nurse anesthetist in the *Chalmers-Francis v. Nelson* [6 Cal. 2d 402 (1936)] case.<sup>68</sup> The opinion of the court was that nurse anesthetists could administer general anesthesia. The words "general anesthesia" became a two-edged sword which led to a present legislative battle to be discussed later.

During these depression years the leadership of America's "organized medicine" had committed the professional physician to preservation of the then-prevailing system of medical care. This system was based on solo practice and fee-for-service payment. Organized medicine wanted the continuing professional domination and control of the system. They were deaf to the appeals from other professional disciplines and from the consumers of medical care. The medical organization at that time did not see the needs for better design and more adequate methods of health care.

The nation has not yet escaped nor fully recovered from this fateful decision of solo practice by the physician. It was all the more unfortunate because, at that time, there was no substantial or even adequate countervailing political force in our society. The only political force at that period of time in the United States for health care was the American Medical Association.

#### 1. Social Security Act of 1935

In the early 1930's, because private resources and local and state governments were not equal to the task, national government emergency interventions provided funds for the support of people in

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<sup>68</sup>Thatcher, pp. 132-152.



need. There was comfort for the destitute by work relief with pay for jobs through public works and free medical care services.

In 1934 President Roosevelt initiated, under a (Cabinet) Committee on Economic Security, the studies which led in the following year to Congressional consideration of proposals for a long term social security program to supersede the emergency measures.

The financial difficulties for the consumer arising out of sickness was embraced within those explorations. There was widespread and intemperate objections from medical leaders and medical societies. Because of fears and timidities at high political levels, the recommendations which had been developed for health care benefits were not even submitted to the Congress for inclusion in what became the Social Security Act of 1935.<sup>69</sup>

This Act was seen by organized medicine as a step toward socialized medicine. With government intervention into socialized medicine all health care providers would be identified. Each provider of a health service would need clarification of administrative duties. As administrative duties were outlined, the educational process would at some point be analyzed. Education and administration of education is part of the total health care provider cycle.

## 2. Maternal and Child Health and Welfare

The exclusion of medical care benefits from the original Social

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<sup>69</sup>Committee on the Costs of Medical Care. The Medical Care of the American People. Washington, D. C.: U. S. Department of Health, Education and Welfare.

Security Act demanded some compromises in the Congressional committees. As a result, Title V, which was the establishment of the Maternal and Child Health and Welfare and the Crippled Children's Programs was enacted. Title VI and Title VII soon followed. Title VI provided the first permanent authorization for public health grants-in-aid to the states and for funds to support intramural research in the Public Health Services. In Title VII authorization for continuing national study program development on medical care was established.

With the authorization under Title VII for a continuing national study program for the development of medical care, it was prudent that the study group understand the health care provider.

In anesthesia one must comprehend the total educational cycle and the administrative duties of both anesthesia providers--nurse anesthetist and anesthesiologist.

Public health, including medical care, had been primarily the concern of the state and local governments and of voluntary (private) agencies and institutions in the early 1930's; but now the focus for major planning and development of public health and of systems of medical care had moved to the national level in Washington, D. C. with the enactment of the Social Security Act.

Medical care needs, which had long been left almost totally to private individuals and institutions controlled or dominated by the medical care profession, began to involve the non-professional sectors of society and the active participation of the national government.<sup>70</sup>

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<sup>70</sup>I. S. Falk. "Medical Care in the USA. . . 1932-1972, Problems Proposals and Programs from the Committee on the Costs of Medical Care to the Committee for National Health Insurance." Milbank Memorial Fund, 51 (1): 33-9, Winter 1973.

Not only the political forces of medicine but also the political force of other sectors of society became involved.

As the total cycle of the provider was evaluated non-medical personnel, such as educators and economists, became entangled in outlining future development of administrative duties for health care.

### 3. Wagner Bill 1939

After the National Health Conference of 1938, a mild proposal for evolutionary development, mainly through federal grants-in-aid to the states, won widespread support in Washington from spokesmen for nearly all major sectors of society, but not from "organized medicine." Further moderated proposals led to the first Congressional bill for a "national health program," S 1620 of 1939, introduced by Senator Wagner of New York.<sup>71</sup>

During the period from 1939 through the years of World War II, Washington adhered to the commitment for an evolutionary course. The government had proposed reliance on modest federal grants-in-aid to several states for elective program developments for medical care.

The depression years marked active political involvement by organized medicine. They dominated the health care growth in this country. All positions of authority were administered by physicians, even hospital administrators were physicians or advised by a board of directors consisting of physicians.

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<sup>71</sup>Wagner Act, PL S 1620, 1939.

#### 4. Hill-Burton Act of 1946

The first landmark legislation in regard to health care was the "Hill-Burton Program, Hospital and Medical Facilities Construction Act (1946)." It was a directive from a voluntary Commission on Hospital Care, which was established in the mid-forties when the number and adequacy of existing hospital facilities had been questioned. Soon thereafter came the beginning of federal health manpower supports. The intent of the program was to alleviate the dual problems of not having enough hospital beds and having them inequitably distributed in relation to population density. What is significant about the Hill-Burton Act is the fact that the planning unit used for comparative purposes was a geographic area. Planning areas, established on the basis of population figures, were geographically delineated. Then, using certain bed/population ratios which were considered as norms, the delineated geographic areas were compared as to prospective "needs."

The legislative course did not flow evenly and reflected the diverse elements in our society generally. Throughout the years in which "organized medicine" played a dominant professional role, other professional disciplines became restless about their impotence.

Organized medicine had never considered the problem of geographic delineation of health care.

With the passage of the Hill-Burton Act government had stepped over the political arena or organized medicine in the development of adequate facilities for health care delivery.

The other professional disciplines other than organized medicine were becoming involved in providing information for the comparative studies.

Administrators in all areas of health care were seen as future participants in developing a health care system for better health services to the consumer, the patient.

#### 5. Medicare (Title XVIII) and Medicaid (Title XIX)

As time passed, adequate and acceptable nationwide provisions for the availability of personal health services precipitated increasingly acute needs and demands for the medical care of the poor, near-poor, and other disadvantaged groups. At the same time, failure to deal adequately with the problems of individual and family medical care costs, left a vacuum into which commercial and quasi-commercial groups rushed. During all this, the technology of medicine was continuing to grow, to encourage specialization, and to precipitate complexity at an unprecedented rate. The organization of medical care kept falling further and further behind the potential for its availability and delivery.

These diverse but related developments began to have a large impact on the legislative proposals for medical care and on their reputation in the Congress.

The American Public Health Association strongly supported the National Health Program and testified to that effect at Senate hearings as early as the Wagner Bill of 1939.

There were diversionary interludes to encourage the extension and improvement of private health insurance through relatively inexpensive federal supports during the Truman years of the 1950's, but were then pursued vigorously throughout President Eisenhower's administration.

In 1965, an amendment to the Federal Social Security Act (Public Law 89-97), Title XVIII, "Health Insurance for the Aged" became effective. Until the beginning of Medicare on a federal level, except for those medical care institutions and facilities operated exclusively by the federal government, there had been few mandatory standards for the operation of civilian hospitals.<sup>72</sup>

The 1965 enactment was intended to be a compromise solution to satisfy friend and foe. In that same year an equally important bill for hospitals from the standpoint of utilization and financing, and a still better system for medical care for the indigent, Medicaid, became law. This bill authorized grants to states for Medical Assistance Programs, with the federal government's share of such costs ranging from 50 to 83 percent.<sup>73</sup>

Medicare and Medicaid began to serve the nation poorly. Their complexities have led to widespread confusion and misunderstanding among the public and among providers. The insurance industry-oriented statutory specifications of Medicare and the welfare-oriented design of Medicaid have invited and encouraged extravagances and further distortion and fractionations of medical care within programs.

The nurse anesthetist was a typical example of the area of distortion and fractionalization of medical care. In writing this act, the nurse anesthetist had not been identified as a provider and, because of this omission, could not be directly reimbursed by Medicare. She became the prey of both the hospital and the anesthesiologist.

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<sup>72</sup>Medicare, PL 89-97, Title XVIII, 1965.

<sup>73</sup>Medicaid, PL 89-97, Title XIX, 1965.

The hospital or the anesthesiologist, both listed as providers, would submit a bill for services rendered by the nurse anesthetist and charge her for the billing up to 80 to 95 percent of the service.

The hospital's reason for such a low rate of return for the nurse anesthetist's service was to cover supplies, equipment, insurance and billing. There were a few hospitals, isolated geographically, that would sign a contract with the nurse anesthetist for a charge of 20 percent for billing, which seemed fair and reasonable.

The same hospital that was charging 80 to 95 percent for services and billing for the nurse anesthetist, would allow an anesthesiologist who billed directly to Medicare a solo practice. The hospital would receive no remuneration for supplies, equipment or insurance.

The anesthesiologist would develop a practice with six or eight nurse anesthetists. Even though he was not present in the hospital, sometimes not even the city, and had never discussed the patient to be anesthetized with the nurse anesthetist, his name would be listed on the anesthesia record as part of the team for supplying the anesthesia service. Sometimes only his name appeared on the record. By this method Medicare was billed directly by the anesthesiologist. The nurse anesthetist generally received from 20 to 50 percent for rendering the anesthesia service.

Here again there were some anesthesiologists who were ethical; were present in the operating room; did consult with the nurse anesthetist; and did see the patient. They would reimburse the nurse anesthetist at a rate from 60 to 80 percent, charging 20 to 40 percent for consultation and billing. This seemed a fair and reasonable rate for services rendered by the anesthesiologist.

In April of 1974 the California Nurse Anesthetists asked Assemblyman Robert C. Kline to introduce a Bill (AB 3738) to permit a nurse anesthetist to be independently reimbursed for services rendered for Medi-Cal, a state health care.

The nurse anesthetist was successful with AB 3738, but there was a problem. The problem was the rate at which the nurse anesthetist would be paid, which would be a different unit rate than the anesthesiologists. This unit rate was not spelled out in the Bill.

The anesthesiologists were reimbursed by a scale established from a Relative Value Study of 1965, which has since been challenged by the federal government as "price fixing."

The federal government is still in a quandry about what method of reimbursement to be used. The method most politicians embrace is not direct billing by the nurse anesthetist but a system by which the hospital bills Medicare and reimburses the nurse anesthetist at a fair rate of exchange for billing.

The American Association of Nurse Anesthetists embraces direct billing. With the use of a third party for reimbursement there is always the possibility of the nurse anesthetist's position being compromised by the hospital and the anesthesiologist to reap part of the reimbursement fee.

#### 6. Professional Standards Review Organization

A concept of quality assurance was formalized with the passage of Public Law 92-603, the 1972 amendments to the Social Security Act. The legislation provided for the creation of "Professional Standards



Review Organizations." The PSRO would review the health care provided under Medicare, Medicaid, and Maternal and Child Health Programs and make judgments on the medical necessity and quality of the care. In addition, the PSRO's would determine whether care is proposed to be provided or has been provided at a level of care which is most economical and consistent with the patient's medical care needs.<sup>74</sup>

PSRO is principally a quality assurance program and its intent is to promote more effective utilization of health resources. If this intent can be realized, unnecessary cost will be avoided and no one will be denied care because of unnecessary utilization of health resources by those who do not need the care. In short, this program will eliminate waste and maintain quality, which all of us would appreciate.

There have been some unanswered questions raised in regard to the law concerning standards in malpractice suits, the confidentiality of information supplied to PSRO's with regard to defamation liability of suppliers, and finally, the discoverability of such information by third persons. Only time and litigation will help answer these questions.

Here again the nurse anesthetist presents a problem. Since about 50 percent of the anesthesia rendered in the United States is by nurse anesthetists, is the nurse anesthetist categorized under the direction of the surgeon or the anesthesiologist? In some areas there is no anesthesiologist. The anesthesiologists want control of the anesthesia services by supervision of the nurse anesthetist. I am not saying it is right or wrong, but just because of the numbers, this is not possible. The survey by the AANA, ASA and AHA in 1972 concluded that

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<sup>74</sup>Sharon Van Sell Davidson, RN, BSN, MEd. PSRO: Utilization and Audit in Patient Care. St. Louis: C. V. Mosby, Co., 1976.

about 13 percent of the anesthesia services rendered in the United States is by providers unqualified in anesthesia services.<sup>75</sup> How then, just by the fact of distribution, can the anesthesiologist supervise the anesthesia services when first there are still not enough anesthesia personnel to cover the service, and second, with the anesthesiologist supervising the nurse anesthetist, there would be more than a 13 percent deficit.

I work for a prepaid insurance group, Kaiser Foundation Hospitals and Southern California Permanente Medical Group. We have a mixed department, both nurse anesthetist and anesthesiologist managed by the anesthesiologist. Even here we have a wide range of opinion as to the ratio of anesthesiologists to nurse anesthetists and as to how consultation between the two will be rendered. It is a perplexing problem into which educational background enters. It is obvious that some nurse anesthetists need more supervision than others, as would be the case in any academic setting. Some nurse anesthetists are capable of solo practice while others need consultation from time to time.

#### 7. National Health Planning and Resources Development Act

On January 4, 1975, President Ford signed into law the National Health Planning and Resources Development Act of 1974 (Public Law 93-641). This Act is an attempt to build on the federal government's past experiences in health, and establish a rational and workable mechanism for the development of new health resources. In the course of doing this, the

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<sup>75</sup> Biggins, p. 377.

Act will consolidate the several overlapping programs and organizational structures in this area which have been developing under federal auspices over the last three decades. This Public Law establishes a fifteen member National Council on Health Planning and Development to advise the Secretary of Health, Education and Welfare on implementation of the law and programs to achieve its goals. These goals are: 1) provision of primary care services for the medically underserved; 2) development of multi-institutional services for coordination or consolidation of institutional health services; 3) development of medical group practices, Health Maintenance Organizations and other organized health systems; 4) training and increased use of physician assistants; 5) development of multi-institutional systems for sharing of support services; 6) promotion of activities to improve quality of care; 7) development by health services, institutions with the capacity to provide various levels of care on a geographically integrated basis; 8) promotion of activities for disease prevention, including studies of nutritional and environmental factors and provision of preventive care; 9) adoption of uniform cost accounting, simplified reimbursement and utilization reporting systems, and improved management procedures for health service institutions; and 10) development of effective methods for public health education.

One thing is abundantly clear. The new Health Planning and Resources Development Act will profoundly affect the way the health care industry conducts its business. The Act is probably the most significant piece of federal health legislation since Medicare.

At a regional level, the Act provides for the division of the country into approximately 200 health service areas. Once designated,

each of these areas is to establish an area Health System Agency (HSA). The HSA may be a private, nonprofit corporation, an agency of the local government, or a public regional planning body. Each HSA must have a governing body composed of representatives of the public, provider, consumer, and political segments of the area.

There is a large question as to whether this new Act allows the federal government too much control over the way in which health care is provided. The American Medical Association apparently thinks so, as they hope to have the law declared unconstitutional as an "unwarranted assumption of state authority by the federal government."

This piece of legislation states that the provider, which in the past has meant the physician but now means all who provide health care to the patient, and also the public, the consumer and political segment, will have representation. The consumer--the patient--now will have a vote in how health care will be provided.

The fourth goal designated in this Act was the "training and increased use of physician assistants." The nurse anesthetist is classified in this category, and as such, under the law, would need clarification of duties and administration of responsibilities of delivery of patient care.

During the forty years of legislative changes since the test case in California, "whether nurse anesthetists could administer general anesthesia," few changes have been made in the actual day-to-day coverage of anesthesia services for the patient by the nurse anesthetist.

With the war years of the forties which brought federal monies for education of anesthesiologists, the anesthesiologist did not replace

the nurse anesthetist. The Hill-Burton Act of 1946 had increased the number of hospital beds. Anesthesia coverage was still a high priority. There were not enough physicians or nurses to cover the hospitals for anesthesia services, so the supply and demand factor prevailed. When one area became saturated with anesthesia coverage there was always another area to move on to for work.

In California, where supply and demand was approaching a saturation point, the nurse anesthetist began to feel a pinch in the delivery of anesthesia services caused by the test case in the 1930's.<sup>76</sup>

One of the reasons the nurse anesthetists had been at a premium in the western states before 1971 was because there were only two schools west of the Rocky Mountains. These schools were in the Pacific Northwest and only produced eight students per year. Now there are four schools for nurse anesthetists and four larger resident programs.

In Los Angeles I had completed a feasibility study for a school for nurse anesthetists in 1971. Kaiser Hospitals, a prepaid insurance group, had been unable to staff their hospitals with sufficient anesthesia coverage by nurse anesthetists. I was given the go-ahead to develop a school which would be funded totally by the Kaiser Foundation Hospitals and the Southern California Medical Group (the physician providers for the hospitals). We admitted nine students in September 1972, thus becoming the first school in California. Three other schools were developed within the next year.

One of the anesthesiologists involved in the development of the nurse anesthesia school at the new Martin Luther King Hospital in Los

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<sup>76</sup>"Chalmers-Francis v. Nelson," 6 Cal. 2d 402, 1936.

Angeles, requested an attorney general's opinion as to whether it was legal for nurse anesthetists to administer spinal, regional, and epidural anesthesia or analgesia.<sup>77</sup>

The Attorney General's Opinion was negative. "Registered nurses may not administer spinal, epidural and regional anesthesia and analgesia." He also said, "only physicians and surgeons licensed with the Board of Medical Examiners or the Board of Osteopathic Examiners, and dentists licensed with the Board of Dental Examiners may supervise registered nurses in the administration of general anesthesia." He further stated, "Registered nurses may administer anesthetics on a free lance basis under the supervision of any one or more of the classes of licentiates referred to above and bill the patient for their services." His last statement was, "Licensed registered nurses enrolled in an approved school for anesthesia may only administer general anesthesia and only if they are directed and supervised by an authorized licentiate of the healing arts."<sup>78</sup>

He pointed out in his analysis that there was no legal classification of "nurse anesthetist" in California, although the test case of whether a nurse could administer a general anesthetic was in California in 1936--Chalmers-Francis v. Nelson.<sup>79</sup>

At this time, I must explain the point I made issue of several times before in this paper. The test case stated general anesthesia.

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<sup>77</sup>CAGO-CV 72/106, December 1972.

<sup>78</sup>Ibid.

<sup>79</sup>"Chalmers-Francis v. Nelson," 6 Cal. 2d 402, 1936.

In the 1930's very few spinal anesthetics were given. There were no antibiotics for protection from infection. If an infection should arise from the administration of a spinal anesthetic, the patient was sure to die, or maybe even worse, become a paraplegic, or have irreversible brain damage. Only the extremely skilled and daring wanted to tread on such thin ice. But I want to point out that this had nothing to do with the nurse anesthetist's and anesthesiologist's technical ability, only the dangers of infection. So, naturally, in the test case the words "general anesthesia" would be the normal term to use because general anesthesia was basically the only anesthetic being administered.

To correct this long-standing problem of inability to legally administer regional anesthesia, the political arm for the nurse anesthetist in California--California Association of Nurse Anesthetists, Inc.--made its first legislative attempt--AB 854--in March of 1972 to negate the Attorney General's Opinion. Being very naive politically, the Bill was presented too late in the legislative calendar, and although we did have the blessings of our anesthesiologist associates, the Board of Medical Examiners was not interested in any legislation identifying a physician assistant being placed on the books at that time. Therefore, the Bill died in Committee.<sup>80</sup>

I was on the Government Relations Committee for the CANA during our first legislative attempt. One very valuable point that I gained from this experience was that what legislators express verbally is not always what they vote for on the House floor.

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<sup>80</sup>Cal. AB 854, March 1972, DCOM.

The next year the Association did a little soul searching to see what could be done to get the legislators receptive to our cause.

In 1974 I became President of the CANA and set the wheels in motion for another legislative attempt at identification for the nurse anesthetist.

One of the Assemblymen was receptive to the idea of sponsoring a bill for this purpose. Assemblyman Gordon Duffy had previously worked for several years on the passage of a new "Nurse Practice Act" in California which would bring into line the practice of present-day nursing, and allow the nurse the extended care position she now demands in a modern hospital for good patient care. The Nurse Practice Act passed in September 1974 with the signature of Governor Ronald Reagan, who was well aware of the rising cost in medicine and the need for new clarification of roles of health care providers.<sup>81</sup>

The Governor signed the Nurse Practice Act in early September, which left only a few weeks for a bill to be promulgated to identify the nurse anesthetist before the legislative session closed. Time was too short to write a bill and find someone to sponsor it.

A new governor took office in 1975 with new ideas of reducing government controls and costs in the state of California. This was the beginning of a new legislative session. There was another issue that Jerry Brown felt strongly about but never expressed during our next journey through the legislative process--the issue of licensure. He believed there were enough laws on the books regarding licensure of nurses, and that the nurse anesthetist should apply existing statutes to the problem.

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<sup>81</sup>Chapter 6, Cal. BP Code as amended, September 1974.



A new Bill--AB 942--was sponsored by Assemblyman Duffy. It was to provide for a separate certification for the nurse anesthetist other than her registered nurse license under which she now practices. This Bill not only identified her as a practitioner, but also established guidelines for schools and practice. The practice would not only include general anesthesia but also regional anesthesia.<sup>82</sup>

The nurse anesthetist had received the anesthesiologist's political support and had enticed the Medical Board of Examiners to be responsible to this Bill.

AB 942 passed the Assembly and Senate with very few negative votes. Mr. Duffy was extremely astute politically in directing the Bill. CANA members also worked the Bill well in their home districts.

As President of CANA, I had sent a bulletin to each member with a form letter that was to be an example for the members to write to their individual Assemblymen and Senators. The CANA members had carried out their mission well.

The nurse anesthetist felt she was victorious. The Bill was now on the Governor's desk and there had been no negative feedback from the Consumer Affairs Department of which the licensing agent was a segment, so she could see no reason for the Bill to be vetoed.

Unknown to the CANA, Rose Elizabeth Bird, who was Secretary of Agriculture and service agencies under which Consumer Affairs is structured, and who was later appointed by Governor Brown as Chief Justice of the Supreme Court of California, was a strong advocate of the Governor's

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<sup>82</sup>Cal. AB 942, February 1975, PAss.

views on no separate licensure, and suggested a veto. The Governor vetoed the Bill four days before the legislative session closed.

With such short notice the nurse anesthetist had no time to try the only political maneuver available, an override of the Governor's veto. Since this had only been successful twice in the history of California legislature, they knew their non-political issue would fall on deaf ears. The legislative attempt was dead.

I was appointed Chairman of Government Relations of the CANA for the 1976-77 term.

I met with Assemblyman Duffy, a representative of the California Society of Anesthesiologists, and a representative of the California Hospital Association in the fall of 1976. The anesthesiologists, the Hospital Association, and Assemblyman Duffy were willing to support another bill. This time the bill would just identify the nurse anesthetist under the present Nurse Practice Act and would also allow the CRNA to administer regional anesthesia. By this method there would be no cost to the state for separate licensure.

The nurse anesthetists were late getting their act together, and Assemblyman Duffy submitted a bill that, because of the wording, brought immediate disapproval of the California Society of Anesthesiologists.

Assemblyman Duffy assembled leaders of CANA, CSA, and the CHA (California Hospital Association), to try to reword the Bill so that it was more receptive to the anesthesiologist. The Hospital Association was willing to continue with the Bill as it was. Although few slight changes were made in the wording of the Bill, Duffy got it out of the Assembly Health Committee and through the Assembly side of the House by his political prowess.

AB 1171 now faced the Senate side of the legislature. A new group was now vehemently opposing the Bill. This was a radical union group of anesthesiologists. They had testified at the same time I did before the Assembly Health Committee on AB 1171 only to be out-finessed by Assemblyman Duffy.

The group presently has three legal suits pending against California legislative committees. A large amount of money was being funneled into lobbying in areas of health care by the union and the physician.

In early August 1977, the CHA's lawyers requested a revision of the 1975 revised Opinion of the Attorney General regarding nurse anesthetist's administering regional anesthesia.

Assemblyman Duffy had met with the CHA and felt he should table AB 1171 for the present. A revision of the Attorney General's Opinion would allow the nurse anesthetist to administer regional blocks.

With all the money being channeled into lobbying by the anesthesiologist, it would be difficult to read the climate of the vote in the Senate.

It would be reasonable to wait with AB 1171 until Mr. Duffy could go back to the next legislative session with this Bill if the Attorney General does not revise his Opinion, but if the Senate voted down the Bill, that could greatly affect the Attorney General's Opinion. The nurse anesthetist seems to be a winner at the present. She was successful in getting AB 942 through the Assembly and the Senate and was only turned down by the governor because of the cost of a separate licensure, not because of her standard of practice. She had also been

successful with AB 1171 in the Assembly side of the House.

It is prudent to wait for the Attorney General's review of his revised Opinion of 1972 as to whether the nurse anesthetist could administer regional anesthesia.

With the discussion in this chapter of the lack of success before the state legislative bodies to develop not only a mechanism for reimbursement but also identification as a provider and delegation of administrative duties for the nurse anesthetist, the future most likely will be decided in the federal system of government.

## CHAPTER VI

### SOCIOECONOMIC ASPECTS

During the 1920's, nurse anesthetists were confronted with hostility on the part of the anesthesiologist. With the collapse of the nation's economy, anesthesiologists revived the interest in protecting their income by eliminating the competition from nurse anesthetists.

To develop an understanding of the problem confronting the nurse anesthetist as a health care provider and to delineate the administrative duties by which they shall be dispensed, it is important to understand the socioeconomic aspects of the anesthesia coverage in this country. It is also interesting to investigate the methods by which each anesthesia provider--the nurse anesthetist and the anesthesiologist--deemed it necessary to protect their incomes.

It is times like these that the professional person becomes conscious of the protection that can be found in organizations.

I briefly discussed the Chalmers-Francis v. Nelson case in the preceding chapter. The case was an economic confrontation. The nurse anesthetist was an economic threat to the physician because she gave the same service to the surgeon as did the anesthesiologist. There was indeed a difference in compensation for the service.<sup>83</sup>

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<sup>83</sup>"Chalmers-Francis v. Nelson," 6 Cal. 2d 402, 1936.

The issue of compensation for services was not a direct issue in the case itself, and even though Miss Nelson won, she personally worked only for a brief time afterward. Dr. Hunt, who had recruited Miss Nelson from Mayo, and for whom Miss Nelson worked, died shortly after the test case was resolved. She was too hot a political issue for other institutions to hire.

Compensation for the nurse anesthetist and the anesthesiologist had a wide range of variation. Even with the addition of anesthesia manpower after World War II by the influx of added government educated anesthesiologists, supply and demand generally ruled the rate at which either provider would be compensated.

By the 1960's, free lance nurse anesthetists were making between \$20,000 and \$40,000 annually, whereas our physician counterparts were making \$40,000 to \$80,000. While the hospital-based nurse anesthetist was making between \$10,000 and \$12,000 annually, the anesthesiologist was making about \$24,000.

As I have stated before, Medicare and Medicaid began to serve the nation poorly. The complexities which led to widespread confusion and misunderstanding for the public and provider alike, certainly encouraged extravagances in costs of anesthesia services.

The RVS scale by which the anesthesiologist arrived at charges for his patient care was used by Medicare, but at a lower rate. As an example, the unit rate the the anesthesiologist's reimbursement was \$10 but Medicare insurance would pay only \$6 per unit.

The anesthesiologist naturally did not want to do these cases at such a low rate of reimbursement. The nurse anesthetist could not be

paid directly, only by the hospital billing for services. The rate for the nurse anesthetist would have been lower if the standard rules had continued to apply as they had in the past, but by the time the hospital added its charges, the rate still remained about \$6, with the hospital getting about one half for billing and the nurse anesthetist getting one half for providing the service.

With the development of Health Maintenance Organizations, one of the primary goals was to examine possible solutions to the high cost of national health care.

Basic issues were considered by appointed committees. First, could changes in the organization and delivery of health care services be developed to promote economy in the health industry and to discourage simple price inflation? Second, could financing methods be devised to encourage cost consciousness in the decisions made by patients, by physicians, by hospital administrators, and by others in the health care field? Third, are private health organizations able to design and exercise controls moderating increases in benefits, expenditures, and rising premium rates? Fourth, to what extent should government, at all levels, increase its involvement in paying for health care and in modifying the health care system?

To talk about the Health Maintenance Organizations raises the hackles of many people in this country, although probably not so many today as a few years ago. At the heart of the HMO concept is the pre-paid group health plan. When compared with the indemnity plans, the rate of hospitalization of HMO enrollees is less than half the rate of other providers. Under HMO arrangements, income increases not with the

number of days the person is sick, but with the number of days he is well.

In June of 1971 a provision passed the House for the establishment of a "prospective method of reimbursing." It will establish the criteria by which the medical care foundations will be reimbursed, or if there will be more than one capitation rate.

There is still much work to be done to make HMO's a workable solution to the rising cost of health care.

I view HMO's in the future as being one of the causes of the inflation of health care. Government, in and of itself, has never been able to reduce standard costs for regular department management. As the bureaucratic system develops a system to provide health care, built-in inadequacies in management will escalate total costs.

Overall, the escalation of health care costs is a many-faceted problem. There are many parties responsible for this escalation of health care costs.

Too much hospital construction and too much duplication of expensive equipment and personnel have been major factors in the cost spiral. Hospitals have shunned mergers and other efforts to reduce beds and duplicated services.

They have avoided challenging doctors who overutilize hospital services or abuse privileges. Many hospitals have played reluctant roles in implementing programs that would reduce their inefficiency.

They have exploited both government and private health plans which, unfortunately from a cost standpoint, pay hospitals according to their costs rather than medical appropriateness.



Too many doctors do not think about the cost of the services they perform or order in hospitals--nor do they even know what the costs are. Once they determine that the patient has insurance coverage, concern for cost virtually evaporates.

Organized medicine has done practically nothing to correct the disproportionate number of doctors in certain specialties. Too many surgeons, for example, can mean too much surgery being performed.

Doctors generally have chosen to stick with the fee-for-service system of charges rather than explore the prepaid group practice method, which cuts costs.

As long as it has been possible to keep raising the premiums, private insurance companies have only meekly challenged doctors, hospitals, and other providers about the appropriateness of or need for service.

The health insurance fringe benefit not only has removed workers' anxieties about medical bills--the plus side of the picture--but it has done so without giving people a sense of responsibility for their health. It's as if taking care of the financial aspect were all that mattered in health care. This has fostered a dependence on expensive "sick care" and inhibited the growth of preventive medicine.

Concerned about developing programs to meet the unmet health needs of millions, Congress until very recently has seemed unaware that each of its programs stimulated additional demands for health care, thereby adding to the cost spiral. Demand has been further stimulated by billions for research, which has benefited millions but at a very high cost.

Politicians justifiably direct their cost containment efforts at greedy providers of health services, but it is neither brave nor entirely

effective for them to leave out perhaps the most important element in the cost spiral--the public.

The vast majority of Americans are thoroughly spoiled. They expect the biggest, the best and the most--and at wholesale prices. They abuse their bodies with too much food, drink and tobacco and then expect miracle-making medics to make them well again. And if that doesn't work, they sue.

They want an emergency room five minutes from every home; a super-equipped and staffed (24 hours a day) hospital in every neighborhood; a doctor whose technical knowledge is superb--but who should ignore it if the patient has a contrary opinion.

Americans expect health professionals to solve their health problems for them, even those problems only they themselves can solve. Individual patients expect to receive a lot of services for themselves--all the tests and all the consultants, in effect, "the best"--but grow angry when they hear what Medicaid costs taxpayers.

Americans seem oblivious to the fact that it is not possible to have all of these things--and much more besides--and still contain the costs of health care.

There is only one way to cut health care costs--truly cut them after all the abuses by doctors and hospitals have been eradicated--and that is by reducing the number of services delivered.

How can that best be accomplished has not yet been worked out in detail. But health authorities have some ideas.

One way would be to launch an intensive health education program aimed at getting people to practice more preventive measures such as

stopping smoking, controlling diet and excessive use of alcohol and getting more exercise.

Wearing a seat belt and driving below the 55 mile per hour speed limit, authorities say, could have a significant impact on lessening the need for medical services. Even if the public chose not to follow the preventive advice, health educators believe a preventive program would at least make people aware of the cost implications of their actions.

Another way to reduce services would be to change the system of delivery of health services from the fee-for-service basis to the prepaid group practice concept.

This would remove the financial incentive doctors now have for providing services that may not be essential. It is for this reason, partly, that patients who belong to Kaiser Permanente Medical Care Program are hospitalized only half as frequently as patients in fee-for-service plans.

Of course, the trick is to find ways to reduce nonessential services without depriving those who really need the services. There is also the problem of convincing patients that the service is not medically necessary when the patient is convinced otherwise.

Until now, the national trend has been to make comprehensive health care services available to the greatest number of people. This is a commendable goal. It is an expression of the basic belief that health care is a right.

But it fails to heed a basic law that applies almost uniquely to health care--that the demand for health services, unlike almost any other service, is insatiable.

It is the demand for care--plus some means of paying for it--that provides the incentives to build more hospital beds, buy more equipment, train more health personnel, conduct more research, develop more drugs and lab tests, and do all the other things that inevitably increase health costs.

If enough patients are unhappy with the results, there is a side effect which also has its impact on costs--increased malpractice suits.

(In an effort to prevent malpractice suits, doctors have become accustomed to ordering an excessive number of tests and X rays. While this is understandable as "defensive medicine," it--like exorbitant malpractice insurance premiums--clearly adds unnecessarily to the cost of health care.)

Of course, not all of this stimulation is bad. Some new hospital beds are needed. Some new drugs save lives. But, stimulation that results in duplication of expensive facilities and equipment and unnecessary prescriptions and surgeries is wasteful.

Although the reasons for rising health care costs are numerous and complex, underlying the phenomenon is the fascination and awe Americans have the medical magic.

It is doubtful that people would swarm to doctors if they believed they would not benefit. The miraculous powers of medicine are still widely viewed as holding the answer, or at least a part of the answer, whatever the problem might be.

Academicians can argue over how many of the years added to longevity since 1900 are due to medical advances and how many to non-medical factors such as improved sanitation, but the public is not interested in the distinction.

As long as society is willing to pay the bill, everybody is happy, or at least not rebellious. But what happens when the demand for services that are increasingly complex and expensive reaches a level that society refuses to tolerate?

The direct costs of health care are only part of the picture. Health care, in fact, affects the price of nearly everything that is purchased, especially those goods and services provided by corporations. This is because most employers who pay all or a good share of the health insurance premiums for their employees simply tack the cost onto the price of their product.

A typical Los Angeles employer with 4,000 workers paid \$3 million in health insurance premiums in 1973, \$3.5 million in 1974, and \$4.2 million in 1976, and expects to pay \$6.4 million this year--an increase of more than 100% in four years.

In 1975, General Motors paid \$735 million for health insurance premiums for its workers. That amounts to more impact of rising health costs.

Feldstein, the Harvard economist, has shown that while patients were paying out of their pockets about half of the average hospital bill in 1950, they pay less than one-eighth out of pocket today.<sup>84</sup>

"As a result of the dramatic increase in hospital insurance coverage, the net real cost to the patient through direct payments has hardly risen at all over this period while the total bill has risen astronomically (about 1,000%)," a report by Feldstein says.

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<sup>84</sup>Paul J. Feldstein, PhD. "The Market for Anesthesia Services: Some Estimates and Recommendations." AANA Journal, December 1975, 43:6, pp. 571-605.

If and when a comprehensive national health insurance bill is passed, the public may be in for a rude awakening. This is because Congressional leaders have said Congress will not pass such a bill until cost containment programs have first been put into effect.

In addition to having their intended effect of "cutting the fat" out of hospital revenues, the cost containment programs inevitably will lessen the availability of services to patients. When that happens, the public can be expected to complain very loudly.

Some of the complaints may be legitimate because they will come from people who truly need the service that is being denied. But the true need of others may be questioned.

A similar thing happened a few years ago when state officials decided the Medi-Cal program was becoming prohibitively expensive and its costs had to be contained.

Besides declining to keep pace with rising doctors' fees and hospital costs, Medi-Cal's attempted solution was to impose new controls such as prior approval of elective surgery and refusal of payment for services it deemed nonessential.

Although an outcry followed in behalf of the state's two million or so Medi-Cal beneficiaries, it lacked the political clout that may accompany a similar attempt to cut services if the nation gets national health insurance.

With Medi-Cal, the people paying the bills (taxpayers) were not the ones receiving the services, and the average taxpayer was more interested in cutting taxes than in protecting the benefits of Medi-Cal recipients.

With national health insurance, any cut in services would affect everybody. Thus, the ultimate question confronting national policy makers may be whether to stick with cost cutting or yield to the public outcry.

The present legislative attempt by the nurse anesthetist-- AB 1171--in California should be regarded by both the nurse anesthetist and the anesthesiologist as a means to reduce cost for anesthesia services. The two providers should be able to come to some working agreement whereby a mixed department, both nurse and physician anesthetist, could deliver a better standard of care at a lower rate.

Instead, the union group of anesthesiologists sees a direct threat to their income and states this in correspondence sent to all union members in April 1977.<sup>85</sup> This issue is never stated in public. Their cry at all legislative hearings is that the nurse anesthetist is practicing medicine. They neglect to recognize the case of Chalmers-Francis v. Nelson, which clearly states nurse anesthetists may administer general anesthesia and the extended role the registered nurse has attained in the present day hospital.

As Chairman of the Government Relations Committee, I was in charge of the lobbying for AB 1171. The Senators from whom I received correspondence all stated that something had to be done to reduce the cost of health care, but none would commit themselves to a method of achieving that goal.

The future for AB 1171 is uncertain, but future federal bills will continue to chip away at some type of solution.

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<sup>85</sup>Correspondence from Seymour Wallace, April 1977, to all members of Union of American Physicians.

The Medicare-Medicaid Administrative and Reimbursement Reform Act has been reintroduced by Senator Herman Talmadge (S 1470).<sup>86</sup> The Bill is really nothing new and does not benefit nurse anesthetists despite assurances from the Senator in communication to Iris Berry, CRNA (Georgia).<sup>87</sup> A response by AANA to the Senator to highlight the deficiencies in the new Bill was presented in June 1977 at the Senate hearing on this Bill.

It is unlikely that the nurse anesthetists will find the necessary support in the U. S. Senate for a proposed amendment. Therefore, the AANA will probably turn its attention to the House and a sponsor to introduce an AANA-supported bill.

Regardless of all the arguments in favor of establishing equity, fairness and removal of discrimination with respect to the reimbursement of nurse anesthetists, the name of the game in Sacramento, California, and Washington, D. C. today, as it relates to health care, is cost containment. Any movement from a cost reimbursement formula to a fee-for-service arrangement is looked upon as being inflationary.

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<sup>86</sup>SB 1470; vol. Cong. Rpt., p.

<sup>87</sup>Iris Berry, CRNA (Personal Correspondence).



## CHAPTER VII

### SUMMARY AND RECOMMENDATIONS

To give credence to the importance of an administration manual for schools of nurse anesthesia, I felt it very important to give the reader the historical background of the health care industry; therefore developing a picture of the enigma that was stimulated in the past to the field of anesthesia.

In developing an understanding of the health care industry, one must comprehend the influence that politics and religion has had and still has on the delivery of health care.

The first five books of the Old Testament of the Holy Bible, one of the oldest records of mankind, were specific rules outlining methods for good health care. Medicine and religion in the early centuries were transacted in the same temples. The authority of the church, which saw disease and death as the wages of sin, was to a greater degree overturned in the late eighteenth century with the advocacy of religious freedom. Medical science was brought back into the focus of scientific-based knowledge.

The Industrial Revolution in its early stages not only changed man's way of life to enable him more material conveniences, but also deepened his poverty and misery. The Industrial Revolution did start the evolution of the hospital as a public institution. It also involved

the public in the enactment of laws to protect the workers' health and safety while on the job.

One must also grasp the significance that politics has played in the development of health care. In the last half century medicine has become a political football. Organized medicine was extremely effective during the early 1930's in its efforts to maintain solo practice for the physician, but in recent years the public has demanded a voice in health care. At the present, the consumer, the public, and the provider have all been identified as part of the team to regulate the total health care industry.

The physician fostered the father image from the days of Hippocrates, who was named the father of medicine. The psychological implications of the physician depicting such a strong image presented psychological problems for both the physician and the patient. The patient caressed this psychological association out of need because the patient was reduced in the hospital to a childlike state. His clothes were removed, and he was helpless and childlike when ill. The physician maintained this image, not only out of need from the patient, but also because of the terrific burden he supported in his daily practice of medicine.

The father image for the physician began during the Industrial Revolution. During this period, the patient was placed, for the first time, in the hospital and out of the family setting where such strong family ties had originated.

Benjamin Franklin made the public aware of their responsibilities in the development of health care. He placed the hospital in the hands of the public and medical education in the hospital away from a servitude-

type education. He sponsored the first public bill of government intervention into health care and medical education.

With the development of medical specialties, a fragmentation among physicians evolved. There was a struggle by physicians as to who would don the father image role for the patient and the para-professional in the hospital.

As medical science developed, the academic community required a scientific-based knowledge for academic acceptance. The anesthesiologist was slow in developing a scientific-based profession regulated by their own organization. The Board for Anesthesiology was under the Board for Surgery until 1941. The anesthesiologist had moved into the university in the early 1930's.

The anesthesiologist had developed a poor public image from the beginning. Even though anesthesia was one of the greatest medical advances of the nineteenth century, those specializing in the art were considered second class professionals. This was probably caused by the fact that anesthesia was discovered by a dentist, who at that time was not highly regarded professionally.

Nursing had even a greater struggle for identity, self image, and academic acclaim. The nurse was a female trying to enter the university in the late eighteenth century; also her educational background did not fit into the normal educational role of university, i. e., 4 years of study.

The nurse anesthetist was produced in the late nineteenth century out of need. The physician had not provided the necessary manpower to provide adequate anesthesia coverage for the surgeon.

The professional image was cultivated with the fanfare of great surgeons and great need of adequate anesthesia for the surgeon to perform his heroic deeds.

The nurse anesthetist had many barriers to cross. She had stepped into a role that was identified one hundred years later; the extended role of the nurse--the nurse practitioner.

The educational programs for nurse anesthetists were maintained outside the university setting. The educators in these programs neglected to uphold the standards required by the university. Not until the early 1970's did the programs really take a look at the academic community.

The psychological and management problems of all the providers of health care and the consumer which they serve have been very poorly managed.

The health care industry--one of the largest industries in the United States, has not developed within its structure personnel that can cope with the day-to-day psychological needs of its staff. The industry has not promoted lateral growth for the provider in areas of management.

The anesthesia department is a typical model of how unsatisfactory the transition of growth has been handled. The department heads, no matter whether they were anesthesiologists or nurse anesthetists, did not have the proper educational background in management to aid in the psychological needs of the individuals they supervised and the patients they served.

The political climate that has developed in the last few years has demanded a change in the health service that the public receives.

The cost of medical care has escalated at such a rapid pace, the health care industry and the public at large has taken a look at how health care is being provided. Solo practice for the physician is being challenged from all sides.

The educational background and the service that the providers of health care supplies is being examined.

The nurse anesthetist must meet the challenge of the academic community and the public she serves. She must identify the role she seeks and socialize the professional career she promotes.

Methods of attaining these goals are in the development of manuals for administration of programs of nurse anesthesia and the production of educational media such as video-tape cassettes for instructional programs.

Socialization of the professional name--nurse anesthetist--will be difficult just from the standpoint of trying to pronounce "anesthetist." It is a tongue-twister few in the community at large care to attempt to say. "Anesthetist" was dropped by the physician for "anesthesiologist," which is phonetically easy to pronounce by Americans. "Anaesthetist," the British spelling, is also phonetically easy to pronounce, but the change to the American spelling "anesthetist" confronts the tongue with a built-in stutter.

a nes' thi tist

The active participation of nurse anesthetists in community affairs at all levels--social, political, and educational--will help delineate this problem.

It is my recommendation that the duties and responsibilities of both the nurse anesthetist and the anesthesiologist be reviewed. Many of the duties are similar or the same and without some clarification the socioeconomic issue will continue presenting problems to the health care community in the delivery of anesthesia services.

The nurse anesthetist and the anesthesiologist certainly share the responsibility of providing anesthesia coverage to the consumer.

This issue of providing adequate anesthesia coverage should be of top priority. It is important that each patient be provided with adequate anesthesia coverage. This has not been accomplished.

In the article by Alan L. Fitzgibbon,<sup>88</sup> he discusses the supply of anesthesiologist and nurse anesthetist, and how the supply varies greatly among the states. He further recounts that it appears as though maldistribution and inefficient use of both nurse anesthetist and anesthesiologist enhance this situation. He further relates that California and New York account for approximately 75 percent of the surplus of anesthesiologists. He also indicates that the relationship of supply and demand of anesthesia personnel and the maldistribution thereof is directly related to the size of the hospital.

Few anesthesiologists are found in communities where the hospital is 100 beds or less, probably because of socioeconomic reasons. The calculated income for anesthesia services to this hospital would probably be less than \$50,000 per year. The community generally would not provide the cultural activities that would be of interest to a professional such

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<sup>88</sup>Fitzgibbon, p.

as an anesthesiologist. The income generated in a larger hospital by an anesthesiologist would be more in the realm of \$100,000 and the city would provide the cultural atmosphere the anesthesiologist would relate to as a professional person.

The anesthesiologist has not accepted the responsibilities as a leader in total anesthesia care for the consumer. Improvement of total anesthesia services has not been a major priority for anesthesiologists as a group. There are few departments of anesthesia where the anesthesiologist has assessed total anesthesia care of the patient--pre, inter, and post--and set about delegating the responsibilities of the total care to the anesthesia personnel, both anesthesiologists and nurse anesthetists.

The anesthesiologist, because quotas were not met to fill residencies, accepted unqualified physicians or the foreign graduate physician, whose medical school background did not meet the standards of the American Medical School. This placed in the health care field anesthesiologists who were not adequate providers of total patient care.

Not only did the foreign graduate cause a communication problem, but because of lack of anesthesia background, would often be inferior to the nurse anesthetist in providing anesthesia care.

The educational background in anesthesia of the nurse anesthetist could well have been superior to the foreign educated anesthesiologist.

I must preface my remarks at this point, I have the utmost respect for my anesthesiologist colleagues who are an asset to the community as a provider of anesthesia services. Their educational background and outstanding medical prowess are to be lauded. But not only for their

protection but to also express the condition of the arena in which anesthesia is delivered in this country, the facts must be presented.

The nurse anesthetist has provided anesthesia services to hospitals of all sizes. Most surveys suggest that the nurse anesthetist supplies a major portion of the manpower to the hospital with 100 bed capacity.

The nurse anesthetist has had problems maintaining academic standards. Their technical skills have been outstanding and in mixed departments, nurse anesthetist and anesthesiologist, the nurse's dexterity often is superior.

The recent increase in the number of males in the organization of nurse anesthetists has changed the tone of the academic picture and also the economic returns.

Many of the males entering nurse anesthesia programs have been unable to gain admittance to medical schools or have received a degree in another field and have not gained the rewards they had wished for financially or academically.

The male is generally directly motivated by his goals of a future in nurse anesthesia. While the female nurse anesthetist often has been in other areas of nursing as a nurse practitioner or extender and has not reaped the rewards projected upon entering the specialty and sees the nurse anesthetist as the area of nursing that will fulfill her needs for professional growth.

The male nurse anesthetist generally demands more income because of his needs as the head of a household. The female nurse anesthetist's income generally is a second income in a family, and so the needs are



not as great for economic returns.

With the changes in the past few years toward liberated women, the income factor is balancing off; women are demanding the same rate of return for duties performed.

As the duties and responsibilities of the anesthesiologist and nurse anesthetist are outlined, it is my personal opinion that better communication will be established between the two groups providing the anesthesia care in this country.

Each professional nurse anesthetist and anesthesiologist will have to maintain this professional image, both academically and clinically, to attain minimum anesthesia service for all consumers.

The nurse anesthetist must receive academic acceptance by the academic community, and becoming a part of that academic community.

The profession of nurse anesthesia must be socialized in the community. The public at large must recognize the role of the nurse anesthetist as one of the health care providers in anesthesia services.

The nurse anesthetist must provide the administrative skills to maintain nurse anesthesia educational programs. These administrative skills also must be projected in the management of anesthesia departments.

The nurse anesthetist must expand the professional role to include twenty-four hour coverage of not only surgery, but also obstetrics, emergency room and respiratory therapy.

The administrator in the educational programs of nurse anesthesia must provide the educational background for the future nurse anesthetist. This background must not only include the technical skills to supply the

anesthesia services to the consumer, but also the ability to communicate with the anesthesiologist academically.

In the concluding addendum of this paper, a manual for the administration of nurse anesthesia programs is presented. It is my desire that this manual will serve as a model in the future to provide better consumer anesthesia services by nurse anesthetists educated in standard programs

Caldy, J. H. *American Journal of Nursing*, 5:113, 1940.

Bennett, Arnold W., and Arthur B. King. *United States History, 28 and 29th Editions*. New York: Macmillan, 1954.

Fernald, W. D. *United States History*. New York: McGraw-Hill, 1944.

Serry, J. L. *Practical Anesthesia*. St. Louis: C. V. Mosby, 1954.

Best, J. W. *Research in Education*. Englewood Cliffs, New Jersey: Prentice-Hall, 1951.

Dean, Arthur. *The Office of the American Association of the Journal of the American Association of Anesthesiologists*, 1954.

Biggins, James. *Journal of the American Association of Anesthesiologists*, 1954.

Woods, Herman. *Journal of the American Association of Anesthesiologists*, 1954.

1950-51, 1952-53, 1954-55.

Cal. AB 254, 1957-58.

Cal. AB 262, 1958-59.

Cal. AB 1000, 1959-60.

Campbell, William. *Forms and Methods*. Englewood Cliffs, New Jersey: Prentice-Hall, 1954.

Carron, Harold. *Clinical Anesthesia*. Philadelphia: W. B. Saunders, 1954.

1954-55, 1956-57, 1958-59.

## BIBLIOGRAPHY

- American Association of Nurse Anesthetists, Council on Accreditation, Accreditation Policies and Procedures for Programs of Nurse Anesthesia, December 1974.
- American Association of Nurse Anesthetists, Council on Accreditation, Educational Standards and Guidelines for Programs of Nurse Anesthesia, December 1974, pp. 1-2, 32.
- Baldy, J. M. "Letter." American Journal of Nursing, 9:133, 1908.
- Bennett, Wendell C. and Junius B. Bird. Andean Culture History, 2d and reviewed ed. New York: American Museum of Natural History, Handbook Series No. 15, 1960.
- Berne, Eric. Games People Play. New York: Grove Press, 1964.
- Berry, Iris, CRNA. (Personal correspondence).
- Best, John W. Research in Education. Englewood Cliffs, New Jersey: Prentice Hall, 1970.
- Bevan, Arthur Dean. "The Choice of the Anesthetic." The Journal of The American Medical Association, 57:1821, 1911.
- Biggins, Delores E., Alice Bakutis, Vella G. Nelson, and Martha Petraitis. "Survey of Anesthesia Services: 1971." Journal of American Association of Nurse Anesthetists (October 1971), pp. 371-379.
- Bowen, Murray. California Study Foundation, 1976 (audio tapes).
- CAGO-CV 72/106, December 1972.
- Cal. AB 854, March 1972, DCOM.
- Cal. AB 942, February 1975, PAss.
- Cal. AB 1090, March 1975.
- Campbell, William Giles and Stephen Vaughan Ballou. Forms and Styles, Theses, Reports, Term Papers. Boston: Houghton Mifflin Co., 1974.
- Carron, Harold, M. D. "Anesthesia Manpower in the United States." Clinical Anesthesia, vol. 10/3, Chapter 11, pp. 251, 254-255.
- "Chalmers-Francis v. Nelson," 6 Cal. 2d 402, 1936.

Chapter 6, Cal. BP Code as amended, September 1974.

Cohen, I. Bernard. Benjamin Franklin: His Contributions to the American Tradition. Indianapolis: Bobbs-Merrill, 1953, pp. 152-173, 199.

Collins, Vincent, J., M.S., M.D. Principles of Anesthesiology. Philadelphia: Lea and Febiger, 1972, p. 1,071.

Committee on the Costs of Medical Care. The Medical Care of the American People. Washington, D. C.: U. S. Department of Health, Education and Welfare.

Corning, J. L. "Spinal Anaesthesia and Local Medication of the Cord." New York Medical Journal, 42:483, 1885.

Cox, Allen J. "The Strange Ways We Groom Ourselves for Failure." Family Weekly, October 13, 1974.

Crile, George. An Autobiography. Ed. Grace Crile. Philadelphia: J. B. Lippincott Co., 1947, pp. 195, 199-250.

Davidson, Sharon Van Sell, RN, BSN, MEd. PSRO: Utilization and Audit in Patient Care. St. Louis: C. V. Mosby Co., 1976.

Davis, Fred, Virginia L. Olisen, and Elvi Waik Whittaker. "Problems and Issues in Collegiate Nursing Education." The Nursing Profession: Five Sociological Essays. New York: John Wiley and Sons, Inc., 1967, pp. 138-175.

Davis, S. Griffith. "The Administration of Ether by the Drop Method." Maryland Medical Journal, 50:171, 1907.

Eliot, D. Hippocrates, Scientific Papers; Physiology, Medicine, Surgery, Geology. New York: Colliers, 1961.

Falk, I. S. "Medical Care in the USA. . . 1932-1972, Problems, Proposals and Programs from the Committee on the Costs of Medical Care to the Committee for National Health Insurance." Milbank Memorial Fund, 51 (1): 33:9, Winter 1973.

Feinburg, Mortimer R., PhD. Effective Psychology for Managers. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1965, pp. 53-89.

Feldstein, Paul J., PhD. "The Market for Anesthesia Services; Some Estimates and Recommendations." AANA Journal, December 1975, 43:6, pp. 571-605.

Fitzgibbon, Alan L. "Anesthesia Manpower 1980." Anesthesiology Review. August 1977.

Greene, Nicholas M., M.D. Anesthesia and the University. Philadelphia: J. B. Lippincott Co., pp. 8-10, 44-46.

- Henderson, Florence. "The Nurse as an Anaesthetist." American Journal of Nursing, 9:947, 1909.
- Hewitt, F. W. "The Past, Present, and Future of Anesthesia." Practitioner, 57:347, 1896.
- Hurd, Henry M. "Medical Organization of General Hospitals." Transactions of the American Hospital Association, 8:72, 1906.
- Jacobs, Richard M., et al. "Flexibility in Nursing Education." A Flexible Design for Health Professions Education. New York: John Wiley and Sons, Inc., 1975, pp. 93-97.
- Keyes, Thomas E. The History of Surgical Anesthesia. New York: Schuman's, 1945, pp. 22-107.
- King, M. Kathleen. "The Development of University Nursing Education." Nursing Education in a Changing Society. Ed. Mary O. Innis. Buffalo: University of Toronto Press, 1970, pp. 68-85.
- Koontz, Harold and Cyril O'Donnell. Principles of Management. San Francisco: McGraw-Hill, 1968.
- Levine, Edwin Burton. Hippocrates. New York: Twayne Publishers, 1971, p. 37.
- Locke, Edwin A., Norman Cartledge, and Jeffery Koepfel. "Motivational Effects of Knowledge of Results: A Goal Setting Phenomenon." Psychological Bulletin, vol. 70, No. 6, 1968.
- Magaw, Alice. "A Review of Over Fourteen Thousand Surgical Anaesthesias." Journal of Surgery, Gynecology and Obstetrics, 3:795, 1906.
- Magaw, Alice. "Observations on 1,092 Cases of Anesthesia From Jan. 1, 1899 to Jan. 1, 1900." St. Paul Medical Journal, 2:306, 1900.
- Mason, J. Alden. The Ancient Civilizations of Peru. Baltimore: Penguin Books, 1964, pp. 160-213.
- McGebony, John T. Principles of Hospital Administration. New York: G. P. Putman's Sons, 1969.
- Medicaid, PL 89-97, Title XIX, 1965.
- Medical Department of the United States Army in the World War, Washington. U. S. Government Printing Office, vol. 13, 1927, p. 291.
- Medicare, PL 89-97, Title XVIII, 1965.
- Mertz, Barbara. Red Land, Black Land: The World of the Ancient Egyptians. New York: Coward-McCann, Inc., 1966, pp. 239-250.
- New York Post-Graduate Hospital, 29th Annual Report, 1912-1913, p. 21.

- One Hundred Years of Franciscan Pioneering. Springfield, Ill., Hospital Sisters of St. Francis, 1944, p. 30.
- Pearl, Chaim. Rashi, Commentaries on the Pentateuch. New York: W. W. Norton Co., Inc., 1970, p. 36.
- Really, Willis G. "Present Methods of Giving Anaesthetics in Hospitals." Transactions of the American Hospital Association, 13:262, 1911.
- Royster, H. A. "Scopolamine-morphine-ethyl-chloride-ether Anesthesia." Surgery and Gynecology, 18:282, 1906.
- SB 1470; vol. Cong. Rpt., p.
- Shield, Marmaduke. "The Need for Better Instruction in the Administration of Anesthetics." Practitioner, 57:387, 1896.
- Terry, George R., M. D. Principles of Management. Homewood, Illinois: Richard D. Irwin, Inc., 1968.
- Thatcher, Virginia. History of Anesthesia: With the Emphasis on The Nurse Specialist. Philadelphia: J. B. Lippincott Co., 1953, pp. 53, 56-57, 93, 132-152, 185-250.
- The Holy Bible (Clarified Edition). Authorized King James Version. Chicago: Consolidation Book Publishers, 1960, p. 12, 83-179.
- The Torah, The Five Books of Moses. Philadelphia: The Jewish Publication Society of America, 1962, 2d ed., pp. 200-210.
- Tootle, Harry K. Employees Are People. New York: McGraw-Hill, 1947, pp. 1-22.
- Toynbee, Arnold. The Industrial Revolution. Boston: Beacon Press, 1968, p. 157.
- Truckey, Frances. "Anaesthesia and Anesthetics." American Journal of Nursing, 11:803, 1911.
- Turabian, Kate L. A Manual for Writers of Term Papers, Theses, and Dissertations. Chicago: The University of Chicago Press, 1973.
- Wagner Act, PL S 1620, 1939.
- Wallace, Seymour. (Personal correspondence, April 1977).
- Woodham-Smith, Cecil. Florence Nightingale, 1820-1910. Philadelphia: McGraw-Hill, 1950, pp. 95-114.
- Zangwill, Willard I., PhD. Success with People: The Theory Z Approach to Mutual Achievement. Homewood, Illinois: Dow Jones-Irwin, 1976.

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## CHARACTER OF THE DEVELOPMENT

As schools of nurse anesthesia become the topic of an almost insurmountable challenge by the academic community, accrediting bodies and governmental agencies from the health care industry, it is judicious that well defined policies be formulated so that the schools are operated within the legal auspices of the community they serve, the students they educate, the academic society they embrace, and the professional association they proliferate.

The policies will be well defined to aid in the successful achievement of the objectives of the school. This information will be outlined for easy access by those who are busy with their multiple duties in administering the daily process of a school of nurse anesthesia.

## PURPOSE AND OBJECTIVES

The general purpose of this manual is to develop a model which will serve as a guideline for policy formulation in the administration of a two year educational program for nurse anesthetists. These guidelines are in accordance with the requirements for accreditation procedure for the American Association of Nurse Anesthetists, Council on Accreditation, Educational Standards and Guidelines for Programs of Nurse Anesthesia.

The manual shall contain selected areas that will identify need for policy formulation. These areas will be administration, education, faculty, and student.

This manual shall encourage a comprehensive and consistent explanation of the manner in which individual members of the school staff view their responsibilities and incorporate their collective efforts to achieve the school policies.

These policies shall provide a limit on the range of possible judgment which is appropriate for this school but also flexible to permit freedom of action with established limits.

This model will structure guidelines that will diminish the possibility of fragmentation or subdivision of the components of the proposed policies.

#### DEFINITION OF TERMS

**Policy** - a policy is defined as a predetermined statement which acts as a guideline in the decision making process for problem areas of a recurring character. It establishes constraints within which the decision maker must operate. The primary function of a policy statement is to guide the thinking of administrators as they face the need of making the day to day decisions affecting their area of responsibility in the school. Policies are general statements which apply to all sectors of the school, although certain policies will have greater impact for some areas than for others.

**Clinical Coordinator** - implies a course for communication and synchronization with administration of the teaching and evaluating of the students' development in the clinical area.

**Clinical Instructor** - implies teaching and supervision in preparation of the students' clinical experience, and evaluating the students' preparation and performance relative to that experience.

**Course** - a subject entity within the program, such as anatomy, physiology, and pathophysiology of the respiratory system.

Course Outline - a class by class outline of the content of the course; the material to be covered to achieve specifically defined objectives for the course.

Curriculum - all experiences, clinical and didactic, placed under the direction of a school (or within a program); the planned educational goals, objectives, activities, and evaluations designed to lead the student to have the experiences specified in the program objectives.

Faculty - a body of persons entrusted with the functions of the instruction; a teaching staff, both didactic and clinical; any and all persons involved in teaching or supervising educational activities or experiences of students.

Institution - referable to the conducting or responsible institution(s) or affiliating institutions with the conducting or responsible institution(s) for a program of nurse anesthesia is defined to mean institution, agency, corporation, organization or any other type of legal entity.

Program - an educational activity, including both didactic and clinical experiences, combined to achieve selected objectives, in this instance those objectives necessary for preparing competent nurse anesthetists eligible for certification in the specialty.

Program of Nurse Anesthesia - refers to a program of nurse anesthesia conducted within an educational institution or school of nurse anesthesia.

Registered Nurse Anesthesia Student - a registered nurse enrolled in a program of nurse anesthesia for purposes of acquiring the qualifications necessary for certification in the specialty of nurse anesthesia

## METHODOLOGY

A random sampling was taken at a teachers' workshop held by the American Association of Nurse Anesthetists in Chicago in March of 1977. This sampling was established by a brief questionnaire which was not dictated as to research criteria, but only for personal qualification of need for such an administrative manual. About one half of all the educational programs in nurse anesthesia in the United States were represented. These schools were of varying sizes and of a multitude of geographical locations. About one third of the schools present were contacted to determine if the school had in existence or were in the process of developing an administration manual within the guidelines of the new criteria of the American Association of Nurse Anesthetists Council on Accreditation. No school represented at this workshop that was contacted had developed such a manual.

A review of the criteria established by the AANA Council on Accreditation and literature pertaining to administration in general, was conducted in the initial phase.

School directors, hospital administrators, and members of the Accreditation Council were contacted to determine the kind of information that was presently being dispersed under the pretense as policy

The primary objective of the model is to structure an outline of guidelines that will diminish the possibility of fragmentation or subdivision of the components of the proposed policy guidelines.

## SCOPE OF STUDY

This manual has limited scope and will include only information necessary for policies for the administration of two year educational programs for nurse anesthetists in accordance with the requirements for the accreditation procedure for the American Association of Nurse Anesthetists, Council on Accreditation, Educational Standards and Guidelines for Programs of Nurse Anesthesia.

The information referred to will illustrate how statements of policy may be worded to cover specific situations and how a system can be established for policy formulation and review.

The importance of developing the guidelines for administrative policies is to help enhance the qualifications established for the educational standards of schools of nurse anesthesia.

formulation of a plan for the administration of a program...

The plan should be developed for easy access of information for staff and the governing board and faculty. Also, it shall be used in the administration of the program in the framework of the school for both administrative and academic purposes.

The plan should be developed in a way that it serves as a model to other schools and provides specific guidelines in developing a similar program.

REFERENCES

The author has consulted the following standards and in its accordance with the standards the accreditation procedure for the American Association of Schools of Business, Council on Postsecondary Education Standards and Practices, and the Accreditation of Schools of Business.

The author has also consulted the following standards for the accreditation procedure for the American Association of Schools of Business, Council on Postsecondary Education Standards and Practices, and the Accreditation of Schools of Business.

## PURPOSE

The general purpose of the guidelines of this manual are for formulation of policies in the administration of a two-year educational program for nurse anesthetists.

The manual shall supply a method for easy access of information for daily reference for administration and faculty. Also, it shall be used in the orientation of new faculty to the framework of the school, for both administration and organization.

One of the intentions of developing this manual was to serve as a model to other schools of nurse anesthesia who need specific guidelines in developing an administrative manual.

## OBJECTIVES

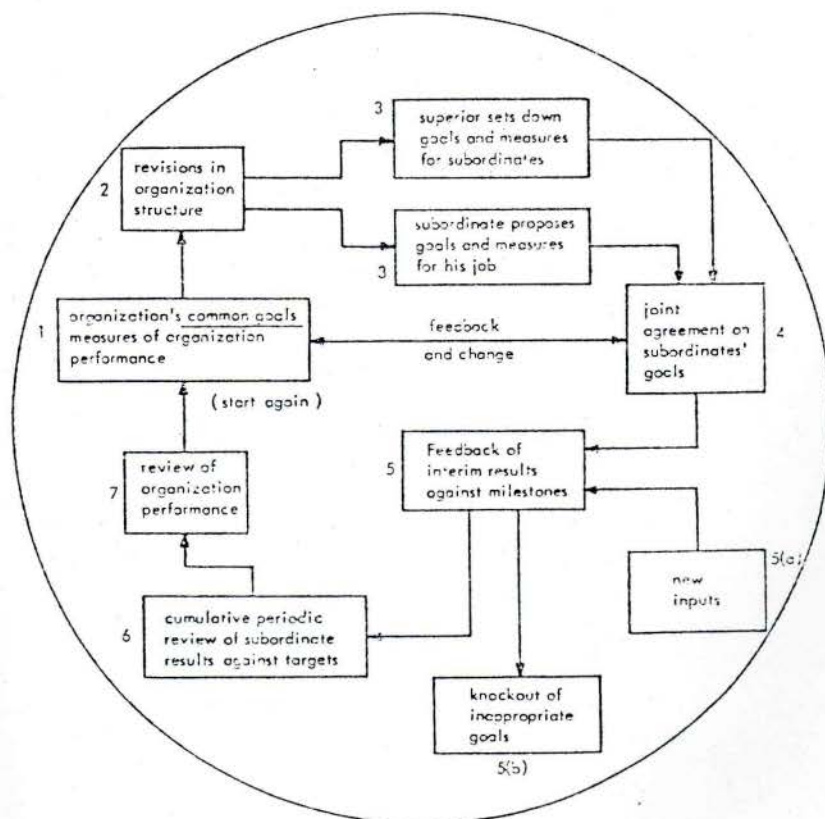
These guidelines shall accurately outline the standards and be in accordance with the requirements for the accreditation procedure for the American Association of Nurse Anesthetists, Council on Accreditation, Educational Standards and Guidelines for Programs of Nurse Anesthesia.

The guidelines shall not be limited to the standards for the accreditation procedure for the AANA, Council on Accreditation, but shall also embrace the criteria established by the academic community and the health care industry for academic excellence.



## MANAGEMENT BY OBJECTIVES

Much as the administrator strives, he may never fully realize his expectations because performance lacks perfection and because the ideal changes through time. At any given moment, the administrator is usually far from operating at the ideal level. Although his commitment is the same, the end products are not. They fall short in terms of scope, frequency, and probably cost and quality. It is imperative that the administrator move forward toward an improved position, and this process is facilitated if he utilizes management by objectives. It embraces the practice of setting near-term goals for a subordinate, reviewing accomplishment at an appropriate time, and repeating this process indefinitely. In the application of this technique, the administrator will make certain that goals are set in quantitative or qualitative terms, a specific time for the completion of the goals and one for its review are set, and adequate authority to perform the task is delegated.



People respond with ease to a short-time goal established by themselves or others, because it may be accomplished comparatively quickly within their span of attention and will power, and because they can enjoy small successes on the way to the larger one.

References:

Carl E. Gregory, The Management of Intelligence (New York: McGraw-Hill Book Co., 1967) p. 59.

William H. Lucio and John D. McNeil, Supervision (New York: McGraw-Hill Book Co., 1969) pp. 135-160.

George L. Morrisey, Management by Objectives and Results (Menlo Park: Addison-Wesley Publishing Co., 1970) pp. 42-60, 110.

George S. Osborne, Management by Objectives (New York: Pitman Publishing Corp., 19 ) p. 78.

## ADMINISTRATION

Organizational Chart

Programs of Nurse Anesthesia shall have a current written organizational chart. An organizational chart merely indicates the principle line of authority by diagram.

The charts shall reveal to new administrators and staff how they as individuals will function in the system.

It shall reflect the relationship and lines of communication for the conducting and affiliating facilities of the program of nurse anesthesia.

It shall reflect within the program the relationship and lines of communication for faculty, students, and personnel assigned to the program or clinical areas where students acquire their clinical practice.

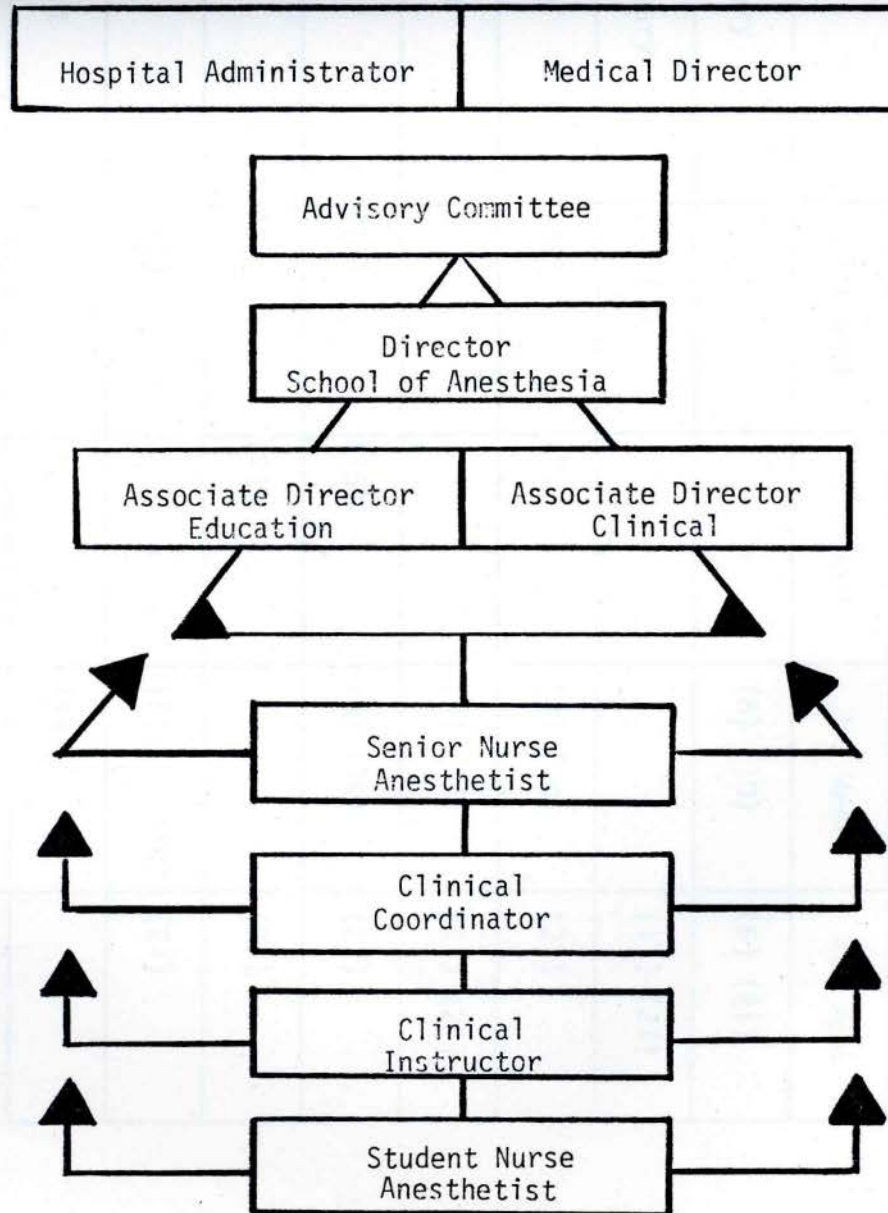
It shall reflect the committee structure pertinent to the program and the conducting facility.

The organizational charts have their limitations. The charts cannot substitute for good personal relationship in organizing, nor take the place of spelling out authority relationships, outlining assignments, or defining responsibilities.

## References:

George R. Terry, Ph.D., Principles of Management (Homewood, Ill: Richard D. Irwin, Inc. 1968) pp. 380-393.

Harold Koontz and Cyril O'Donnell, Principles of Management (San Francisco: McGraw-Hill, 1968) pp. 416-429.



## CALENDAR OF EVENTS

The director shall organize a system to effectively coordinate the complexity of duties imposed upon her office. This method will aid her in arranging a schedule to implement the responsibilities and obligations of her position. This system will help insure accountability of her daily functions. The calendar will provide a mode by which the yearly activities of the school can be more evenly apportioned for execution.

	1st Week	2nd Week	3rd Week	4th Week
January			(8) (10)	(6) (21)
February	(1) (5)			(11) (21)
March	(16)	(7)	(8) (10)	(21)
April			(5) (10)	(11) (21)
May	(12)	(15)	(8) (10)	(21)
June	(9)	(23)		(21)
July	(22)		(5) (8) (10)	(21)
August			(14)	
September	(4) (17)	(18)	(8) (10) (19)	(21)
October			(5) (10)	(21)
November	(3)		(8) (10)	(21)
December	(2)			

## ANNUAL EVENTS AND ACTIVITIES

- (1) Admission Committee - selection of new students
- (2) Student evaluation of new applicants
- (3) Director - complete evaluation of credentials of new applicant
- (4) All credentials of applicants for next year's admission date must be on file in school office
- (5) Advisory Committee - trimonthly meeting - activities of the school
- (6) Advisory Council - school development projects
- (7) Budget Committee - review of proposed yearly budget
- (8) Faculty Committee - bimonthly meeting to evaluate current educational process
- (9) Recruitment Committee - review and update recruitment materials and methods
- (10) Consultation appointments with possible future applicants, monthly
- (11) Order new books for incoming students after Faculty Committee Evaluation
- (12) Presentation of Research Papers at Student Seminar
- (13) AANA Teachers' Workshop
- (14) AANA National Convention
- (15) Preparation for graduation; arrange for:
  - a. Room for graduation
  - b. Place for banquet
  - c. Order pins - engrave
  - d. Order announcements
  - e. Order programs for graduation
  - f. Lettering for diplomas
  - g. Senior school pictures

- (16) Speaker for graduation
- (17) Senior banquet
- (18) Graduation
- (19) Admission day new students - orientation
- (20) Semester oral reviews
- (21) Student clinical evaluations
- (22) Student evaluation of instructors
- (23) Student field trip

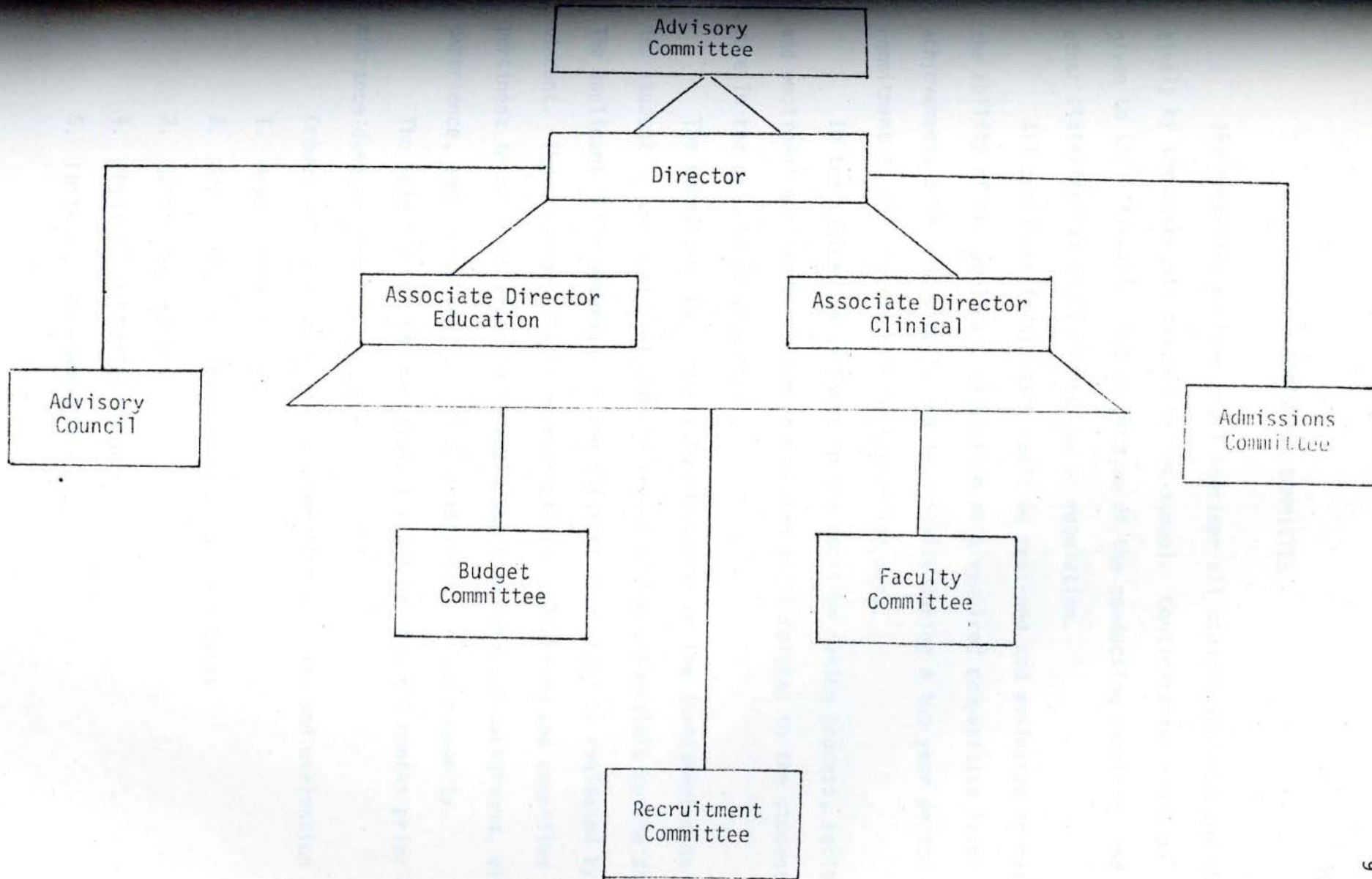
## COMMITTEES

### References:

General Henry M. Robert, Robert's Rules of Order, Newly Revised, (Glenview, Illinois: Scott, Foresman and Company, 1970).

Cyril O. Houle, The Effective Board, (New York: Association Press, 1962).





## ADMISSION COMMITTEE

The committee members shall consider all student applications objectively by the prerequisites set by the school. Consideration shall be given to the affirmative action program of the conducting facility, and any other state/federal civil rights law or regulation.

All pertinent information shall be reviewed and evaluated to measure the ability of the applicant to perform at a required competitive level of achievement, both academically and technically during a two year period of commitment to this institution of higher learning.

In the evaluation of facts in the decision making process, social and emotional motivation should be examined as it relates to the student's role in the process of adjustment.

The committee shall take into consideration the assessment made by the student of the applicant and the review of the credentials by the director. The applicant while observing in the clinical area shall be evaluated by the student. The director will be responsible for collecting and compiling pertinent information relating to applicant's educational background, clinical experience, and sociopsychologic responsibilities to the community.

The selection of the new student shall be made six months prior to entrance date of each academic year.

Credentials available for the committee's review and evaluation are:

1. Application
2. Applicant's Self-Evaluation of Nursing Tasks
3. School Transcripts
4. Physical and Dental Records
5. Letters of Recommendation

6. Consultation Interview
7. Assessment Sheet of Applicant

#### Committee Members

- |          |   |
|----------|---|
| Chairman | 1. Director of Anesthesia School                        |
|          | 2. Chairman of Anesthesia Department                    |
|          | 3. Chairman of Advisory Committee                       |
|          | 4. Associate Director of Education                      |
|          | 5. Associate Director of Clinical Practice              |
|          | 6. Senior Clinical Instructor                           |
|          | 7. Representative of Anesthesia Staff, Anesthesiologist |
|          | 8. Representative of Anesthesia Staff, CRNA             |
|          | 9. Representative of Student Body of Anesthesia School  |

## ADVISORY COMMITTEE

The committee members shall have the authority and obligation to advise the director of the school on guidelines of activities and performance of the school operations.

The committee shall carefully review and interpret; and recommendations, if any, should be made for future action.

Assistance should be given the director in discovering and curbing unfavorable departure or trends from indicated organizational data. Suggestions are in order as to what remedial actions might be taken if there is need.

Information and assistance in seeking improvement shall be stressed.

The committee shall convene at periods concurrent with the growth of the school, but no less than twice a year.

Committee Members

- |          |   |
|----------|---|
| Chairman | 1. Chairman of Department of Anesthesia                 |
|          | 2. Hospital Administrator                               |
|          | 3. Medical Director                                     |
|          | 4. Representative of Anesthesia Staff, Anesthesiologist |
|          | 5. Representative of Anesthesia Staff, CRNA             |
|          | 6. Director of Anesthesia School                        |
|          | 7. Inservice Director of Hospital                       |

## ADVISORY COUNCIL

The council members shall be from the community at large. Their expertise individually and as a group shall assist in formulating future experiential growth and perception for the school. The members should enhance the process of developing by combined efforts from the public and the health care institution, a standard of care for the consumer in accordance with the advances of the health care industry.

It should be the council's responsibility to understand and enhance the progress of the educational institution as part of the health care organization.

The total responsibilities of the council shall be in an advisory capacity only, as a service to the health care community.

The council shall convene at least once a year.

Council Members

- |          |   |
|----------|---|
| Chairman | 1. Budget Director of Medical Center or Hospital                  |
|          | 2. Director of Public Relations of the Medical Center or Hospital |
|          | 3. Educator with Health Care Background                           |
|          | 4. Registered Nurse - Critical Care Background                    |
|          | 5. Health Care Facility Director                                  |
|          | 6. Anesthesia Educator at Large                                   |
|          | 7. Chairman of Advisory Committee, Anesthesia School              |
|          | 8. Director of Anesthesia School                                  |
|          | 9. Chief Librarian of Medical Center or Hospital                  |

## BUDGET COMMITTEE

The committee members shall be designated to formulate and assist in the implementation of the budget. The chairman of the committee shall be the director of the school. The committee members shall be members of the school and proprietary facility who formulate the major functions of the school.

The committee members shall be thoroughly familiar with their respective units and are in a position to know what the requirements are to operate the school efficiently. The members shall plan tentative estimates for their respective organizational units.

All information is supplies so that the proposed budget is in keeping with the general demands outlined by top management.

This committee will convene at least once a year or at times of required budgetary change.

Committee Members

- |          |   |
|----------|---|
| Chairman | 1. Director of Anesthesia School                                |
|          | 2. Chairman of the Advisory Council                             |
|          | 3. Associate Director of Education of Anesthesia School         |
|          | 4. Associate Director of Clinical Practice of Anesthesia School |
|          | 5. Chairman of Educational Funding for Proprietary Facility     |
|          | 6. Administrative Secretary of Anesthesia School                |

## FACULTY COMMITTEE

The committee members shall pursue the course of conducting an educational program of excellence. They shall be responsible for defining and implementing the organization of the curriculum and instruction plans for achieving educational objectives and goals. The committee members shall be CRNAs, anesthesiologists, and members of the health care industry.

The duties shall be to define the most appropriate methods of instruction for implementing course content to achieve course objectives based upon the needs of the student and the capabilities of the faculty.

Members will help develop educational philosophy to adhere to the constraints of the conducting facility and the professional educational product.

An obligation shall be the continuity of course content and instructional methods in a logical manner and time-phasing approach, consistent with sound principles of education and provide continuance of experience to achieve independence of thought, judgment, and action consistent with responsibility.

At least once a year the curriculum plan and/or program design shall be reviewed and evaluated for the purpose of upgrading and implementing current data and modes of educational instruction.

The selection of the students' personal compliment of books and the maintenance of the school library shall be updated at periods appropriate with the growth of the school and the admission of students.

All forms and sample letters shall be reviewed and updated at appropriate periods.

The committee shall convene bimonthly as a whole or in part.

Committee Members\*

- Chairman
1. Senior member of the administrative staff of the anesthesia school program
  2. Member of the Advisory Committee
  3. Member of staff with educational requirements in areas of curriculum and instruction
  4. A Clinical Coordinator
  5. A Senior Nurse Anesthetist
  6. Lecturer in school academic program not involved in clinical experience
  7. Lecturer in school academic program involved in clinical experience
  8. Director of school program
  9. Clinical Instructor not directly involved in school academic program

\*All faculty members are invited to attend committee meetings. Voting is delegated to committee members only. Non-members may address committee by pre-arrangement with committee chairman.



## RECRUITMENT COMMITTEE

The committee members shall review and process materials that are accurate, factual, and clearly state the policies of the school as they relate to applicants who are prospective students.

The published material shall include information on affiliations and affiliations costs, admission physical examinations by the conducting facility, class admission calendar, deferral of graduation, graduation criteria, health care, housing and meals, leave of absence, non-discrimination, selection criteria, sick leave, stipends, student employment, student rights and responsibilities, time commitment, transfer, transportation, tuition and fees, tuition refunds, and vacations.

This committee shall also implement an active recruitment system for new staff. Priorities for advertisement shall be placement of ads only in professional publications.

This committee will convene at least once a year.

Committee Members

- |          |   |
|----------|---|
| Chairman | 1. Director of Anesthesia School                                |
|          | 2. Associate Director of Education of Anesthesia School         |
|          | 3. Associate Director of Clinical Practice of Anesthesia School |
|          | 4. Administrative Secretary of Anesthesia School                |
|          | 5. Personnel Recruitment of Hospital or Medical Center          |

**CHALLENGE**  
**THE EXTENDED ROLE**  
**OF THE**  
**REGISTERED NURSE**

# A CAREER IN ANESTHESIA

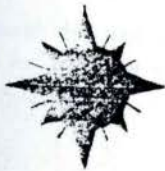


**KAISER**  
**PERMANENTE**  
**MEDICAL CARE PROGRAM**  
**SCHOOL OF ANESTHESIA FOR NURSES**

**A 24-MONTH COURSE**

For additional information  
please write to:

Debra W. Kelly, CRNA, Director  
Permanente  
Medical Care Program  
School of Anesthesia for Nurses  
1777 Sunset Blvd.  
Berkeley, California 94707



## ENROLLMENT INFORMATION

Applicant must be a Registered Nurse licensed by the State of California, Department of Professional and Vocational Standards, Board of Nursing Education and Nurse Registration.

A complete physical and dental examination is required at the time of application.

Duration of course: 24 months.

Applicant must have a minimum of two years of hospital experience or its equivalent.

We provide an equal educational opportunity school.

A personal interview is required of all students at the time of application.

The last three months of the course will be considered a probationary period for all students.

Diploma will be granted upon completion of the course.

Graduates of this school are expected to take the certification examination for entrance into the American Association of Nurse Anesthetists.

## FEES

1ST 6 MONTHS	\$350 PER MONTH
2ND 6 MONTHS	\$400 PER MONTH
3RD 6 MONTHS	\$500 PER MONTH
4TH 6 MONTHS	\$600 PER MONTH

## VACATIONS AND HOLIDAYS

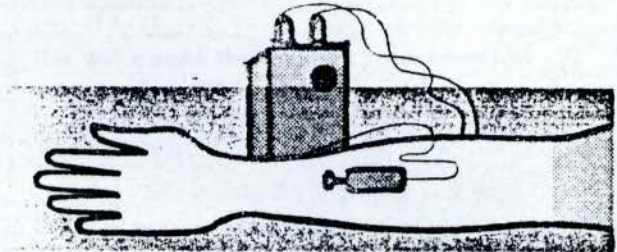
Students receive two weeks vacation each year; the time to be determined by the Director.

Students receive 10 paid holidays per year.

Students receive 15 days per year.

## FREE INSURANCE

- 1 The hospital provides free hospitalization and outpatient medical care.
- 2 Malpractice insurance is provided at no charge to the students.
- 3 All students are required to take a complete physical examination at the time of admission.



## REGISTRATION PROCEDURE

A registration fee of \$25 should accompany each application. This fee is not refundable.

For those admitted, a tuition fee of \$200 is charged. This fee includes textbooks for the basic science courses.

For an application interview appointment please write to:

Joyce W. Kelly, CRNA, Director  
Kaiser-Permanente  
Medical Care Program  
School of Anesthesia for Nurses  
4367 Sunset Blvd.  
Los Angeles, Ca. 90027

## HOUSING AND FOOD

Students must be responsible for their own housing and meals; the exception being while the student is on call at the hospital.

## UNIFORMS

The hospital provides all uniforms for wear in the operating room suites, and the necessary monitoring earpiece. Shoes with conductive soles must be provided by the student.

## ASSOCIATE MEMBERSHIP, AANA

All students must maintain ASSOCIATE membership in the American Association of Nurse Anesthetists. Dues: \$10 per year.

## **DIDACTIC PROGRAM**

### **ACADEMIC SUBJECTS**

#### **Anatomy and Physiology**

A study of the structure and function of cells, tissues, organs and systems.

#### **Chemistry and Physics**

Application of gas laws to agents and to equipment; also a broad scope of the theory of the basic structure of matter.

#### **Pharmacology**

The chemical and physical properties of each drug used in the management of the anesthetized patient.

#### **Methods and Procedures**

Instruction in the use of equipment during the administration of general and regional conductive anesthesia. Techniques of ventilation, resuscitation and respiratory therapy.

**TOTAL OF 65 HOURS**

### **REFERENCE AND FILMS**

Clinical and complication conferences and films will be concerned with the patho-physiology of diseases and related causes. Techniques involving certain anesthetic management will also be discussed.

**TOTAL OF 100 HOURS**

### **LIBRARY TIME**

The medical library contains an excellent cross-section of texts and journals. Reciprocal arrangements with other medical libraries in the community

allow us access to almost any reference. A full-time, trained medical librarian is available for limited help in gathering references for information and research.

**TOTAL OF 20 HOURS**

### **CLINICAL EXPERIENCE**

This will exceed the minimum requirements of 450 cases totaling 600 hours of clinical instruction.

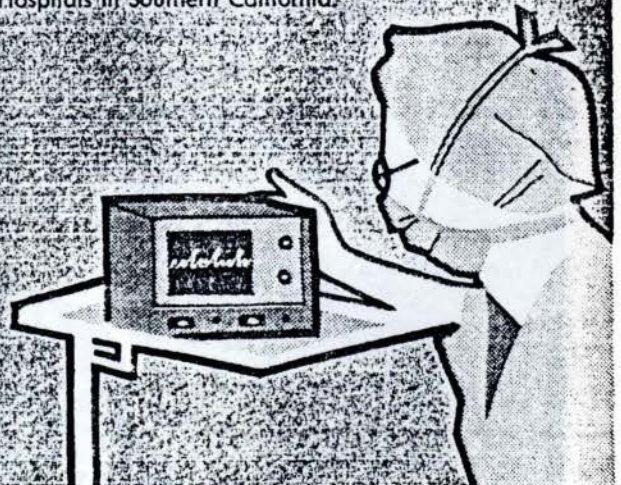
### **SYMPOSIUMS**

Once a year a special symposium will be held, sponsored by the Anesthesia Departments of the Kaiser Foundation Hospitals in Southern California. All students are invited.



The primary phase of the didactic program will be held at the Sunset facility.

The instructors for the didactic and clinical programs are largely comprised of the staffs of the Anesthesia Departments of the Kaiser Foundation Hospitals in Southern California.



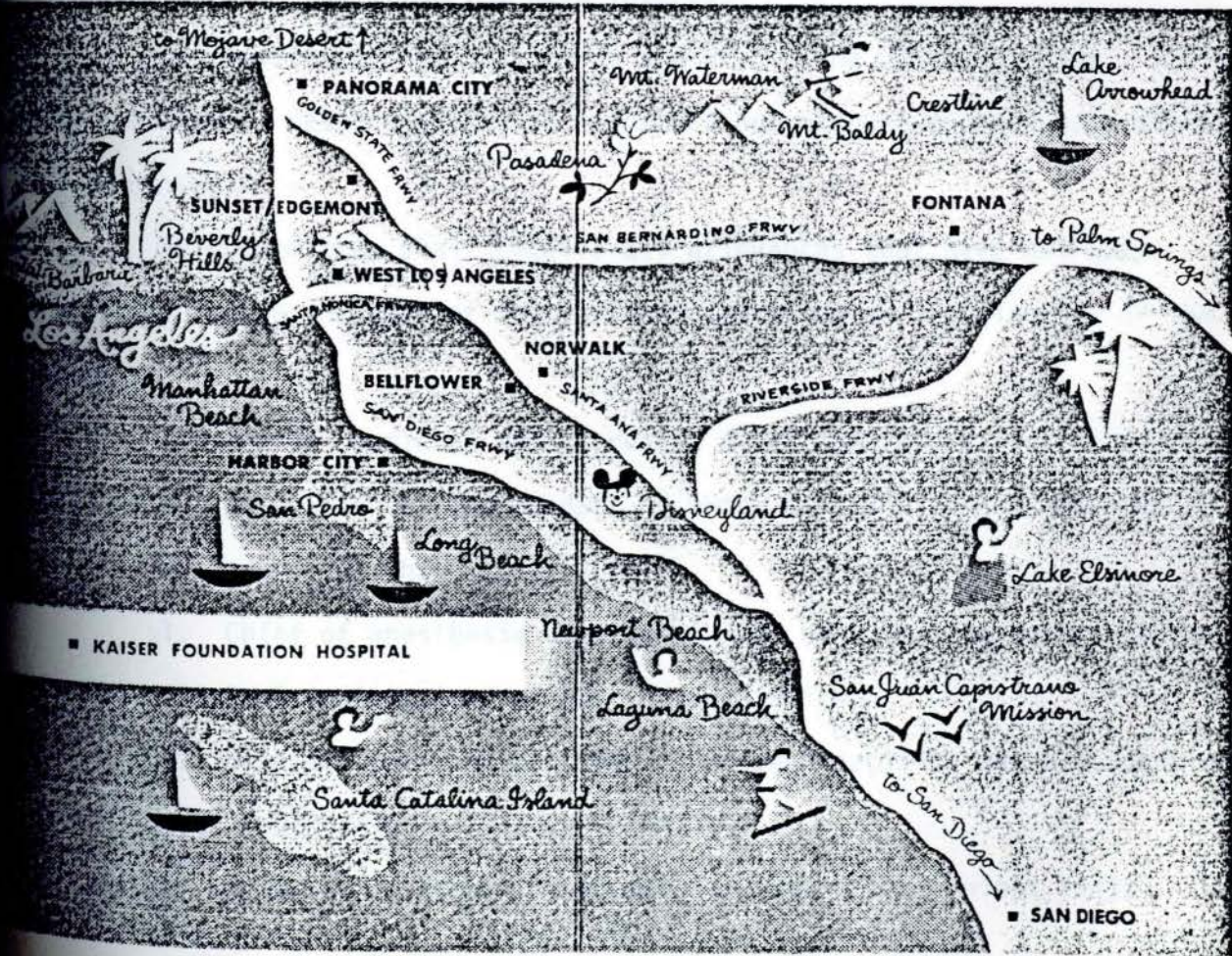
of today's most challenging careers in nursing is the practice of anesthesia.

gh demanding, it is rewarding. It leads to maturity in experience and judgment. Unlike other types of nursing, the nurse  
nist becomes an integral member of a surgical team, working on cases as diverse as the administration of anesthesia to  
ature infant and the challenges of open-heart surgery.

Foundation Hospitals of Southern California are a fully-accredited, non-profit group composed of eight hospitals (with  
an 2000 beds) located in metropolitan and suburban areas of Los Angeles, with one in San Diego. Practicing in these  
s are more than 1100 physicians, all of whom are members of the Southern California Permanente Medical Group.  
esthesia Departments are staffed by 25 anesthesiologists and more than 75 certified registered nurse anesthetists. More  
0,000 anesthetics are administered here each year.

chool of Anesthesia for Nurses has liaison with the USC Women's Hospital at the Los Angeles County Medical Center  
h UCLA, as well as rotation privileges with the anesthesia facilities at Children's Hospital of Los Angeles.

aiser Foundation Hospitals are located in the heart of Southern California, readily accessible to its world-famous  
al, mountain resorts, universities, sports arenas and amusement centers. Here are the campuses of both USC and  
among many other fine schools; the home of the Los Angeles Dodgers and California Angels baseball teams, the  
eales Rams football team and the Lakers basketball team. Disneyland and Knott's Berry Farm are only minutes away by



REVIEW COMMITTEE  
(Grievance/Disciplinary)

The committee shall be activated only for purposes of student and/or faculty discipline or grievance.

The committee shall review the evidence submitted by the evaluation team from the facility where the student received the warning concerning performance below the accepted level of the school.

This warning of poor performance shall be in writing and signed by the student and his counselor.

All pertinent material, both academic and clinical, shall be in evidence and for the student's best interest.

The committee shall recommend the discipline of the student. It is the committee's responsibility to recommend and execute probationary status if warranted.

This committee shall receive all grievances that have not been rectified by the chairman of the Advisory Committee or the director of the school.

The Review Committee shall present a written report as to the management of the grievance and the conduct by which it shall be disseminated.

The committee shall consist of:

1. Chief of anesthesia department from each facility where student has had clinical instruction, or his representative.
2. Clinical Coordinator (CRNA) from each facility where student has had clinical instruction or his representative.
3. Director of school of anesthesia (non-voting unless tie).

4. Associate director of school of anesthesia.
5. Disinterested member (director of nursing, hospital administration, etc.).
6. A member of the student's peer group.

#### References:

Thompson, D. Hans. *...* (New York: ...)

Veilwer...

John A. McFarland. *...* (New York: ...)

G. P. ...

## BUDGET

## BUDGET

The first function of a budget is to record, in monetary terms, what the available resources and objectives of the school are for a certain period of time, usually a year.

The budget is a plan of action. It represents the organization's objectives for the coming year, or years, expressed in monetary terms.

In preparing a budget, it is very important to have statistical data. This work is done by the accountant, who combines statistical experience, analysis, and judgment to determine the budget and evaluate the progress during the year.

The budget is a statement of the school's financial plan. The primary budget is a statement of the school's income, expenses, and profits. The primary budget is the basis for the other budgets.

### Subordinate Budgets

1. Salary budget for faculty, students, and administrative personnel.
2. Budget for utilities, maintenance, and repairs.
3. Budget for supplies and administrative expenses.
4. Budget for physical facilities and equipment.
5. Budget for library facilities and materials.
6. Budget for special projects and grants for faculty (and

### References:

- Emerson O. Henke, Accounting for Nonprofit Organizations, (New York: Wadsworth Publishing Company, Inc., 1968) Chapter 3
- John R. McGeboony, M.D., Principles of Hospital Administration, (New York: G. P. Rutman's Sons, 1969) pp. 290-311.



## BUDGET

The first function of a budget is to record, in monetary terms, what the realistic goals or objectives of the school are for a certain period of time, usually a year.

The budget is a "plan of action." It represents the organization's blueprint for the coming months or years expressed in monetary terms.

In preparing a budget, it is very important to have statistical data. This means of performance measurement combines statistical experience, synthesis, and analysis along with judgment and evaluation of the person preparing the budget.

The budget most commonly used is a summary budget. The summary budget is a forecast of expected future income, costs, expenses, and profits. The summary provides the master plan for financial management.

Budgetary items should include:

1. Salaries and stipends for faculty, students, and supporting personnel.
2. Educational facilities, equipment, and materials.
3. Office supplies and administrative support.
4. Public relations and faculty and student procurement costs.
5. Consultant and visiting faculty expenses as required.
6. Conference travel and continuing education for faculty (and students if required).
7. Accreditation costs.
8. Affiliation costs (if required).

KAISER/PERMANENTE  
SCHOOL OF ANESTHESIA FOR NURSES  
1977 BUDGET

1 Director - CRNA			
Salary - 12 mos. @ \$2,125.00	\$25,500.00		
24% Benefits	<u>6,120.00</u>	\$31,620.00	
Projected Increase			
9 mos. @ 8%		<u>1,897.20</u>	\$33,517.20
 1 School Staff - CRNA			
Salary - 12 mos. @ \$1,833.33	21,999.96		
24% Benefits	<u>5,279.99</u>	27,279.95	
Projected Increase			
9 mos. @ 8%		<u>1,636.79</u>	28,916.74
 1 Medical Secretary			
Salary - 12 mos. @ \$ 980.00	11,760.00		
24% Benefits	<u>2,822.40</u>	14,582.40	
Projected Increase			
9 mos. @ 8%		<u>874.94</u>	15,457.34
 8 Senior Students			
Stipends			
2.5 mos. @ \$500.00	10,000.00		
6.0 mos. @ 600.00	28,800.00		
22% Benefits	<u>8,536.00</u>	47,336.00	
 8 Junior Students			
Stipends			
2.5 mos. @ \$350.00	7,000.00		
6.0 mos. @ 400.00	19,200.00		
3.5 mos. @ 500.00	14,000.00		
22% Benefits	<u>8,844.00</u>	49,044.00	96,380.00

KAISER/PERMANENTE  
SCHOOL OF ANESTHESIA FOR NURSES  
1977 BUDGET  
Page 2

22

Speakers' Fees			\$ 1,000.00	
Teaching Aids			2,000.00	
Printing			500.00	
Consumable Supplies			500.00	
Registration Fees				
Childrens Conference	(16 @ \$100)	\$ 1,600.00		
Institute CSA	(16 @ 25)	400.00		
Seminar CANA	(16 @ 25)	400.00		
Student Seminar	(16 @ 50)	<u>800.00</u>	3,200.00	
Inspection Fee			400.00	
Graduation			350.00	
Travel Expenses				
Director Mileage		1,000.00		
Director Travel		1,200.00		
Students (Motel 6)		<u>2,795.00</u>	<u>4,995.00</u>	\$187,216.28
Expendable Equipment			500.00	
Meals/Clinical Instructors' Meetings, 3/yr.			<u>500.00</u>	<u>1,000.00</u>
				TOTAL
				<u>\$188,216.28</u>

KAISER/PERMANENTE  
SCHOOL OF ANESTHESIA FOR NURSES

1977 BUDGET

Capital Equipment

Wollensak Visual Sync Unit With Programmed Stop Feature	\$ 350.00
Overhead Projector	150.00
Audio Cassette Storage Case	<u>100.00</u>
TOTAL	\$ 600.00

CROSS-REFERENCE FILING SYSTEM  
FOR ANESTHETIC LITERATURE

A system should be devised for indexing anesthesia literature. A simple mechanism should be established for rapid facilitation and efficient retrieval of information. Publication of medical and other scientific literature has increased at a tremendous rate. With this increase, it is difficult to locate papers that are relevant to a given subject.

A practical filing system must be 1) inexpensive to set up, 2) capable of being personalized, and cross-indexed to reference hard-to-find subjects sometimes lost in strictly categoric filing systems. These qualifications have served as the basis for the development of a filing system.

References:

- W. Clayton Petty, M.D., Lt. Col. MC, and W. Douglas Carden, M.D., Major MC, "A Personal Cross-reference Filing System for Anesthetic Literature," Anesthesiology, V. 38, No. 5, May 1973.
- R. M. A. McClelland and W. W. Mapleson, "Feature Cards, A Method of Indexing Anesthetic Literature," Anesthesiology, V. 21, No. 1.

CROSS-REFERENCE FILING SYSTEM

## 0-49 INHALATION ANESTHESIA

001. Uptake and Distribution

002. Signs and Stages

003. Mechanism of Action

a. Inhalation Agents

b. Toxicity

004. Agents

a. Cyclopropane

b. Ether

c. Ethrane

d. Ethyl chloride

e. Fluroxene

f. Forane

g. Halothane (Fluothane)

h. Methoxyflurane

i. Nitrous oxide

j. Trichlorethylene

## 50-99 INTRAVENOUS ANESTHESIA

051. Barbiturates

a. Sodium methohexital (Brevital)

b. Sodium pentothal

c. Thiamylal (Surital)



SELF-EVALUATION PROCESS OF THE PROGRAM OF THE  
KAISER/PERMANENTE SCHOOL OF ANESTHESIA FOR NURSES

Instructions

Employer: Please complete this form and return in attached postage paid envelope. This assessment is a required procedure for school accreditation. We appreciate your cooperation in evaluating this graduate.

Clinical Practice

Strengths

Weaknesses

Academic Knowledge and Preparation

- Physical Assessment
  - Pre-operative
  - Intra-operative
  - Post-operative
- Ability to apply knowledge
  - Drugs
  - Anesthetic agents
  - Ventilators

Technical Skills

- I.V.
- Endotracheal Intubation
- Case Management
- Evaluation of Respiratory Adequacy
- Blood Volume
- Fluid Volume
- Monitoring (EKG, CVP, etc.)
- CPR

Interpersonal Relations

- Peer Group
- Surgeon and Medical Staff
- O.R. Personnel
- Patients
- PAR Staff
- Accepting Responsibilities
- Authority Figures

Inadequate	Adequate	Excels

Employee Work Habits

Sick leave, days per year \_\_\_\_ Dependable? \_\_\_\_ Prompt? \_\_\_\_ Organized? \_\_\_\_

Would you employ another graduate from the Kaiser/Permanente School of Anesthesia? Please comment.



SELF-EVALUATION PROCESS OF THE PROGRAM OF THE  
KAISER/PERMANENTE SCHOOL OF ANESTHESIA FOR NURSES

Instructions

Graduate: Please complete this form. Give enclosed form with postage paid envelope to your employer for completion. Return this form in the attached postage paid envelope to the Kaiser/Permanente School of Anesthesia for Nurses, 4867 Sunset Boulevard, Los Angeles, CA 90027.

Year of graduation \_\_\_\_\_ Year of certification \_\_\_\_\_ Presently certified? \_\_\_\_\_

List positions held in the last five years.

- 1.
- 2.
- 3.
- 4.
- 5.

Present employment

- Private institution  
 Public institution  
 Free lance, individual  
 Free lance, group CRNA  
 Free lance, group CRNA/MDA

Type of Anesthesia Practice

- General Surgery  
 OB-Gyn  
 Out Patient  
 Dental  
 Respiratory Therapy  
 Other (specify) \_\_\_\_\_  
 Non-practicing (# of yrs.) \_\_\_\_\_

Part Time Full Time

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Clinical Instructor?

Academic Responsibilities (didactic)?

Administrative Responsibilities?

Committed Hours

- Number of hours per week  
 Straight 40 hours  
 40 hours plus call in hospital  
 40 hours plus call at home  
 Pay regular time in hospital  
 Pay regular time at home  
 Pay half time at home  
 Pay travel time  
 Pay time and a half over 40 hrs.  
 Pay double time over 40 hrs.

Holidays worked

- Pay regular time  
 Pay time and a half  
 Pay double time

Academic Enrichment

- Inservice at hospital employed  
 Continued education - anesthesia  
 Continued education - other (specify) \_\_\_\_\_  
 Academic hours/units achieved post graduation in anesthesia \_\_\_ or other \_\_\_ .

Professional Activities

Professional meetings attended (no. per yr.)  
 Was your participation as a member, committee member, or officer?

AANA \_\_\_\_\_ ASA \_\_\_\_\_  
 CANA \_\_\_\_\_ CSA \_\_\_\_\_

Please comment on positives and negatives of your anesthesia school experience, academically and clinically. (Use back if necessary.)

1954-1955 High School National Office

EDUCATION

The emphasis upon curriculum development is a process which includes the contents of courses of study which have been approved. Detailed and practical instructions are suggested, and importance of coordinating curricular units and to research. Lists of work are organized around technical areas of interest in the field of courses. This process should be designed to help deal with changing needs and to improve learning, but also to provide a background, starting from experiences from the past to help in the development of a new curriculum.

Curriculum development is a process which includes the contents of courses of study which have been approved. Detailed and practical instructions are suggested, and importance of coordinating curricular units and to research. Lists of work are organized around technical areas of interest in the field of courses. This process should be designed to help deal with changing needs and to improve learning, but also to provide a background, starting from experiences from the past to help in the development of a new curriculum.

Course outline - a list of the content of a course of study, including the nature of the course, the objectives, and the methods of instruction. It is a guide for the teacher.

Lesson Plan - the outline of the content of one class session, including the objectives, the methods of instruction, and the materials to be used. It is a guide for the teacher.

References:

George G. Yost, *Curriculum Development: A Practical Guide*, McGraw-Hill, 1954.

John D. Miller, *Curriculum Development: A Practical Guide*, McGraw-Hill, 1954.

Robert L. Kegan, *Curriculum Development: A Practical Guide*, McGraw-Hill, 1954.

## CURRICULUM PLAN AND/OR PROGRAM DESIGN

The emphasis upon curriculum development as a process is to reflect the contents of courses of study which show that objectives are met. Varied and practical instructions are suggested. The importance of formulating meaningful goals must be recognized. Units of work are organized around technical experiences and integration of courses. This process should be designed to keep pace with changing health care demands and to introduce new learnings built upon theoretical background, drawing from experiences from the health care community for a broader understanding of anesthesia.

Curriculum development has demonstrated that the greatest amount of individual growth comes from active participation in planning and in experimenting with the evaluation of teaching and administration.

Course Outline - a class by class outline of the content of the course; the material to be covered to achieve specifically defined objectives for the course.

Lesson Plan - the outline of the content of one class lecture covering one specific subject or segment of a broad category of a theoretical concept. This plan will aid in achieving the objectives of a course of study.

References:

- George G. Tankard, Jr., Curriculum Improvement: An Administrative Guide, (West Nyach, N.Y.: Parker Publishing Co., 1974) Chapter 3.
- Louis Rubin, Curriculum Handbook: The Disciplines, Current Movements and Instructional Methodology, (Boston, Mass: Allyn and Bacon, Inc., 1977).
- Robert F. Mager, Preparing Instructional Objectives, (Belmont, Ca: Fearon Publishers, 1972).

## EDUCATIONAL POLICIES AND PROCEDURES

Philosophy

The program in anesthesia subscribes to the philosophy that each student is an individual with unique capabilities and potentials. Through didactic means, discussion groups, and formal and informal demonstration sessions, as well as an intensive program of supervised clinical experience, we seek to assist in the development of the student's full capabilities and potentials. The ultimate goal of the program in anesthesia is to prepare the student as a fully capable participant in the field of anesthesia care. In genesis, the student shall become an independent practitioner in the profession of nurse anesthesia. This individual would be professionally qualified in primary anesthesia care, in research and teaching, and as a contributor to the total community, both as a professional person and as a socially conscious citizen.

The educational process for the student shall emulate the academic community, and shall provide the academic prowess of upper level undergraduate studies at a level of excellence.

Objectives

1. Demonstrate dexterity in basic technical skills including intravenous techniques, monitoring, and record keeping.
2. Comprehend the dynamics of the anesthesia machines.
3. Demonstrate proficiency in airway management.
4. Understand effectively anatomical, physiological, and pharmacological principles as they relate to the safe practice of anesthesia.

5. Exhibit knowledge of pre-anesthetic evaluation, induction, maintenance, termination, and post-anesthetic care.
6. Correlate academic and clinical skills for the evaluation of the patient for ASA anesthetic status.
7. Demonstrate the capability of administration of a safe anesthetic based upon sound physiological and pharmacological principles, consistent with the patient's condition and needs of the surgical procedure.
8. Demonstrate the skillful use of all anesthetic equipment, intubating both nasally and orally.
9. Interpret the results of monitoring devices in relationship to the clinical signs presented by the patient.
10. Apply theoretical knowledge relating physiology and pathophysiology to the pharmacology in all cases.
11. Demonstrate an ability to pursue independent library and appropriate experimental research in an area of specific anesthesia care interest, with increasing ability to correctly interpret and report the results of such an investigation.
12. Understand the functions of, and possess the ability to participate in local, state, and national groups devoted to the advancement of the science and practice of anesthesia as a medical and nursing specialty.
13. Develop attitudes and skills necessary for positions of administrative responsibility in the anesthesia department.
14. Develop knowledge and skills which would enable the graduate to assist in and eventually perform clinical and didactic teaching in an educational program in anesthesia.

15. Show the ability to pursue continued education in the profession of anesthesia care and related subjects.

16. In genesis, become an independent practitioner in the profession of nurse anesthesia.

PROGRAM OUTLINE

MARCH

APRIL

MAY

JUNE

JULY

AUGUST

MARCH	APRIL	MAY	JUNE	JULY	AUGUST

KAISER PERMANENTE  
SCHOOL OF ANESTHESIA FOR NURSES  
LOS ANGELES, CALIFORNIA

24 MONTH PROGRAM

PRELIMINARY LAYOUT

4/26/77



California State University  
Northridge

Proposed Degree Program for Nurse Anesthetists

Admission Requirements

	Units
Health Science 120	2
Health Science 161	1
Biology 101	4
Chemistry 101,102	10
Psychology 150	3
Sociology 150	3
Math 106	3
	<hr/> 27

Required Core Courses

	Units
Health Science 371	3
Health Science 390	4
Health Science 451	3
	<hr/> 10

Professional Courses

	Units
Professional Concepts for Nurse Anesthetists	3
Scientific Fundamentals for Nurse Anesthetists A,B,C	9
Pharmacological Principles for Nurse Anesthetists A,B,C	6
Principles of Anesthesia Practice A,B,C	9
Seminar: Nurse Anesthetists	2
Anesthesia Practicum A,B,C,D,E	16
(2,2,3,3,6)	<hr/> 45

Junior Year Fall<sub>1</sub>

Professional Concepts	3
Scientific Fund. A	3
Scientific Fund. B	3
Pharmacological Principles A	2
Anesthesia Practicum A	2
	<hr/> 13

Junior Year Spring<sub>1</sub>

Scientific Fundamentals C	3
Pharmacological Principles B	2
Principles of Anesth. Practice A	3
Anesthesia Practicum B	2
	<hr/> 10

Summer Session<sub>1</sub>

Anesthesia Practicum C	3
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Senior Year Fall<sub>2</sub>

Pharmacological Principles C	2
Principles of Anesth. Practice B	3

Senior Year Spring<sub>2</sub>

Anesthesia Seminar	2
Anesthesia Practicum E	6

Summer Session<sub>2</sub>

Post-baccalaureate for certification	3
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Junior Year Fall Semester

Course Title	September	October	November	December
Professional Concepts (3)	Topics-			
Orientation	Legal Aspects- 8	Patient Safety- 1	Monitoring- 2	Senior Reports-4
Legal Aspects	Ethics- 1	Professional Adjustments- 1	Professional Adjustments- 3	
Ethics	Orientation- 10	Pre-op Care- 4	Airway obstr.- 1	
Psychology	Journal Club- 1	Intubation- 2		
History		Journal Club- 1	Journal Club- 1	Journal Club- 1
Journal Club				
Scientific Fundamentals A	Chemistry (AY)- 3	Chemistry (AY)- 4	Chemistry (AY)- 5	Chemistry (AY)- 1
Chemistry		Explosion and Electrical Hazards- 2	Inhalation Anesthetics- 6	
		Inhalation Anesthetics- 3		
		Physics- 6		
		(Dr. Carnes)		
Scientific Fundamentals B	Endocrine- 3	Endocrine- 1	Endocrine- 6	
Anatomy & Physio.	Nervous- 3	Nervous- 7	Nervous- 7	
Circulatory	Circulatory- 3	Circulatory- 7	Circulatory- 12	Circulatory- 1
Nervous System	Respiratory- 2	Respiratory- 5	Respiratory- 8	Respiratory- 1
Respiratory				
Endocrine				
Pharmacological Principles A	(RA)	(RA)	(RA)	
	Intro Pharm- 1	Local Anesth- 1	Narcotics- 1	
	Barbituates- 1	Muscle Relax- 1	Tranquil- 1	
	Drug Reviews- 2	Drug Reviews- 3	Drug Reviews- 2	Exam- 2
	Math of Dose- 3	Math of Dose- 1	Ketamine- 1	
			Signs & Stages- 2	
Anesthesia Practicum A	PHASE I			
Charting	Orientation- 6	Anesthesia		
	IV Tech.- 2			

Junior Year Spring Semester

Course Title	January-February	March	April	May	June
Scientific Fundamentals C		Films: Kidney Function, Spinal Anesth., Respiration, O <sub>2</sub> Admin., Insp. of Thorax, Alpha-Beta Receptors .- 7	GU- Dr. Butts- 2 X-Ray, Dr. Rosenfeld 2 Film 1 Journal Club 1	Integumentary- 1 GU- Dr. Butts- 1 Journal Club- 1	Ophthal.- Dr. Terris- 1 Blood- Dr. Snyder 3 Journal Club- 1
Excretory System Integumentary Journal Club	Journal Club-1 Excretory System- 4				
Pharmacological Principles B	Ron Astor- 1 Antihypertensives Drug Reviews- 2	Ron Astor- 3 Parasympath. Drugs Drug Reviews- 1 Exam- 1 Film- Innovar 1	Ron Astor- 1 CNS Stim. & Depress. Drug Reviews- 1 Film- Ethrane 1	Ron Astor- 2 Diuretics Drug Reveiws- 1 Exam 1	Ron Astor- 1 Digitalis Review Exam- 1 Art Yamamoto- Structural 1
Principles of Anesthesia Practice A	Pediatrics Conference- 10	Psychology- 1 Infants- 1 Dr. Robbie Clinical Conf. 5 Films, discus. 1	Arterial B/G 1 Student Semina 14 Regional Anesth- 2 Dr. Venrose Films on regional-1 Clinical Conf.- 2	Geriatrics- 1 Equipment- 1 cleaning Geriatrics- 1 Dr. Reiff Neuro tech.- 1	Evaluations- 2 Laparoscopy- 1 Dr. Schwimmer Eye Surg.- 1 OB- 2 OB-Dr. Patterson- 2
Technique for Monitoring, regional, General Anesth., Special problems, Pre-post op care, Clinical Conferences.					
Anesthesia Practicum B	"Evaluating Respiratory Adequacy"- 6	CANA Meeting Reports 1			
Anesthesia Care Plans CPR Inhalation Therapy	Clinical- 190	Clinical- 150	Clinical- 114	Clinical- 120	Clinical- 120
PHASE I Skills- Venipuncture, monitoring techniques, use of anesthetic machine, airway management, administer anesthesia to		PHASE II Rotations- 4 months as one facility		Skills- Mastery of basic techniques, Identifying signs and stages of anesthesia. Develop anesth	

Junior Year Summer Session

37

Course Title	July	August			
Anesthesia Practicum C  Clinical Hours-	Respiratory Therapy- 3  120	158			
	Pharmacology (RA)-1 Quinidine- 1  Drug Review- 1	Pharmacology (RA)-2 Anticoagulants-1 Steroids- 1 Drug Review- 2  Exam 1			
	Scientific Fundamentals C OB- 1 Coagulation Dr. Ching- 2 GYN-Dr. Zeil- 1 Fluid & Elect Dr. Negrea- 2				
PHASE II continued- Experiences and Skills	Research J. Dowd- 1 J. Kelly- 1			Rotations-	3 months one facility- Panorama or Fontana
	1. Emphasis on technical skills. 2. Master signs and stages of anesthesia. 3. Develop Anesthesia Care Plans. 4. Intubation skills. 5. Correlation of patient condition to anesthetic.			2 months West Los Angeles or Harbor City 1 month Respiratory Therapy or	

Course Title	September	October	November	December
Principles of Anesthesia Practice B	Research Projects  GERIATRICS	Research Projects	Research Projects	Research Projects
Topics- Techniques for- Gen. Surg, ENT, OB, GU, GYN, PEDS, ORTHO,		Medical Economics-1		General Exam
Principles of Anesthesia Practice C		Uptake & Distribution		Recovery Room Drug Reports
Advanced tech. Cardiovascular, Neuro, Thoracic, Open Heart, Management of complications				
Pharmacological Principles C				
Anesthesia Practicum D	Experiences/Skills- 1. Anesthesia for class I,II,III,IV,E 2. Proficiency in applying theory 3. Use of ventilators 4. Fluid and blood replacement 5. CPR 6. Arterial Blood Gases			Rotations- as before adding Sunset facility and One week observation at Children's Hospital
PHASE III				

Senior Year Spring Semester

Course Title	January-February	March	April	May	June
Anesthesia Seminar	Pediatrics Conference Reports		Student Seminar		Review Lectures by Student Request
Journal Club Research Paper	Clinical Conferences Journal Club	Clinical Conf. Journal Club	Research Presentations Journal Club	Position Paper Journal Club	
Anesthesia Practicum D	Renal Disease Dr. Reddy- 1	Psych. Death & Dying- 2		ENT- Dr. Miles- 1	
Ventilators Total Care Complications	Collogen Disease Dr. Casey- 1 Psychology DeLong, Phd- 1	Myoneural Jct. Dr. Kim- 1 Pediatric technic review-1 Dental Anesth.- 1 Nerve Damage & Positioning- 1		Pediatrics Dr. Herbert- 1 Biochemistry Dr. Murgia- 1 Dr. Levy- 1	
		Endocrine Disorders Dr. Kim- 1 History of Anesth.-2 Pediatrics Dr. Warden- 2	History of Anesthesia- 4 Pediatrics Dr. Warden- 1		
PHASE III continues	-----	PHASE IV- Experiences/Skills- 1. Transition to independent practice utilizing staff for consultation rather than for directions. 2. Formulation of anesthesia goals and personal standards of practice. 3. Demonstrate high level of skill in all techniques and procedures		CSNR Graduation	
Rotations-	as before. Last two months at facility of				

senior year summer session and Post- Baccalaureate

Course Title	July	August	September		
Anesthesia Practicum E <hr/> Transition to Independent Practice	X-Rays- Seminar Dr. Rosenfeld- 1	General Review Exam	Professional Graduation		AANA Qualifying Exam
PHASE IV continues					

LESSON PLAN

Code No.

Lecturer:

Dates Given:

Filing  
Category:

Title:

Unit Value:

Lecture  
Content:

Equipment:

Supplies:



School of Anesthesia for Nurses  
Kaiser/Permanente, Los Angeles

Principles of Anesthesia Practice A, B, C

Prerequisites: Scientific Foundations of Anesthesia A, B

### COURSE OUTLINE

#### Course

#### Description:

The theory, methods, procedures, techniques and practice of general and regional anesthesia are presented. Preparation of anesthesia care plans, correlating anatomy, physiology, and pharmacology for the individual patient's anesthetic is discussed. Modification of anesthetic technique in response to pathophysiological states is described. Requirements for the neonatal, pediatric, adult, and geriatric patient will be studied.

#### Specific

#### Objectives:

The student will be expected to accurately apply academic studies to the theoretical concepts of anesthesia practice. This course will enable the student to safely evaluate each particular patient's needs and plan acceptable anesthesia care plans for clinical implementation.

### Principles of Anesthesia Practice A

#### Topics

#### Covered:

#### Monitoring Equipment in Anesthesia

- A. Function
- B. Application
- C. Interpretation of data

#### Regional anesthesia techniques

- A. Local anesthesia
- B. Spinal and epidural blocks
- C. Intravenous regional block
- D. Case management

#### General anesthesia

- A. Techniques of administration
- B. Induction techniques
- C. Maintenance
- D. Terminating the anesthetic

Principles of Anesthesia Practice A  
Page 2

Special Problems

- A. Airway management
- B. Intravenous technique
- C. Positioning
- D. Patient safety

Preparation of the patient for anesthesia

- A. Pre-operative evaluation
- B. Post-operative critique

Principles of Anesthesia A

Bibliography

1. Principles of Anesthesia Practice, 2nd edition, Williams & Wilkins, 1973.

2. Principles of Anesthesia Practice, 1st edition, Williams & Wilkins, 1973.

3. Principles of Anesthesia Practice, 1st edition, Williams & Wilkins, 1973.

4. Principles of Anesthesia Practice, 1st edition, Williams & Wilkins, 1973.

5. Principles of Anesthesia Practice, 1st edition, Williams & Wilkins, 1973.

6. Principles of Anesthesia Practice, 1st edition, Williams & Wilkins, 1973.

7. Principles of Anesthesia Practice, 1st edition, Williams & Wilkins, 1973.

8. Principles of Anesthesia Practice, 1st edition, Williams & Wilkins, 1973.

9. Principles of Anesthesia Practice, 1st edition, Williams & Wilkins, 1973.

10. Principles of Anesthesia Practice, 1st edition, Williams & Wilkins, 1973.

## Principles of Practice A

Bibliography

- Anderson, Ellen M. Workbook of Solutions and Dosage of Drugs, 9th edition. St. Louis: Mosby, 1972.
- deJong, Rudolph H. Physiology and Pharmacology of Local Anesthesia. Springfield, Illinois: Thomas, 1970.
- Borsch, Jerry A. Understanding Anesthesia Equipment: Construction, Care, and Complications. Baltimore: Williams & Wilkins, 1975.
- Gripps, Robert Dunning. Introduction of Anesthesia; the Principles of Safe Practice. Philadelphia: Saunders, 1972.
- Ellis, Harold. Anatomy for Anaesthetists. 2nd edition. Philadelphia: Davis, 1968.
- Wiksson, Ejnar, editor. Illustrated Handbook of Local Anesthesia. Chicago: Year Book Medical Publishers, 1969.
- Fluothane: For Precision Inhalation Anesthesia. 3rd edition. New York: Ayerst Laboratories, 1973.
- Goodman, Louis Sanford, editor, The Pharmacological Basis of Therapeutics. 4th edition. New York: Macmillan, 1970.
- Lee, John Alfred. A Synopsis of Anesthesia. 7th edition. Baltimore: Williams & Wilkins, 1973.
- Love, Harry J. Dose-regulated Penthrane (Methoxyflurane) Anesthesia. Chicago: Abbott Laboratories, 1972.
- Myers, Frederick H. Review of Medical Pharmacology. 5th edition. Los Altos, California: Lange Medical Publications, 1976.
- More, Daniel. Regional Block: A Handbook for Use in the Clinical Practice of Medicine and Surgery. 4th edition. Springfield, Illinois: C.C. Thomas, 1965.
- Netter, Frank Henry. The Ciba Collection of Medical Illustrations. Volume I, Nervous System. Summit, New Jersey: Ciba Pharmaceutical Products, 1953.
- Physicians' Desk Reference to Pharmaceutical Specialties and Biologicals. Oradell, New Jersey: Medical Economics, 1975.
- Payor, William James. A Manual of Anesthetic Techniques. 4th edition. Chicago: Year Book Medical Publishers, 1973.
- Swartz, Herman. Manual of Anesthesiology. Springfield, Ill.: C.C. Thomas, 1957.

Principles of Practice A  
Page 2

Smith, Betty J. Fundamentals of Anesthesia Care. St. Louis: Masby, 1972.

Stark, David. Practical Points in Anesthesiology. Flushing, New York: Medical Examination Publishing Company, 1974.

Wensor, Travis. The Electrocardiogram in Myocardial Infarction. Summit, New Jersey: Ciba Pharmaceutical Company, 1973.

Wylie, W. D. A Practice of Anesthesia. Chicago: Year Book Medical Publishers, 1972.

The Year Book of Anesthesia. Chicago: Year Book Medical Publishers, 1972.

Journals:

Anesthesiology

Anesthesia and Analgesia

ANA

Survey of Anesthesiology

## Principles of Anesthesia Practice B

Topics  
covered:

## Anesthetic adaptations to surgical procedures

- A. General surgery
  - 1. Upper abdominal cases
  - 2. Lower abdominal cases
  - 3. Specific operative procedures
- B. Orthopedic surgery
- C. Eye, ear, nose and throat procedures
- D. Obstetrical surgery
  - 1. Vaginal delivery
  - 2. Ceasarean section
  - 3. Tubal ligation
  - 4. Neonatal resuscitation
- E. Gynecological surgery
- F. Genitourinary surgery
- G. Pediatrics
- H. Geriatrics
- I. Emergency surgery

## Resuscitation (CPR)

- A. Operating room
- B. Special care units
- C. Emergency room
- D. General hospital patient care areas

## Principles of Practice B

Bibliography

- Acid-Base Balance; A Programmed Course. Chicago: Abbott Laboratories, 1968.
- Ariani, John. The Chemistry and Physics of Anesthesia. 2nd edition. Springfield, Illinois: Thomas, 1962.
- Ariani, John. The Pharmacology of Anesthetic Drugs: A Syllabus for Students and Clinicians. 5th edition. Springfield, Illinois: Thomas, 1970.
- Alexander, Edythe Louise. Care of the Patient in Surgery. 5th edition. St. Louis: Mosby, 1972.
- American Society of Anesthesiologists. Refresher Courses in Anesthesiology. Vol. 1,2,3,4. Philadelphia: Lippincott, 1973-.
- The Role of NLA (Neuroleptanalgesia) In Anesthetic Practice. Fort Washington, Pennsylvania, McNeil Laboratories, 1974.
- Aplebaum, Edward L. Tracheal Intubation. Philadelphia: W. B. Saunders, 1976.
- A Workshop on Muscle Relaxants. Contributors: Ronald L. Katz, Richard J. Kitz, and others. Los Angeles, California, November 8-9, 1975.
- Ates, Barbara. A Guide to the Physical Exam. Philadelphia: J. B. Lippincott, 1974.
- Bonica, John J. Principles and Practice of Obstetric Analgesia and Anesthesia. Philadelphia: Davis, 1972.
- Brow, Maxwell. Physiologic Responses in Health and Disease. Flushing, New York: Medical Examination Publishing Co., 1974.
- Brazier, Mary A. The Neurophysiological Background for Anesthesia. Springfield, Illinois: C. C. Thomas, 1972.
- Buller, Herbert H. How to Read an ECG. Oradell, New Jersey: Medical Economics Publishing Co., 1973.
- Bron, Donald G. The Anesthesiologists Handbook. Baltimore: University Park Press, 1972.
- Clinical Anesthesia, periodicals. Vol. 1963:1,2; 1964:1,3; 1965:2,3; 1966:1,2,3; 1967:3; 1968:1,2,3; 1969:1,2,3; Vol. 8:1,2,3; 9:1,2,3; 10:1,2,3; 11:1. Philadelphia: Davis, 1963-.
- Clins, Vincent J. Principles of Anesthesiology. 2nd edition. Philadelphia: Lea & Febiger, 1976.
- Den, Stuart Chester. Essentials of Anesthetic Practice. Chicago: Year Book Medical Publishers, 1974.

- Dubin, Dale. Rapid Interpretation of EKG's. Tampa, Florida: Cover Publishing Co, 1970.
- Eger, Edmund. Anesthetic Uptake and Action. Baltimore: Williams and Wilkins, 1974.
- Frieden, Julian. ECG Case Studies. 2nd edition. Flushing, New York: Medical Examination Publishing Co., 1974.
- Goodman, Louis Sanford. The Pharmacological Basis of Therapeutics. 4th edition. New York: Macmillan, 1970.
- Guide to Fluid Therapy. Prepared by Travenol Company. Deerfield, Illinois, 1972.
- Hansten, Philip D. Drug Interactions. 2nd edition. Philadelphia: Lea & Febiger, 1973.
- Hartshorn, Edward A. Handbook of Drug Interactions. 2nd edition. Hamilton, Ill.: Drug Intelligence Publications, 1973.
- Hypertension and the Cardiovascular System: Review of Modern Medicine. Minneapolis, Minnesota: Modern Medicine Publications Division of the New York Times Media Co., 1972.
- The Hypertension Handbook. Published by Merck, Sharp, & Dohme, 1974, Division of Merck & Co. Inc., West Point, Pa.
- Ke, John Alfred. A Synopsis of Anesthesia. 7th edition. Baltimore: Williams and Wilkins, 1973.
- Levin, Richard M. Pediatric Anesthesia Handbook. Flushing, New York: Medical Examination Publishing Co., 1973.
- Marx, Gertie F. Physiology of Obstetric Anesthesia. Springfield, Ill.: C.C. Thomas, 1969.
- Meyers, Frederick H. Review of Medical Pharmacology. 5th edition. Los Altos, California: Lange Medical Publications, 1976.
- Winter, Frank Henry. The Ciba Collection of Medical Illustrations, Volume I, Nervous System. Summit, New Jersey: Ciba Pharmaceutical Products, 1972.
- Physicians' Desk Reference to Pharmaceutical Specialties and Biologicals. Oradell, New Jersey: Medical Economics, 1975.
- Wor, William James. A Manual of Anesthetic Techniques. 4th edition. Chicago: Year Book Medical Publishers, 1973.
- Wortz, Herman. Manual of Anesthesiology. Springfield, Illinois: C. C. Thomas, 1957.

- Smith, Robert Moors. Anesthesia for Infants and Children. 3rd edition. St. Louis: C. V. Mosby, 1968.
- Stark, David. Practical Points in Anesthesiology. Flushing, New York: Medical Examination Publishing Co., 1974.
- Williams, Thomas J. Neonatal and Pediatric Cardiopulmonary Care: A Self-Assessment. Chicago: Year Book Medical Publishers, 1976.
- Winsor, Travis. The Electrocardiogram in Myocardial Infarction. Adapted from Clinical Symposia, Volume 20, No. 4. Summit, New Jersey: Ciba Pharmaceutical Co., 1973.
- Winters, Robert W. Acid Base Physiology in Medicine: A Self-instruction Program. 2nd edition. Cleveland: London Co., 1969.
- Wyllie, W.D. A Practice of Anesthesia. Chicago: Year Book Medical Publishers, 1972.
- The Year Book of Anesthesia. Chicago: Year Book Medical Publishers, 1972.

Journals:

Anesthesiology

Anesthesia and Analgesia

ANA

Survey of Anesthesiology



Principles of Anesthesia Practice C

Topics Covered:

- I. Advanced anesthesia techniques and procedures
  - A. Cardiovascular procedures
  - B. Neurosurgical procedures
  - C. Thoracic surgery
  - D. Open heart team
- II. Complication management
  - A. Blood and fluid replacement
  - B. Common problems and their treatment
  - C. Follow-up procedures

## Principles of Practice C

Bibliography

- Acid-Base Balance; A Programmed Course. Chicago, Illinois: Abbott Laboratories, 1968.
- Adriani, John. The Chemistry and Physics of Anesthesia. 2nd edition. Springfield, Illinois: Thomas, 1962.
- Adriani, John. The Pharmacology of Anesthetic Drugs; A Syllabus for Students and Clinicians. 5th edition. Springfield, Illinois: Thomas, 1970.
- Alexander, Edythe Louise. Care of the Patient in Surgery. 5th edition. St. Louis: Mosby, 1972.
- American Society of Anesthesiologists. Refresher Courses in Anesthesiology. Vol. 1,2,3,4. Philadelphia: Lippincott, 1973-.
- The Role of NLA (Neuroleptanalgesia) In Anesthetic Practice. Fort Washington, Pennsylvania: McNeil Laboratories, 1974.
- Applebaum, Edward L. Tracheal Intubation. Philadelphia: W. B. Saunders, 1976.
- ASA Workshop on Muscle Relaxants. Contributors: Ronald L. Katz, Richard J. Kitz, and others. Los Angeles, California, November 8-9, 1975.
- Kutis, Alice R. Self-assessment of Current Knowledge for the Nurse Anesthetist. 2nd edition. Flushing, New York: Medical Examination Publishing Co, 1976.
- Kutis, Alice R. Nurse Anesthetists' Continuing Education Review. Flushing, New York: Medical Examination Publishing Co., 1975.
- Les, Barbara. A Guide to the Physical Exam. Philadelphia: J. B. Lippincott, 1974.
- Lica, John J. Principles of Practice of Obstetric Analgesia and Anesthesia. Philadelphia: Davis, 1972.
- Low, Maxwell. Physiologic Responses to Health and Disease. Flushing, New York: Medical Examination Publishing Co., 1975.
- Mazier, Mary A. The Neurophysiological Background for Anesthesia. Springfield, Illinois: C. C. Thomas, 1972.
- Merler, Herbert H. How to Read an ECG. Oradell, New Jersey: Medical Economics Publishing Company, 1973.
- Miron, Donald G. The Anesthesiologists Handbook. Baltimore: University Park Press, 1972.

- Chusid, Joseph G. Correlative Neuroanatomy and Functional Neurology. 15th edition. Los Altos, California: Lange Medical Publications, 1973.
- Clinical Anesthesia, periodicals. Vol. 1963:1,2; 1964:1,3; 1965:2,3; 1966:1,2,3; 1967:3; 1968:1,2,3; 1969:1,2,3; Vol. 8:1,2,3; 9:1,2,3; 10:1,2,3; 11:1. Philadelphia: F. A. Davis, 1963-.
- Collins, Vincent J. Principles of Anesthesiology. 2nd edition. Philadelphia: Lea & Febiger, 1976.
- Cullen, Stuart Chester. Essentials of Anesthetic Practice. Chicago: Year Book Medical Publishers, 1974.
- Current Concepts of Cardiac Pacing and Cardioversion, A Symposium. Edited by Lawrence E. Meltzer, M.D. and J. Roderick Kitchell. Bowie, Maryland: The Charles Press, 1971.
- Cubin, Dale. Rapid Interpretation of EKG's. Tampa, Florida: Cover Publishing Co., 1970.
- Ger, Edmund. Anesthetic Uptake and Action. Baltimore, Williams and Wilkins, 1974.
- Frieden, Julian. ECG Case Studies. 2nd edition. Flushing, New York: Medical Examination Publishing Company, 1974.
- Goodman, Louis Sanford, editor. The Pharmacological Basis of Therapeutics. 4th edition. New York; Macmillan, 1970.
- Gogono, Alan W. Self-Assessment in Anesthesiology. Chicago: Year Book Medical Publishers, 1975.
- Guide to Fluid Therapy. Prepared by Travenol Company. Deerfield, Illinois, 1972.
- Hansen, Philip D. Drug Interactions. 2nd edition. Philadelphia: Lea & Febiger, 1973.
- Hartshorn, Edward A. Handbook of Drug Interactions. 2nd edition. Hamilton, Illinois: Drug Intelligence Publications, 1973.
- Hypertension and the Cardiovascular System: Review of Modern Medicine. Minneapolis, Minnesota: Modern Medicine Publications Division of the New York Times Media Co., 1972.
- Hypertension Handbook. Published by Merck, Sharp & Dohme, 1974, Division of Merck & Co., Inc., West Point, Pa.
- Jordan, ed. Anesthesia and Uncommon Diseases. Philadelphia: Saunders, 1973.

- Lee, John Alfred. A Synopsis of Anesthesia. 7th edition. Baltimore: Williams and Wilkins, 1973.
- Levin, Richard M. Pediatric Anesthesia Handbook. Flushing, New York: Medical Examination Publishing Company, 1973.
- Manter, John T. Manter and Gatz's Essentials of Clinical Neuroanatomy and Neurophysiology. 5th edition. Philadelphia: Davis, 1975.
- Meyers, Frederick H. Review of Medical Pharmacology. 5th edition. Los Altos, California, 1976.
- Netter, Frank Henry. The Ciba Collection of Medical Illustrations. Vol. 1, Nervous System. Summit, New Jersey: Ciba Pharmaceutical Products, 1953.
- Nyama, Tsutomu. Anesthetic Management of Endocrine Disease. Berlin, New York: Springer-Verlag, 1973.
- Physicians' Desk Reference to Pharmaceutical Specialties and Biologicals. Oradell, New Jersey: Medical Economics Publishing Co., 1975.
- Ryor, William James. A Manual of Anesthetic Techniques. 4th edition. Chicago: Year Book Medical Publishers, 1973.
- Schwartz, Herman. Manual of Anesthesiology. Springfield, Illinois: C. C. Thomas 1957.
- Shapiro, Barry A. Clinical Application of Blood Gases. Chicago: Year Book Medical Publishers, 1973.
- Smith, Robert Moors. Anesthesia for Infants and Children. 2nd edition. St. Louis: C. V. Mosby, 1968.
- Stark, David. Practical Points in Anesthesiology. Flushing, New York: Medical Economics Publishing Co., 1974.
- Winsor, Travis. The Electrocardiogram in Myocardial Infarction. Summit, New Jersey: Ciba Pharmaceutical Company, 1973. Adapted from Clinical Symposia, Vol. 20, No. 4.
- Winters, Robert W. Acid Base Physiology in Medicine; A Self-instruction Program. 2nd edition. Cleveland: London Co., 1969.
- Wolf, Sheldon M. Neurology Case Studies. 2nd edition. Flushing, New York: Medical Examination Publishing Co., 1975.
- Wylie, W. D. A Practice of Anesthesia. Chicago: Year Book Medical Publishers, 1972.
- The Year Book of Anesthesia. Chicago: Year Book Medical Publishers, 1972.

School of Anesthesia for Nurses  
Kaiser/Permanente, Los Angeles

Scientific Foundations of Anesthesia A, B, C

Prerequisites: Chemistry 101, 102, Mathematics 106

### COURSE OUTLINE

Course  
Description:

This course provides a basic review with addition of specific concepts related to the practice of anesthesia in the areas of chemistry, physics, anatomy and physiology. The course is divided into three sections. Section A deals with physics and organic chemistry. Section B is anatomy and physiology of the circulatory, nervous, endocrine, and respiratory systems. Section C covers the excretory and integumentary systems, and nosocomial infections.

Specific  
Objectives:

The student will develop a greater awareness of the scientific foundations of anesthesia practice. Upon completing the chemistry and physics review and mastering the specific information related to anesthesia, the student should be able to predict anesthetic potency and identify characteristics of chemical substances used in anesthesia. The student will be able to explain patient responses to anesthesia in terms of normal anatomy and physiology.

Topics  
Covered:

#### Scientific Foundations A Chemistry

- I. Basic concepts of chemistry
  - A. Atomic theory
  - B. Terminology
  - C. Units of Measure
- II. Laws of chemistry and physics applicable to anesthesia
  - A. Atomic weight
  - B. Avogadro's Law
  - C. Terminology
  - D. Ideal gas law
  - E. Van der Waal's Law
  - F. Boyle's Law
  - G. Charles' Law
  - H. Gay Lussac's Law
  - I. Graham's Law
  - J. Dalton's Law
  - K. Fick's Law
  - L. Henry's Law

Scientific Foundations A  
Chemistry  
Page 2

- III. Organic chemistry A
  - A. Carbon compounds
  - B. Types of bonds
  - C. Isomers
  - D. Nomenclature
- IV. Organic chemistry B
  - A. Alkanes
  - B. Alkyls
- V. Organic chemistry C
  - A. Cyclic compounds
  - B. Double and triple bonds
- VI. Organic chemistry D
  - A. Acetylenes
  - B. Halogens
- VII. Organic chemistry E
  - A. Alcohols
  - B. Aldehydes and Ketones
- VIII. Organic chemistry F
  - A. Carboxylic acids
  - B. Nomenclature - derived names and IUPAC
- IX. Organic chemistry G
  - A. Chemical reactions
  - B. Organic acids
- X. Fire, explosion, and electrical hazards in the hospital environment.

## Scientific Foundations A

## Chemistry

Bibliography

- Adriani, John. The Chemistry and Physics of Anesthesia. 2nd edition. Illinois: Thomas Publishers, 1962.
- . The Pharmacology of Anesthetic Drugs; A Syllabus for Students and Clinicians. 5th edition. Illinois: Thomas publishers, 1970.
- Dorsch, Jerry A. Understanding Anesthesia Equipment; Construction, Care, and Complications. Baltimore: Williams and Wilkins, 1975.
- Dripps, Robert D. and others. Introduction to Anesthesia. 4th edition. Philadelphia: Saunders Co., 1972.
- Eger, Edmund. Anesthetic Uptake and Distribution. Baltimore: Williams and Wilkins, 1975.
- Epstein, L. Ivan. Basic Physics in Anesthesiology. Chicago: Yearbook Medical Publishers, 1976
- Goodman, Louis S. and Alfred Gilman, editors. The Pharmacological Basis of Therapeutics. New York: Macmillan, 1970.
- Grillot, Gerald F. A Chemical Background for the Paramedical Sciences. New York: Harper and Row, 1974.
- Guyton, Arthur C. Textbook of Medical Physiology. Philadelphia: Saunders, 1971.
- The Merck Index and Encyclopedia of Chemicals and Drugs. 9th edition. Merck and Co., Inc., 1976.
- West, John B. Respiratory Physiology--the Essentials. Baltimore: Williams and Wilkins, 1973.
- White, Emil H. Chemical Background for the Biological Sciences. 2nd edition. New Jersey: Prentiss-Hall, 1970.

Scientific Foundations B  
Anatomy and Physiology

Topics  
Covered:

- I. Circulatory system
  - A. Anatomy of the heart
  - B. Physiology of the heart
    1. Cardiac cycle
    2. Myocardium
    3. Regulation of the heart
  - C. Cardiovascular system and blood pressure regulation
  - D. Fetal circulation
  - E. The electrocardiogram and its interpretation
    1. The normal ECG
    2. Abnormal ECG
    3. Artificial pacemakers
- II. Endocrine system
  - A. Cell physiology
  - B. Pituitary gland
  - C. Pancreas and diabetes
  - D. Adrenal glands
  - E. Thyroid and parathyroid glands
- III. Nervous system
  - A. The brain.
  - B. Cranial nerves
  - C. Peripheral nervous system and spinal cord
  - D. Autonomic nervous system (sympathetic)
  - E. Autonomic nervous system (parasympathetic)
- IV. Respiratory system
  - A. Anatomy
    1. Upper airway
    2. Lower airway
  - B. Physiology
    1. Upper airway
    2. Lower airway
    3. Gas flows
    4. Functional respiratory unit
    5. Gas exchange
    6. Lung volumes
  - C. Pulmonary circulation
  - D. Control of acid-base balance
  - E. Mechanisms controlling respiration



Scientific Foundations C  
Anatomy and Physiology

Topics  
Covered:

- I. Excretory system
  - A. Anatomy and physiology
  - B. Maintenance of acid-base balance
  - C. Fluid balance
  - D. Hormonal control
  - E. Pathology
  - F. Dialysis
- II. Integumentary system
- III. Nosocomial infections
  - A. Preventing contamination of anesthesia equipment
  - B. Cleaning and sterilization of equipment

## Scientific Foundations B, C

## Anatomy and Physiology

Bibliography

- Adriani, John. The Chemistry and Physics of Anesthesia. 2nd edition. Illinois: Thomas, 1962.
- Anesthesia and the Liver. Edited by Michael H. M. Dykes. Boston: Little, Brown & Co., 1970.
- Applebaum, Edward L. Tracheal Intubation. Philadelphia: W. B. Saunders, 1976.
- Borow, Maxwell. Physiologic Responses in Health and Disease. New York: Medical Examination Publishing Co., 1974.
- Brazier, Mary A. The Neurophysiological Background for Anesthesia. Illinois: Thomas, 1972.
- Butler, Herbert H. How to Read an ECG. New Jersey: Medical Economics Co., 1973.
- Bushnell, Sharon S. Respiratory Intensive Care Nursing. Boston: Little, Brown & Co., 1973.
- Chusid, Joseph G. Correlative Neuroanatomy and Functional Neurology. 15th edition. Los Altos, Calif: Lange Medical Publishers, 1973.
- Clinical Anesthesia (periodicals). Philadelphia: Davis, 1963-.
- Collins, Vincent J. Principles of Anesthesiology. 2nd edition. Philadelphia: Lea & Febiger, 1976.
- Comroe, Julius H. Physiology of Respiration. 2nd edition. Chicago: Year Book Medical Publishers, 1975.
- Cullen, Stuart C. Essentials of Anesthesia Practice. Chicago: Year Book Medical Publishers, 1974.
- Current Concepts of Cardiac Pacing and Cardioversion. Edited by Lawrence E. Meltzer and others. Bowie, Maryland: The Charles Press, 1971.
- Dubin, Dale. Rapid Interpretation of EKG's. Tampa, Florida: Cover Publishing Co., 1970.
- Egan, Donald F. Fundamentals of Respiratory Therapy. 2nd edition. St. Louis: Mosby, 1973.
- Eger, Edmund. Anesthetic Uptake and Action. Baltimore: Williams and Wilkins, 1974.
- Ellis, Harold. Anatomy for Anesthetists. 2nd edition. Philadelphia: Davis, 1968.
- Friedan, Julian. ECG Case Studies. 2nd edition. Flushing, New York: Medical Examination Publishing Co., 1974.

Scientific Foundations B, C  
Anatomy and Physiology  
Page 2

- Gardner, Weston D. Structure of the Human Body. Philadelphia: Saunders, 1967.
- Guide to Fluid Therapy. Prepared by Travenol Company, Deerfield, Illinois, 1972.
- Guyton, Arthur C. Basic Human Physiology. Philadelphia: Saunders, 1971.
- Textbook of Medical Physiology. Philadelphia: Saunders, 1971.
- Jacob, Stanley W. Structure and Function in Man. 3rd edition. Philadelphia: Saunders, 1974.
- Lee, John A. A Synopsis of Anesthesia. 7th edition. Baltimore: Williams and Wilkins, 1973.
- Macintosh, Sir Robert R. Physics for the Anesthetist. 3rd edition. Philadelphia: Davis, 1973.
- McNaught, Ann B. Illustrated Physiology. New York: Churchill Livingstone, 1975.
- Manter, John T. Essentials of Clinical Neuroanatomy and Neurophysiology. 5th ed. Philadelphia: Davis, 1975.
- Netter, Frank H. The Ciba Collection of Medical Illustrations. Summit, New Jersey: Ciba, 1953-.
- Oyama, Tsutomu. Anesthetic Management of Endocrine Disease. Berlin, New York: Springer-Verlag, 1973.
- Selkurt, Ewald, editor. Basic Physiology for the Health Sciences. Boston: Little, Brown Co., 1970.
- VanderArk, Gary. A Primer of Electroencephalography. Hoffman-LaRoche, 1970.
- West, John B. Respiratory Physiology--the Essentials. Baltimore: Williams and Wilkins, 1973.
- Winsor, Travis. The Electrocardiogram in Myocardial Infarction. Summit, New Jersey: Ciba, 1973.
- Winters, Robert W. Acid Base Physiology in Medicine. 2nd edition. Cleveland: London Co., 1969.
- Wolf, Sheldon M. Neurology Case Studies. 2nd edition. Flushing, New York: Medical Examination Publishing Co., 1975.
- Wylie, W. D. and Churchill-Davidson. A Practice of Anesthesia. 3rd edition. Chicago: Year Book Medical Publishers, 1972.

Scientific Foundations B, C  
Anatomy and Physiology  
Page 3

Journals:

Anesthesiology

Anesthesia and Analgesia

JAANA

Survey of Anesthesiology

The purpose of this journal is to provide a forum for the publication of original research, clinical observations, and theoretical discussions in the field of anesthesiology and related areas. The journal is published quarterly and is intended for the professional anesthesiologist and related disciplines.

The journal will accept work for consideration from both established and emerging investigators. The editorial board will be composed of leading experts in the field of anesthesiology. The journal will accept work for consideration from both established and emerging investigators.

Professional Society

Membership in the Society is open to all who are interested in the study of anesthesiology and related disciplines. The Society is committed to the advancement of the profession and the welfare of the patient.

The Society will sponsor a variety of educational programs and conferences. The Society is committed to the advancement of the profession and the welfare of the patient.

Annual Meeting

The annual meeting of the Society is held in conjunction with the annual meeting of the American Society of Anesthesiologists.

Journal of Anesthesiology

Editorial Board

Chairman: Dr. [Name]

Members: Dr. [Name], Dr. [Name], Dr. [Name]

For more information, please contact the Society at [Address]

School of Anesthesia for Nurses  
Kaiser/Permanente, Los Angeles

Professional Concepts

Prerequisites:

### COURSE OUTLINE

Course

Description:

The course serves as an introduction to the field of nurse anesthesia. The historical background, professional organizations, ethics, legal considerations and psychology of anesthesia practice are discussed. Location in the organizational structure of the health field and department management will be studied.

Specific

Objectives:

The student will develop an understanding of the role of nurse anesthetists within the health care team. Professional identity, and judgment will be developed. The interpersonal relationship skills of the professional nurse will be developed further in the context of the anesthesia specialty. This course will enable the student to practice anesthesia in accordance with current ethical and legal standards.

### Professional Concepts

Topics

Covered:

- I. Orientation to Nurse Anesthesia
  - A. Anesthesia departmental organization
  - B. Role of the professional nurse in anesthesia
- II. Legal aspects of anesthesia practice
  - A. Laws regulating anesthesia practitioners
  - B. Lines of authority and responsibility
  - C. The chart as a legal document
- III. Professional ethics
- IV. Psychology of professional/client interaction
- V. History of anesthesia
- VI. Professional adjustments
  - A. Transition to the student role
  - B. Survey of resource material
  - C. Guided study of current research in anesthesia

## Professional Concepts

Bibliography

- Clinical Anesthesia (Periodicals), Legal Aspects of Anesthesia. Editor, W. H. Dornette. Philadelphia: Davis, 1972.
- Collins, Vincent J. Principles of Anesthesiology. 2nd edition, Philadelphia: Lea & Febiger, 1976.
- Cullen, Stuart C. Essentials of Anesthetic Practice. Chicago: Year Book Medical Publishers, 1974.
- Dripps, Robert D. Introduction to Anesthesia; the Principles of Safe Practice. 3rd edition. Philadelphia: Saunders, 1972.
- Keys, Thomas E. The History of Surgical Anesthesia. New York: Dover Publications, Inc., 1963.
- Moritz, Alan R. Handbook of Legal Medicine, St. Louis: Mosby, 1975.

## Journals:

Anesthesiology

Anesthesia and Analgesia

JAANA

Survey of Anesthesiology

School of Anesthesia for Nurses  
Kaiser/Permanente, Los Angeles

### Anesthesia Seminar

Prerequisites: Principles of Anesthesia Practice A, B, and C, Scientific Foundations A, B, and C, Anesthesia Practicum A, B, and C

### COURSE OUTLINE

#### Course

##### Description:

A presentation of current research in the field of anesthesia by students. Critical evaluation of current trends in anesthesia will be discussed in the seminars. Each student will be required to prepare and submit a scholarly paper on an approved anesthesia topic. The completed papers will be presented in the annual anesthesia seminar held in southern California.

#### Specific

##### Objectives:

The student will gain experience in research methods, manuscript writing, and oral presentation before an audience. Each individual will develop an area of expertise in the anesthesia field.

### Anesthesia Seminar

#### Topics

##### Covered:

- I. Research methods
  - A. Survey of current research literature
  - B. Mechanics of the research paper
- II. Writing the research report
  - A. Rough draft
  - B. Final draft
- III. Presentation of research reports
  - A. Seminar presentation
  - B. Southern California Student Seminar

## Anesthesia Seminar

## Bibliography

- Campbell, William G. Form and Style, Theses, Reports, Term Papers. 4th edition. Boston: Houghton, Mifflin Co., 1974.
- Turabian, Kate L. A Manual for Writers of Term Papers, Theses, and Dissertations. 4th edition. Chicago: University of Chicago Press, 1973.
- Student Nurse Anesthetist Seminar, 1976. Bound volume of previous research reports.



School of Anesthesia for Nurses  
Kaiser/Permanente, Los Angeles

Anesthesia Practicum A, B, C, D, E

Prerequisites: Chemistry 101, 102, Mathematics 106

#### COURSE OUTLINE

##### Course

##### Description:

A guided, step by step, progressive experience in clinical anesthesia practice is provided. Initial observation in surgery and obstetrics prepares the student for active participation in administration of anesthesia and monitoring of patients. As the student develops clinical skills and demonstrates proficiency, he or she is advanced to increasing levels of responsibility. The instructor/student ratio will always be one to one. Anesthesia Practicum C is during the summer session between the second and third semesters in the program.

##### Specific

##### Objectives:

The student will master each level of anesthesia skill at his or her own rate before advancement to the next level. Technical skills will be perfected in conjunction with the ability to correlate classroom knowledge to individual patient responses to anesthesia and surgery. Upon completion of all five sections of this course the student will demonstrate a high level of clinical skill and judgment in the safe administration of all available anesthesia techniques. Sufficient experience will be provided to qualify each student to take the national anesthesia certification examination administered by the American Association of Nurse Anesthetists.

#### Clinical Practicum A

##### Topics

##### Covered:

- I. Observation of clinical anesthesia on a rotation basis
  - A. Surgical anesthesia
  - B. Obstetrical anesthesia
- II. Documentation in anesthesia
  - A. Analyzing clinical records and surgical charts
  - B. Record keeping in anesthesia

- III. Monitoring of the anesthetized patient
  - A. Simple to advanced monitoring devices
  - B. Clinical application
  - C. Local and regional blocks
- IV. Intravenous techniques
- V. Signs and stages of anesthesia
  - A. Direct observation of anesthesia levels
  - B. Practical experience with anesthetic agents
- VI. Post anesthesia care
- VII. Patient Safety

## Anesthesia Practicum B

Topics  
Covered:

- I. Anesthesia care plan development
  - A. Case management experience
    1. Evaluating the patient pre-operatively
    2. Writing the anesthesia care plan
    3. Implementing the anesthesia care plan
    4. Post operative evaluation of the patient
- II. Monitoring
  - A. Practical experience in the use and application of increasingly sophisticated monitoring techniques
  - B. Correlation of normal anatomy and physiology to patient response
  - C. Selection of appropriate monitoring parameters
- III. Airway management
  - A. Identification of airway obstruction
  - B. Methods of maintaining an adequate airway
  - C. Emergency resuscitation CPR
- IV. Pharmacology of anesthetic and adjuvant drugs
  - A. Clinical application of anesthetic drugs
  - B. Use of adjuvant drugs
- V. Inhalation therapy

Anesthesia Practicum C  
(Summer)

Topics  
Covered:

- I. Intermediate level clinical experience
  - A. Anesthesia for emergency operations
  - B. Anesthesia care planning for patients with pathophysiological problems
- II. Anesthesia for special category patients
  - A. Obstetrics and neonates
  - B. Pediatric anesthesia
  - C. Geriatric anesthesia

## Anesthesia Practicum D

Topics  
Covered:

- I. Advanced level clinical experience
  - A. Use of ventilators in anesthesia management
  - B. Planning total anesthesia care
- II. Management of anesthesia complications

Anesthesia Practicum E

Topics Covered:

- I. Preparation for independent anesthesia practitioners
  - A. Assessment of technical and judgmental skills
  - B. Analysis of peer and health team member relationships

*[Faint, mostly illegible text listing references and sources, including names like 'Medical Education', 'Anesthesia', and 'Health Team Relationships']*

## Clinical Practicum A, B, C, D, E

Bibliography

- Adriani, John. The Chemistry and Physics of Anesthesia. 2nd edition. Illinois: Thomas, 1962.
- Anesthesia and the Liver. Edited by Michael H. M. Dykes. Boston: Little, Brown & Co., 1970.
- Applebaum, Edward L. Tracheal Intubation. Philadelphia: W. B. Saunders, 1976.
- Borow, Maxwell. Physiologic Responses in Health and Disease. New York: Medical Examination Publishing Co., 1974.
- Brazier, Mary A. The Neurophysiological Background for Anesthesia. Illinois: Thomas, 1972.
- Butler, Herbert H. How to Read an ECG. New Jersey: Medical Economics Co., 1973.
- Bushnell, Sharon S. Respiratory Intensive Care Nursing. Boston: Little, Brown & Co., 1973.
- Chusid, Joseph G. Correlative Neuroanatomy and Functional Neurology. 15th edition. Los Altos, Calif: Lange Medical Publishers, 1973.
- Clinical Anesthesia (periodicals). Philadelphia: Davis, 1963-.
- Collins, Vincent J. Principles of Anesthesiology. 2nd edition. Philadelphia: Lea & Febiger, 1976.
- Comroe, Julius H. Physiology of Respiration. 2nd edition. Chicago: Year Book Medical Publishers, 1975.
- Cullen, Stuart C. Essentials of Anesthesia Practice. Chicago: Year Book Medical Publishers, 1974.
- Current Concepts of Cardiac Pacing and Cardioversion. Edited by Lawrence E. Meltzer and others. Bowie, Maryland: The Charles Press, 1971.
- Dubin, Dale. Rapid Interpretation of EKG's. Tampa, Florida: Cover Publishing Co., 1970.
- Egan, Donald F. Fundamentals of Respiratory Therapy. 2nd edition. St. Louis: Mosby, 1973.
- Eger, Edmund. Anesthetic Uptake and Action. Baltimore: Williams and Wilkins, 1974.
- Ellis, Harold. Anatomy for Anesthetists. 2nd edition. Philadelphia: Davis, 1968.
- Friedan, Julian. ECG Case Studies. 2nd edition. Flushing, New York: Medical Examination Publishing Co., 1974.

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- Gardner, Weston D. Structure of the Human Body. Philadelphia: Saunders, 1967.
- Guide to Fluid Therapy. Prepared by Travenol Company, Deerfield, Illinois, 1972.
- Guyton, Arthur C. Basic Human Physiology. Philadelphia: Saunders, 1971.
- . Textbook of Medical Physiology. Philadelphia: Saunders, 1971.
- Jacob, Stanley W. Structure and Function in Man. 3rd edition. Philadelphia: Saunders, 1974.
- Lee, John A. A Synopsis of Anesthesia. 7th edition. Baltimore: Williams and Wilkins, 1973.
- Macintosh, Sir Robert R. Physics for the Anesthetist. 3rd edition. Philadelphia: Davis, 1973.
- McNaught, Ann B. Illustrated Physiology. New York: Churchill Livingstone, 1975.
- Manter, John T. Essentials of Clinical Neuroanatomy and Neurophysiology. 5th ed. Philadelphia: Davis, 1975.
- Netter, Frank H. The Ciba Collection of Medical Illustrations. Summit, New Jersey: Ciba, 1953-.
- Oyama, Tsutomu. Anesthetic Management of Endocrine Disease. Berlin, New York: Springer-Verlag, 1973.
- Selkurt, Ewald, editor. Basic Physiology for the Health Sciences. Boston: Little, Brown Co., 1970.
- VanderArk, Gary. A Primer of Electroencephalography. Hoffman-LaRoche, 1970.
- West, John B. Respiratory Physiology--the Essentials. Baltimore: Williams and Wilkins, 1973.
- Winsor, Travis. The Electrocardiogram in Myocardial Infarction. Summit, New Jersey: Ciba, 1973.
- Winters, Robert W. Acid Base Physiology in Medicine. 2nd edition. Cleveland: London Co., 1969.
- Wolf, Sheldon M. Neurology Case Studies. 2nd edition. Flushing, New York: Medical Examination Publishing Co., 1975.
- Wylie, W. D. and Churchill-Davidson. A Practice of Anesthesia. 3rd edition. Chicago: Year Book Medical Publishers, 1972.



Clinical Practicum

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Journals:

Anesthesiology

Anesthesia and Analgesia

JAANA

Survey of Anesthesiology

Taped Lecture Series:

Current Audio Digest tapes (California Society of Anesthesiologists)

School of Anesthesia for Nurses  
Kaiser Permanente, Los Angeles

Pharmacological Principles A

Prerequisites: Chemistry 101, 102, Mathematics 106

COURSE OUTLINE

Course Description: A comprehensive review of general pharmacological principles followed by presentation of the major drug groups used in the practice of anesthesia. Biweekly drug review labs provide in depth analysis and guidelines for safe use of the drugs studied in lecture.

Specific Objectives: The student should develop an organized view of the relationship between the chemical structure, pharmacological action, and biological effects of the major drug groups.

Topics Covered: Pharmacological Principles A

- I. Orientation to Pharmacology.
  - A. Sources of drugs.
  - B. Methods of evaluation for new drugs.
  - C. Terminology of pharmacology.
- II. The Barbiturates.
  - A. Basic structure of barbiturate series.
  - B. Mechanism of action.
  - C. Physiological effects.
  - D. Metabolism.
  - E. Dosage.
- III. Local anesthetics.
  - A. Basic structure of local anesthetic series.
  - B. Mechanism of action.
  - C. Physiological effects.
  - D. Metabolism.
  - E. Dosage.
- IV. Skeletal Muscle Relaxants.
  - A. Basic structure of major muscle relaxants.
  - B. Mechanism of action.
  - C. Physiological effects.
  - D. Metabolism.
  - E. Dosage.

- V. Narcotics and narcotic antagonists.
- A. Basic structures.
  - B. Mechanism of action.
  - C. Physiological effects.
  - D. Metabolism.
  - E. Dosage.
- VI. Major tranquilizers.
- A. Basic structure of major tranquilizers.
  - B. Mechanism of action.
  - C. Physiological effects.
  - D. Metabolism.
  - E. Dosage.
- VII. General anesthetics: Inhalation and neurolept.
- A. Basic structures.
  - B. Mechanism of action.
  - C. Physiological effects.
  - D. Metabolism.
  - E. Dosage.

School of Anesthesia for Nurses  
Kaiser Permanente, Los Angeles

Pharmacological Principles B

Prerequisites: Pharmacological Principles A

#### COURSE OUTLINE

Course Description: A continuation of the basic pharmacological review with increased emphasis on relating drug structure with function and the effects on the human body.

Specific Objectives: The student should develop an organized view of the relationship between the chemical structure, pharmacological action, and biological effects of the major drug groups and specific drugs studied.

Topics Covered: Pharmacological Principles B

- I. Antihypertensive drugs.
  - A. Basic structures.
  - B. Mechanism of action.
  - C. Physiological effects.
  - D. Metabolism.
  - E. Dosage.
- II. Drugs affecting the Autonomic Nervous System.
  - A. Review of Autonomic Nervous System.
  - B. Chemical mediators of the autonomic nerves.
  - C. Pharmacology of autonomic nervous system drugs.
- III. Sympathomimetic drugs.
  - A. Basic structures.
  - B. Mechanism of action.
  - C. Physiological effects.
  - D. Metabolism.
  - E. Dosage.
- IV. Sympatholytic drugs.
  - A. Basic structure.
  - B. Mechanism of action.
  - C. Physiological effects.
  - D. Metabolism.
  - E. Dosage.
- V. Parasympathomimetic drugs.
  - A. Basic structures.
  - B. Mechanism of action.
  - C. Physiological effects.
  - D. Metabolism.
  - E. Dosage.

- VI. Parasympatholytic drugs.
- A. Basic structures.
  - B. Mechanism of action.
  - C. Physiological effects.
  - D. Metabolism.
  - E. Dosage.
- VII. Central Nervous System Stimulants and Depressants.
- A. Basic structures.
  - B. Mechanism of action.
  - C. Physiological effects.
  - D. Metabolism.
  - E. Dosage.

School of Anesthesia for Nurses  
Kaiser Permanente, Los Angeles

Pharmacological Principles C

Prerequisites: Pharmacological Principles B

COURSE OUTLINE

Course Description: A continuation of the basic pharmacological review relating drug structure with function and drug effects on the human body. Drugs affecting the cardiovascular system are covered in this section of the course.

Specific Objectives: The student should develop an organized view of the relationship between the chemical structure, pharmacological action, and biological effects of the major drug groups and specific drugs studied.

Topics Covered: Pharmacological Principles C

I. Drugs affecting body fluid balance.

- A. Basic structures.
- B. Mechanisms of action.
- C. Physiological effects.
- D. Metabolism.
- E. Dosage.

II. Diuretics.

- A. Basic structure.
- B. Mechanism of action.
- C. Physiological effects.
- D. Metabolism.
- E. Dosage.

III. Cardiac drugs.

- A. Basic structures.
- B. Mechanism of action.
- C. Physiological effects.
- D. Metabolism.
- E. Dosage.

IV. Quinidine.

- A. Basic structure.
- B. Mechanism of action.
- C. Physiological effects.
- D. Metabolism.
- E. Dosage.

V. Heparin and Protamine.

- A. Basic structures.
- B. Mechanism of action.
- C. Physiological effects.
- D. Metabolism.
- E. Dosage.

## Pharmacology

Bibliography

- Adriani, John. The Chemistry and Physics of Anesthesia. 2nd edition. Illinois, Thomas, 1962.
- The Pharmacology of Anesthetic Drugs; A Syllabus for Students and Clinicians. 5th edition. Illinois, Thomas, 1970.
- Anderson, Ellen M. Workbook of Solutions and Dosage of Drugs. 9th edition. St. Louis, Mosby, 1972.
- ASA Workshop on Muscle Relaxants, Los Angeles, 1975. American Society of Anesthesia.
- Bonica, John J. Principles and Practice of Obstetric Analgesia and Anesthesia. Philadelphia, Davis, 1972.
- Brazier, Mary A. The Neurophysiological Background for Anesthesia. Illinois, Thomas, 1972.
- Catron, Donald G. The Anesthesiologist's Handbook. Baltimore, University Park Press, 1972.
- Collins, Vincent J. Principles of Anesthesiology. 2nd edition. Philadelphia, Lea and Febiger, 1976.
- DeJong, Rudolph H. Physiology and Pharmacology of Local Anesthesia. Illinois, Eger, Edmund. Anesthetic Uptake and Action. Baltimore, Williams and Wilkins, 1974.
- Eriksson, Ejnar, editor. Illustrated Handbook in Local Anesthesia. Chicago, Yearbook Medical Publishers, 1969.
- Fluothane: For Precision Inhalation Anesthesia. 3rd edition. New York, Ayerst Laboratories, 1973.
- Goodman, Louis S. and Alfred Gilman, editors. The Pharmacological Basis of Therapeutics. New York, Macmillan, 1970.
- "Guide to Fluid Therapy" prepared by Travenol Co. Illinois, 1972.
- Hasten, Philip D. Drug Interactions. 2nd edition. Philadelphia, Lea and Febiger, 1973.
- Hartshorn, Edward A. Handbook of Drug Interactions. Illinois, Drug Intelligence Publications, 1973.
- "Hypertension and the Cardiovascular System" Review of Modern Medicine Publications Division of the New York Times Media Co., 1972.
- Katz, Jordan, editor. Anesthesia and Uncommon Diseases; Pathophysiologic and Clinical Correlations. Philadelphia, Saunders, 1973.
- Lee, John A. A Synopsis of Anaesthesia. 7th edition. Baltimore, William and Wilkins, 1973.

- Levin, Richard M. Pediatric Anesthesia Handbook. New York. Medical Examination Publishing Co., 1973.
- Lowe, Harry J. "Dose-regulated Penthrane Anesthesia" Chicago, Abbott Laboratories, 1972.
- Meyers, Frederick H. Review of Medical Pharmacology. 5th edition. Los Altos, California, Lange Medical Publications, 1976.
- Moore, Daniel. Regional Block; A Handbook for Use in the Clinical Practice of Medicine and Surgery. 4th edition. Illinois, Thomas, 1965.
- Oyama, Tsutomu. Anesthetic Management of Endocrine Disease. New York, Springer-Verlag, 1973.
- Physician's Desk Reference to Pharmaceutical Specialties and Biologicals. New Jersey, Medical Economics, 1976.
- Pryor, William James. A Manual of Anesthetic Techniques. 4th edition. Chicago, Year Book Medical Publishers, 1973.
- Winters, Robert W. Acid Base Physiology in Medicine; a Self-instruction Program. 2nd edition. Cleveland, London Co., 1969.
- Wylie, W. D. A Practice of Anesthesia. Chicago, Yearbook, 1972.

Anesthesiology.

Anesthesia and Analgesia.

Journal of the American Association of Nurse Anesthetists.

Survey of Anesthesiology.



Kaiser/Permanente  
School of Anesthesia for Nurses

Clinical Practicum Affiliations

All students of the Kaiser/Permanente School of Anesthesia for Nurses receive clinical experience in anesthesia and related settings on a rotation basis. Assignments and rotations are scheduled to compliment the students' classroom studies and skill level.

Students enrolled in Clinical Practicum A spend at least one month, two days a week, at each of the following facilities.

Kaiser Foundation Hospital, Fontana

Kaiser Foundation Hospital, Panorama City

Two weeks during this semester are spent in Obstetrics at the Kaiser Foundation Sunset Hospital in Los Angeles in the Labor and Delivery Room Suite.

Clinical Practicum B broadens the scope of the students' experience with the addition of Respiratory Therapy in place of the Obstetrics experience. Students continue to rotate to Fontana and Panorama City for a least one month at each facility four days a week. Respiratory Therapy is at the West Los Angeles Kaiser Hospital for one month. They also have clinical experience at W.L.A.

Clinical Practicum C continues to build the students' experience with the addition of the Harbor City Kaiser Foundation Hospital and Sunset Kaiser Foundation Hospital. These experiences are individualized in accordance with demonstrated progression of skill in the clinical setting. During this phase of experience, students are placed on the evening shift for one month to gain practical skills dealing with emergency anesthesia for trauma and acute surgical problems. Two weeks are spent observing in a facility outside the Kaiser system at Childrens Hospital of Los Angeles to learn pediatric techniques.

Clinical Practicum D is a continuation of experiences similar to A, B, and C, but now a higher level of skill is required. More depth in correlating pathophysiology with patient response to anesthesia also is required of the student.

Clinical Practicum E utilizes all of the previously mentioned facilities. This experience allows the student to polish clinical skills and judgment. Students have the option of choosing which facility will best meet their individual needs during one of the last three months.

Summary of Rotations

Clinical Practicum A	Panorama City Fontana Sunset, Los Angeles (two weeks)
Clinical Practicum B	Panorama City Fontana West Los Angeles - Respiratory Therapy (one month) West Los Angeles - Anesthesia
Clinical Practicum C	Panorama City Fontana West Los Angeles Harbor City Sunset Childrens Hospital, Los Angeles (two weeks)
Clinical Practicum D, E	Panorama City Fontana West Los Angeles Harbor City Sunset San Diego (student option)

A broad range of anesthesia experiences are available to Kaiser/Permanente anesthesia students. Opportunities to administer anesthesia for such procedures as general surgery, orthopedic, ophthalmic, otolaryngeal, intrathoracic, intracranial, pediatric, geriatric, urologic, neurologic, obstetrical, and gynecologic surgeries occur throughout the rotation process.

Statistically, the yearly procedure rates for the various hospitals provide a more than adequate volume of anesthesia for the number of students in our program.

Total Number of Anesthetics Given, 1975

Kaiser Foundation Hospital, Panorama	8,364
Kaiser Foundation Hospital, Fontana	8,654
Kaiser Foundation Hospital, Harbor City	5,197
Kaiser Foundation Hospital, Sunset	<u>12,103</u>
	34,318*

\*Statistics unavailable from West Los Angeles and San Diego.

## RESEARCH PAPERS

Empirical research experience enhances the anesthesia student's ability to critically evaluate research reports encountered in professional journals. The lack of clinical research facilities and funding limits the scope of possible student research pursuits. Therefore, most research will be investigations of the literature and synthesis of published material.

Research is important in the higher technological studies of anesthesia for the teaching and investigation of the applied sciences.

Guidelines must be established for the student so they may acquire the knowledge and skills that are needed to produce a paper of academic significance.

Many research projects do not turn out as expected because they have not been organized, planned, or skillfully directed in the basic fundamentals of a research paper.

Individualistic and organized research and the fundamentals of scientific knowledge and theory will produce a paper that will be of academic consequence.

The research project shall be selected by the student with the approval of the Director and Associate Director.

## References:

- John W. Best, Research in Education, (Englewood Cliffs, New Jersey: Prentice Hall, 1970) 2nd ed.
- William Giles Campbell and Stephen Vaughan Ballou, Forms and Styles, Theses, Reports, Term Papers, (Boston: Houghton Mifflin Co., 1974).
- Kate L. Turabian, A Manual for Writers of Term Papers, Theses, and Dissertations, (Chicago: The University of Chicago Press, 1973).

## SENIOR RESEARCH PAPER

Stage I	<u>Date</u>	<u>Grade</u>
Selection of topic		
Consultation		
Research		
Outline		
Bibliography		
Stage II		
Preparation		
Rough Draft		
Visual Aids		
Stage III		
Presentation		
Oral		
Final Typed		
Stage IV		
Student Seminar		
Presentation		

Comments:

- copies xeroxed  
 original returned to student  
 library copy filed

PROJECT OVERALL GRADE

TO Class of 1978

DATE June 27, 1977

86

FROM Mike Poling, CRNA  
Associate Director  
School of Anesthesia for Nurses

SUBJECT Senior Research Reports

LOCATION 4867 Sunset EXT. NUMBER 78861

COPIES TO

The following is the sequence that preparation of your research papers will follow. Target dates for completion of each step are also given. More specific due dates will be provided at the appropriate time.

Sequence

<u>Step #</u>		<u>Date</u>
1	Lecture, "Research Methods," Judy Dowd	July 27
2	Lecture, "Developing the Research Paper," J. Kelly	August 31
3	Discussion; Progress reports, topic selection	September
4	Discussion; Preparation of rough draft; Turn in outline and bibliography *	October
5	Turn in rough draft *	November
6	Oral presentations *	December
7	Turn in final draft *	December 21
8	Student Seminar presentation of each paper *	April 1978

\* Steps for which a grade will be assigned.

FACULTY HANDBOOK

The purpose of this handbook is to provide a clear and concise guide for the faculty. It covers the policies and procedures that govern the faculty's work. The handbook is intended to be a reference for all faculty members. It is the responsibility of the faculty to read and understand the handbook. The handbook is subject to change without notice. The faculty agrees to abide by the policies and procedures outlined in the handbook.

Statement of Intent

The staff is expected to maintain the highest standards of conduct. They should respect the rights of all individuals and follow the staff handbook. The handbook is intended to provide a clear and concise guide for the staff. It is the responsibility of the staff to read and understand the handbook. The handbook is subject to change without notice. The staff agrees to abide by the policies and procedures outlined in the handbook.

## PERSONNEL POLICIES

Current employee records are maintained and include a resume of each employee's education and experiential background.

The personnel file contains evidence of adequate health supervision, including results of pre-employment and periodic physical examinations, such as chest x-rays, and records of illnesses and accidents occurring while on duty.

All work assignments are consistent with employee qualifications.

## STANDARDS OF CONDUCT

The staff is expected to maintain the highest standards of conduct. Proper respect toward student, patient, and fellow staff members must be maintained. All information regarding students is privileged information and is confidential, and therefore is not allowed to be transmitted to anyone without authority from administration.

The committee members shall pursue the course of conducting an educational program of excellence. They shall be responsible for defining and implementing the organization of the curriculum and instruction plans for achieving educational objectives and goals. The committee members shall be CRNAs, anesthesiologists, and members of the health care industry.

The duties shall be to define the most appropriate methods of instruction for implementing course content to achieve course objectives based upon the needs of the student and the capabilities of the faculty.

Members will help develop educational philosophy to adhere to the constraints of the conducting facility and the professional educational product.

An obligation shall be the continuity of course content and instructional methods in a logical manner and time-phasing approach, consistent with sound principles of education and provide continuance of experience to achieve independence of thought, judgment, and action consistent with responsibility.

At least once a year the curriculum plan and/or program design shall be reviewed and evaluated for the purpose of upgrading and implementing current data and modes of educational instruction.

The selection of the students' personal compliment of books and the maintenance of the school library shall be updated at periods appropriate with the growth of the school and the admission of students.

All forms and sample letters shall be reviewed and updated at appropriate periods.

The committee shall convene bimonthly as a whole or in part.



- Chairman
1. Senior member of the administrative staff of the anesthesia school program
  2. Member of the Advisory Committee
  3. Member of staff with educational requirements in areas of curriculum and instruction
  4. A Clinical Coordinator
  5. A Senior Nurse Anesthetist
  6. Lecturer in school academic program not involved in clinical experience
  7. Lecturer in school academic program involved in clinical experience
  8. Director of school program
  9. Clinical Instructor not directly involved in school academic program

\*All faculty members are invited to attend committee meetings. Voting is delegated to committee members only. Non-members may address committee by pre-arrangement with committee chairman.



## STAFF

The staff assists the director by performing the detailed duties of administration, planning, teaching, clinical instruction, supply, and coordination that are necessary to control and maintain the school. It works out detailed plans in support of the director's intentions, translates the decisions into regulations, and issues the dispositions. The staff is the director's channel for maintaining contact with all personnel and for receiving the information and advice required to administer her duties.

## STAFF JOB DESCRIPTIONS

The following descriptions are intended to provide a general overview of the duties and responsibilities of the various staff positions within the organization. These descriptions are not intended to be exhaustive or to constitute a contract of any kind. The organization reserves the right to modify or change these descriptions at any time without notice.

**Administrative Support**  
This position is responsible for providing administrative support to the organization. Duties include answering phones, managing mail, scheduling, and maintaining office supplies.

**Customer Service**  
This position is responsible for providing excellent customer service to our clients. Duties include greeting clients, answering questions, and resolving issues.

**Marketing**  
This position is responsible for developing and implementing marketing strategies to promote the organization's products and services. Duties include creating content, managing social media, and analyzing market trends.

**Human Resources**  
This position is responsible for managing the organization's human resources. Duties include recruiting, hiring, and training staff, as well as administering benefits and payroll.

NURSE ANESTHETIST (Clinical Instructor)

Performs anesthesia management of patients undergoing surgical procedures to include airway management and assisting in cardiopulmonary resuscitation; provide clinical instruction of student nurse anesthetist.

The clinician shall keep constant surveillance of the student's total clinical anesthesia management. Must be available for constant monitoring and advice. The position implies the teaching and supervision in preparation of the student's clinical experience, and evaluation of the student's preparation and performance relative to that experience.

Qualifications

Shall maintain current status as a certified registered nurse anesthetist.

Shall maintain professional continued education.

Duties

1. Inserts intravenous needle or catheter and starts medicated fluids prior to beginning of surgery.
2. Performs intratracheal intubation in the operating room by inserting the tube which carries the anesthetic gases into the patient's lungs. Places a small catheter down the tracheal tube, during surgery, to suction secretions which accumulate in the patient's lungs.
3. Administers anesthesia by intravenous injection, gas inhalation, or a combination of the two, making necessary adjustments to both during the surgery according to the patient's needs, or as directed by the anesthesiologist.

4. Observes the patient during surgery for excessive loss of blood or impingement on patient's nerves or major organs and constantly monitors pulse rate, blood pressure and respiration. Regulates the flow of intra-venous blood transfusions according to the direction of a physician.

5. May perform pre-operative examination of patient, review medical history and review the patient's chart and selects from a limited number of standard applications, the type, dosage and combinations of anesthesia required to meet the needs of the patient, taking into consideration the patient's condition and nature of the surgery to be performed. Consults with surgeon or anesthesiologist for advice when "high risk" factors are evident in the medical history.

6. Post surgery, discontinues the anesthetic and increases oxygen flow to return patient to conscious state. Checks blood pressure, heart rate and respiration until the patient is stable enough for transfer to recovery; post operatively evaluates patient and releases patient to surgical floor.

7. Assists medical staff on floor with any management problems and other problems relative to post operative care of patient.

8. Responds to and assists to acute emergency situations by performing cardiac massage and assisting medical staff as required.

9. Instructs students' administering anesthesia in the clinical area while preparing, inducing, maintaining, and recovering of patient.

10. Assists student in pre and post anesthesia evaluation of patient status.

11. Discuss and counsel student in preparation of anesthesia care plan.

12. Illustrate the method of correct anesthesia record keeping.

## STAFF

SENIOR NURSE ANESTHETIST

The senior nurse anesthetist shall be a source of constant communication and synchronization with administration. Responsibilities shall include management of staffing and purchasing of supplies.

Qualifications

Must maintain current status as a certified registered nurse anesthetist.

Shall have background in administration, both academic and experiential.

Maintain professional continued education.

Duties

1. Maintain staffing of nurse anesthetists in appropriate areas.
2. Submit and maintain budget for supplies for the anesthesia department.
3. Purchase of supplies and replacement or repair of equipment.
4. Record and assess data for staff records.
5. Supervise and counsel staff and students.
6. Maintain procedure manual for department.
7. Orient new employees to facility and department policies.
8. Institute procedures for method of developing quality assurance.
9. Administer anesthesia for own professional growth.
10. Shall demonstrate outstanding capability in administering the art and science of anesthesia as so outlined for the clinical instructor.

11. The clinical coordinator and the senior nurse anesthetist have responsibilities that are interrelated. The duties shall be shared by either staff member in the absence of the other staff member.



## STAFF

CLINICAL COORDINATOR

The clinical coordinator shall be a source of constant communication and synchronization with administration. She will be responsible for the student maintaining current records of clinical experience and the teaching and evaluating of the students development in the clinical arena.

Qualifications

Must maintain current status as a certified registered nurse anesthetist.

Shall have three semester hours or the equivalent in each of the following areas: 1) curriculum, 2) instruction, 3) testing and evaluation; or be actively pursuing these.

Must be a CRNA, preferred baccalaureate in appropriate field.

Maintain professional continued education.

Duties

1. Instruct students administering anesthesia in clinical area while preparing, inducing, maintaining, and recovering patient.
2. Select appropriate cases for student according to the student's clinical level and didactic background and assign daily case load.
3. Assist student in pre and post anesthesia evaluation of patient status.
4. Discuss and counsel student in preparation of anesthesia care plan.
5. Illustrate the method of correct anesthesia record keeping.
6. Maintain and supervise student record keeping in accordance with specified guideline of AANA.

7. Act as a liaison between student, clinical instructors, and anesthesiologists.
8. Observation, evaluation, and assessment of student progress.
9. Maintain and supervise record keeping of students monthly evaluation.
10. Counsel student as it relates to the clinical expertise, didactic capability and the psychological development.
11. Orient new students to facility and department policies.
12. Administer anesthesia for own professional growth.
13. Shall demonstrate outstanding capability in administering the art and science of anesthesia as so outlined for the clinical instructor.
14. The clinical coordinator and the senior nurse anesthetist have responsibilities that are interrelated. The duties shall be shared by either staff member in the absence of the other staff member.

## STAFF

ASSOCIATE DIRECTOR - CLINICAL INSTRUCTION

The Associate Director (Clinical) shall coordinate the sequencing of didactic instructional methods and the instructional approaches in the clinical area to provide continuity of didactic and clinical experience to achieve independence of thought, judgment, and action consistent with responsibility.

Qualifications

Must be a certified registered nurse anesthetist with a baccalaureate degree in appropriate field.

Must maintain current status as a certified registered nurse anesthetist.

Must maintain credentials as established by the American Association of Nurse Anesthetists as an educational administrator.

Shall have three semester hours or the equivalent in each of the following areas: 1) curriculum, 2) instruction, 3) testing and evaluation; or be actively pursuing these.

Duties

1. Shall coordinate the didactic instructions with the clinical experience.
2. Maintain appropriate records of clinical hours of each student.
3. Plan and maintain a continual evaluation and updating of clinical instructional techniques that are concurrent with the application of didactic instructional objectives.

4. Maintain professional continued education.
5. Illustrate correct method of anesthesia record keeping.
6. Shall counsel student as it relates to the clinical expertise, didactic capabilities, and the psychological development as indicated.
7. Shall observe, evaluate, and assess the students' progress.
8. Discuss and counsel student in preparation of anesthesia care plan.
9. Administer anesthesia for own professional growth.
10. Shall demonstrate outstanding capability in administering the art and science of anesthesia as so outlined for the clinical instructor.
11. The director and associate director have responsibilities that are interrelated. The duties shall be shared by either staff member in the absence of the other staff member.

## STAFF

ASSOCIATE DIRECTOR - EDUCATION

The Associate Director (Education) should be committed to the belief that it is her responsibility to educate future members of the profession of nurse anesthesia. This staff member shall have demonstrated competency in the area of the teaching/learning process including student evaluation.

Qualifications

Must be a certified registered nurse anesthetist with a baccalaureate degree in appropriate field.

Must maintain current status as a certified registered nurse anesthetist

Must maintain credentials as established by the American Association of Nurse Anesthetists as an educational administrator.

Shall have three semester hours or the equivalent in each of the following areas: 1) curriculum, 2) instruction, 3) testing and evaluation; or be actively pursuing these.

Duties

1. Plans and coordinates 24-month didactic instructional calendar for program on a monthly basis.
2. Schedules appropriate didactic lecturers.
3. Assembles appropriate reference list for monthly calendar of lectures.
4. Compiles and coordinates written reviews at appropriate intervals including a review analysis and test item analysis post administration.

5. Implements and supervises maintenance of the following files: instructional class lecture file; calendar file; resource file; testing bank.
6. Counsels and evaluates students as indicated.
7. Maintains appropriate records of instructional hours and grades for student records.
8. Plans and maintains a continual evaluation and updating of curriculum consistent with the objectives of the school and within the guidelines of AANA's Council on Accreditation and Council on Certification.
9. Functions as a liaison person to the Medical Library regarding material for school of anesthesia staff and students.
10. Acts as a member of the Admissions Committee in selection process of applicants to the program.
11. Assists in preparing Self-Evaluation Study and on-site visit by representatives of the AANA Council on Accreditation or other accrediting or approval agencies.
12. Attends all appropriate faculty workshops of the AANA.
13. Maintains professional continued education.
14. Evaluates and supervises the students' progress in the classroom and the clinical area; disciplines and passes or fails students, as indicated, in consultation with the director.
15. Administers anesthesia for own professional growth.
16. Shall demonstrate outstanding capability in administering the art and science of anesthesia as so outlined for the clinical instructor.
17. Shall have the authority to administer anesthesia at all participating facilities, if time is available from administrative duties.

18. Acts as a member of committees that are of relevant value to carry out the duties of the position.

19. The director and associate director have responsibilities that are interrelated. The duties shall be shared by either staff member in the absence of the other staff member.

## STAFF

DIRECTOR

The school must have a full time director who is capable of making mature judgments and has no physical or mental disabilities that interfere with carrying out her responsibilities.

Qualifications

Must be a certified registered nurse anesthetist with a baccalaureate degree in appropriate field.

Must have previous administration experience.

Must maintain current status as a certified registered nurse anesthetist.

Must maintain credentials as established by the American Association of Nurse Anesthetists as an educational administrator.

Shall have three semester hours or the equivalent in each of the following areas: 1) curriculum, 2) instruction, 3) testing and evaluation; or be actively pursuing these.

Duties

1. Establishes and maintains good liaison with the American Association of Nurse Anesthetists.

2. Establishes and maintains liaison between the Advisory Committee and the School of Anesthesia. Carries out policies established by the Committee, and is responsible to the Committee or its designee for fulfillment of these general policies.

3. Organizes the 24-month course along the guidelines established by the AANA, including classroom and clinical experiences.



4. Admits the requisite number of students according to the standards established by the Advisory Committee.
5. Selects, supervises and evaluates clinical instructors from among those available.
6. Prepares and manages the annual budget for the school with the assistance and supervision of the Budget Committee.
7. Schedules and arranges lectures for the classroom subjects.
8. Schedules the students in the available clinical rotations.
9. Arranges and schedules student affiliations with institutions outside the proprietary facility.
10. Evaluates and supervises the students' progress in the classroom and in the clinical area; disciplines and passes or fails students as indicated.
11. Selects educational materials for use by the students, e.g. tapes, films, literature.
12. Arranges and schedules outside activities for the students, e.g. field trips, meetings, etc.
13. Maintains the school accreditation in accordance with standards established by the American Association of Nurse Anesthetists Council on Accreditation.
14. Administers anesthesia for own professional growth.
15. Shall demonstrate outstanding capability in administering the art and science of anesthesia as so outlined for the clinical instructor.
16. Shall have the authority to administer anesthesia at all participating facilities if time is available from administrative duties.
17. Shall be a member of all committees actively involved in school activities.

18. The director and associate director have responsibilities that are interrelated. The duties shall be shared by either staff member in the absence of the other staff member.

## STAFF

ADMINISTRATIVE SECRETARY

The Administrative Secretary should be proficient in stenography as well as experienced in the responsibilities of handling routine administrative matters in behalf of the administration.

Qualifications

Background to include secretarial and business education and/or a minimum of two years experience in a high level, executive secretarial position, preferably in the field of health.

Able to take dictation proficiently and type with speed, accuracy, and knowledge of procedure and format.

Able to capably represent administration in the use of the telephone and in the mechanics of communication, including letter and report writing.

Should be honest, dependable, and presentable in appearance and personality.

Should be able to exert initiative and direction in filling daily responsibilities.

Should be experienced in the diplomacy of dealing with members of the professions as well as the student and other visitors.

Duties

The Administrative Secretary should function as the recording secretary for the minutes of all committees required in the operation of the school.

Insure that all stenographic and office supplies are available, including student report forms and school record forms.

Provide all confidential clerical work, including correspondence for the director.

Give initiative and judgment to routine matters, including correspondence and minor responsibilities of daily operation.

Should be appointed as a voting member to appropriate committees of the school program.

## GRIEVANCE PROCEDURE

Both the employer and the employee pledge their continuing efforts to secure prompt disposition of requests, complaints and grievances and agree that most disputes can be, should be and will be resolved in informal discussion. A grievance as referred to in this manual is any and all disputes concerning the application or interpretation of this agreement. Each grievance must be initiated at the first step within fifteen (15) calendar days after the occurrence or knowledge of the event causing the grievance, or the grievance shall be considered waived. The grievance procedure shall consist of the following steps:

Step I

The nurse anesthetist and/or his/her representative(s) shall confer with the immediate supervisor in an attempt to settle the matter. If the matter is not resolved within seven (7) calendar days, the nurse anesthetist has seven (7) calendar days to appeal the issue to Step II.

Step II

A grievance appealed to Step II shall be in writing setting forth the complaint, the specific violation of employment policy and the remedy sought. A meeting shall be held between the aggrieved nurse anesthetist and the medical director and/or his/her designee and the employee relations representative to resolve the issue(s). The medical director and/or his/her designee shall make the final decision.

## ANESTHESIA CARE PLAN

The Anesthesia Care Plan is a method of developing and implementing a sequence of ideas for the total, pre-interim and post, technical and theoretical management of an anesthetic. The plan gives the student the ability to research, discuss, anticipate, and evaluate the total anesthetic management. By this method of accumulation of evidence, the student will develop an armamentarium of technical and theoretical experience to become a skillful practitioner.

To develop a total picture of the anesthetic management of the patient, it is important that the student make pre-anesthetic rounds and write anesthesia care plans on all patients to whom they are assigned if possible.

The anesthesia care plan could be modified for some patients, depending upon the status of the patient and the complexity of the procedure.

## THE DEVELOPMENTAL PROCESS

## I. Stages in development and implementation of Anesthesia Care Plans.

## A. Ideal sequence.

1. Anatomy and Physiology lectures.
2. Anesthetic Agents lectures.
3. Accessory Drugs lectures.
4. Specific case management lectures on major categories ENT, Neuro, Vascular, Thoracotomy, etc.
5. Completion of "Anesthesia Care Plan Development Outline".
6. Student research and reading to supplement the outline, listing references for future use.
7. Student pre-operative visit.
  - a. chart investigation.
  - b. patient interview.
8. Completion of the Anesthesia Care Plan.
9. Discussion of Care Plan with Clinical Instructor.
10. Revision of Care Plan.
11. Implementation of Care Plan.
12. Re-evaluation of Care Plan.
13. Copy of completed Care Plan to the school.
14. Return original care plan to the student for reference.
15. Accumulation of evidence showing student improvement in patient care planning and the clinical administration of anesthetics.

## Development

## Outline

- I. Category of patient or procedure \_\_\_\_\_
- II. Pathophysiology associated with patient condition-
- III. Anesthetic goals-
- IV. Monitoring equipment needed-
- V. Problems to anticipate and avoid-
- VI. Anesthesia techniques to avoid-
- VII. Preferred anesthetic techniques-
- VIII. Operative and Post-operative complications associated with surgical procedure-
- IX. References-



Proposed Surgery \_\_\_\_\_ Elective \_\_\_\_\_ Emergency \_\_\_\_\_  
Surgeon \_\_\_\_\_ Estimated Duration \_\_\_\_\_ Consent \_\_\_\_\_ Date \_\_\_\_\_

Review Medical History & Systems Review Relative To Anesthesia Management:

Cardiac \_\_\_\_\_  
Pulmonary \_\_\_\_\_  
Metabolic \_\_\_\_\_  
Vascular \_\_\_\_\_  
Hepatic \_\_\_\_\_  
Renal \_\_\_\_\_  
Other \_\_\_\_\_

Physical Characteristics \_\_\_\_\_  
Oral: Dentures \_\_\_\_\_ Bridges, etc. \_\_\_\_\_ Teeth \_\_\_\_\_

Drug History: \_\_\_\_\_

Previous Anesthesia: \_\_\_\_\_

Age \_\_\_\_\_ Wt. \_\_\_\_\_ Ht. \_\_\_\_\_ N.P.O. \_\_\_\_\_

Laboratory Data: \_\_\_\_\_ Other Pertinent Data: \_\_\_\_\_  
Blood Electrolytes: \_\_\_\_\_  
ECG \_\_\_\_\_ DATE: \_\_\_\_\_  
Hgb. \_\_\_\_\_  
Hct. \_\_\_\_\_ CO<sub>2</sub> \_\_\_\_\_  
Ur. \_\_\_\_\_ Sodium \_\_\_\_\_  
Wbc. \_\_\_\_\_ Chloride \_\_\_\_\_  
Potassium \_\_\_\_\_  
Chest X-Ray \_\_\_\_\_

ASA Risk .1 2 3 4 5 E

Pre-operative Medication: \_\_\_\_\_ Time \_\_\_\_\_

Anesthesia Management Plan: \_\_\_\_\_

Proposed Induction Agents: \_\_\_\_\_

Technique & Methods: \_\_\_\_\_

Proposed Anesthesia Maintenance Drugs: \_\_\_\_\_

Technique & Methods: \_\_\_\_\_

Proposed Anesthesia Relaxant: \_\_\_\_\_

Monitoring Modalities \_\_\_\_\_

Projected estimated Blood Loss: \_\_\_\_\_ Estimated Blood Volume \_\_\_\_\_

Proposed Initial Fluids: \_\_\_\_\_

Reason for Consult: \_\_\_\_\_  
 Type of Anesthesia: \_\_\_\_\_  
 Alternate Choice: \_\_\_\_\_  
 Rationale if Alternate is used: \_\_\_\_\_

**ANESTHESIA MANAGEMENT SUMMARY**

Induction: As anticipated \_\_\_\_\_ Problem \_\_\_\_\_  
 Management of Problem \_\_\_\_\_

Maintenance: \_\_\_\_\_  
 Ventilatory: Spontaneous \_\_\_\_\_ Assisted \_\_\_\_\_ Controlled \_\_\_\_\_ Ventilator \_\_\_\_\_

Maintenance: As Planned \_\_\_\_\_  
 Rationale of Maintenance Changes: \_\_\_\_\_

Status at Termination of Anesthesia:  
 Vital Signs: \_\_\_\_\_ Fluids in Prog. \_\_\_\_\_ Ventilatory: \_\_\_\_\_ Reversal Drugs: \_\_\_\_\_  
 B/P \_\_\_\_\_ Spont. Resp. \_\_\_\_\_ Narcotic \_\_\_\_\_  
 Pulse \_\_\_\_\_ Airway \_\_\_\_\_ Relaxant \_\_\_\_\_  
 Resp \_\_\_\_\_ Intub. \_\_\_\_\_ Extub. \_\_\_\_\_

Discussion: \_\_\_\_\_  
 Anesthesiologist: \_\_\_\_\_

**IMMEDIATE RECOVERY ROOM SUMMARY**

Significant Verbal Communication of Patient: Vital Signs & Support Needs Total Anes. Time \_\_\_\_\_

Infusion Record: _____	Fluid Losses: _____	Agent Used _____
Lactated Ringers _____	Estimated Blood Loss _____	Anes Drug Totals: _____
Blood (Whole) _____	Measured Blood Loss _____	Demerol _____
Plasma _____	Urine Output _____	Valium _____
5% D/W _____	Gastric drainage _____	Fentanyl _____
Other _____	Totals Muscle Relaxant: _____	Innovar _____
	Curare _____	Other _____
	Succinylcholine _____	Pavulon _____
	Other _____	Flaxedil _____
		Pentothal _____

Quality of Performance: \_\_\_\_\_  
 Preparation: \_\_\_\_\_  
 Equipment \_\_\_\_\_ Manual Dexterity \_\_\_\_\_ Oral Airway \_\_\_\_\_  
 Machine \_\_\_\_\_ Positioning \_\_\_\_\_ Intubation \_\_\_\_\_  
 Other \_\_\_\_\_ I.V. \_\_\_\_\_ Ventilatory Support \_\_\_\_\_  
 Mask \_\_\_\_\_ Monitor Applic. \_\_\_\_\_

Problems Encountered: \_\_\_\_\_

Counselor's Name \_\_\_\_\_ Student's Name \_\_\_\_\_

POST ANESTHESIA STATUS

Surgery \_\_\_\_\_ Length \_\_\_\_\_ Date \_\_\_\_\_

Summarize: Problems in immediate post-anesthesia, peri-operative period \_\_\_\_\_

Post-Operative Hours      12      24      48      72      Other \_\_\_\_\_

Pertinent Sequela:

Respiratory Tract

- 1. Sore-throat \_\_\_\_\_
- 2. Hoarseness \_\_\_\_\_
- 3. Atelectasis \_\_\_\_\_
- 4. Pneumonitis \_\_\_\_\_

Gastro-intestinal

- 1. Nausea \_\_\_\_\_
- 2. Vomiting \_\_\_\_\_  
(Note time if period excessive: \_\_\_\_\_)

Cardio-vascular

- 1. Blood Pressure \_\_\_\_\_
- 2. Pulse \_\_\_\_\_

General Sequela:

- 1. Untoward reaction to anes. drugs: \_\_\_\_\_
- 2. Post-op headache \_\_\_\_\_
- 3. Muscle soreness \_\_\_\_\_
- 4. Skin reaction to tape \_\_\_\_\_
- 5. Inflammation of IV site \_\_\_\_\_
- 6. Pain at pressure points (especially in surgery with unusual positions): \_\_\_\_\_
- 7. Palsies \_\_\_\_\_
- 8. Eyes \_\_\_\_\_
- 9. Other \_\_\_\_\_

Relationship of any sequela above to anesthesia: \_\_\_\_\_

Measures taken: \_\_\_\_\_

Retrospective: What changes could be made in anesthesia management relative to development of any of the above sequela that occurred? \_\_\_\_\_

Counselor \_\_\_\_\_ Student \_\_\_\_\_

Anesthesia Care Plans

CATEGORIES	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	To	
Regional Block																						
Geriatric																						
Pediatric																						
Head																						
Neck																						
Intrathoracic																						
Extrathoracic																						
Upper Abdomen																						
Lower Abdomen																						
Extremities																						
Vascular																						
Neuroskeletal																						
Rectal/Vaginal																						
Special Procedures																						
Position Categories																						
Total No. Completed																						
Evaluator (initials)																						

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## ORIENTATION OF CLINICAL AREA

1. Students shall read procedure manual of the anesthesia department prior to beginning rotation to each facility.
2. Clinical coordinator from each facility shall be responsible for orientation of new students. Orientation to the new facility shall include:
  - a. Initiation to clinical area and equipment.
  - b. Introduction to the members of the anesthesia staff.
3. No student will practice clinical anesthesia without satisfactory orientation to the policies of the assigned area department of anesthesia.
4. The orientation for 3-11 shift is under the section on rotations.



## SICK LEAVE

1. A maximum of fourteen days sick leave per year will be tolerated without penalty.
2. For excessive sick leave, the clinical hours will be added to student's completion date without pay.
3. Student will be required to report to "Walk-In Clinic" on the second day of sick leave.
4. Sick leave is cumulative as a student from the first year to the second year.
5. If student has been an employee of Kaiser Foundation Hospital or Permanente Medical Group, no accumulated sick leave may be carried forward to student status.
6. Students who are absent should call the anesthesia school office after 7:00 a.m. to report that they will not be on duty that day. The school office will then contact the anesthesia department where the student is working and relay the information. The phone number at the school office is (213) 667-8860.

## VACATION

1. Ten (10) working days per year (80 hours).
2. Student vacations will be designated per curriculum calendar.
3. Each anesthesia department will be notified by inter-office memo of the student curriculum calendar.
4. If a student has been an employee of Kaiser Foundation Hospital or Southern California Permanente Medical Group, no accumulated vacation time may be carried forward to student status.

## HOLIDAYS

1. Holidays will be observed on the day scheduled by the anesthesia department.
2. Students on call on holiday will be compensated at the same rate as regular clinical hours.

## MILITARY LEAVE OR RESERVE TRAINING

1. Student must receive special permission to replace designated time from the curriculum calendar for vacation for military leave or reserve training.
2. Requests for military leave must be submitted three months prior to date of exit.
3. Upon return from military leave or reserve training, all academic requirements must be fulfilled within thrity days.

## CLASSES

1. Students will attend classes on designated class days.
2. Senior students that have not completed specific clinical experiences may be assigned cases in this category on designated class days with director's approval.
3. When facilities are on strike, or when there is a community disaster, classes may be discontinued and weekends cancelled. The students will report to assigned areas relating to anesthesia under proper supervision.
4. Library time must be spent in the accepted study areas; i.e., the hospital library or special areas in the hospital assigned by the school.

## CASE SELECTION

1. Each anesthesia department shall establish procedures for case selection.
- 2.—The anesthesiologist and clinical coordinator will be responsible for case selection.
3. Senior students that have not completed specific clinical experiences may be assigned cases in this category on designated class days with director's approval.
4. Student requests for specific cases will be evaluated by the anesthesiologist and clinical instructor.

## PRE AND POST ANESTHETIC ROUNDS

1. Students will make a pre-anesthetic visit to all patients they are to anesthetize. (Anesthesia department policy will prevail.)
2. Post-anesthetic rounds are to be made the day of the surgery and the first day post-operative.
3. Patients with post-anesthetic complications should be seen until complication is eliminated.
4. Pre-anesthetic visit is not to be performed in the operating room. Chart and patient are to be evaluated before patient enters the operating room suite.
5. All discussion and review with anesthesiologist or CRNA in regard to patient's status or anesthetic management shall be done in the absence of the patient. (Anesthesia department policy will prevail.)
6. Anesthesia care plans shall be implemented in a just and prudent manner that will allow the maintenance of an on-going anesthesia schedule.
7. The student in the first three months of clinical practice will do anesthesia care plans on all patients that are assigned prior to the day of surgery.
8. Junior students shall do no less than one anesthesia care plan per day while in the clinical area.
9. Senior students shall do no less than two anesthesia care plans per week while in the clinical area.
10. All anesthesia care plans shall be submitted for review at the monthly clinical evaluations.

Proposed Surgery \_\_\_\_\_ Elective \_\_\_\_\_ Emergency \_\_\_\_\_  
Surgeon \_\_\_\_\_ Estimated Duration \_\_\_\_\_ Consent \_\_\_\_\_ Date \_\_\_\_\_

Review Medical History & Systems Review Relative To Anesthesia Management:

- Cardiac \_\_\_\_\_
- Pulmonary \_\_\_\_\_
- Metabolic \_\_\_\_\_
- Vascular \_\_\_\_\_
- Hepatic \_\_\_\_\_
- Renal \_\_\_\_\_
- Other \_\_\_\_\_

Physical Characteristics  
Oral: Dentures \_\_\_\_\_ Bridges, etc. \_\_\_\_\_ Teeth \_\_\_\_\_

Drug History: \_\_\_\_\_

Previous Anesthesia: \_\_\_\_\_

Age \_\_\_\_\_ Wt. \_\_\_\_\_ Ht. \_\_\_\_\_ N.P.O. \_\_\_\_\_

Laboratory Data:  Hgb. _____ Hct. _____ Ur. _____ Wbc. _____	Blood Electrolytes:  CO <sub>2</sub> _____ Sodium _____ Chloride _____ Potassium _____	Other Pertinent Data:  ECG _____ DATE: _____  Chest X-Ray _____
---	---	---

ASA Risk .1 2 3 4 5 E

Pre-operative Medication: \_\_\_\_\_ Time \_\_\_\_\_

Anesthesia Management Plan: \_\_\_\_\_

Proposed Induction Agents: \_\_\_\_\_

Technique & Methods: \_\_\_\_\_

Proposed Anesthesia Maintenance Drugs: \_\_\_\_\_

Technique & Methods: \_\_\_\_\_

Proposed Anesthesia Relaxant: \_\_\_\_\_

Monitoring Modalities \_\_\_\_\_

Projected estimated Blood Loss: \_\_\_\_\_ Estimated Blood Volume \_\_\_\_\_

Proposed Initial Fluids: \_\_\_\_\_



Discussion Consult: \_\_\_\_\_  
 Choice of Anesthesia: \_\_\_\_\_  
 Alternate Choice: \_\_\_\_\_  
 Rationale if Alternate is used: \_\_\_\_\_

**ANESTHESIA MANAGEMENT SUMMARY**

Induction: As anticipated \_\_\_\_\_ Problem \_\_\_\_\_  
 Management of Problem \_\_\_\_\_  
 Maintenance: \_\_\_\_\_  
 Ventilatory: Spontaneous \_\_\_\_\_ Assisted \_\_\_\_\_ Controlled \_\_\_\_\_ Ventilator \_\_\_\_\_

Maintenance: As Planned \_\_\_\_\_  
 Rationale of Maintenance Changes: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Status at Termination of Anesthesia:

Vital Signs:	Fluids in Prog.	Ventilatory:	Reversal Drugs:
B/F _____	_____	Spont. Resp. _____	Narcotic _____
Pulse _____	_____	Airway _____	Relaxant _____
Resp _____	_____	Intub. _____	_____
		Extub. _____	_____

Discussion: \_\_\_\_\_  
 Anesthesiologist: \_\_\_\_\_

**IMMEDIATE RECOVERY ROOM SUMMARY**

Content Verbal Communication of Patient: Vital Signs & Support Needs Total Anes. Time \_\_\_\_\_

Infusion Record:	Fluid Losses:	Agent Used _____
Lactated Ringers _____	Estimated Blood Loss _____	Anes Drug Totals:
Blood (Whole) _____	Measured Blood Loss _____	Demerol _____
Plasma _____	Urine Output _____	Valium _____
5% D/W _____	Gastric drainage _____	Fentanyl _____
Other _____	Totals Muscle Relaxant:	Innovar _____
	Curare _____	Other _____
	Succinylcholine _____	Pavulon _____
	Other _____	Flaxedil _____
		Pentothal _____

Evaluation of Performance:

Preparation:	Manual Dexterity _____	Oral Airway _____
Equipment _____	Positioning _____	Intubation _____
Machine _____	I.V. _____	Ventilatory Support _____
Other _____	Mask _____	Monitor Applic. _____

Problems Encountered: \_\_\_\_\_

POST ANESTHESIA STATUS

Surgery \_\_\_\_\_ Length \_\_\_\_\_ Date \_\_\_\_\_

Summarize: Problems in immediate post-anesthesia, peri-operative period \_\_\_\_\_

Post-Operative Hours      12      24      48      72      Other \_\_\_\_\_

Pertinent Sequela:

Respiratory Tract

- 1. Sore-throat \_\_\_\_\_
- 2. Hoarseness \_\_\_\_\_
- 3. Atelectasis \_\_\_\_\_
- 4. Pneumonitis \_\_\_\_\_

Gastro-intestinal

- 1. Nausea \_\_\_\_\_
- 2. Vomiting \_\_\_\_\_  
(Note time if period excessive: \_\_\_\_\_)

Cardio-vascular

- 1. Blood Pressure \_\_\_\_\_
- 2. Pulse \_\_\_\_\_

General Sequela:

- 1. Untoward reaction to anes. drugs: \_\_\_\_\_
- 2. Post-op headache \_\_\_\_\_
- 3. Muscle soreness \_\_\_\_\_
- 4. Skin reaction to tape \_\_\_\_\_
- 5. Inflammation of IV site \_\_\_\_\_
- 6. Pain at pressure points (especially in surgery with unusual positions: \_\_\_\_\_)
- 7. Palsies \_\_\_\_\_
- 8. Eyes \_\_\_\_\_
- 9. Other \_\_\_\_\_

Relationship of any sequela above to anesthesia: \_\_\_\_\_

Measures taken: \_\_\_\_\_

Retrospective: What changes could be made in anesthesia management relative to development of any of the above sequela that occurred? \_\_\_\_\_

Counselor \_\_\_\_\_ Student \_\_\_\_\_



## CALL

1. Call schedule will be posted one month before implementation.
2. Call hours shall be established by each anesthesia department.

No call shall be more than 24 hours in length.

ROTATION

1. Student rotation will begin the first Monday of each month.
2. Rotations will be posted one month before implementation.

... of ... for ... of ... in ... the ...  
 ... to ... the ... of ...  
 ... the ... of ...  
 ... to ... the ... of ...  
 ... to ... the ... of ...  
 ... to ... the ... of ...  
 ... to ... the ... of ...  
 ... to ... the ... of ...  
 ... to ... the ... of ...  
 ... to ... the ... of ...

Implementation

... is ... in this ... of ... you will be ...  
 ... to ... of ...  
 ... to ... of ...  
 ... to ... of ...  
 ... to ... of ...  
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 ... A ... of ...  
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... possible ... of ...  
 ... to ... of ...  
 ... of ...

## 3-11 ROTATION

Purpose

The 3-11 shift for the anesthesia student is a new challenge and an opportunity for learning to function in emergency situations. The atmosphere in the operating suite, responsibilities, situational demands, and anesthesia problems are often different from what you have experienced thus far in your anesthesia experience. The student will have an opportunity to develop greater autonomy, speed, technical skill, cardiopulmonary resuscitation (CPR), starting IVs on difficult patients, emergency surgery, awake intubations, and some OB cases.

Requirements

Communication is vital in this particular experience. You will be encouraged to function as independently as possible in each anesthetic experience with minimal interference from the staff anesthesiologist -- provided that you show a willingness and ability to communicate progress of the anesthetic. You must recognize when you are in trouble. Depending on the problem encountered, you will be encouraged to solve the problem yourself once you have indicated to your CRNA the situation. Answer with brief "yes" or "no" answers to questions - don't elaborate unless you are asked to do so. You will be asked to elaborate when it is appropriate after the problem has been corrected.

You will receive all the help you need, not necessarily as much as you want. A second pair of hands will be available until you grow your own (preferably prior to the end of this rotation).

Whenever possible, interview patients pre-operatively before they come to the operating room. Read the chart and discuss planned technique before the surgeon arrives.

## Senior Student 3-11 Rotation

1 month	S	M	Tu	W	Th	F	S
1st week		3-11	3-11	Class	3-11	3-11	
2nd week		3-11	3-11	Class	3-11	3-11	
3rd week		3-11	3-11	Class			24
4th week		3-11	3-11	Class		24	

Childrens Hospital Rotation  
and  
Weekend Rotation at Designated Facility

1 month	S	M	Tu	W	Th	F	S
1st week		7-3	7-3	Class			24
2nd week		7-3	7-3	Class		24	
3rd week		C 7-3	C 7-3	Class	C 7-3	C 7-3	
4th week		C 7-3	C 7-3	Class	C 7-3	C 7-3	

## CHILDRENS HOSPITAL ROTATION

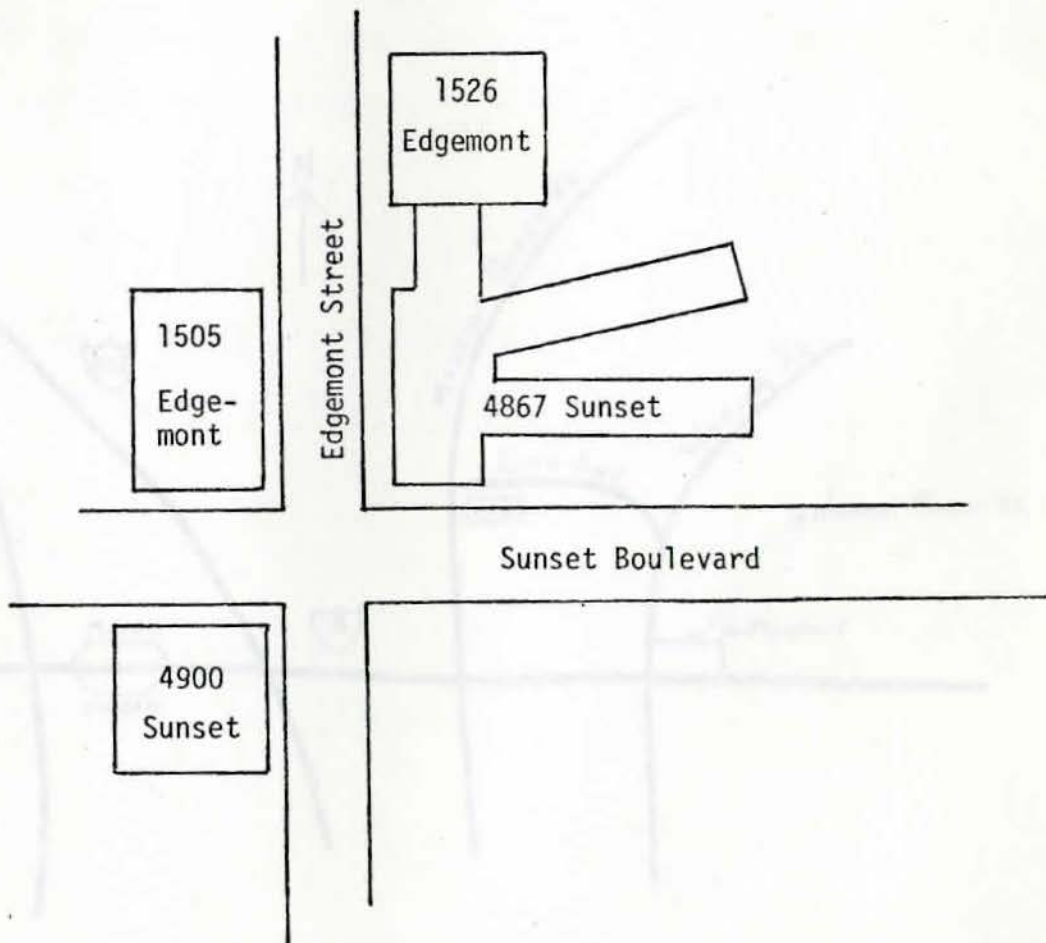
Childrens Hospital  
4650 Sunset Blvd.  
Los Angeles, CA 90054

- PARKING:** Park your car in the Sunset Boulevard Parking Lot. Parking the first day costs seventy-five cents. You will need three quarters to activate the parking meter as you leave the lot. A parking card will be issued on the first day for use during your rotation.
- ROTATION:** Rotations begin the third Monday of the month of a four week month. In a five week month, the rotation begins the fourth Monday.
- REPORT TO:** George B. Lewis, M.D., Head of the Anesthesia Department
- PLACE:** Designated conference room at 6:30 a.m.
- LOCKER:** The locker will be designated upon your arrival. The lock for the locker will be obtained from the anesthesia school office.
- CONFERENCES:** Attend Childrens Hospital Anesthesia Department conferences on Tuesdays. Pre-anesthetic evaluations each morning at 6:30 a.m.
- CLASSES:** Student attends all scheduled Kaiser/Permanente School of Anesthesia classes.



## RESPIRATORY THERAPY ROTATION

- ROTATION:** Rotations begin the first Monday of the month.
- REPORT TO:** Respiratory Therapy Department, Chief of Service
- PLACE:** Basement, 1526 N. Edgemont, Los Angeles. The room number is G069. The sign outside the door says Waiting Room 1, Respiratory Therapy. Be there at 6:30 a.m.
- LOCKER:** Locker #12 has been designated for use by our students. The combination is 18-36-46.
- CLASSES:** Students attend all scheduled Kaiser/Permanente School of Anesthesia classes.



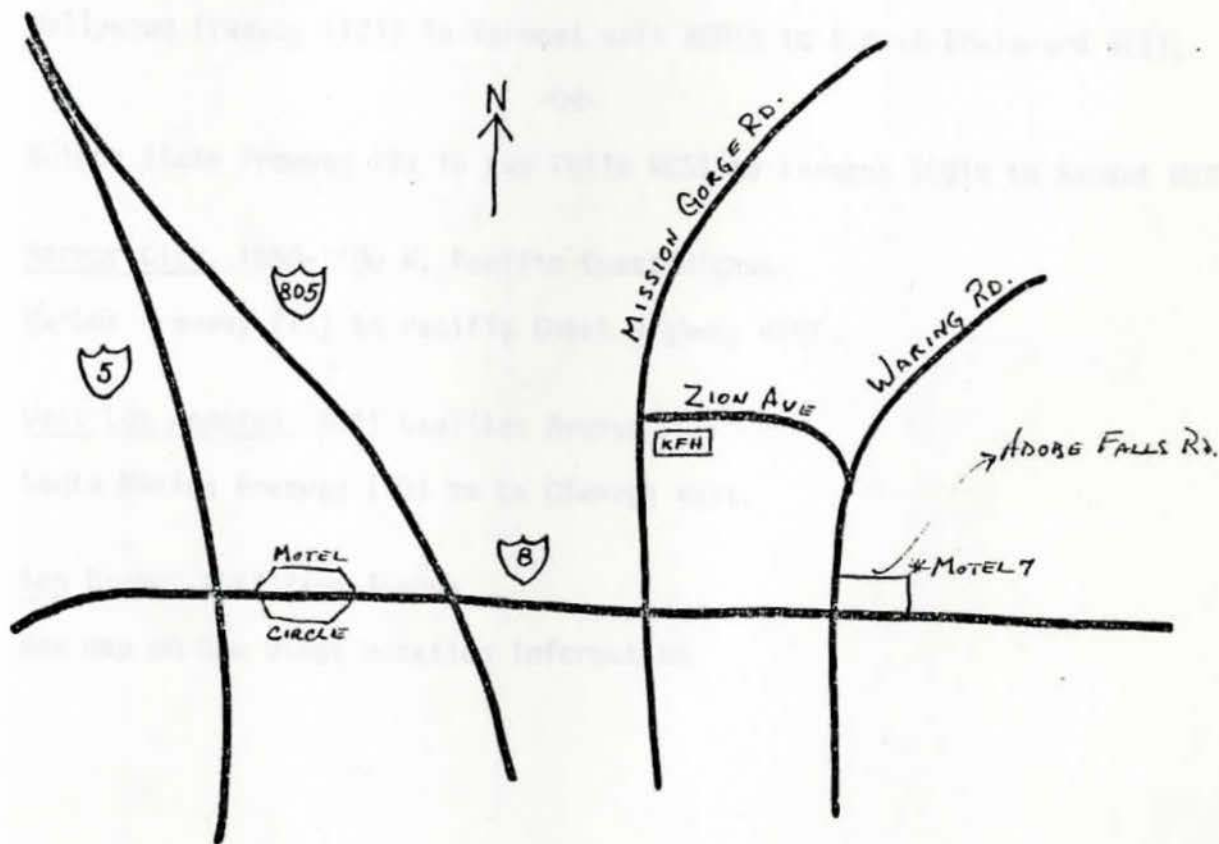
## SAN DIEGO ROTATION

Kaiser Foundation Hospital  
 4647 Zion Avenue  
 San Diego, California 92120  
 (714) 563-3000  
 Anesthesia Department -- ext. 335

Clinical Coordinator ----- Harriet Gaskill, CRNA

Chief of Anesthesia Department ---- R. Bower, M.D.

Lodging: Motel 7  
 5399 Adobe Falls Road  
 San Diego, California 92121  
 (714) 287-8730



## FACILITIES MAP

The map which follows is marked to show the locations of the six Kaiser Foundation Hospitals to which students rotate. Directions for reaching these facilities are below.

Panorama City, 13652 Cantara Street

Hollywood Freeway (101) to Roscoe exit WEST to Woodman SOUTH to Cantara St.

- OR -

San Diego Freeway (405) to Roscoe exit EAST to Woodman SOUTH to Cantara St.

Fontana, 9961 Sierra Avenue

San Bernardino Freeway (10) to Sierra Avenue exit NORTH.

Sunset, 4867 Sunset Boulevard, Los Angeles

Hollywood Freeway (101) to Vermont exit NORTH to Sunset Boulevard WEST.

-OR-

Golden State Freeway (5) to Los Feliz WEST to Vermont SOUTH to Sunset WEST.

Harbor City, 1050-1100 W. Pacific Coast Highway

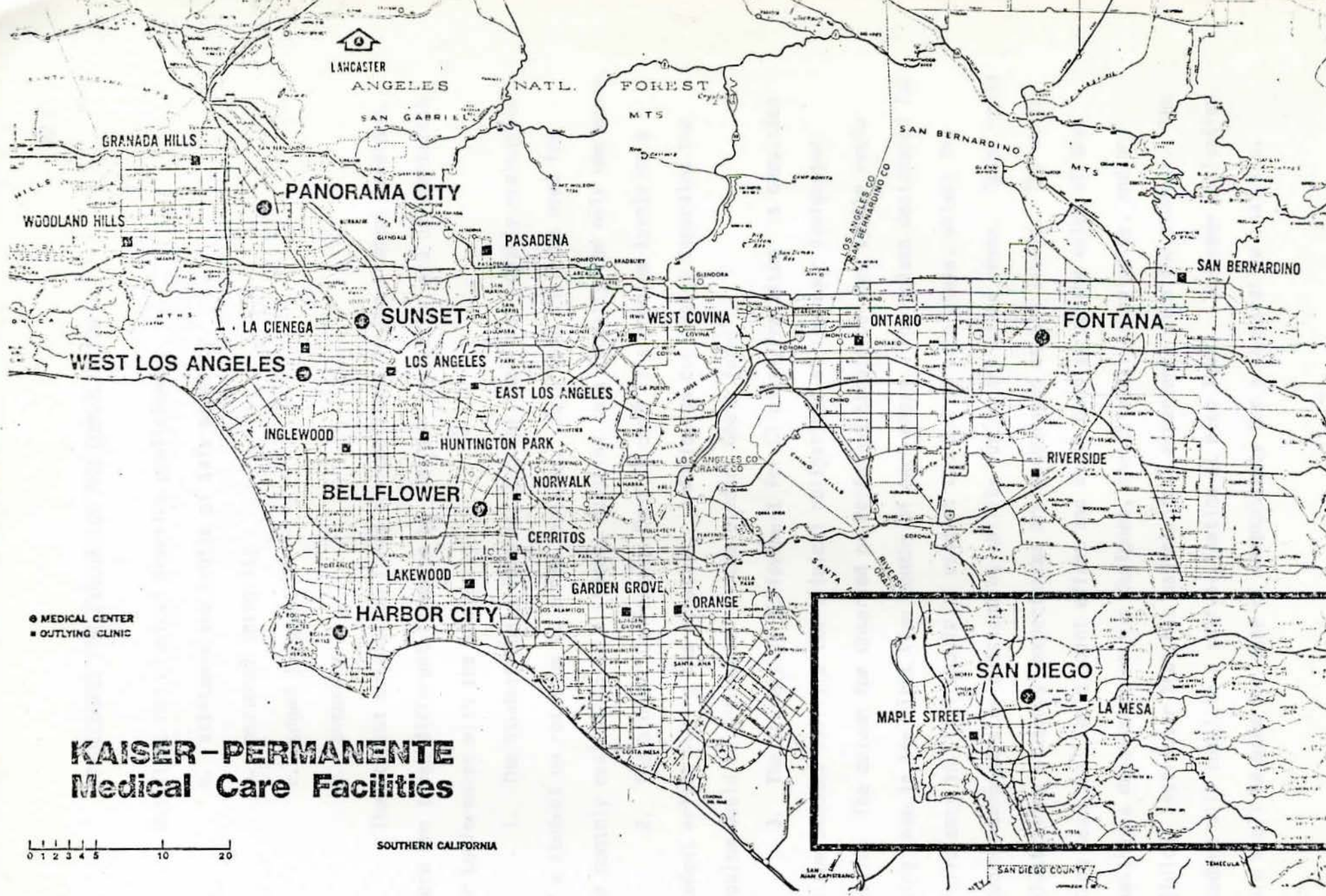
Harbor Freeway (11) to Pacific Coast Highway WEST.

West Los Angeles, 6041 Cadillac Avenue

Santa Monica Freeway (10) to La Cienega exit.

San Diego, 4647 Zion Avenue

See map on San Diego Rotation Information.



LANCASTER

ANGELES

NATL.

FOREST

MTS

GRANADA HILLS

PANORAMA CITY

PASADENA

SAN BERNARDINO

SAN BERNARDINO

WOODLAND HILLS

LA CIENEGA

SUNSET

WEST COVINA

ONTARIO

FONTANA

WEST LOS ANGELES

LOS ANGELES

EAST LOS ANGELES

INGLEWOOD

HUNTINGTON PARK

NORWALK

RIVERSIDE

BELLFLOWER

CERRITOS

LAKWOOD

GARDEN GROVE

ORANGE

HARBOR CITY

SAN DIEGO

MAPLE STREET

LA MESA

SAN ANTONIO

SAN DIEGO COUNTY

TEMECULA

## PROCEDURES FOR EVALUATION AND CONSULTATION

Guideline for clinical practice proficiency:

- a. attitudes and habits of safe practice
- b. personal integrity
- c. sound judgment
- d. accuracy

The student evaluation forms are contained in the student handbook. There are three different forms to be used for evaluation and documentation for conferences with the student.

1. The Student Goals form is used for the first monthly evaluation of a student on rotation to a new facility. This form shall be used for the monthly evaluation of a student rotation to a facility for only one month.

2. The Student Conference form is used if a problem involving a student arises during the rotation. A follow-up conference regarding the problem would be documented on the Student Goals form.

3. The "Levels of Achievement for Clinical Practicum" is completed as the student fulfills the clinical obligations at the four designated levels. The column for Observed or Performed should be used by the evaluating team in the first five months of each phase. The column designated for Proficiency in Skill should be used at the end of each phase, unless the student demonstrates outstanding ability during any given phase. Dated notes illustrating students' experiences are encouraged at all levels. The evaluating team shall be a joint effort and shall consist of the chief of the anesthesia department or his designee, the clinical coordinator, and any clinical instructor that has had clinical experience with the student. The student will complete a self-evaluation at each level. The same evaluation form shall be used for ease of adaptability for a comparative analysis.

Each evaluation form shall be signed by the student and the clinical coordinator.

The student is responsible for a monthly up-date of his case records. The clinical coordinator shall review the records at each monthly or bi-monthly meeting.

[The following section contains faint, illegible text and horizontal lines, likely representing a signature area or a table for case records.]

STUDENT GOALS

24 s

KAISER/PERMANENTE  
SCHOOL OF ANESTHESIA FOR NURSES

Student Strengths

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Goals/Suggestions for Improvements

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Significant Interview Comments

\_\_\_\_\_  
Evaluator's Signature

\_\_\_\_\_  
Student's Signature

\_\_\_\_\_  
Date

KAISER/PERMANENTE  
SCHOOL OF ANESTHESIA FOR NURSES

Student Conference

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Purpose: \_\_\_\_\_

Comments: \_\_\_\_\_

\_\_\_\_\_  
Signature of Student

\_\_\_\_\_  
Signature of Evaluator



## Standards of Clinical Anesthesia Practicum

Kaiser/Permanente

School of Anesthesia for Nurses

Los Angeles, California

### LEVELS OF ACHIEVEMENT FOR CLINICAL PRACTICUM

#### Purpose

To establish a mechanism by which the student nurse anesthetist's progress and achievement level may be assessed in clinical practicum.

## Phase I

Behavioral objectives for months one through six:

The student nurse anesthetist at the completion of Phase I shall demonstrate basic technical skills and proficiency in record keeping, applying intravenous techniques, monitoring, comprehending the simple dynamics of the anesthesia machine, maintenance of an airway, and administering anesthesia to ASA Class I and II patients.

Student's Name \_\_\_\_\_

Clinical Practicum from \_\_\_\_\_ to \_\_\_\_\_ .

Evaluating Team:

Phase I

The following behavioral objectives shall be achieved in Phase I of the anesthesia program by the student nurse anesthetist. These objectives relate to basic technical skills and basic normal human physiology.

CLINICAL SKILLS	Observed or Performed	Proficiency in Skill
A. Records		
1. Exhibit knowledge of recording data relating to anesthesia administered.		
2. Discuss and relate to chart its importance as a legal document.		
3. Demonstrate ability to locate and identify the significance of required permits, orders, and laboratory reports.		
B. Intravenous techniques		
1. Demonstrate cannulation of veins for maintenance of fluid balance, induction, and maintenance of anesthesia.		
2. Using intravenous cannulation for appropriate adjunctive drugs for anesthesia management.		
C. Monitoring		
1. Blood pressure		
a. Monitor the blood pressure by cuff and correlate the results with the progress of changes of stages of anesthesia and surgical procedure.		
b. Correlate the changes in blood pressure with each patient's physiological status.		
c. Understand the significance of systolic, diastolic, and pulse pressure as they relate to the clinical analysis of anesthesia.		

CLINICAL SKILLS	Observed or Performed	Proficiency in Skill
2. Pulse pressure		
a. Correlate changes in rate, quality, and regularity with other monitoring methods for interpretation and recognition of anesthesia stages.		
b. Relate these changes with the student's theoretical knowledge of anesthesia, surgical procedure, and cardiovascular system.		
c. Recognize changes in pulse rates and quality as taken at various pressure areas, as related to the hemodynamic principles applied to the circulation, as in esophageal, precordial, and substernal.		
3. ECG		
a. Develop an elementary understanding of recognizing ECG changes, arrhythmias relating to induction of anesthesia and their significance in patient management.		
4. Temperature		
a. Exhibit a knowledge of the variety of methods of monitoring, both Fahrenheit and centigrade, the patient's temperature.		
b. Comprehend the importance of the use of senses of sight, touch, and hearing to gain an overview of the patient's status and correlating with monitored information.		
5. Respiration		
a. Comprehend the monitoring of the rate, depth, and quality of respiration.		
b. Production of apnea, artificial ventilation, assisted respiration, and ability to return patient to spontaneous respiration.		
c. Correlate these with the student's knowledge of the patient and the effects of the various anesthetic agents on the respiratory system.		

CLINICAL SKILLS	Observed or Performed	Proficiency in Skill
9. Communication skills		
a. Demonstrate communication skills with instructor, patient, and peer group.		
b. Elaborate in general discussion on the basics of preparing an anesthesia care plan.		

Comments:

## Phase II

Behavioral objectives for months seven through twelve:

The student nurse anesthetist at the completion of Phase II, shall demonstrate proficiency in airway management, exhibit knowledge of induction, maintenance and termination of ASA Class I, II, III, IV, and E patients, also ASA Class I and II patients in major vascular, thoracic, and neuro cases, and pediatric patients under age two. Relate and understand various anesthetic drugs and agents and their relationship to the patient's physiological need; correlate these facts to the surgical procedure. Display ability to understand the "Anesthesia Care Plan" in regards to pre-anesthesia evaluation, anesthetic management, and post anesthesia care. Demonstrate the skillful use of all anesthesia equipment, intubating both nasally and orally. Interpret the results of monitoring devices in relationship to the clinical signs.

Student's Name \_\_\_\_\_

Clinical Practicum from \_\_\_\_\_

to \_\_\_\_\_

Evaluating Team:

Phase II

The following behavioral objectives shall be achieved in Phase II of the anesthesia program by the student nurse anesthetist. These objectives relate to pharmacology and its relationship to maintenance of anesthesia in ASA Class I, II, III, IV and E patients, also ASA Class I and II patients in major vascular, thoracic, and neuro cases and pediatric patients under age two.

CLINICAL SKILLS	Observed or Performed	Proficiency in Skill
A. Record		
1. Conduct a preoperative evaluation of the patient by medical history and physical assessment and record.		
2. Understand and develop an Anesthesia Care Plan as it relates to pre-anesthesia evaluation, anesthesia management, and post anesthesia care.		
B. Monitoring		
1. Correlate the changes in blood pressure as they relate to positional changes.		
2. Interpret the changes in pulse rate, quality, and regularity with other monitoring parameters. Interpret and recognize the need for treatment.		
3. Recognize ECG changes, arrhythmias relating to induction of anesthesia, and their significance in patient management.		
4. Understand the significance of monitoring temperature during anesthesia.		
5. Recognize the type of cases and patients in need of mechanical warming and cooling devices.		
6. Understand various methods of warming and cooling patients.		
7. Correlate all the parameters of monitoring and the consequence of the changes and how they relate to skin color, temperature, touch, moistness of skin, and distention of jugular vein.		

CLINICAL SKILLS	Observed or Performed	Proficiency in Skill
C. Fluid balance and blood replacement		
1. Monitor urine output and interrelate this with fluid management, to maintain fluid and electrolyte balance.		
2. Describe the physiological principles involved in the management of fluid and electrolyte balance during anesthesia.		
3. Demonstrate knowledge by proper management of patient's blood loss and replacement.		
D. Airway management		
1. Demonstrate proficiency in intubation of patients orally, nasally, blind, awake, and asleep.		
2. Apply the student's theoretical knowledge of intubation as it relates to clinical practice in making decisions in regards to the patient's physical status and surgical procedure.		
3. Recognize the main cartilages and membranes that make up the larynx.		
4. Discuss effective removal of carbon dioxide from anesthetic breathing systems by chemical or physical means.		
E. Physiology		
1. Demonstrate a progression of skills in monitoring patients, relating results with patients physiology, the anesthetic agent, and the anesthetic technique used and the amount of surgical stimulation.		
2. Exhibit primary skills in handling emergencies, pediatric and geriatric cases, as they relate to the patient's physiology.		
3. Describe the functions of the central nervous system and the autonomic nervous system in the maintenance of homeostasis.		



CLINICAL SKILLS	Observed or Performed	Proficiency in Skills
4. Describe the dermatome level for the spinal cord.		
5. Describe the role of the central nervous system and the autonomic nervous system in the maintenance of anesthesia.		
6. Perform an accurate physical assessment of selected body systems.		
7. Interpret selected cardiac arrhythmias on induction, maintenance, and emergence of anesthesia.		
8. Comprehend the importance of respiratory anatomy and correlate with anesthesia management.		
9. Describe the effects of ADH and aldosterone on reabsorption.		
10. Explain the relationship of blood supply to the layers of the skin.		
11. Distinguish myelinated and unmyelinated fibers in terms of structure and function.		
12. Describe the anatomy and the function of neuromuscular spindles.		
F. Pharmacology		
1. Apply behavior of gases and vapors and flows of gases under varying conditions to the design and use of anesthetic machines.		
2. Discuss the two systems initiated to reduce accidents in administration of anesthetics.		
a. Fail-safe systems		
b. Pin-index systems		
3. List the organizations and agencies which conduct inspections, set standards, and recommend safety precautions in handling of gas cylinders.		
4. Discuss nitrous diffusion in bowel and body cavities.		

CLINICAL SKILLS	Observed or Performed	Proficiency in Skill
5. Explain or discuss verbally the effects on enzyme induction systems and subsequent relation to anesthetic drugs, regarding dosage, fate, and detoxification.		
6. Differentiate between esters and amides and give examples of each local anesthetic group.		
7. Select appropriate current anesthetic and accessory drugs for safe use in specific patients in defined clinical situation.		
8. Explain the process of biotransformation and excretion of drugs.		
9. Describe the properties of muscle relaxants as they relate to their mode of action.		
G. Communication skills		
1. Carry out priorities in succession, rapport with patient, evaluation of case with CRNA/anesthesiologist and observation of surgery in progress.		

Comments:

## Phase III

Behavioral objectives for months thirteen through eighteen:

The student nurse anesthetist at the completion of Phase III, shall be able to successfully manage anesthesia for ASM Class I, II, III, IV, and E patients in addition to perfecting technical skills and theoretical knowledge relating physiology and pathophysiology to pharmacology in all cases. They will also broaden their scope of practice to the use of ventilators.

Student's Name \_\_\_\_\_

Clinical Practicum from \_\_\_\_\_ to \_\_\_\_\_.

Evaluating Team:

Phase III

The following behavioral objectives shall be achieved in Phase III of the anesthesia program by the student nurse anesthetist. These objectives relate to pathophysiology and systems problems as they relate to the pharmacology of anesthesia.

CLINICAL SKILLS	Observed or Performed	Proficiency in Skill
A. Fluid balance		
1. Describe the functions of the excretory system in the maintenance of homeostasis as it applies to the biochemical aspects of acid-base balance.		
2. Know the components of the blood, types of blood, and appreciate the importance of coagulation factors in blood.		
3. Understand the mechanism of monitoring the central venous pressure and the significance of this as it relates to the total clinical picture.		
4. Understand the complication of hemothorax, hydrothorax, and pneumothorax in relation to C.V.P.		
5. Demonstrate skill in the insertion, care of, interpretation, and sequale of direct arterial lines.		
B. Airway management		
1. Demonstrate technical skills and theoretical knowledge in using all available types of ventilators as they apply to anesthesia and post anesthesia ventilatory support.		
2. Elaborate on C.P.R., and demonstrate accuracy, speed, dexterity, decisiveness, and judgment in the clinical arena.		
3. Demonstrate proficiency in the use of respirometers, evaluating respiratory adequacy, and interpreting blood gases.		

CLINICAL SKILLS	Observed or Performed	Proficiency in Skill
<b>C. Physiology</b>		
1. Describe the renal physiology and pathophysiology involved in developing plans for anesthetic management.		
2. Elaborate on how specific pathophysiology of the central nervous system and/or autonomic nervous system affects the management of the patient during conduction of anesthesia and surgical procedure.		
3. Describe how pathological states of the endocrine system and hormone therapy affect the maintenance of anesthesia.		
4. Describe the implications of pathophysiology of the cardiovascular system in the management of patients undergoing anesthesia, surgery, resuscitation, respiratory therapy, and mechanical breathing.		
5. Evaluate anatomical respiratory tract abnormalities and correlate them to maintenance of a patent airway with surgical procedure involving the respiratory tract.		
6. Understand the uptake and distribution of oxygen and elimination of carbon dioxide in normal and abnormal physiology.		
7. Understand the common congenital heart abnormalities of the newborn and fetal circulation.		
8. Explain "placental barrier."		
9. Elaborate on the pH range that is compatible with life.		
10. Understand through theoretical knowledge and clinical experience the students own capabilities and limitations and know when to call for assistance.		

CLINICAL SKILLS	Observed or Performed	Proficiency in Skill
D. Pharmacology		
1. Discuss the reabsorption process and the effects of diuretic drugs.		
2. Apply the principles of drug antagonist in cases of drug overdose.		
3. Identify factors that alter the action of relaxants.		
4. Make a knowledgeable choice of accessory drugs that might be indicated in cases with a variety of pathophysiology.		
5. Recognize capabilities and limitations and seek proper consultation when necessary for drug application.		
6. Demonstrate the ability to integrate theoretical knowledge and clinical practice.		

Comments:

## Phase IV

Behavioral objectives for months nineteen through twenty-four:

The student nurse anesthetist at the completion of Phase IV shall be able to successfully manage all types of cases with technical skill and theoretical knowledge. The student shall be in genesis, becoming an independent practitioner in the profession of nurse anesthesia.

Student's Name \_\_\_\_\_

Clinical Practicum from \_\_\_\_\_ to \_\_\_\_\_ .

Evaluating Team:

Phase IV

The following behavioral objectives shall be achieved in Phase IV of the anesthesia program by the student nurse anesthetist. These objectives describe the final process of becoming an independent practitioner in the profession of nurse anesthesia.

CLINICAL SKILLS	Observed or Performed	Proficiency in Skill
<p>A. Fluid and electrolyte</p> <ol style="list-style-type: none"> <li>1. Demonstrate knowledge of fluids and electrolytes by proper management of each individual patient's fluid loss and replacement, blood loss and replacement, and electrolyte replacement.</li> </ol>		
<p>B. Physiology</p> <ol style="list-style-type: none"> <li>1. Demonstrate theoretical knowledge and skill in case management of emergency, pediatric, and geriatric cases, and the specifics needed for each type of case.</li> <li>2. Handle the maintenance and termination of all neuro, vascular, thoracic, and ASA Class V cases with assistance limited to requested information.</li> <li>3. Correlate induction, maintenance, and termination simultaneously and in relative order, leading to an independent clinical practitioner.</li> <li>4. Demonstrate complete organization in setting up all equipment required for any anesthetic management.</li> <li>5. Exhibit adaptability, accuracy, speed, dexterity, decisiveness, and judgment in clinical anesthesia.</li> <li>6. Discuss the principles that apply to the care of the patient undergoing anesthesia/surgery.</li> <li>7. Consider the various pathophysiological states in anesthetic management, chronic and acute problems involving respiratory, cardiovascular, renal, neurological, and endocrine systems.</li> </ol>		



CLINICAL SKILLS	Observed or Performed	Proficiency in Skill
8. Display appropriate nursing or medically delegated decisions when evaluating the patient for anesthetic management.		
9. Elaborate on abnormal physiological response of the patient to current drugs used daily in clinical practice.		
10. Understand the advantages and disadvantages of the various routes of drug administration.		
C. Pharmacology		
1. Determine special conditions as are surgically required for controlled hypotension or hypertension, or hypothermia.		
2. Explain the site of action, metabolism, main action, side effects and toxicity of anesthetic agents and accessory drugs used in the practice of anesthesia.		
3. Make knowledgeable choices of anesthetic agents and adjunctive drugs that are compatible with the patient's current drug and physical status.		
4. Demonstrate proficiency and knowledge of respiratory therapy regimens.		
D. Communication skills		
1. Establish the optimum communication and rapport with other health care team members that can be vital when making difficult decisions regarding patient care.		
2. Identify the anesthesiologist/physician as the leader of the surgical team.		
3. Demonstrate knowledge of and adherence to the best possible standards of anesthesia care.		

Comments:

## WARNING OF MARGINAL PERFORMANCE, PROBATION, AND DISMISSAL

1. A student not performing at an acceptable level shall be advised at the monthly or bimonthly conference session. If an improvement has not been seen within the period of one month, the student is advised that his name is being placed before the Review Committee for possible probation. The warning shall be in writing and signed by the student and his counselor.

2. If the student then performs at a satisfactory level, he should be informed that he is being removed from warning status. This shall be a written statement signed by the student and his counselor.

3. If, after the second counseling session, the student is still not performing at a satisfactory level, the student is advised his performance is still marginal and he will appear and be evaluated by the Review Committee for possible official probationary status. This shall be a written statement signed by the student and his counselor.

4. No student shall remain on probation for a period of more than three months. At three months, his status shall be evaluated and he shall return to the acceptable level of performance or shall be dismissed from the program.

5. While a student is on probation, he or she shall have a conference once a month for counseling. A written statement shall be signed by both the student and the counselor regarding the status of the student's progress.

6. If at any future date, the student's performance becomes marginal, he or she may be dismissed without a period of probation after appearing before the Review Committee.

The Review Committee shall consist of:

1. Chief of anesthesia department from each facility where students are in clinical instruction, or his representative.
2. Clinical Coordinator (CRNA) from each facility where students are in clinical instruction, or his representative.
3. Director of school of anesthesia (non-voting unless tie).
4. Associate director of school of anesthesia.
5. A disinterested member (director of nursing services, hospital administrator, or clinical director).
6. A member of the student's peer group.

## STUDENT WITHDRAWAL

Student may resign from the course at any time. No action by the Review Committee is required.

## STUDENT SUSPENSION AND DISMISSAL

A student may be suspended from clinical anesthesia duty for written accusation of the following:

1. Falsification of anesthesia, recovery, or narcotic records.
2. Use of, or giving to another person for use, any classified drug.
3. Absence without permission from assigned duties for two or more days.
4. Gross moral misconduct.
5. Intoxication on duty.

Such suspension shall remain in effect until final evaluation by the Review Committee or their representatives.

## STUDENT GRIEVANCE PROCEDURE - RIGHT OF APPEAL

The procedure is initiated informally. The student shall present his complaint orally to the instructor. If resolution satisfactory to the student cannot be made within two weeks, the complaint can be made formal, i.e. the student who feels that a situation has not been handled to his or her satisfaction, shall present his complaint in writing to the director of the school of anesthesia. Within five working days after the receipt of the complaint the director will investigate the complaint and report the findings and suggestions in writing to the student making the complaint. If the director is unable to satisfy the student, the complaint can be brought before the school Review Committee.

The Review Committee will be asked to review the problem if the chairman of the Advisory Committee should be unable to satisfy the student that the complaint has been appropriately handled. The director of the school may year discussion by the board but will not vote on its decision. The Review Committee will present a written report to the medical director suggesting how they feel the complaint can best be handled.

The student has finally the right to appeal directly to AANA. Matters of such magnitude that they might affect accreditation of the school must be brought to the attention of the Council on Accreditation. This must be done prior to the visiting of the school by council members for such information to be considered in their decision.

## CRITERIA FOR GRADUATION

1. Completion of classwork and examinations.
  - a. Minimum grade of 70% in each major category.
2. Completion of minimum number of anesthetics and anesthesia hours varied in relation to types of surgery, types of anesthetic techniques, and adequate as required by the school accreditation criteria.
3. Satisfy the faculty with regard to:
  - a. Safe attitudes and habits of practice.
  - b. Personal integrity and demonstrated responsibility.
  - c. Clinical proficiency and sound judgment.

Per Cent / Letter Grade Equivalents

A	100	A = 93 - 100
	99	
	98	
	97	
	96	
A-	95	B = 81 - 89
	94	
	93	
B+	92	
	91	
	90	
	89	
B	88	
	87	
	86	
	85	C = 69 - 77
	84	
	83	
	82	
	81	
	80	
C+	79	
	78	
	77	
	76	
C	75	D = 65-68
	74	
	73	
	72	
	71	
C-	70	F = 0 - 60
	69	
	68	
D+	67	
	66	
	65	
	64	
D	63	
	62	
	61	
	60	
F	0	

## RESEARCH REFERENCES

Audio tapes, books, journals, and reference file articles must be processed through the mechanism established for that entity.

All reference materials and audio cassette tapes will be subject to fines if returned after the due date.

Assigned readings and tapes may be checked out for a period of one week. Materials not specifically assigned for the current month may be checked out for two weeks. Library materials may be renewed if there are no requests for them by other students. Renewal is not automatic. The school must be notified on or before the due date.

Fines will be levied at the rate of 10¢ per day, weekends excluded (maximum weekly fine, 50¢). Materials overdue by one month or more will be fined at the replacement cost of the item or \$10.00 in the case of books and \$3.00 for tapes, whichever is less.

Reference books are not to leave the school premises.

Data from the school cross-reference file must be used in the classroom only.



## ANESTHESIA JOURNAL CLUB

Purposes:

1. To become familiar with the journals and literature of value to the nurse anesthetist for academic and technical enrichment.
2. To develop and improve methods of literature review and evaluation, utilizing proper techniques of critical review.
3. To share information and educationally valuable articles with your associates for mutual educational and developmental benefit.

Choice of Articles:

1. A different topic or group of topics will be assigned each month.
2. The article which you select should be chosen from literature dated no more than two (2) years publication date prior to your review.
3. Choose an article which will stimulate your thinking and that of your associates. All articles must be reviewed by a faculty member one month prior to presentation. Copies for students will be supplied by the school office.
4. Selection should be made of subject matter that is "within your reach" considering your understanding and progress in the art and science of anesthesia and related subjects.
5. Case reports may be presented if a supporting article is included and appropriately related and evaluated.
6. Do not choose a review article. Read and evaluate the original for yourself.

## CONFERENCES, SEMINARS, INSERVICE

All students shall attend all academic endeavors sponsored by the anesthesia department or by the school of anesthesia for nurses.

## FINANCIAL ASSISTANCE

1. Veterans Administration / G.I. Benefits
2. AANA Student Loan Fund - a monthly allotment
3. Johanna Epp Gilbert Memorial Fund - an emergency fund only
4. National Direct Student Loan Program
5. Basic Educational Opportunity Grant - a federal program
6. Check with the school office on applications and eligibility qualifications.

## TUITION AND FEES

A registration fee of \$25.00 is due at the time of application to the school. This fee is not refundable.

Tuition of \$200.00 is charged upon acceptance into the program. Tuition is due 14 weeks prior to the start of classes. \$100 is refundable up to two weeks after the beginning of the program.

## Bibliography

- Best, John W. Research in Education. Englewood Cliffs, New Jersey: Prentice Hall, 1970, 2nd ed.
- Campbell, William Giles and Stephen Vaughan Ballou. Forms and Styles, Theses, Reports, Term Papers. Boston: Houghton Mifflin Co., 1974.
- Gregory, Carl E. The Management of Intelligence. New York: McGraw-Hill Book Company, 1967, p. 59.
- Henke, Emerson O. Accounting for Nonprofit Organizations. : Wadsworth Publishing Co., Inc., 1968, Chapter 3.
- Houle, Cyril O. The Effective Board. New York: Association Press, 1962.
- Koontz, Harold and Cyril O'Donnell. Principles of Management. San Francisco: McGraw-Hill, 1968, pp. 416-429.
- Manger, Robert F. Preparing Instructional Objectives. Belmont, Ca: Fearon Publishers, 1972.
- McClelland, R.M.A. and W. W. Mapleson. "Feature Cards, A Method of Indexing Anesthetic Literature." Anesthesiology, Vol. 21, No. 1
- McGebony, John T., M.D. Principles of Hospital Administration. New York; G. P. Putman's Sons, 1969, pp. 290-311.
- Morrisey, George L. Management by Objectives and Results. Menlo Park; Addison-Wesley Publishing Company, 1970, pp. 42-60, 110.
- Petty, W. Clayton, M.D., Lt. Col. MC, and W. Douglas Carden, M.D., Major MC, "A Personal Cross-reference Filing System for Anesthetic Literature." Anesthesiology. Vol. 38, No. 5, May 1973.
- Reddin, W. J. Effective Management by Objectives. New York: McGraw-Hill Book Company, 1970, p. 87.
- Robert, General Henry M. Robert's Rules of Order, Newly Revised. Glenview, Ill.: Scott, Foresman and Company, 1970.
- Rubin, Louis. Curriculum Handbook: The Disciplines, Current Movements and Instructional Methodology. Boston: Allyn and Bacon, Inc., 1977.

Tankard, George G., Jr. Curriculum Improvement: An Administrative Guide.  
West Nyach, N. Y.: Parker Publishing Co., 1974, Chapter 3.

Terry, George R., PhD. Principles of Management. Homewood, Ill:  
Richard D. Irwin, Inc., 1968, pp. 380-393.

Turabian, Kate L. A Manual for Writing of Term Papers, Theses, and  
Dissertations. Chicago: The University of Chicago Press, 1973.