

The value of emergency medicine in undergraduate medical education: Food for thought for future family practitioners

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As the 20th century nears its close, the status of health care in Canada continues to undergo change. Every aspect of health care is being affected. In undergraduate medical education, students are being forced to decide on the specialty of their choice after only minimal exposure in clinical rotations. To make such a serious decision requires exposure, experience and research in the areas of the student's interest. Family medicine continues to be one of the more popular specialty choices. The purpose of this paper is to outline the value of an emergency medicine experience to the medical student, the significance of emergency medicine in family practice and suggestions for incorporating emergency medicine experience into the undergraduate medical curriculum.

An experience in the emergency department is of great value to the medical student(5). Initially, the fast paced rate of the emergency room environment may be intimidating. However, the student immersed in the situation, with appropriate guidance from his preceptor, learns to adapt quickly. As the number of patients encountered by the student steadily increases, he or she begins to learn at a rate matching that of the emergency environment. With encouragement from supervising staff, the student becomes more comfortable in this environment, his confidence builds and he becomes more willing to take on cases and advance his own learning. Additional advantages to an emergency medicine experience include the large variety of common clinical problems encountered and the many opportunities to perform clinical procedures(3,4). Also, the largely impersonal, crowded bustle of the emergency department challenges the student to develop extra-ordinary interpersonal skills to help his patients feel as comfortable as possible. Perhaps the most important skill that

emergency medicine can help the student develop is the ability to discriminate a "sick" patient from a "non-sick" patient. Once this very important distinction is made, the student learns to prioritize clinical problems and take steps towards appropriate management(3).

THE SIGNIFICANCE OF EMERGENCY MEDICINE IN FAMILY PRACTICE

The field of emergency medicine is a relatively young specialty(3,6). Whereas in larger centres, emergency departments are staffed with certified emergentologists, emergency departments in smaller cities and rural communities are partially or completely staffed with family physicians. A 1987 survey of rural family physicians discovered that 93% of rural family doctors worked in the emergency room(7). Thus, for students contemplating a career in rural family medicine, they should be aware that their role as family doctor also encompasses the realm of emergency medicine and therefore they should take steps to receive adequate training in that field.

For the family doctor practicing in the city, whose exposure to the emergency department may be limited, emergency medicine still has a significant impact on their

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practice. Every family doctor should be able to recognize when a patient requires hospitalization, when a referral is necessary and be able to coordinate follow-up management. Often, when a patient presents to his family doctor and is subsequently recognized as unstable (e.g. chest pain, unstable angina), the patient is told to report to the emergency room as soon as possible. To facilitate the patient's admission, the family doctor will call the emergency department ahead to inform the emergency physician of the patient's clinical condition and any significant results obtained in the recent past. For the emergency physician, the family doctor is an important source of collateral history.

Another area in which emergency medicine has an impact on family practice is in the area of patient follow-up. The emergency physician addresses the acute care of the patient. Upon discharge from the emergency department, the patient is often instructed to "follow-up with their family doctor." Hence the emergency physician and the family doctor work in conjunction with one another to provide total care for the patient. For example, a young woman presents to the emergency room with dysuria and frequency. After history and physical are completed, a urine dip reveals a positive result for leukocytes and blood. Her urine is also sent for culture and sensitivity but results will be unavailable for 24 hours. The emergency physician makes a clinical diagnosis of urinary tract infection and prescribes a broad-spectrum antibiotic. She is discharged with instructions to follow-up with her family doctor in a few days. By that time, the family doctor will have received the culture results and, at that time, ensure firstly, that she is taking the appropriate antibiotic and secondly, that her infection is resolving.

The topic of patient follow-up after an emergency room visit provides an opportunity for medical research. For example, it would be interesting to identify what percentage of patients discharged home from the emergency room actually follow-up with their family doctor and/or what percentage of patients who have seen their family doctor return to the emergency room. Further research could be done to identify what factors influence a patient's decision to follow-up with their family doctor or return to the emergency room. Information obtained from such research may be helpful to create suggestions for better follow-up care by family doctors and to identify effective methods of encouraging patients to use the emergency room more efficiently.

EMERGENCY MEDICINE IN UNDERGRADUATE MEDICAL EDUCATION

As the field of emergency medicine grows, it is beginning to compete with other specialties for education time in the undergraduate medical curriculum(2). Several medical schools have taken steps towards incorporating emergency medicine into their curriculum, us-

ing methods such as didactic lectures, and clinical rotations through the emergency department(1,3,9). Beginning in 1995, the University of Toronto will institute its first mandatory emergency medicine rotation in its undergraduate clinical clerkship(7). At Dalhousie University, emergency medicine experience can be obtained in either an elective rotation or a family medicine selective rotation. However, in the family medicine selective, only a certain number of students can be accommodated in the emergency department during a single one month block rotation. Hence, for the class of 1996, a lottery system was used where a certain number of students were randomly selected to receive the complete emergency medicine rotation. The remainder of the students were given the family medicine selective rotation and therefore would have to use elective time to obtain emergency medicine experience. Alternatively, students assigned to the family medicine selective rotation could designate emergency medicine as a "area of special interest." According to the guidelines of the family medicine selective rotation, the student can utilize no greater than 50% of their rotation time to work within their "area of special interest." In addition, a written assignment pertaining to the student's designated "special interest" must be submitted with the other written assignments required for satisfactory completion of this rotation.

One suggestion for incorporating emergency medicine into the Dalhousie undergraduate medical curriculum would be to follow the University of Toronto's example and establish a mandatory one month emergency medicine rotation in the existing clerkship. Another suggestion is to assign students in the Family Medicine Selective rotation to a family physician who also works shifts in the emergency department. In rural communities, this is easily accomplished as the majority of rural physicians are also responsible for night call. These preceptors should be encouraged to have their student accompany them to the emergency department shifts. In the mid-sized or larger city practices, however, there is a greater challenge in finding family physicians who operate a practice and also work in emergency. This was the challenge that this author faced. To overcome this obstacle, I chose to schedule ten 8-hour evening shifts in emergency into the rotation. The remainder of the time was spent in the two office practices to which I was assigned. During my one month experience, I worked with three different family medicine preceptors and eight different emergency physicians. Due to time restrictions, it was somewhat difficult to become comfortable in the office practices as the scheduling permitted only half-days with each practice. One suggestion to better utilize time split between family medicine and emergency medicine during the family medicine selective rotation would be to assign students to **one** family practice, full time for 2-3 weeks and the remaining 1-2 weeks in regular emergency shifts. With this type of scheduling, the student can remain focused on one field, either family or emergency medicine, for one block of

time rather than being concerned about commuting between the two services.

CONCLUSION

Emergency medicine is an integral part of family medicine and family practice. For medical students considering family medicine as a career, they should be aware of the role of emergency medicine in family practice. They should ensure that they receive some clinical training in emergency medicine in their undergraduate medical curriculum. The exposure in undergraduate medical education is essential to provide the student with a well-rounded perspective of family medicine before they make the final decision about their career specialty. Even for those students considering specialties other than family medicine, emergency medicine experience provides excellent hands-on opportunities to enhance clinical skills such as history taking, physical exam and performing procedures such as establishing intravenous lines. Hopefully, more medical schools will consider developing emergency medicine rotations in the undergraduate medical curriculum. For medical schools who take on this task, it would be helpful if they could create guidelines for objectives, goals and types of evaluation that would be involved in such a rotation.

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