

## CORRESPONDENCE

## The Outstanding Medical Student in Emergency Medicine

As the specialty of emergency medicine (EM) increases in popularity, competition for residency program positions has risen. Each year, more students are rotating in this environment, in part because more medical schools make a rotation in EM mandatory. Although at our institution an EM rotation is not required, many more students have taken our EM elective, including students from outside medical institutions. As many of these students are interested in pursuing careers in EM, our faculty has been discussing the question "what makes an outstanding medical student?" Part of this discussion is to better quantify our ranking system, given that our medical school does not have grades. The Council of Residency Directors' (CORD's) standard letter of recommendation (SLOR) has assisted our faculty to some small extent with this issue<sup>1-4</sup>; however, we felt that this issue needed better clarification.

Another overlooked issue is that medical students are often not told what is expected of them at the start of their rotation. By specifying the knowledge, skills, and values expected of students at the beginning of their rotation, there is an opportunity to "feedforward,"<sup>5</sup> allowing students to focus on and aim for specific goals and ideals. This is in contrast to the common practice of providing feedback on clinical performance at the end of a rotation when it is often too late to be of value. With this in mind, we surveyed our faculty to gather information about which characteristics and attributes comprised an outstanding medical student in emergency medicine.

Our surveyed faculty consists of board-certified, EM residency-trained members, each committed to resident and student teaching. The following list is not presented in any particular order. It is meant to serve as a foundation for faculty who are in a position to evaluate medical students, as well as (and perhaps more importantly) for students who are rotating in EM who wish to know what is expected of outstanding students.

- Outstanding medical students learn the approach to common emergency complaints (such as chest pain, shortness of breath, abdominal pain) and work to improve on deficiencies in their knowledge by reading and asking questions.

- Outstanding medical students are able to take an accurate history and perform a thorough physical exam. For example, they perform a rectal exam on the patient with chest pain, syncope, or gastrointestinal bleeding; they do a complete neurological exam on the patient with headache or weakness.

- Outstanding medical students are able to confidently present a directed history and physical exam with attention to pertinent positive and negative findings; they address abnormal vital signs. When presenting, they do not hop back and forth between history and physical exam. They have given thought to the differential diagnosis with attention to life-threatening causes and have come up with a reasonable diagnostic and treatment plan for their level of training. They are able to integrate pathophysiology from their basic sciences and core clerkship rotations.

- Outstanding medical students document comprehensively and legibly; they obtain a family/social history and a complete review of systems when appropriate.

- Outstanding medical students stay on top of their patients without having to be reminded. They know when lab results or x-rays are available. They recheck their patients frequently and update them on the progress of their evaluations. They care about their patients and are attentive to their needs (pain control, warm blankets, meals if appropriate).

- Outstanding medical students are professionally attired and respectful of others. They act in a professional manner with patients, their families, the ED staff (physicians, nurses, clerks, techs, and housekeeping), and consultants.

- Outstanding medical students are honest and trustworthy, never falsifying history or physical exam find-

ings to give the impression of being thorough. They ask for help or direction when needed; they never try to be a hero or heroine at the patient's expense. They recognize the importance of team building and have skills in conflict resolution.

- Outstanding medical students show up on time for shifts and leave only when they have tied up all loose ends with their patients. They sign out their patients with a diagnostic and treatment plan in place.

- Outstanding medical students are interested in learning. They do the required reading and apply that knowledge in clinical practice. They read up on their patients. They attend all required conferences and learning sessions.

- Outstanding medical students are eager to see patients and are interested in being in the department. They don't read the newspaper or surf the web when patients are waiting to be seen. When the department is slow, they ask to be of assistance, find out about other interesting patients, or read up on their patients. They show enthusiasm for the specialty of EM.

- Most importantly, outstanding medical students understand that providing patient care is a privilege, not a right. They show the personal qualities desired by patients, families, and medical staff, including warmth, compassion, and gender and/or cultural sensitivity. They conduct themselves with integrity, maturity, humility, and honor. Many of these desirable attributes are difficult to teach; it is our role as faculty mentors to demonstrate these behaviors for our students.

This information has not been scientifically gathered but rather represents the observations of seasoned faculty with a commitment to the education and training of students at our institution. It is our hope that this list will assist faculty mentors for students, faculty responsible for the evaluation of students, and students themselves during their rotations. Many of these attributes are common to students rotating on all specialties; we hope that this list helps students with their performance during every rotation.

Future considerations for using this information might include eval-

uating it prospectively. For example, how do our outstanding students perform as residents at other programs? We have reviewed students who rotated at our institution and remained to train in EM at our program. Perhaps examining the external validity of our evaluations (looking at outstanding students who train at other institutions, both in EM and non-EM programs) might be useful. This list will be modified as our faculty determine additional attributes that make medical students outstanding. Furthermore, we plan to examine the impact of distributing this "list" to students prior to their rotation on their overall performance.

We welcome feedback from colleagues in EM, and encourage the discussion of this important topic.—S. MAHADEVAN, MD, and GUS M. GARMEL, MD, *Stanford Kaiser*

*Emergency Medicine Residency Program, Palo Alto, CA*

**Key words.** medical students; emergency medicine clerkships; clinical performance.

### References

1. Garmel GM. Letters of recommendation: what does good really mean? [letter]. *Acad Emerg Med.* 1997; 4:833–4.
2. Girzadas DV Jr, Harwood RC, Dearie J, Garrett S. A comparison of standardized and narrative letters of recommendation. *Acad Emerg Med.* 1998; 5:1101–4.
3. Keim SM, Rein JA, Chisholm C, et al. A standardized letter of recommendation for residency application. *Acad Emerg Med.* 1999; 6:1141–6.
4. Tsonis G, Harwood RC, Girzadas DV Jr. Standardized letter of recommendation for residency application [letter]. *Acad Emerg Med.* 2000; 7:963.
5. Sadler D. Education and the improvement of academic learning. *J Higher Educ.* 1983; 54(1):60–79.

light the lack of forethought of the authors' analysis. We strongly urge clinicians to consider the broader aspects of care required for these fragile patients.—MARK SU, MD (marksmd@aol.com), and ROBERT S. HOFFMAN, MD, *New York City Poison Control Center, Department of Emergency Services, New York University School of Medicine, New York, NY*

**Key words.** opioids; heroin; overdoses; clinical prediction rule; discharge; prediction.

### Reference

1. Christenson J, Etherington J, Grafstein E, et al. Early discharge of patients with presumed opioid overdose: development of a clinical prediction rule. *Acad Emerg Med.* 2000; 7:1110–8.

•

## Prediction Rule in Opioid Overdose

Although we commend the authors of the article "Early Discharge of Patients with Presumed Opioid Overdose: Development of a Clinical Prediction Rule"<sup>1</sup> for attempting to offer insight into a difficult clinical problem, we have several issues of concern. To begin with, the use of the term "opioid" in the title is somewhat misleading in that the preponderance of patients studied (86%) used heroin. Even if all other aspects of the study were ideal, it is unclear whether their prediction rule could be applied to longer-acting opioids such as methadone because of significant variability in toxicokinetics.

Additionally, although the authors claim to have developed a discharge rule, they have actually developed an admission rule. This tool simply informs clinicians of the obvious fact that admission is required for patients who cannot walk, are hypoxic, have significant vital sign abnormalities, or have impaired consciousness. When the authors attempt to apply the converse (i.e., if admission is not required, then discharge is safe), the four patients who actually fail the prediction rule with resultant life-threatening complica-

tions are discounted. This failure results from the authors' inability to comprehend overdose as more than a pharmacologic event.

Following the emergent treatment of a potentially life-threatening overdose, many issues are of equal importance to the patient's ability to maintain alertness and respiration. These patients often require social support, psychiatric intervention, and opportunities to enter rehabilitation. The authors would have us treat the overdose with no regard for why the overdose has occurred. When financial pressures and medical condition force shortsighted care, adverse events are inevitable. We question how many of the 124 patients (22%) known to be alive but not followed, or the 206 patients (36%) who are presumed to be alive based on searching death certificates, suffered psychiatric complications, medical complications of continued substance use, or recurrent overdose that might have been prevented had adequate psychosocial care been provided during their critical life event. The four patients who promptly returned to the hospital with recurrent heroin overdose high-

*In reply:*—Thank you for the opportunity to respond to Drs. Su and Hoffman regarding their criticisms of our study.<sup>1</sup>

It is true that 86% of our patients admitted to heroin use. We state on page 1117 that this profile may be quite different from other settings. However, we did not restrict our study to patients with heroin overdose. Since the clinical reality is that true confirmation of the type of overdose is often unclear, we broadened our inclusion to all those given naloxone as a presumed overdose. We did not want to develop a rule with restrictive inclusion criteria that could not be applied clinically. The rule certainly appears to work in those with heroin overdose. We believe it also works in those with other long-acting opiates, since the effect of the 0.4 to 0.8-mg standard doses of naloxone used by our ambulance service and in the emergency department (ED) has dissipated by 60 minutes. Decision rules are developed with rigorous prospective methodology, in contrast to most consensus-based practice guidelines. Nevertheless, they must always be used with common sense, taking into account unusual individual patient circumstances.

Su and Hoffman claim that we discount four patients who re-ingested heroin and therefore we are