Critical-care Training for Emergency Medicine Residency Graduates

DANIEL M. GOODENBERGER, MD

The perception among many emergency physicians is that critical-care medicine is a natural field of subspecialty interest for emergency physicians, and that as the specialty matures, there will be increasing involvement in inpatient critical care.[1-3] Such involvement presupposes both availability of training for emergency medicine residency graduates (EMRGs), and an interest on their part in obtaining that training. Until very recently, no data on either subject existed. The recent listing of critical-care training programs by Greenbaum and Holbrook[4] provoked an attempt to determine the answer to the question of availability. The results were of sufficient interest to attempt to answer the question of interest and disseminate those results.

METHODS

Questionnaires were sent to the 23 U.S. adult critical care programs in the study by Greenbaum and Holbrook,[4] which indicated that emergency physicians were accepted for training or indicated no specialty restriction. In addition, questionnaires were sent to two program known to the author but not listed in the Greenbaum and Holbrook survey, one of which has been cited as a model for dual emergency and critical-care training.[5] Questionnaires inquired as to whether the programs accept EMRGs and, if so, whether they are at a disadvantage for selection relative to trainees in traditional specialities, and how many EMRGs are currently in the program. In addition, questionnaires were sent to all 201 senior emergency medical residents listed on the 1982 emergency medicine match list. This group was asked whether they were entering critical-care training in the next two years and whether the resident was likely to undertake critical-care training at any time in the future. (An opportunity to enumerate reasons for a delay in this training was given.) Those not undertaking critical-care training were asked to complete the remainder of the questionnaire, which offered a choice of 14 possible specific reasons for not pursuing critical-care training, as well as the opportunity under "other" to list any reasons not given previously.

RESULTS

Questionnaires were returned from all 23 listed U.S. programs, as well as from the two programs queried but unlisted. Data from the questionnaires are combined in Table 1 with relevant information as tabulated by Greenbaum and Holbrook.[4]

Four programs with a maximum of 15 positions do not accept EMRGs. An additional seven programs with 33 positions say that EMRGs are at a "disadvantage" for acceptance relative to other specialties. One of these programs has an EMRG as a fellow. This leaves 15 programs with a maximum of 55 positions with no identifiable barriers to EMRGs. However, only five EMRGs are currently in critical-care training. Of particular interest is that the one program that formerly conducted dual training in both emergency and critical-care medicine no longer uses this approach and has reverted to a post-residency fellowship program in critical-care training (Horowitz BZ, personal communication, 1984). Though not specifically requested, two programs indicated that they had few or no applications from EMRGs.

Replies were received from 91 senior residents, for a response rate of 46.4%. Of these, 89 said that they were not entering critical-care training in the next two years; the remaining two gave no response. Eight respondents said that they were likely to undertake critical-care training at any time in the future, two replied "maybe," and 78 replied no. Only one respondent had definite plans to pursue critical-care training, beginning 36 months later. Among the ten people who gave reasons for delay, seven cited finances, two had significant questions regarding career options, two were tired of training, one cited lack of faculty encouragement, one cited a lack of good training positions, one has a National Health Service Corps commitment to fulfill, and one desired to use private experience in practice to decide upon training needs (there usually was more than one reason given per respondent.)

From the Department of Medicine, Georgetown University Medical School, and the Department of Emergency Medicine, Georgetown University Medical Center, Washington, DC.

Manuscript received October 17, 1984; revision received February 28, 1985; revision accepted March 11, 1985.

Address reprint requests to Dr. Goodenberger: Department of Emergency Medicine, Georgetown University Medical Center, 3800 Reservoir Road, NW, Washington, DC 20007.

Key Words: Critical care, emergency medicine, fellowship.

TABLE 1. Summary of Critical-care Programs

Program	No. of Positions*	Accepts EMRGs†	EMRGs† Disadvantaged	No. of EMRGs†	Restrictions*‡
Cedars-Sinai Los Angeles	2	Yes	Yes	0	A, E, M
Presbyterian Hospital San Francisco	1	No	—	0	A, E, M, S
George Washington University Medical Center Washington, DC	2	Yes	Yes	0	A, E, M, S
Memorial Medical Center Jacksonville, Florida	5	Yes	"Not necessarily"	0	None
Emory University Atlanta	4	No	—	0	None
Cook County Hospital Chicago	2	Yes	No	0	None
University of Health Sciences/Chicago Medical School Chicago	8	Yes	No	1	None
Wayne State University Detroit	8	No	—	0	None
Providence Hospital Southfield, Michigan	2	Yes	No	0	A, E, M, S
Mayo Clinic Rochester, Minnesota	4	Yes	No	0	None
St. Louis University/St. Johns Mercy Medical Center St. Louis	6	Yes	No	1	M preferred; A, E, S by arrangement
Albany Medical College Albany, New York	5	Yes	No	0	None
Memorial Sloan-Kettering Cancer Center New York	4	Yes	No	0	A, E, M, S
Montefiore Hospital New York	3	Yes	Yes	0	A, E, M, S
Mount Sinai Hospital New York	2	Yes	Yes	0	None
SUNY Upstate Medical Center Syracuse, New York	1	Yes	No	0	None
Bowman-Gray School of Medicine Winston-Salem, North Carolina	2–3	Yes	No	1	None
University of North Carolina Chapel Hill, North Carolina	2	Yes	No	0	None
Case-Western Reserve University Cleveland	3	Yes	Yes	0	None
Cleveland Clinic Cleveland	3	Yes	No	0	None
University of Pittsburgh Pittsburgh	17	Yes	Yes	1	None
Medical University of South Carolina Charleston, South Carolina	1–2	No	—	0	A preferred; E, M, S, by arrangement
St. Luke's Hospital Milwaukee	3	Yes	No	1	A, E, M, S
Maryland Institute for Emergency Medical Service Systems§ Baltimore	7	Yes	No	0	—
University of California Davis§ Davis, California	4	Yes	Yes	0	—

* From Greenbaum DM, Holbrook PR. Fellowship programs in critical care medicine—1984. Crit Care Med 1984;12:399–408.
† Emergency medicine residency graduates.
‡ A = anesthesiology residents; E = emergency medicine residents; M = internal medicine residents; S = surgical residents.
§ Not listed in Greenbaum and Holbrook.

Reasons given by the remaining 81 respondents for not pursuing further training in critical-care medicine are tabulated in Table 2. As indicated in the table, the most common reason was a concern that the best practice opportunities in emergency medicine were becoming increasingly less available. Less common reasons, not listed in the table (mentioned by less than 4% of the respondents), included the lack of board certification in critical-care medicine, and the belief that critical-care medicine is not a true specialty.

DISCUSSION

It is disturbing that 11 of 27 critical-care medical programs are disinclined or refuse to select EMRGs for training. (This can be attributed to program structure, finances, politics, and level of esteem for emergency medical residents and their training.) However, this survey regarding fellowship training in critical-care medicine suggests that a significant proportion of the 206 available fellowship positions in the 58 known U.S. adult critical-care programs are open to EMRGs. However, there are currently only five EMRG graduates in critical-care training programs, and in a recent survey, only two of 175 graduating emergency medical residents were reported to be entering critical-care fellowships (Gallery M, personal communication, 1984). These observations taken alone suggest that emergency medical trainees do not have the widespread interest in critical-care medicine that has been postulated, or that those with potential interests are unaware of the opportunities available. The survey of graduating residents (45% response rate) presented here suggests that the majority of EMRGs are aware of the availability of critical-care training positions. Although lack of interest in critical care is a significant factor, the major concerns of graduating EMRGs are obtaining the best possible practice opportunities while they remain available and dealing with the substantial indebtedness common after completion of medical training. (The former factor is somewhat of a paradox. Historically, in other specialties, physician surfeit relative to job opportunities has provided a stimulus for specialization and credentials to enhance employability). It is of particular interest that doubts about the future of critical-care medicine and the current uncertain status regarding board certification appear to be relatively unimportant to graduating residents.

It seems clear that emergency medicine is unlikely to establish any significant foothold in critical care in the near future unless there are changes in resident interests, perceptions of career opportunities, and financial circumstances. For those programs desiring to influence residency graduates in this direction, there should be some opportunity to assess the former factor during the selection process. The latter problem is probably not soluble in the current fiscal climate. Financial problems exist in all specialities with regard to post-training fellowship funding and recruitment. Nevertheless, probable career opportunities for EMRGs and financial considerations appear to be the most crucial factors, although prejudice against EMRGs clearly exists in some critical-care training programs.

In addition, there are virtually no recognized job opportunities in private practice combining critical-care and emergency medicine. Combined coverage in emergency and critical-care medicine for small and non-urban hospitals would seem to be an attractive option for them, and perhaps market slots will become available. It is not necessary that this demand come from the hospitals themselves, as demonstrated by the plethora of community-hospital cardiac catherization labs.

There is also virtually no perceived need for such combined training currently in the academic arena except among emergency physicians. This, too, is remediable but requires that residents, and perhaps junior faculty, be encouraged to undertake critical-care training. It will also involve the time lag necessary for such trainees to succeed to directorships of fellowship training programs. Currently, there is no demonstrable trend in that direction.

Although the movement of emergency medicine to become more involved in critical care is a consummation devoutly to be wished, it is currently hindered by resident disinterest and financial circumstances, not propelled by any overt demand for the finished product, and without any current academic base. Based on this perception, it is, unfortunately, entirely possible that critical-care medicine and emergency medicine may not come together in any meaningful way.

TABLE 2. Emergency Medicine Senior Residents' Reasons for Not Pursuing Critical-care Medical Training*

Reason	No. (%)
Concern that prime practice opportunities in emergency medicine are diminishing	31 (38)
Little or no interest in critical-care medicine	27 (33)
Financially infeasible to undertake further training	25 (31)
Too old for further training	17 (21)
Does not feel that emergency medicine and critical care-medicine possess the overlap in interests and attributes that has been postulated	16 (20)
Not aware that critical care training positions are available to EMRGs	14 (17)
Not encouraged by faculty	14 (17)
Family responsibilities prevent it	14 (17)
Possible future burnout in critical care	14 (17)
Future of critical care medicine as a specialty is in doubt	10 (12)
No wish or perceived need to further subspecialize	9 (11)
Pursuing another fellowship (toxicology)	1 (1)
Other (no single category more than 4%)	21 (26)

* More than one response per respondent was allowed.

REFERENCES

1. Wagner DK. Critical care medicine and the emergency physician (editorial). Ann Emerg Med 1982;11:49–50.
2. Baraff LJ, Podgorny G. Role of emergency medicine in critical care (editorial). Am J Emerg Med 1984;2:109.
3. Hellstern RA. Intensive/critical care and emergency medicine (editorial). Am J Emerg Med 1984;2:108.
4. Greenbaum DM, Holbrook PR. Fellowship programs in critical care medicine—1984. Crit Care Med 1984;12:399–408.
5. Fisher CJ. A unique academic approach to critical care—Emergency medicine training. J Am Coll Emerg Physicians 1976;5:975–976.