

Improving Emergency Department Surge Capacity in Disasters - Conception of a Medical Student Disaster Volunteer Corps

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Introduction: Civil emergencies occurring with little warning can quickly produce mass casualties. To develop an Emergency Department's surge capacity, medical student involvement in the disaster response has been advocated. Duke-NUS Medical School in Singapore is located in proximity to Singapore General Hospital (SGH) and represents an untapped manpower resource. With appropriate training, medical students can be leveraged upon as ready and reasonably qualified manpower.

Aim: This review provides a snapshot of the conceptualization and setting up of the Disaster Volunteer Corps (DVC) program. We discuss the overall strategy and benefits to stakeholders, emphasizing the close symbiotic relationship between academia and healthcare services.

Methods: Duke-NUS medical students will be recruited to receive training from SGH emergency physicians. The frequency

of training will be four times yearly, with ad hoc participation in disaster simulation exercises. A call-tree will be employed for DVC activation. The DVC curriculum includes disaster response principles, HAZMAT, crowd control, marshaling, logistics, psychological support, and basic first aid. Teaching methods include didactic lectures, case discussions, involvement in event medical cover, and participation in disaster simulation exercises and response planning.

Results: To date, there are 10 medical students and four emergency physician faculty volunteers involved in the program. Support is provided by adjunct instructors from nursing, nuclear medicine, social work, and security, for training in decontamination, radiological disasters, psychological first aid, and crowd control measures respectively. Assessment by faculty will be conducted to ensure the quality of training and competency of skills.

Discussion: The DVC provides a unique way of teaching medical students disaster medicine principles in a hands-on experiential format, while simultaneously enhancing the operational readiness of the hospital in times of disaster. This model of close collaboration between university educational and healthcare services provides a feasible model of structured volunteerism that could be replicated in other similar settings.

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