

Peer Review Report

Review Report on Managing a Mega Mass Casualty Event by a civilian Emergency Medical Services agency: lessons from the first day of the 2023 Hamas-Israel war

Theory & Concept, Int J Public Health

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EVALUATION

Q 1 Please highlight the limitations and strengths.

There is relatively little published literature on Mega Mass Casualty Events (MMCE), with respective papers and news items often originating from Israel and the Israel Defence Forces (IDF; see the publications by Elhanan Bar-On and colleagues). IFF medical teams have, for example, set up a field hospital shortly after the 2010 earthquake in Haiti. The number of patients being treated there was around 1,100, but within a period of several days. This figure shows that the number of patients needing emergency care after Hamas' Oct 7 terrorist attack in Israel was extraordinary.

Previous reports on emergency responses to terrorist attacks also concerned far lower numbers of casualties, see e. g. Carles et al. on "Mass casualty events and health organisation: terrorist attack in Nice (Lancet, 388: 2349-2350); and Hirsch et al. on "The medical response to multisite terrorist attacks in Paris" (Lancet 386: 2535-2538). With regard to the Oct 7 Hamas attack, only a personal response narrative has been published up to now (Rasooly A. Resilience amidst chaos: an Israeli physician's reflections in The Lancet). Hence, an evidence-based account of the response to the attack would fill a gap.

This manuscript aims to provide insights from Israeli civilian first responder Emergency Medical Service (EMS), Magen David Adom (MDA), during the initial day of the terrorist attack. It aims to share EMS's "experience..., along with the invaluable lessons gleaned" so to "inform and refine our emergency preparedness plans" to increase health system resilience. It recommends that "[o]ther countries would do well do study Israel's response to this mass terrorist event".

The manuscript partly fulfils this important but ambitious goal, based on an analysis of dispatch records from MDA's electronic database. I have numbered all paragraphs of the manuscript from 1 to 17 (which excludes the legend to Fig. 1). The evidence available up to now is presented as count data in the short paragraphs 7-9, with a relevant methodological information in para 10. The lessons learned can be found in the last sentence of para 11 and in paras 13-15. They provide some unique insights regarding choice of strategy and obstacles encountered. Still, they remain general and descriptive, which is understandable given the dramatic events and the scant information available in a dispatch database. Outcome data allowing to fully evaluate strategies are not (yet) available. In comparison to the evidence presented, the number and length of paras providing background information (paras 1-5), general interpretation (para 16) and concluding summary (para 17) seem high relative to the evidence presented.

Q 2 Please comment on the reported results and data interpretation. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

See above

Q 3 Please provide your detailed review report to the editor and authors (including any comments on the Q4 Check List):

I have reviewed this manuscript for a different journal before and recommended acceptance with major revisions. Nevertheless, the editors rejected the manuscript. Since then, the authors have made amendments to para 10, 12, and 15 in particular, further clarifying their main messages. The completely re-wrote para 17, thereby again improving the manuscript.

Technical aspects:

- The text could be shortened.
- Regarding style, I still notice an abundance of adjectives, especially in paras 1-4, 11, and 16 (only very few adjectives have been removed). I would recommend that the authors check again carefully whether any of these adjectives are needed. The manuscript's message is clear to me, even without the adjectives.
- Figure 2 should be presented as a bar chart, rather than a line chart.

Q 4 Check List

Is the English language of sufficient quality?

Yes.

Is the quality of the figures and tables satisfactory?

No.

Is the hypothesis testable in the framework of current knowledge?

No.

If the manuscript includes original data, are the applied methods accurate and comprehensively described?

Yes.

Does the reference list cover the relevant literature adequately and in an unbiased manner?

Yes.

Does the study adhere to ethical standards in the field?

Yes.

Q 5 Please summarize the Theory, findings and viewpoint reported.

In a large-scale terrorist attack like the one described, central management of pre-hospital disaster response is likely to have advantages over a decentralized approach.

There ought to be support mechanisms for staff involved in caring for victims of Mega Mass Casualty Events.

QUALITY ASSESSMENT

Q 6 Originality	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Q 7 Significance to the field	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q 8 Interest to a general audience	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q 9 Quality of the writing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Q 10 Overall quality of the study	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>