research should focus on developing proactive prevention strategies, rapid response services, and student resilience training.

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**Reference**


**Certify Medical Students to Respond to National Crises**

**To the Editor:** The COVID-19 pandemic has stretched health systems to their breaking point. And yet, many advanced medical students have been kept away from hospitals, underused in a time of critical need, and unable to take advantage of invaluable learning opportunities.

Now is the time to rethink the current structure of the health care system and to implement a national, formalized structure that incorporates medical students into future health care responses to disasters, pandemics, acts of terror, and the like.

Despite the amount of training and the formal examinations that students undergo, fourth-year medical students are technically only as qualified as entering first-year students. Medical students take and must pass 3 different licensing examinations during their schooling. Supplementing preclinical learning with practical skills training, such as airway management, IV placement, and wound stabilization, could equip medical students to serve an important new role in the response to disasters. As students progress through their training, they should gradually accumulate skills and corresponding certifications to perform vital health care functions, in contrast to the current all-or-nothing model of medical licensing.

At a small number of medical schools, first-year medical students already train and become certified as emergency medical technicians to supplement their preclinical years with experience in the field.1 We propose adapting such a model to develop a new disaster response certification for medical students to help meet the needs of the country during times of strain on the health care system. The skills held under this medical student certification could be determined by a panel of experts, including experienced disaster relief and public health officials, to maximize utility during a wide range of national crises. A national registry of medical students with disaster certification could be maintained and updated (e.g., clerkship and board examination completion, current location) so that they are easily called to action. Participation in any relief efforts could be kept voluntary, but certification would ease the process of deploying willing medical students.

Pandemics and other disasters are exactly the problems we signed up to tackle when we committed our professional lives to medicine. This is a critical time for our generation to contribute to the relief effort and gain the skills to lead the way in the future.

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**Physician–Scientists in the Era of COVID-19: Gone but Not Forgotten**

**To the Editor:** The COVID-19 pandemic has resulted in the redeployment of many physician–scientists and physician–scientist trainees to full-time clinical services, with their scientific research and academic training put on hold. Physician–scientists are provided with protected time, alongside their clinical duties to perform scientific research and receive academic training. Historically, they have contributed seminal scientific discoveries, and recent Nobel laureates are counted among their number. Yet in many countries an extraordinary proportion of these trainee posts have been postponed due to the pandemic. In England alone, over 1,500 trainees—90% of the physician–scientist trainee workforce—were redeployed to clinical duties during the first wave of the pandemic.1 The resultant drain on the global academic medicine community has been profound. The rationale is clear, but the long-term consequences for research and medical practice are grave.

Physician–scientists are vital contributors to global biomedical research efforts.2 Bridging the divide between scientific research and care at the patient’s bedside, they have led some of the most significant breakthroughs during this pandemic, including findings relating to corticosteroids and hydroxychloroquine. But the stagnation of many of their research projects on high-impact diseases may contribute to the hidden mortality of COVID-19 for years to come. For example, the largest independent funder of cancer research globally announced a reduction in grants of up to 20% for the foreseeable future due to loss of revenue during the pandemic.3 The Association of Medical Research Charities estimated that 70% of clinical trials and studies in the United Kingdom were stopped during the initial stages of the pandemic, and that it will take 4.5 years for medical research spending to reach prepandemic levels.4

**Reference**