Results/Outcomes

- **Enhanced Coordination**: Clear communication improves coordination among stakeholders.
- **Effective Resource Utilization**: Strategic allocation maximizes the impact of medical resources.
- **Successful Case Studies**: Effective responses to multiple disasters demonstrate DMAT's approach.

Conclusion: DMAT's framework for information management and action planning enhances disaster response. Continued refinement and integration of new technologies will further improve medical support, saving lives and reducing disaster impacts.

Adapting the Cloud-Based Red Cross Red Crescent Health Information System (RCHIS) to a Fully Offline Setting

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Background/Introduction: The Red Cross Red Crescent Health Information System (RCHIS) is an electronic medical record (EHR) and health information management system (HIS) which has been designed for international disaster responses with a cloud-based server and a local server to bridge temporary internet outages. This architecture allows for remote information management and operational support should data processing agreements allows it.

Objectives: Describe adapting a cloud-based health information system to a fully offline setting and improve business continuity in case of a system failure.

Method/Description: An analysis of the existing architecture of RCHIS was conducted to identify components and procedures that only work on the cloud-based server with an existing internet connection. Offline alternatives were identified and developed to ensure full offline operational capacity and redundancy.

Results/Outcomes: A mechanism to set up a second local server for redundancy improves business continuity planning, and having locally stored backup allows the recovery of data without an internet connection. Instead of creating new user accounts in the cloud and emailing a one-time password (OTP), a mechanism to create accounts on the local server and display the OTP was added. The offline generation of the WHO EMT MDS report was embedded.

Conclusion: Adding the capability to work fully offline to RCHIS meant significant software architecture changes. Despite losing some of the benefits, such as remote information management, RCHIS is now a robust offline tool for deployment in settings without any internet connectivity. Having a local server also means that we can comply with data sovereignty rules where they exist.

Application of Advanced Technologies by Emergency Medical Teams and Coordination Cells in Disaster Settings: A Scoping Review

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Background/Introduction: In the field of medicine, various advanced technologies such as artificial medicine (AI), telemedicine, and robotics are increasingly being adopted. However, their implementation in disaster medicine remains limited.

Objectives: This scoping review aims to explore how these technologies have been studied and how they might be implemented by Emergency Medical Teams (EMTs) and Emergency Medical Team Coordination Cells (EMTCCs).

Method/Description: The review was conducted following the PRISMA-ScR guidelines. Peer-reviewed articles published between 2014 and 2024 were identified in MEDLINE using keywords related to disasters and advanced technologies. From these, articles relevant to the missions of EMTs and EMTCCs were selected.

Results/Outcomes: A total of 670 studies were identified, and 15 were selected for analysis. The majority of studies focused on mental health (n = 7), triage (n = 3), and decision-making (n = 3). Research targeting pediatric (n = 2) and elderly (n = 1) populations was also found. Advanced technologies utilized included AI (n = 12), telemedicine (n = 3), and robotics (n = 3). The studies originated from the United States (n = 7), China (n = 3), and Japan (n = 2). A significant portion of the research was concerned with predicting outcomes for high-risk patients, assisting in medical care in the absence of specialized personnel, and facilitating remote medical consultations.

Conclusion: These technologies have the potential to enhance the efficiency of medical support, expedite information sharing, and improve safety at disaster sites when employed by EMTs and EMTCCs.

Innovative Use of Unmanned Aircraft Systems (UAS) for Emergency Medical Teams: A New Era of Agile and Lifesaving Medical Interventions

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Background/Introduction: Unmanned Aircraft Systems (UAS) are transforming various sectors, including logistics