# Surgical Training of Family Practice Residents

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The Family Medicine Residency Training Program of The University of Alabama was founded eight years ago. It was decided early on that the Department of Surgery, in its teaching, should follow as closely as possible the following guidelines established by the Ad Hoc Committee on Education for Family Practice of the Council on Medical Education of the American Medical Association[1]:

> This discipline should help the student to acquire competence in handling emergencies pending the availability of the surgical consultant, an ability to evaluate illnesses that require surgical management, an understanding of the kinds of surgical management that might be employed, and the problems that may result from surgical procedures and their management. He should acquire technical proficiency with such procedures as are proper in serving as first contact physician and in various emergencies. He should learn respect for the difficulties of certain procedures and he should know them well enough to give proper advice and explanation to his patients, and support for those of his patients who are being subjected to these procedures.
>
> The length of time required in the graduate program on a surgical service would again depend on local circumstances. No separate experience may be necessary if the trainee has continuing exposure to a good emergency ward and if he follows his surgical patients from the general medical service to the surgical service when they are referred. Technical proficiency in performing major surgical procedures such as abdominal operations would require additional training.

These guidelines were restated by the American Medical Association in their most recent *Directory of Residency Training Programs.*[2]

After several years of teaching surgery to family practice residents at the University of Alabama and following their careers in private practice, several questions seemed desirable to answer: (1) has the resident been sufficiently prepared to handle emergencies pending the availability of a surgical consultant, (2) is he or she familiar with appropriate technical skills, (3) has he or she become proficient in the necessary diagnostic and therapeutic skills, and (4) how much variation is there nationally in how surgical training is provided to family practice residents?

## Methods

Initially, only current residents in their second and third years of training were interviewed. Second, all of the past residents, now in private practice as family physicians, were surveyed by questionnaire. Finally, in order to compare this program with other programs nationally, a detailed questionnaire was sent to all 373 accredited graduate family practice residency training programs in the United States. Complete responses were obtained from 213 (57 percent).

## Results

With regard to residents and graduates from the University of Alabama, there was concensus that during their training they had received a good foundation in preoperative evaluation, surgical preparation, and postoperative care of the surgical patient. They were grateful for their training in the management of such acute surgical problems as occur in the abdomen and resulting from trauma. They were particularly pleased with the "one-to-one" relationship that they experienced in the preceptor-type working environment. The majority did need and used effectively most of the surgical knowledge and skills covered in their training.

Both present and former residents felt that additional experience in orthopedic surgery (fracture management and casting), additional experience with sigmoidoscopy, more exposure to certain diagnostic procedures used in otolaryngology, and more experience with minor surgical procedures would have been helpful.

The national survey showed that 66 percent of family practice residents spend eight weeks on general surgery, four weeks on orthopedic sur-

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**Table 1. Procedural Skills**

| | Percentage of Programs |
|---|---|
| Proctoscopy | 97 |
| Suture | 97 |
| Central venous line placement | 93 |
| Curretage | 93 |
| Paracentesis, thoracentesis | 91 |
| Simple fractures | 90 |
| Endotrachial intubation | 89 |
| Closed tube thoracotomy | 69 |
| Vasectomy | 68 |
| Peritoneal lavage | 65 |
| Tracheostomy | 54 |
| Electrosurgery | 52 |
| Breast biopsy | 49 |
| Hernias | 27 |
| Appendectomy | 24 |
| Cholecystectomy | 20 |

gery, two weeks on ophthalmology, and either two or four weeks on otolaryngology. When an elective is available in neurosurgery, it is usually for a four-week period of time. A neurosurgical elective is available in only 55 percent of the programs. Other electives were available in the surgical specialties as follows: urology, 90 percent; cardiac surgery, 33 percent; thoracic surgery, 35 percent; anesthesiology, 85 percent; otolaryngology, 85 percent; ophthalmology, 85 percent; and orthopedics, 88 percent.

Ninety-nine percent of the programs have general surgical conferences, and 82 percent have surgical specialty conferences. Approximately 66 percent also present tumor conferences.

Surgical residents were involved in the surgical teaching program along with family practice residents in only 22 percent of the programs. The absence of surgical residents would seem to allow a more active involvement by the family practice resident during his tour of duty.

Most programs require the resident to do the following: take a history and perform a physical examination on all patients on the service, make rounds on a regular basis, and act as first or second assistant in the operating room. Several programs limit the resident's surgical experience to observation. Progress notes on the patient's chart are almost uniformly required. The discharge summary, however, is required of the resident in only 78 percent of the programs. Postoperative care is usually accomplished by the resident with the attending surgeon's guidance. Table 1 shows the surgical procedures that are included in the training of family practice residents in responding programs.

Only 4 percent of the programs require a written or oral examination of the residents. The University of Alabama School of Medicine in Tuscaloosa has required a written examination consisting of 100 multiple choice questions taken from the Surgical Education and Self-Assessment Program for Surgeons. In addition, one problem-solving question is also used.

## Comment

Ideally a program should provide exposure to general surgery as well as to all of the surgical specialties, including cardiac surgery, thoracic surgery, orthopedic surgery, otolaryngology, ophthalmology, neurosurgery, proctology, and anesthesiology. If the family physician is to become competent in handling the emergencies pending the availability of the surgical consultant, he or she must have some knowledge of these surgical areas. It would therefore be important that all of these surgical consultants be available to the resident during his training in the event that he desires expertise in a procedure he might later find necessary in his practice. Time spent in these areas would also be helpful in improving diagnostic and therapeutic skills he will need in his practice.

The presentation of departmental conferences on a regular basis is vitally important to the training program. It was disappointing to find that only 33 percent of the surgical departments required a formal conference presentation by the resident and that only 4 percent required a written or oral examination.

In summary, this study reflects a tremendous variation in the approach to the surgical training of the family practice resident. It is hoped that this brief review will be helpful in outlining the basis for a good surgical training for family practice training programs. Surgical departments must provide the technical, diagnostic, and therapeutic skills that family practice residents need to acquire to prepare them for their future practices.

**References**

1. The Report of The Ad Hoc Committee on Education for Family Practice of the Council on Medical Education. Chicago, American Medical Association, 1966, p 25
2. 1980/1981 Directory of Residency Training Programs. Chicago, American Medical Association, 1980, p 19