

## Applying a “Whole-of-Health-System” Approach in Mass Casualty Management

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**Introduction:** In 2019, the World Health Organization published the Health Emergency and Disaster Risk Management (H-EDRM) framework, detailing how all actors in the health system can contribute to reducing negative health outcomes of emergencies and disasters, including mass casualty incidents (MCI). The H-EDRM framework’s whole-of-health-system approach stresses the need for each level of healthcare systems to be involved in all phases of the disaster cycle, particularly preparedness and response. This approach highlights the critical role that lower levels of care, including primary healthcare, can play during MCI, demonstrating the need to integrate these into countries’ disaster plans. Nevertheless, countries’ disaster management plans have historically focused on hospitals and few recommendations exist for

how to practically proceed with such an integration. This study explores what has been published on the topic of reverse triage (RT), namely the process used by healthcare workers (HCWs) to determine which patients can safely be discharged to lower levels of care, resulting in increased surge capacity at hospitals. The objective of this work is to collect evidence around existing criteria, tools or referral pathways used by HCWs during MCI, ultimately integrating lower levels of care in MCI management.

**Method:** A systematic literature review was performed and a total of 12 studies were analyzed.

**Results:** Literature focusing on RT towards lower levels of care during MCI is scant and limited to few case studies. There is no standardized tool or guidelines for how to perform RT and existing referral pathways are described in only isolated case studies.

**Conclusion:** Published evidence on RT criteria is limited. The results of the current review can serve as groundwork upon which to design further research studies. It can be used to help devise strategies and policies for the integration of lower levels of care during MCI.

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