International Journal of Health Technology and Innovation
An Official Journal of **Kalam Institute of Health Technology** | ISSN - **2583-8547**

EDITORIAL

Biomedical Engineers: The Missing Link in Global Emergency Preparedness

Satyaki Banerjee
VeritasTeq, Navi Mumbai, Maharashtra, India.

Received: 06th May , 2026; Revised: 05th June, 2026; Accepted: 08th July, 2026; Available Online: 14th August, 2026

International Journal of Health Technology and Innovation (2026)

How to cite this article: Banerjee S. Biomedical Engineers: The Missing Link in Global Emergency Preparedness. International Journal of Health Technology and Innovation. 2026;5(2):1-1.

Doi: 10.60142/ijhti.v5i02.01

Source of support: Nil.

Conflict of interest: None

MODERN HEALTHCARE DEPENDS HEAVILY ON SOPHISTICATED MEDICAL TECHNOLOGY

Ventilators, patient monitors, dialysis systems, medical imaging equipment, oxygen delivery networks, and in-viro diagnostic equipment have become indispensable in every hospital. Yet during disasters, pandemics, wars, and humanitarian crises, the professionals responsible for maintaining these systems are often overlooked in emergency response planning: biomedical engineers.

Recent global emergencies, particularly the COVID-19 pandemic, exposed a critical weakness in healthcare systems worldwide. Many hospitals struggled not only with shortages of medical equipment, but also with the lack of trained personnel capable of installing, calibrating, repairing, and safely operating complex devices under crisis conditions. In several cases, donated equipment remained unused because technical support and maintenance expertise were unavailable.

Biomedical engineers play a crucial role in ensuring continuity of care during emergencies. Their expertise allows hospitals to restore damaged equipment, establish temporary intensive care facilities, integrate new technologies rapidly, and maintain patient safety in high-pressure environments. Despite this, there is still no structured international system for mobilizing biomedical engineers during global crises.

The world now needs a coordinated emergency reserve of trained biomedical and clinical engineers who can be rapidly deployed to support healthcare systems affected by natural disasters, disease outbreaks, armed conflicts, or infrastructure collapse. Such a network could function similarly to international emergency medical teams, providing technical expertise wherever healthcare systems are overwhelmed.

Encouragingly, efforts toward building such collaborative global networks have already begun. Universal BioMed Cross (UBMC), established by Andhra Pradesh MedTech Zone, represents one such initiative focused on strengthening technical support systems to ensure medical device reliability during emergencies. Since its inception, the initiative has attracted growing participation from biomedical and clinical engineering professionals across multiple countries, reflecting a wider recognition of the importance of organized technical response capabilities during healthcare crises.

International virtual engagement programs and professional exchanges involving engineers from regions across Asia, Africa, North America, and South America further demonstrate the increasing willingness of biomedical professionals worldwide to contribute their expertise toward a shared humanitarian mission. These collaborations highlight the emergence of a global community prepared to support healthcare resilience beyond national boundaries.

Importantly, emergency biomedical engineering training must extend beyond technical maintenance. Professionals should also be prepared for disaster logistics, field hospital operations, cybersecurity challenges, infection control, and resource-limited healthcare environments.

As healthcare technology becomes increasingly central to patient care, biomedical engineers must be recognized as vital contributors to global health security. Investing in an international emergency biomedical engineering workforce would strengthen healthcare resilience, improve disaster response, and ultimately save lives.

Future crises are inevitable. Building a global network of trained biomedical engineers before the next emergency may prove to be one of the most important healthcare investments of our time.

**Author for Correspondence: satyaki.banerjee@veritasteq.com*