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Editorial

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Emergency Medicine Critical Care Certification: Challenges Ahead

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As of 2012, Emergency Medicine (EM) was finally granted a mechanism for certification in Critical Care Medicine (CCM). Emergency Physicians have been trained in critical care medicine (CCM) for over a decade with the understanding that they would not have the option for US board certification. The history of EM and CCM is lengthy and ultimately the American Board of Medical Specialties (ABMS) would not grant EM the ability to form its own CCM certification pathway.[1] Until recently, Internal Medicine, Surgery, and Anesthesia did not have any critical care medicine certification pathway for EM residency trained graduates who had successfully completed CCM fellowships approved by their respective governing bodies. As of 2010 there were 104 EM/CCM physicians with 73 of those completing fellowships and 31 still in training.[2] Interestingly, the University of Maryland Shock Trauma program and the University of Pittsburgh Multidisciplinary Critical Care program trained 42% of the physicians, 32 of the remaining 38 programs trained 2 or less fellows. The number of fellows has shown a steady increase despite lack of board certification each decade from the late 1990's. 39 reported training in multidisciplinary programs, 28 in surgery programs, and 16 in Internal Medicine (IM) programs. The majority of the trainees completed 1-year CCM fellowships.

Since the early 2000's a number of landmark developments occurred. The LEAPFROG group's report of intensive care physicians managing and leading care in Intensive Care Units (ICUs) should be considered standard of practice and that there is a current and projected shortage of physicians capable of meeting the critical care demands.[3-6] A definition for the term intensivist was also offered, which included physician's board-certified in emergency medicine who have completed a critical care fellowship.[7] In 2002 Pronovost reported mortality reduction in ICUs where there was an intensivist as the lead caregiver.[8] In 2006, there was a multidisciplinary group that was supported by Society of Critical Care Medicine (SCCM), American College of Chest Physicians (ACCP), and American College of Emergency Physicians (ACEP), who published a comprehensive opinion statement on the need to allow EM grads to sit for the certification boards especially in light of the projected shortage of ICU physicians.[9]

CURRENT

That leads us to our current status. Emergency Medicine can sit for the boards, not just one, but all of the major boards with IM being the first to grant access. It is worthwhile to note the historical relatively low number of EM grads who have trained in IM/CCM above. While this was widely received positively it left the majority of practitioners and trainees without the ability for board certification. This was later eased when Anesthesia and Surgery also created a certification pathway. However, not all paths are equal. American Board of Internal Medicine (ABIM) and American Board of Anesthesiology (ABA) are co-sponsored boards with Ameri-

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can Board of Emergency Medicine (ABEM) and therefore are managed through EM but exam and criteria are set by ABIM and ABA respectively. The American Board of Surgery (ABS) pathway is managed through ABS and has separate criteria.[10] In essence all three pathways require different training paths. Additionally challenging is the application process, the utilization of the National Residency Matching Program (NRMP) and the Electronic Residency Application Service (ERAS) are different from institution and occasionally within the institution particularly since they may be program specific. It is possible to have multiple programs existing in the same institution with different processes. Timeline are illustrated in Table 1. The pathway summaries are identified separately:

1. https://www.abem.org/public/subspecialty-certification/internal-medicine-critical-care-medicine/im-ccm-announcement
2. https://www.abem.org/public/subspecialty-certification/anesthesiology-critical-care-medicine/accm-overview
3. http://www.absurgery.org/default.jsp?certsccce_abem

To date, the most comprehensive list of critical care fellowship programs can be found at the Emergency Medicine Residency Association website: http://www.emra.org/match/critical-care-fellowships/

	Medicine	Anesthesia	Surgery
When application submission begins	July	November	May/June
When application submission ends	N/A	Rank list deadline: May	Rank list deadline: September
Interview season	Sept-Oct	Nov-April	July-Sept
Is there a Match?	No	Yes (San Fransisco match)	Some participate in match (NRMP)
When does application process begin to relative to start date?	~1 year prior to fellowship start date	~1.5 years prior to fellowship start date	~1 year prior to fellowship start date

Table 1: Medicine, anesthesia, surgery fellowship application timeline.

DISCUSSION

Is this a good thing? The answer is a resounding YES! However we may have inadvertently made it increasingly difficult for training, at least for the time being. In the past programs and fellows could create fellowships that were 1 or 2 years in length, multidisciplinary or specialty specific, and funded by any number of mechanisms. The creation of the board certification and the rules governing the pathway process has functionally limited the creativity by which the programs could be developed or funded. While this is anecdotal, surgery requirements are considered to be too onerous by most EM practitioners as well as some surgical CCM fellowship directors. There are only 33 stand alone IM-CCM programs. The majority of IM programs are typically affiliated with pulmonary and would need special considerations or restructuring to create an EM pathway for a 2 year program. Anesthesia is a 1 year program and would have to create a second year devoted to just the EM trainees of their program. The extra year required by anesthesia and surgery of EM grads, and the lack of prevalent 2-year IM-CCM programs and restricted positions for EM grads creates a significant barrier.[11] How do we create the second year? What should the curriculum look like? And most notably who should pay for the second year? Most EM fellowships are Non-ACGME fellowships that are predicated on a hybrid Attending/Fellow structure. Accreditation Council for Graduate Medical Education (ACGME) has rules in place for ACGME fellows that make it challenging at best to employ a similar model for critical care. Most programs receive some funding support for their fellows and also are able to utilize the fellows to disperse the work burden, research, and educational goals of the ICU. The stakeholders for the growth of EM-CCM fellowships are largely EM programs who have fought for years to see this pathway become a reality. Funding that is available to CCM fellowship programs are not specifically allocated to train EM graduates and therefore leave little incentive to use for EM graduates. In addition current Anesthesia and Surgery CCM programs provide funding for 1 year, the second year requirement is unique to EM grads and would therefore need an additional funding source solely for the EM participants. The key stakeholders being the EM programs in the current ACGME rules would have to fund 1-2 years of CCM fellowships while the fellow's clinical responsibility would not include EM and therefore be a strict expense line item. This therefore creates a paradigm in the evolution of CCM and EM where the programs who may accept EM graduates may not have the funding mechanism to develop the second year requirement nor have a major incentive to do so. An EM program that is largely interested in developing this subspecialty of EM but no means to fund it may not directly benefit financially from funding the programs. *In essence, there exists a small but real chance that there is now an increase in the functional barrier to the progression of EM-CCM fellowships*.

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A recent SCCM taskforce publication highlights the shortages of critical care trained doctors and calls on Internal Medicine to increase the number of IM/CCM programs as well as create pathways for hospitalists to become CCM certified.[12,13] Despite this reality and the challenges mentioned above, as in the past, EM-CCM as a practice will continue to grow. The demand will be high clinically and it may foster slow change. The concern is as with how EM-CCM fellowships largely evolved in the past, there will be a slow effort to find a uniformed approach to answer the current problem. As many fellows found their niche programs, many will find unique ways specific to their institution and hospital to fund the development or expansion of EM-CCM. We view this as a call to action. The key stakeholders we argue are all hospitals systems. The projected 20-30% shortage of qualified CCM physicians by 2020 would impact all models directly or indirectly.[14] Hospitals will find themselves with increasing quality metrics and reporting tied to their reimbursements and a growing ICU and elderly population. Individual battles will only create slow minute changes. As the respective organizations have finally come together to allow certification, they should come together with Emergency Medicine for a joint solution to this problem. It may require challenging ACGME and/or petitioning hospital systems to develop mechanisms to fund the new programs. A unified approach to the new challenges is needed. We should not simply revel and pat ourselves on the backs for getting certification opportunities granted but rather increasing the number of programs and trained individuals for ICU medicine that will impact the qualified physician shortages predicted and more importantly address the needs of a growing patient base. We propose that ABEM create a task force to investigate novel approaches to the funding shortages and novel mechanisms to streamline and simplify the application process.

CONFLICTS OF INTEREST

The authors declare that they have no conflicts of interest.

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