

Hospital Preparedness during Mass Casualty Events – A Systematic Review of Lessons Learned

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Aims: The dawn of the 21st century ushered in an era of increasing terrorism and a wave of mass casualty events across cities in Europe and the United States. The scientific community must now consider how best to prepare for such events and analyse previous responses. Are lessons learned or the same mistakes repeated in reported mass casualty events?

Methods: A systematic literature review of the PubMed/MEDLINE, Scopus and Cochrane databases from December 2012 to December 2017 using Medical Subject Headings (MeSH) for 'Mass casualty/casualties' and 'analysis' or 'review'. In-depth analysis of responses to 3 separate events in Boston (2013), Paris (2015) and London (2017) was carried out with a focus on the preparedness, accomplishments and challenges of each.

Results: From 612 potentially relevant citations, 72 underwent further analysis and 8 met the inclusion criteria. Lessons learned include greater collaboration between emergency services, improved crisis command and control structures and rapid augmentation of surge capacity. Although preparedness has improved, recurring failures in internal hospital systems, communication and resource allocation were noted.

Conclusions: Lack of a standardised and validated method of analysis of emergency responses remains a barrier to dissemination of lessons learned. The need for greater transnational academic collaboration in mass casualty response and preparedness is now undeniable.

Lastly, this review recommends increasing collaboration and training between emergency services, the formation of hospital networks to deal with multiple critical victims and drawing upon the experiences from military combat situations.

Biography:

Dr. Ary Phaily is a surgeon undergoing higher surgical training in the Oxford Deanery in the United Kingdom with an interest in surgical innovation and research. He is currently finishing postgraduate studies in Surgical Innovation at Imperial College London.