years with an announced opportunity for additional specialty training leading to board eligibility, either at the same institution or at another institution, depending upon the initial arrangement with the first-year student.

While we are clearly going through a transitional period at present, it offers as well an "opportunity" for the first year graduate student to enter upon what amounts to the first year of residency training (a straight type of internship), or to expand upon a senior year rotational elective program providing time for additional experience and contemplation concerning appropriate career directions in medicine. There is also an opportunity for an intermediate next step providing what amounts to a major educational emphasis with opportunity for further explorations. Each of these opportunities remains available through the Categorical or what could be termed the straight program. The Categorical Star program, a program wherein there is a major emphasis in internal medicine, has opportunities for flexibility for as much as three-fourths of the program, and offers essentially all of the Flexible program which can provide the first-year postgraduate with a means of further exploration of opportunities begun in a flexible or elective senior year.

The main factor of concern to most students with whom I visit is the fact that they are uncertain as to what they are compromising or achieving if they delay somewhat by focusing upon the Flexible or the Categorical Star program. These questions, of course, are most prominent among that one-third of students who tend to change their mind one or more times subsequent to the opening of their senior year of medical studies. Further, those students who have a career design, fixed and firm, need to know the plan of involvement, the plan of commitment, as well as the plan of approach in the Categorical program to which they are matched and whether or not they are committed to a year or to a series of years leading up to and including that number required for board eligibility. For that approximately one-third of students who find it desirable to enter into either the Categorical Star or the Flexible program, the clinical chiefs in charge of such programs will find themselves under increasing pressure from other clinical chiefs to offer fragments of their Categorical as "electives" in order to develop Categorical Star or Flexible experiences for those postgraduate students selecting these experiences on other services.

It is my view that the Flexible program has and will continue to decline in popularity and that the programs will essentially divide themselves into Categorical for the two-thirds of those students who are certain regarding their future plans, and the Categorical Star for that approximately one-third who are less certain regarding the precise nature of the future in medicine they hope to achieve. It is in this latter circumstance that pressure will build among the several services to cooperate and offer fragments of the Categorical program to these postgraduate students seeking to enter Categorical Star programs.

We are clearly moving toward an integrated program of continuous education of physicians. This, in my view, is a forward step and a step long overdue. At the same time, we must be mindful that this change brings a need for change in the way we disseminate information, in the way we advise our students, and in the way we plan for those students as they develop their careers. We must also be mindful that approximately two-thirds have well fixed career designs and that the remaining approximately one-third are more fluid in their decision making process.

Bibliography:

Effect on Recruitment to Surgery
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With less than a year's experience with the changes in graduate medical education, we have opinions regarding their effects but no data to support the opinions. My remarks will include (1) a brief description of the changes in graduate medical education with which we are dealing, (2) a consideration of how these changes are perceived by medical students, (3) comments on career choice, and (4) some recommendations for minimizing undesirable effects of these changes.

continued
DESCRIPTION OF THE CHANGES
IN GRADUATE MEDICAL EDUCATION

Considerable confusion persists regarding the cause and substance of the changes which have occurred in graduate medical education. These changes were the subject of a session at the Clinical Congress of the American College of Surgeons in October 1974 which was summarized in the Bulletin of the American College of Surgeons in March 1975. Briefly, the initial change resulted from adoption by the AMA House of Delegates of recommendations made by one of its advisory councils in 1970. The recommendation pertinent to this discussion was that the internship be integrated into a unified program of graduate medical education. It should be repeated, as has been emphasized by Holden, that this was not a deprecation of internship programs nor was it a recommendation to abolish the internship. What was abolished by implementation of this recommendation was the “free standing internship” not structured as a continuum in some longer graduate medical education program. This change adopted by the AMA House of Delegates had no direct effect on the length of graduate education.

After 1970, several of the specialty boards did shorten the educational period required for certification by dropping the requirement for an internship prior to entering residency training. It is important to emphasize that the recommendation of the Council on Medical Education simply changed the designation of the first postgraduate year, whereas the action of the specialty boards actually deleted the requirement of the internship experience, thus shortening the total length of required postgraduate medical education.

Medical schools, in changing the graduate medical curriculum and, in some instances, shortening the curriculum to three years further confused the issue. Curriculum changes resulted from individual institutional decisions and were in no way correlated with the actions of the AMA or the specialty boards.

Another development pertinent to the discussion was the Conference on the First Postdoctoral Year which was held at ACS headquarters February 22, 1975. This conference brought together representatives from a number of organizations dealing with postgraduate education in surgery. A summary of these deliberations was published in the ACS Bulletin in July 1975. This conference recommended the establishment of a basic surgery first year of postgraduate medical education leading to continuation in general surgery or shifting to a surgical specialty program after one or two years devoted to learning basic surgical knowledge and skills.

PERCEPTION OF THE CHANGES
BY MEDICAL STUDENTS

Based on conversations with medical students at our own institution and others, I would categorize student perception of the changes into two responses: that the changes force the student to progress too fast, and that the changes are restrictive.

Students understand clearly that the requirement for the experience formerly called internship has been removed by some disciplines and care little why this change occurred. They are wise enough to see that most students have neither the skills nor knowledge to go from medical school directly to an unchanged first-year residency in a specialty program such as radiology, pathology, etc. This is particularly disappointing to those students who see their medical school curriculum weakened by nonexistent or nonsubstantial fourth-year curricula. Students often question the rationale of greeting a knowledge explosion by a very significant shortening of the educational period. The question is difficult for me to answer.

The second concern of students is that the changes are restrictive in that they force an earlier career decision and limit geographic or institutional mobility. Students have traditionally seen the internship as a period of clinical exposure to various specialties during which a career choice could be made. Most students are not aware that, at the latest, residency positions are filled in September or October. The feeling then that a much earlier career decision is now required is not justified. A more valid concern of the student is that his mobility is restricted by the new changes. Many students have considered the internship a period in which they might gain experience in a different geographic locality or different institution than the one in which they intend to complete their training. It should be pointed out that acceptance into a Level I program, regardless of what it is called, does not involve a commitment either by the applicant or the program to continue the association. Some mobility will continue to exist at the completion of Level I, and this may be considerable if indeed a second match is carried out at that level as has been suggested.

CAREER CHOICE

Despite a lot of interest and some studies, the reasons why a medical student selects a given
leading to con- shifting to a or one or two other surgical disciplines, others, I would of the changes anges force the and that the that the require- ly called intern- disciplines and erred. They are that the students have lege to go from unchanged first- program such as is particularly who see their skened by non-arth-year cur- the rationale of by a very sig- nificant period. answer. mts is that the they force an geographic or ts have tradi- period of clini- es during which Most students test, residency yer or October, earlier career ustified. A more hat his mobility hat the mobility Many students period in which a different ge- ition than the complete their out that act- n, regardless of olve a commit- the program to e mobility will ion of Level I, indeed a second vel as has been

medical discipline in which to continue his education are unknown. It is reasonable to ask whether the recent changes in both the graduate and undergraduate curricula furnish so little experience in some disciplines that reasonable decisions to enter these disciplines might be impossible. This subject is the source of no little heat in many curriculum considerations.

Until there is more knowledge of the mechanisms leading to career choices, we must use judgment in deciding how much specialty experience to include in the undergraduate curriculum. It is clearly important that action be taken quickly to limit the number of residencies offered in general surgery and several of the specialties. This should enhance the recruitment of quality students as it will alleviate the genuine concern that several of the surgical disciplines are becoming increasingly overcrowded.

It seems probable that external information such as that furnished by the recent SOSSUS report indicating oversupply of some surgical disciplines is as important or more important in surgical career choices than any aspect of exposure within the curriculum.

To date, in our own institution, there has been no discernible ill effect of the changes in graduate medical education on recruitment to surgery. The experience of the surgical internship has been preserved although it is continuously modified and is called Level I surgical residency. This continues to include two months’ rotation on the inpatient medical service with the remaining rotations in general surgery, emergency room, and the surgical specialties. The emphasis remains on principles of surgical treatment. This is listed as a Surgery Categorical Star program. In order to allow the surgical specialties that wish to do so the privilege of selecting their own trainees, we have established Categorical Star training programs in urology, otolaryngology, and orthopaedic surgery.

Candidates for these positions are told that, if matched, they will spend the entire year under the aegis of the department of surgery with rotations and options exactly like those of the Surgery Categorical Star program. If the sponsoring specialty and the candidate wish a second year in general surgery, this is available. Other surgical specialties have elected to attempt to recruit from the first-year pool without designating persons prior to the first year, e.g., neurosurgery. We consider this a highly satisfactory program, although it must be explained individually to candidates as there is no uniformity with programs in other institutions. This same system is obviously essentially that which is being proposed as a basic surgery year (BS1) with the option of a second basic year (BS2). At this point, a personal reservation might be entered to the concept that the content of the basic surgery year be designed by a committee. In our program, those who continue in general surgery complete five years. This is now recommended but not absolutely required by the American Board of Surgery.

RECOMMENDATIONS
Most important, both students and faculty should be informed of the changes in graduate medical education and of the implications of these changes.

An effective advisory system should be available to students. This is particularly important as there is little similarity between programs in different institutions. Students should also understand the implications of the manpower studies and the probability that marginal residency programs will be discontinued.

Geographic flexibility within surgical programs can be accomplished by encouraging participants to obtain six months or one year of experience in another institution. This is ordinarily easily arranged and, in our experience, is highly desirable both for the individual and for the program.

A final suggestion is that departments of surgery should continue to lead in rejecting such educational nonsense as non-grading systems. Medical students should be stimulated and encouraged to learn the basic principles of surgery. If such programs are widely conducted, the recruitment of first-rate students to the field of surgery will take care of itself.

References

continued

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