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Advancing emergency preparedness in a postpandemic world: global collaboration and innovative approaches for hospitals

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As the world transitions into a postpandemic era, hospitals and healthcare systems must adapt their emergency management plans to address the unique challenges that remain. Building upon the previous Hospital Emergency Management Plan[1] during the coronavirus disease 2019 pandemic, this commentary offers updated and novel suggestions for emergency preparedness, emphasizing the need for international coordination and the implementation of innovative strategies.

A critical aspect of postpandemic preparedness is international coordination, which should be led by the World Health Organization (WHO). The WHO should create a global task force, with representation from healthcare providers, governmental bodies, nongovernmental organizations, and international emergency medicine (EM) societies, to develop and share best practices. This task force would facilitate communication among stakeholders and foster a collaborative, cohesive response, ensuring that hospitals worldwide are well equipped to handle future emergencies.

We recommend several strategies to enhance emergency preparedness in hospitals and promote international cooperation. One such approach is to establish a digital platform for a global EM network that connects hospitals and medical professionals across the world. This platform would enable healthcare workers, leaders, and national EM societies to share information, experiences, and resources seamlessly. By leveraging advanced technology, the platform would facilitate rapid dissemination of best practices and lessons learned from previous emergencies, fostering a more resilient international healthcare community.

Along with the establishment of a global network, hospitals can explore the lesser-known digital twin technology to bolster their emergency preparedness. This innovative technology involves creating virtual replicas of physical systems—in this case, hospital environments—to simulate various emergency scenarios. By doing so, hospitals can optimize response times, resource allocation, and patient care. Gaining a deeper understanding of digital twin technology and its applications can significantly enhance emergency management and overall efficiency in healthcare settings. By identifying potential bottlenecks and areas for improvement, this innovative approach can ensure efficient and effective responses during real emergencies.[2,3]

The incorporation of artificial intelligence–driven triage systems in response to disasters can assist hospitals in quickly and accurately assessing the severity of patients' conditions, prioritizing care, and allocating resources more effectively.[4] These systems can also aid in predicting patient surges and adjusting staffing levels accordingly. Expanding telemedicine services can help reduce the strain on emergency departments by providing remote consultations, monitoring, and follow-up care. This approach not only minimizes the risk of infection transmission but also ensures that patients receive timely care without overcrowding emergency facilities.[5]

Furthermore, hospitals should consider incorporating modular and scalable designs into their infrastructure, allowing for rapid expansion or reconfiguration of treatment spaces during emergencies. This flexibility can significantly enhance a hospital's capacity to manage patient surges while maintaining optimal care standards.[6]

Regular drills and training sessions play a crucial role in equipping staff members with the necessary skills and knowledge to handle emergency situations effectively.[7] These sessions should cover a wide range of emergency protocols, including the proper use of personal protective equipment, decontamination procedures, patient triage, and communication strategies among healthcare teams. Conducting drills in a realistic environment can help staff members become more familiar with the challenges they may face during actual emergencies and improve their overall preparedness.

Beyond the scope of these training sessions, it is essential to acknowledge the immense psychological toll that emergencies can have on healthcare workers. Prolonged exposure to high-stress situations can lead to burnout, anxiety, depression, and other mental health challenges. To address this issue, hospitals should establish dedicated mental health support services that provide counseling, stress management techniques, and peer support programs. By prioritizing the well-being of their staff, hospitals can not only improve overall emergency response capabilities but also create a more compassionate and supportive work environment.[8,9]

By incorporating these novel strategies into their emergency management plans and working closely with international partners led by the WHO, hospitals around the world can be better prepared to face future emergencies. This collaborative approach ensures the safety and well-being of patients and staff alike and promotes a more resilient and robust global healthcare system. It is of immediate importance for the international community to act in unison and invest in strengthening emergency preparedness, thereby safeguarding against potential future crises.

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study.

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The authors declare no conflict of interest.

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