# **Editorial**

# ICU nurses' crucial role in disaster management

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#### **Guest Editor:**

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In this issue of IJCC we provide you with several aspects of ICU nurses and our unique roles in disasters. First a scoping review of 52 publications demonstrating 8 unique topics in which ICU nurses are involved with before, during and after disasters (Bekman & Benbenishty, 2025). For example, papers researching knowledge, disaster preparedness, and skill competencies for managing possible injury scenarios which were assessed through surveys and simulation training. Other papers addressed nurses' disaster response and readiness. This scoping review concluded that ICU nurses worldwide must be equipped with comprehensive insights into disaster preparedness and response.

Second, we find a reflection paper on the role of ICU nurses in providing humanitarian aid for Ukrainian refugees on the Polish-Ukraine border (Furmanov & Gelfond, 2025). In this paper nurses reflect on how they use their critical, integrative, and creative thinking processes to alleviate physical and emotional turmoil. The author expresses the challenges of caring for people who are culturally different from themselves as well as nurses functioning in tents and unfamiliar settings, collaborating with health providers from around the world.

Our third submitted paper discusses providing care during COVID 19 when an earthquake occurred. On March 2020, an earthquake shook Croatia, and the ICU nurses were prepared to deliver critical care to complex infants and babies, ventilated, and dialyzed in the PICU (Saratlija et al., 2025). Again, we bear witness to how ICU nurses under extreme and unfamiliar conditions recruit their resources and solve unique disaster related challenges.

Our final paper is a call to action on disaster management education in Spanish-speaking nursing programs (Tannenbaum-Baruchi, 2025). As the author outlines, as emergencies can arise in any healthcare setting and affect entire populations, it is vital for nurses to receive disaster preparedness education.

Disasters can be broadly categorized into two main types: natural disasters and man-made (or human-caused) disasters (Severin & Jacobson 2020). Some examples of natural disasters include, Weather-related disasters: Hurricanes, tropical storms, tornadoes, floods, droughts, wildfires, heat waves, and cold waves; Geological Earthquakes, volcanic eruptions, tsunamis, and landslides (Shuman & Costa 2020). Biological disasters: Epidemics and pandemics, such as the COVID-19 outbreak (Severin & Jacobson 2020).

Man-Made (or Human-Caused) Disasters: These are events caused directly or indirectly by human actions or negligence. They include: Technological disasters: Chemical spills, industrial accidents, building collapses, and cyber-terrorism; Transportation disasters: Airplane crashes, ship sinkings, and major road accidents (Al Harthi, et al 2020). Intentional acts: Terrorist attacks, acts of war, other forms of violence and cyber-attacks (Al Harthi, et al 2020).

# **Education and Training**

Incorporating disaster management into nursing curricula and continuing education programs is essential (Veenema, 2018). This should include theoretical knowledge of disaster types and management principles, practical skills training through simulations and case studies and interdisciplinary training to improve collaboration during emergencies. To effectively respond to disasters, ICU nurses must develop specific competencies that go beyond their regular critical care skills (Severin & Jacobson 2020). These competencies include ability to work within incident command systems, proficiency in triage and mass casualty management, flexibility and adaptability in resource-constrained environments.

# The Evolving Role of ICU Nurses in Disaster Management-Policy and leadership

ICU nurses are uniquely positioned to contribute to disaster management due to their expertise in caring for critically ill patients. Their role extends beyond the confines of the ICU during disasters, encompassing various aspects of emergency response and recovery (Severin & Jacobson 2020). ICU nurses are integral to disaster preparedness efforts within healthcare institutions. They participate in developing and implementing disaster response plans, ensuring that critical care resources are optimally utilized during emergencies (Severin & Jacobson 2020).

During a disaster, ICU nurses must lead our organizations in preparedness by writing protocols, checklists and creating simulation drills for all hospital staff, from the ER, ICU, administration, clerical, and infrastructure personnel. We need to prepare our personnel to operate and function in rapidly assessing and triaging patients, providing immediate and acute care to disaster victims, being able to adapt to working in less-than-ideal conditions with limited resources, and be able to collaborate effectively with multidisciplinary teams. ICU nurses may be called upon to work in various settings during a disaster, including temporary shelters or field hospitals (Shuman & Costa 2020). Their ability to pro-vide critical care in challenging environments is essential for saving lives and minimizing the impact of disasters on affected populations. We need to grasp this opportunity to express our leadership

skills and critical thinking policies to lead our organizations in disaster preparedness.

# The Future of ICU Nursing in Disaster Management

As the frequency and complexity of disasters increase, the role of ICU nurses in disaster management will continue to evolve. Future developments may include post graduate educational programs to ensure specialized disaster nursing certifications for ICU nurses. We also need to educate nurses in advanced technology integration for real-time decision support during crises. Using current big data and AI resources we can provide real-life predictions. Virtual reality sim-ulations for realistic disaster scenario training, computer-based modules for self-paced learning and assessment, telemedicine platforms for remote consultation and support during disasters would all support ICU nurses to optimize their contribution in disasters. Finally, we need to increase our emphasis on global collaboration and knowledge shar-ing among ICU nurses. We need to join efforts during international conferences, using digital communication platforms, webinars and online educational programs to share expertise and competencies with each other.

#### Conclusion

ICU nurses are indispensable assets in disaster management, bringing critical care expertise to challenging and unpredictable situations. By investing in their preparedness through education, training, and supportive policies, healthcare systems can significantly enhance their capacity to respond effectively to disasters. As we face an uncertain future with potential for more frequent and severe emergencies, empowering ICU nurses with the knowledge, skills, and resources they need to excel in disaster management is not just beneficial—it is essential for building resilient healthcare systems capable of withstanding and recovering from any crisis.

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