GRADUATE TRAINING FOR GENERAL SURGERY AND THE
SURGICAL SPECIALTIES

Nine years ago the American College of Surgeons began a study of graduate training which approaches culmination with the publication in this issue of the Bulletin of the first list of hospitals approved for graduate training in general surgery and/or the surgical specialties. This list furnishes a definite starting point for a new effort to make the list of hospitals approved for graduate training as significant and stimulative in this particular field as the Approved List of hospitals has been throughout the hospital field as a whole.

Study of a vast amount of collected data and wide observation of actual practices, upon which were built conceptions of the proper organization, conduct, and content of graduate training programs, have preceded the compilation of this first Approved List. The list itself demonstrates the need for developing more comprehensive and better correlated plans than now exist in most hospitals and other medical educational institutions.

In his report on page 41, Dr. Dallas B. Phemister, chairman of the present Committee on Graduate Training, mentions the earlier committee under the chairmanship of Dr. Samuel C. Harvey whose recommendations, published in the December, 1935, Bulletin, stimulated the extensive personal surveys and analyses of findings which have since been conducted, and the formulation of Criteria and a Manual for Graduate Training for Surgery and the Surgical Specialties which were first published in the Bulletin for January, 1938, and which are reprinted on pages 6 to 11 of the present one. The Criteria and Manual were prepared by Dr. Malcolm T. MacEachern, associate director of the College in charge of hospital activities, following analysis of information obtained in surveys made under his direction.

On May 10, 1936, the Board of Regents of the College passed the following resolution on requirements for fellowship:

BE IT RESOLVED that applicants for fellowship whose qualifying medical degree shall have been obtained after the date of January 1, 1938, shall be required to present evidence of having completed three years of hospital service in one or more acceptable hospitals, of which two years shall have been spent in training in surgery in hospitals approved by the American College of Surgeons. In the case of graduates of medical schools which withhold the medical degree until after the fifth year of hospital internship, the date set will be January 1, 1939.

The raising of the standard for fellowship has obligated the College to make certain that no qualified man who aspires to future fellowship shall lack the opportunity to obtain the graduate training required. The support of hospitals and other medical educational institutions in providing wider graduate training opportunities is essential to qualify candidates for fellowship, which is equivalent to qualifying them as competent surgeons from a surgical training point of view. In furthering graduate training for surgery the College is pursuing its general objective—to advance the science of surgery and to insure the competent practice of its art.

A comprehensive investigation of the possibilities for graduate training for surgery was conducted by special field representatives of the College during the years 1937 and 1938. The results of the first survey were published in the Bulletin for January, 1938, and the current report is published in the present issue on pages 41 and 42. The first report disclosed that there existed "no basic standard of uniformity in the methods of graduate training" and that it was most desirable that some definite organization or planned program for each year of the training period should be formulated. The current report includes recommendations, briefly stated (see page 41), covering general principles, outline of program for 2-year and for 3-year or more periods of graduate training, and statement of "adequate organization and functioning of the attending staff for the program in graduate instruction." These recommendations are elaborated upon in the plan for graduate training for surgery in a hospital by Dr. Harold Earnheart, assistant director of the College in charge of hospital activities, following analysis of information obtained in surveys made under his direction.
CRITERIA FOR GRADUATE TRAINING FOR SURGERY AND A MANUAL OF GRADUATE TRAINING FOR SURGERY

GENERAL SURGERY AND THE SURGICAL SPECIALTIES

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CRITERIA FOR GRADUATE TRAINING FOR SURGERY

THE following criteria are submitted for consideration in establishing residencies for graduate training for surgery (general surgery and the surgical specialties). These criteria are not intended to be arbitrary, but rather flexible and adjustable to the individual institution. Neither can they be considered as final, as they will of necessity be subjected to additions and adjustments from time to time.

I. THE HOSPITAL

1. A well organized medical staff with department chiefs or heads responsible for the organization and operation of the graduate training program.

2. An adequate average patient census comprised of the types of patients required and used for teaching purposes.

3. Complete laboratory and x-ray facilities under the full time supervision of an approved or accredited pathologist and radiologist respectively, with qualified technical assistants.

4. Other adjunct diagnostic and therapeutic facilities now considered essential for diagnosis and treatment in a completely equipped hospital.

5. Departmental conferences in surgery and the surgical specialties at least weekly in which the resident should be permitted and encouraged to take an active part.

6. Weekly clinicopathological conferences for the demonstration and study of interesting cases of surgical and postmortem pathology.

7. An outpatient department with systematic follow-up clinic in which the resident, under proper supervision, may spend definite time.

8. A medical library containing a wide range of standard textbooks, current medical journals and periodicals in sufficient number to provide for supplementary reading.

9. Affiliation, if possible, with other educational institutions for the purpose of providing the resident with opportunity for collateral basic science study and study on the cadaver or animals.

10. Assigned personnel, responsible for active and personal supervision and direction of the residents.

11. Reports of actual work performed by the residents, and such reports by members of the medical staff as may be necessary to ensure an equitable distribution of work;

*Reprinted from the BULLETIN, January, 1938.
II. THE RESIDENT

1. Qualifications.
   a. Character. Character, in its broadest interpretations, involves many distinct qualities, but so far as the surgeon is concerned, it may be summarized in one word—HONESTY. It embraces ethics, conscientiousness, judgment, industry, and all other elements which make up the background of a surgeon. Honesty must be evident in action, in example, in utterances, in writings, and in all contacts with patients, confrères, and all others who are allied to the practice of surgery. Honesty demands that the welfare of the patient shall be ever foremost. Honesty, coupled with surgical judgment, learning, and technical skill, assures a proper balance in diagnostic and operative procedures. Therefore, the primary qualification for a resident should be evidence of high character.
   b. Preliminary Education. A college training, preferably culminating in a degree (A.B., A.M., B.Sc., D.Sc., Ph.D.), is desirable as a cultural background since it enables the resident better to appreciate the theory of medicine and to apply it more efficiently in practice.
   c. Medical Education. Graduation from a medical school which is approved by the American Medical Association and the Association of American Medical Colleges.
   d. Internship. An internship of one year or more in a hospital providing acceptable intern training.
   e. Duration of Training. A period of at least two years, but preferably three or more years, in graduate training for general surgery or a surgical specialty.

2. Activities and Educational Program for the Resident Staff.
   Members of the resident staff should:
   a. Devote adequate time to the study of gross and microscopic surgical pathology, clinical roentgenology and radiology, and the auxiliary basic sciences.
   b. Have included in their active surgical service a sufficient number of patients to provide opportunity for study and experience in the diagnosis and treatment of a variety of surgical conditions, during which time they should obtain sufficient operative experience under supervision to give them a reasonable degree of technical efficiency.
   c. Have opportunity to observe and participate in autopsies on patients who have died postoperatively or on their surgical service, and carefully study the findings in correlation with the clinical history and course.
   d. Devote as much time as possible to reading of scientific literature, past and current, under specific suggestion and supervision of their preceptors.
   e. Supplement their knowledge by anatomical dissections and study on the cadaver and animals.
   f. Be encouraged to participate in clinical or experimental research.
   g. Devote an assigned period of time to diagnostic and follow-up work in hospitals with an out-patient department.
   h. Actively participate in medical staff and clinicopathological conferences and in the departmental meetings.
   i. Be encouraged to engage in some teaching activities, such as educational programs for student and graduate nurses, and other groups.

3. Reports of Progress; Examinations.
   a. The members of the resident staff should keep a record of their progress and at periodic intervals they should submit for the consideration of their preceptors a prescribed summary of their work.
   b. At the termination of the residency the residents should present themselves to an Advisory Committee on Graduate Training for Surgery for examination, which may consist of:
      i. A thesis jointly selected by the resident and the sub-committee, or
      ii. A written or oral scientific and clinical examination, or
      iii. Both (i) and (ii), as may be deemed advisable.

III. INSPECTION OF HOSPITALS

Hospitals selected for graduate training for surgery should be surveyed at regular intervals by competent, authorized officials. The reports of these surveys and all other essential data should be considered by the proper authorities of the organization sponsoring the work, and all hospitals which meet the requirements should be included on the Approved List of Hospitals for Surgical Residencies (General Surgery and the Surgical Specialties). Hospitals should be continued on this approved list as long as they meet the minimum requirements on which the survey is based.

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A MANUAL OF GRADUATE TRAINING FOR SURGERY (GENERAL SURGERY AND THE SURGICAL SPECIALTIES); AN ELABORATION OF THE PROPOSED MINIMUM STANDARD OR CRITERIA

 GENERAL STATEMENT

The primary object of the American College of Surgeons since it was founded has been the elevation of the practice of surgery. All activities of the College are directed toward this aim. Among them is the furtherance of graduate training for surgery which has received continued consideration during the past seven years from committees appointed by the Board of Regents to study the problem. The field representatives of the College have investigated the facilities which are available in selected hospitals of the United States and Canada. Graduate training for surgery requires a carefully directed and supervised apprenticeship in which the graduate actually participates in practical surgical work. This training is not merely a classroom or laboratory function, and it should not be confused with postgraduate study—the further pursuit of an already acquired training in a specialty. Graduate training for
surgery should embrace as an essential background continued study of the basic medical sciences—anatomy, physiology, and pathology. Three avenues of approach to graduate training for surgery and the surgical specialties are now available and through these the American College of Surgeons may be helpful:

1. Graduate training for surgery in universities or teaching hospitals supervised by departments of general surgery and the surgical specialties of medical schools. Through this plan an excellent training of five years or more is provided for recent graduates in medicine who have a proper background of medical education. Most fellowships of this character relate to general surgery alone, and are available only to a selected few. The College should encourage medical schools to inaugurate and develop graduate training for general surgery and the surgical specialties, and should accept for approval such courses as meet an acceptable standard.

2. Fellowships in outstanding clinics. These fellowships are of great merit, but they are limited in number. Existing clinics should be surveyed to determine where fellowships in general surgery or in the surgical specialties are now offered and where they might be established. The College should encourage, endorse, and support two to five-year fellowships in clinics of recognized standing, and approval should be given to such courses as meet an acceptable standard.

3. Two to five-year surgical residencies in selected hospitals. Residencies in selected hospitals afford the most extensive opportunities for training a larger number of surgeons. There are certain outstanding hospitals where existing two to five-year residencies in surgery and the surgical specialties could be considered as acceptable courses of training. In many other hospitals such courses could be readily organized. This type of training should be approved if it meets the proper standard, and the number of hospitals meeting the standard could be gradually increased. This plan appeals to the hospitals because it offers added recognition and prestige, and assures increased scientific efficiency of the medical staff through the opportunity to teach. The young graduate would be interested in the intensive training and experience offered.

THE HOSPITAL

The hospital desirous of participating in an organized program for graduate training for surgery must meet certain requirements pertaining to physical facilities, organization, medical staff, personnel, and many other features that are desirable for a high grade, instructive program. A brief study of the various elements follows:

1. A well organized medical staff with department chiefs or heads responsible for the organization and operation of the graduate training program. A well organized medical staff is one of the most important requisites and may be the determining factor in the success or failure of a graduate training program in any given hospital. Staff organization must be very definite, and specific responsibilities must be assumed by designated individuals. This presupposes the ability of the medical staff and the administration to overcome local prejudices and jealousies in making appointments. Those responsible for graduate training for surgery must be chosen solely on the basis of ability, aptitude, and interest. Too often expediency is the major consideration in filling important and responsible positions on the hospital staff. Adequate organization of the medical staff presupposes the careful selection of the chief of staff and the various heads of departments. There should be exclusive specialists in their respective fields. They must be of high scholastic and professional standing and must possess the attributes of a teacher.

2. An adequate average patient census comprised of the types of patients required and used for teaching purposes. The amount of available clinical material for the resident staff is vaguely stated but the actual number of patients is not as important as the use which is made of those who are available. They should be of such number and variety as will assure the young surgeon of a varied training and experience. The completeness of the preliminary study necessary in arriving at a correct diagnosis should be emphasized. The variety and nature of the pathological conditions encountered are also important. The status of the patient as judged from the classification (free, part pay, or full pay) is of no value in estimating availability for teaching purposes. In some state owned universities hospitals none of the patients is listed as "free," the charges being fully paid through county or state taxation, but all such patients are available for teaching purposes. The commendable attitude has been developed in some few hospitals whereby no distinction is made between private patients or others as far as the resident staff is concerned, and the private patients are used as freely as ward patients for teaching purposes. If previous explanation is properly made to the private patient, only occasionally will he object to having an interne or resident in attendance, or to being used for teaching purposes. The majority of private patients cooperate wholeheartedly and are appreciative of the added attention. The private patient-physician relationship is a matter of attitude and of education. More imaginary than real is the fear of losing patients as a result of using them for teaching purposes and allowing the resident staff to assume supervised responsibility for their care.

3. Complete laboratory and x-ray facilities under the full time supervision of an approved or accredited pathologist and radiologist respectively, with qualified technical assistants. The importance of complete clinical laboratory and x-ray services is fully recognized in any plan for graduate training for surgery. The hospital must have a complete range of facilities and personnel to do all phases of the necessary work in both of these departments. These aids in diagnosis and therapy should be well supervised and directed. This presupposes three important requirements: first, that the departments or services be supervised by an approved or accredited pathologist and an approved or accredited radiologist respectively; second, that the services of the pathologist and the radiologist be on a full time basis; third, that there be an adequate number of approved, trained, technical assistants in each department.

There are many situations where two or more hospitals share the services of a pathologist and a radiologist with satisfaction to all concerned. Planned supervision of this nature must sometimes be recognized, but individual consideration should be given to each case.

4. Other adjunct diagnostic and therapeutic facilities now considered essential for diagnosis and treatment in a completely equipped hospital. The extent to which adjunct
diagnostic and therapeutic facilities are available is variable, but their importance is obvious. It is reasonable to expect that a hospital purporting to give training of any type should have adequate, properly supervised facilities for electrocardiography, basal metabolism, physical therapy, oxygen therapy, and such other adjunct services as are necessary to elucidate or confirm the diagnosis and carry out the scientific treatment.

5. Departmental conferences in surgery and the surgical specialties at least weekly in which the resident should be permitted and encouraged to take an active part. The essentials of a good medical staff conference are described in detail on pages 21–25 of the Manual of Hospital Standardization, 1937. The educational value of well conducted staff conferences is very closely related to an effective program of graduate training for surgery. The purpose of the conferences is to critically review and evaluate the clinical work of the service, including particularly selected deaths, unique cases, wound infections, errors in diagnosis and technique, problem cases, and other aspects of the clinical activities of the department or service. Careful minutes should be kept of the staff conference for both current and future reference. Complete details of the conduct of staff conferences will be found in the Manual of Hospital Standardization.

6. Weekly clinicopathological conferences for the demonstration and study of interesting cases of surgical and post-mortem pathology. In the larger hospitals clinicopathological conferences for the demonstration of pathological material from the operating room and autopsy room are held weekly, bi-weekly, or monthly, depending upon the amount of material to be reviewed and upon whether or not the conferences are arranged for the entire medical staff or by and for the surgical staff alone. Weekly meetings are to be preferred for them permit of more extensive use of the fresh or frozen specimens which are to be preferred to fixed specimens. Many types of programs may be devised. The following procedure is suggested in the Manual of Hospital Standardization:

   a. Present abstracted reports of selected cases.
   b. Demonstrate growths and microscopic pathology.
   c. Correlate clinical and pathological findings.
   d. Compare reports with the literature.
   e. Summarize findings and conclusion.

   The success of these conferences depends upon the pathologist and his teaching ability. The greatest educational value can be obtained, however, by utilizing members of the resident medical staff to aid in presenting the case reports and more especially to correlate these reports with the literature. The resident staff can also be utilized advantageously by making them responsible for the records of these meetings and by utilizing the material presented for subsequent group studies and comparisons of end-results.

7. An outpatient department with systematic follow-up clinic in which the resident, under proper supervision, may spend definite time. The importance of the outpatient department and its role in the training of the resident staff require little elaboration. Proper supervision, however, should be emphasized. In too many outpatient departments the major responsibilities are thrown on the resident staff without supervision of attending staff members. The teaching value of outpatient work is largely dependent upon the amount of interest shown by the attending staff members.

8. A medical library containing a wide range of standard textbooks, current medical journals and periodicals and other references to provide for supplementary reading. Every scientific and teaching hospital should maintain a medical library which will provide the house staff and the attending physicians with a carefully selected, basic collection of the latest authoritative medical textbooks, current medical journals, and works of reference in the various branches of medicine and surgery. The National Library of Medicine has published a revised list of current medical journals, textbooks, and monographs which was prepared by the Department of Literary Research of the American College of Surgeons in cooperation with the Library Committee.

9. Affiliation, if possible, with other educational institutions for the purpose of providing the resident staff with opportunity for collateral basic science study and study on the cadaver or animals, during the course of graduate training for surgery. A few hospitals in which residents are being trained at present are not affiliated in any way with a medical school or other educational institution, but they have made available facilities through which members of the resident staff are able to thoroughly review anatomy and pathology. Many hospitals have well developed laboratory facilities and other services but have not fully utilized them for teaching purposes. In most non-affiliated hospitals, however, the financial burden will preclude the development of local facilities for such training and this will necessitate an affiliation with existing basic science departments of other institutions for such training. The resident staff should spend a definite period of time in the study of gross and microscopic pathology, clinical radiology, and other basic sciences, such as anatomy and physiology. The problem of providing these services must be worked out in each individual case.

10. Assigned personnel, responsible for active and personal supervision and direction of the resident staff. The resident staff should be adequately supervised. In many instances active and personal supervision and direction of the resident staff does not obtain, even though the organization has been outlined and responsible heads of departments have been designated. Often the administration assumes that the department head is carrying out his obligations and the department head assumes that the attending physicians are adequately fulfilling their duties, while actually no one sees to it that the
training program is carried out in detail and that existing possibilities are utilized to the fullest extent.

It is recommended that the surgical staff of every hospital which undertakes graduate training for surgery should appoint one surgeon or a committee of surgeons to be responsible for the program of graduate training for surgery in that hospital and to see to it that the resident staff is securing the full measure of training and experience.

11. Reports of actual work performed by the resident surgical staff and such reports by members of the medical staff as may be necessary to assure an equitable distribution of work, these reports to include additional educational activities offered by the hospital and participated in by the resident staff. A full knowledge of the extent and variety of the training being given to the resident staff may be had only from actual records. In hospitals in which the visiting staff does a considerable portion of the surgery this is particularly important and there should be a record of the actual work done by both the attending and resident staff in order to properly evaluate the service and training program. Inequalities in the distribution of work on the surgical service, which may be detrimental to a particular group, may exist for long periods of time without the knowledge of the administrative or department head. In order that the volume and variety of work in general surgery or the surgical specialties may be known at all times there should be available a careful record of operations performed.

SELECTION OF APPLICANTS FOR GRADUATE TRAINING FOR SURGERY

1. Character. In its broadest interpretations, character involves many distinct qualities, but so far as the surgeon is concerned it may be summarized in one word—Honesty. Character embraces ethics, conscientiousness, judgment, industry, and all other elements which make up the background of a surgeon. Honesty must be evident in action, in example, in utterances, in writings, and in all contacts with patients, confères, and all others who are allied to the practice of surgery. Honesty demands that the welfare of the patient shall be ever foremost. Honesty, together with surgical judgment, learning, and technical skill, assures a proper balance in diagnostic and operative procedures. Therefore, the primary qualification in the selection of applicants is evidence of high character.

2. Preliminary Education. A college training, preferably culminating in a degree (A.B., A.M., B.Sc., D.Sc., Ph.D.). A cultural background is desirable since it gives the surgeon a better appreciation of the theory of medicine and enables him to apply his knowledge more efficiently. This, however, cannot be insisted upon as a requirement in every instance at the present time.

3. Medical Education. Graduation from a medical school which is approved by the American Medical Association and the Association of American Medical Colleges.

4. Internship. An internship of one year or more in a hospital providing acceptable intern training. During the internship the candidate should receive either a general experience through well-organized rotating services or a special training through a straight surgical service, before seeking graduate training for surgery.

5. Duration of Training. A period of at least two years, but preferably three or more years in graduate training for general surgery or a surgical specialty.

ACTIVITIES AND EDUCATIONAL PROGRAM

1. Members of the resident staff should devote adequate time to the study of gross and microscopic surgical pathology, clinical pathogenesis and radiology, and the auxiliary basic sciences. The manner or method of accomplishing study in the basic sciences will be determined to a considerable extent by the type of institution, the volume of routine work, and the availability of these facilities. It is recommended that collateral study in pathology and the other basic sciences should be done so far as possible during a period in which the surgeon in training is relieved from the major portion of house responsibilities. Most hospitals connected with medical schools are confronted with the problem of providing an adequate resident staff to carry on the routine work, while other members of the staff devote the major share of their time to pathology and other basic science study. In some institutions the resident staff devotes half days during an assigned period of six months or a year to basic science study and/or research. The other half days are devoted to out-patient assignment or work on one of the less active services in the hospital. In hospitals which are not connected with medical schools, or whose affiliation is not of such a nature that the basic science facilities of the medical school are available, it may be necessary to limit the work in the basic sciences to pathology and anatomy. This situation demands that a definite educational program for the resident staff be organized in the pathological department of the individual hospital, and the success or failure of the program will depend largely upon the pathologist. Under the circumstances here outlined, collateral study may have to be pursued concurrently with the routine hospital work, in which event the administration and the medical staff must recognize their obligation to the resident staff in providing sufficient time for the added duties.

Affiliation with other educational institutions will be necessary in hospitals with limited pathological facilities and this may necessitate adding members to the resident staff or extending the time for the graduate training program, or both. A rearrangement or redistribution of responsibilities may effect the desired result, with mutual benefit to the hospital and to the resident staff.

In most instances the collateral work in roentgenology and radiology can be provided for concurrently with the regular duties of the resident staff. It is only necessary for the radiologist to organize and carry out a teaching program.

2. The active surgical service should include a sufficient number of patients to provide opportunity for study and experience in the diagnosis and treatment of a variety of surgical conditions, during which time he should obtain sufficient operative experience under supervision to give him a reasonable degree of technical efficiency. The question as to what constitutes a sufficient number of patients and variety of surgical conditions is interpreted arbitrarily. There are several situations which may prevent the resident staff from securing a good, well-rounded training. In large institutions in which the various surgical specialties are departmentalized and segregated the program of training in general surgery may not include contact with some of the important surgical and pathological entities. This complex situation requires considerable thought and planning. Again there may not be opportunity for a well-rounded training in smaller hospitals which are not connected with medical schools and in which the size of the surgical service is limited. The importance of keeping records of all work done on the surgical service is again emphasized. Quality of work, the scope of work found in the work, if any, and the completeness of the records are all fully appreciated and the teaching of the surgical staff be
amplified to cover situations with which the resident staff does not come in contact.

3. There should be an opportunity to observe autopsies on all patients who have died postoperatively or have died on the surgical service, and to carefully study the findings in correlation with the clinical history and course. Participation in the performance of autopsies should be possible. There must be the utmost cooperation between the management and the medical staff of the hospital in attempting to secure a continually increasing percentage of autopsies, the minimum number of which should be at least 25 percent of all deaths. The incidence of autopsies in any hospital is good evidence of the scientific progress in the institution and of its scientific atmosphere. The time of the postmortem examination should be set so far as possible, the resident staff may attend or participate. A definite method of notification to all members of the resident medical staff usually exists in every hospital.

4. As much time as possible should be devoted to reading of scientific literature, past and current, under specific suggestion and supervision of his preceptor. It is advisable to have an organized activity in this respect, such as a "Journal Club," to serve as a stimulus and ensure the fulfillment of this important obligation. There are several methods of conducting a journal club, among them the following: Each member of the resident staff can be asked to make a complete and comprehensive review of the majority of the important articles contained in one or more current medical journals or periodicals. Although this alone may not guarantee a student an opportunity to be supplemented by assignments of specific topics to be read. Another method is to stimulate current reading by means of medical staff conferences, seminars, or research being done in the hospital, when reviews of the literature as they pertain to the problems under discussion may be applied to current clinical work in the hospital. A systematic, supervised plan for reading of medical literature should be arranged for each member of the resident staff in connection with the program of graduate training for surgery.

5. The surgeon in training should supplement his knowledge by anatomical dissections and study on the cadaver and animals. In graduate training for surgery it is advisable to supplement knowledge and experience by anatomical dissections on the cadaver and on animals. This requirement presents a problem, but with few exceptions it can be arranged satisfactorily. This work should be done under a preceptor.

6. The resident staff should be encouraged to participate in clinical or experimental research. Opinions differ as to the extent to which the resident staff should participate in research work. Only an occasional individual will produce or discover anything of lasting value to the medical profession, but the individual who undertakes and pursues a research problem under proper guidance derives something of worth which can be obtained in no other way. The pursuit of a clinical or experimental research problem involves new avenues of thought and approach, and inculcates a commendable scientific attitude toward daily diagnostic problems.

7. An assigned period of time should be devoted to diagnostic and follow-up work in hospitals with an out-patient department. The place of a well-organized out-patient department in the graduate training program has been referred to under the hospital requirements. An out-patient department conducted under the standards stipulated by the American College of Surgeons offers excellent opportunity for acquiring further knowledge and experience, particularly in case studies, differential diagnosis, and follow-up work. The latter particularly is of intrinsic value.

8. There should be active participation in medical staff and clinicopathological conferences and in the departmental meetings. This should be a studied participation and should consist of more than the brief presentation of a patient's history. The survey of graduate training facilities revealed the commendable fact that 70 or 80 percent of the hospitals required attendance and participation in medical staff and clinicopathological conferences. Some question was raised as to the actual educational value to the resident staff of many of these conferences. Prearranged participation with preparation can be of definite educational value to all members of the medical staff. In some institutions several meetings a year are prepared and conducted entirely by the resident staff. The College has made an exhaustive study of the organization and the conduct of medical staff conferences and has worked out a plan through which the maximum benefit will accrue to the attending staff. The College urges the active participation of the resident staff in these conferences.

9. The resident staff should be encouraged to engage in some teaching activities. Educational programs for nurses, student and graduate, and other groups provide unlimited opportunities for these endeavors. These should be directed and guided activities. Varying degrees of responsibility may be given to the resident staff in respect to teaching opportunities, based upon the variation in types of hospitals and the proclivity and ability of the individual. It is believed that in many instances more responsibility for teaching could be given the resident with mutual benefit to the resident staff and the hospital. The study and review required of a teacher are stimuli which can be secured in no other manner. There are many possibilities for utilizing the resident staff in some teaching program, not only in hospitals connected with medical schools, but in those without such affiliation.
Fundamental Principles -- Graduate Training for General Surgery and the Surgical Specialties

The Hospital

The hospital should provide:

1-a. A well organized medical staff with department chiefs or heads who are responsible for the organization and operation of the graduate training program.

b. Assigned personnel, responsible for active and personal supervision and direction of the resident staff.

2-a. Departmental conferences in general surgery and the surgical specialties at least weekly in which the resident should be permitted and encouraged to take an active part.

b. An active surgical service with a sufficient number of patients to offer opportunity for study and experience in the diagnosis and treatment of a variety of surgical conditions.

c. An outpatient department with systematic follow-up clinics in which the resident, under proper supervision, may spend definite time.

3-a. Adequate clinical laboratory and x-ray facilities under the full time supervision of an approved or accredited pathologist and radiologist respectively, with qualified technical assistants.

b. Other adjunct diagnostic and therapeutic facilities now considered essential for diagnosis and treatment.

c. Weekly clinicopathological conferences for the demonstration and study of surgical and post-mortem pathology.

d. Affiliation where necessary with other educational institutions to offer the resident staff opportunity for collateral basic science study and study on the cadaver or animals.

4. A medical library containing a wide range of standard textbooks, current medical journals and periodicals.

The Resident Staff

It is desirable that the resident staff should:

1-a. Devote adequate time to the study of gross and microscopic surgical pathology, clinical roentgenology and radiology, and the auxiliary basic sciences.

b. Observe and participate in autopsies on patients who have died postoperatively or on the surgical service, and study the findings in correlation with the clinical history and course.

c. Supplement clinical knowledge by anatomical dissections, study on the cadaver and animals, and/or other basic science study.

d. Participate in clinical or experimental research.

2-a. Obtain sufficient operative experience under supervision to provide a reasonable degree of technical efficiency.

b. Devote an assigned period of time to diagnostic and follow-up work in hospitals with an outpatient department.

3. Participate in medical staff and clinicopathological conferences, and in the departmental meetings.

4. Be responsible for some teaching activities, such as educational programs for student and graduate nurses, and other groups.

5. Devote as much time as possible to reading of scientific literature, past and current, under specific suggestion and supervision of preceptors.

Reports of Progress

1. Records of the work of the resident surgical staff should be kept by the hospital, and such other records as may be necessary to insure an equitable distribution of work, and to provide a basis for evaluating the scope of training.
HOSPITALS OF THE UNITED STATES AND CANADA APPROVED FOR GRADUATE TRAINING IN GENERAL SURGERY AND IN THE SURGICAL SPECIALTIES AS OF JANUARY 1, 1939*

The American College of Surgeons announces the following list of hospitals, affiliated hospitals, and other medical educational institutions which are participating in programs of training in general surgery and in the surgical specialties. These programs are graded as follows:

1. Fully Approved. The programs sponsored in these institutions and/or other medical educational institutions are properly based on the fundamental requirements and are functioning acceptably.

2. Provisionally Approved. The programs in these institutions and/or other medical educational institutions are properly based on the fundamental requirements, but for lack of time or other sufficient reasons are not fully meeting the requirements.

3. Not Rated. The programs in these institutions and/or other medical educational institutions are not meeting the fundamental requirements.

If problems temporarily affect the eligibility of a hospital or other medical educational institution at the time the approved list is published, the rating of that particular institution may be deferred for further information and observation. Each institution is considered for rating annually. An institution once approved will not necessarily remain so. Ratings automatically cease on October 1, when new ratings are determined.

The purpose of the Approved List is obviously to encourage the proper correlation of activity in the field of graduate training in surgery and the surgical specialties; to promote a co-operative effort between hospitals and other medical educational institutions so as to assure experienced guidance in educational programs in surgery; to expand opportunities for graduate training into a greater number of hospitals having acceptable facilities; finally, and most important, to provide sufficiently for the training of Junior Candidates and future Fellows according to existing requirements, which include:

- Applicants for fellowship whose qualifying medical degree shall have been obtained after the date of January 1, 1938, shall be required to present evidence of having completed three years of hospital service in one or more acceptable hospitals, of which two years shall have been spent in training in surgery in hospitals approved by the American College of Surgeons.

In substance this means that until such time as there may be a sufficient number of opportunities for graduate training in general surgery and/or the surgical specialties which meet the requirements for approval for graduate training, the College will continue to specifically evaluate on merit the training of each individual candidate for fellowship.

An internship of at least one year, in a hospital providing acceptable internship training, is considered as a basic and fundamental requirement for graduate training. This internship may be of the rotating, mixed, or straight service type.

The Approved List is based on a minimum period of at least two years, preferably three or more years, with full time devoted to graduate training. Residence in the hospital or other medical educational institution is desirable. Where combined specialty fields are included, the minimum requirement for approval presupposes three years or more in training.

Due consideration was given to the provision of adequate basic science study as included in the graduate training programs and the close correlation of such study with clinical services in the various hospital departments. However, in recognition of the variation in existing opportunities and the wide divergence of opinion on this subject, it was considered that this requirement may be fulfilled through a variety of acceptable plans of collateral study. In the rating of institutions, serious attention was given to the setting aside of definite time for the satisfactory pursuit of basic science study.

The Approved List designates primarily the major teaching hospitals or other medical educational institutions which originate and direct the program of graduate training in general surgery and/or the surgical specialties as enumerated, giving due credit to any affiliated institution which may co-operate in carrying it to completion. Thus a hospital which participates in a program to the extent of providing a period of clinical experience in residence appears on the list under the heading, "Affiliation for Graduate Training." The Approved List does not include hospitals offering a period of clinical experience which is not properly correlated or co-ordinated through affiliation in a program of complete training. Medical schools have been included under the heading "Affiliation for Graduate Training" only in those instances where they participate in guiding and directing the graduate program, or where they provide facilities for basic science study. They have not been included if the affiliation is for undergraduate teaching alone. In recognition of the current trend in developing graduate medical education on an academic basis, the list designates those institutions offering graduate degrees for which registration is optional or required.

There follows the list of hospitals and/or other educational institutions in the United States and Canada which are conducting Fully Approved and Provisionally Approved programs of graduate training in general surgery and/or the surgical specialties as of January 1, 1939. The asterisk (*) indicates provisional approval.

*The College has two lists of approved hospitals: (1) the "List of Approved Hospitals" that meet the Minimum Standard for Hospitals, which was published in the October, 1938 Bulletin; (2) the "List of Affiliated Hospitals Approved for Graduate Training for General Surgery and/or the Surgical Specialties," which is published on succeeding pages.
Map Showing Distribution of Hospitals Approved for Graduate Training in General Surgery and in the Surgical Specialties.