

The Impact of Terrorism on Children: A Two-Year Experience

Julian M. Sandell, IK Maconochie

Correspondence

Julian M. Sandell

E-mail: julian.sandell@nhs.net

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Abbreviations:

MCE = mass-casualty events

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Waisman *et al*¹ have once more highlighted the very real challenge of triaging children in mass-casualty events (MCE) in the pre-hospital setting. Difficulties encountered measuring vital signs and different patterns of injury, reflecting significant anatomical and physiological differences, necessitates a modified approach when applying traditional “adult” triage methods to paediatric trauma victims. When using physiological parameters to triage children, their faster respiratory rates and heart rates frequently result in younger children being triaged to a higher category than their injuries demand. These differences become less apparent during adolescence, as the young person matures into adulthood.

The paediatric triage system described by Waisman *et al*, adopts a “one-age-fits-all” approach rather than a physiological approach, for ages 0 to 17 years. 70% of the Israeli children with terrorism-related injuries were aged 10–17 years.¹ Nonetheless, a system applicable for this age group (i.e. young adults) may not be equally applicable to infants and small children. Eight percent of the children were under 2 years of age, and one criticism of the Mass-Casualty Pediatric Triage Algorithm 1, is that such small children may erroneously be prioritised as Urgent (Priority 2) if they were developmentally non-ambulant, rather than non-ambulant as a result of their injuries. In falsely assigning a higher triage priority, scarce resources may be diverted from genuinely critical injured children.

Unfortunately, the authors only referenced two other “current suggested guidelines” for triaging pediatric trauma victims,^{2,3} dismissing the usefulness of physiological parameters and failing to mention the Pediatric Triage Tape system, described by Hodgetts *et al*.⁴ This system is widely used by first-responders in the United Kingdom and the United States and overcomes issues related to physiological variations with age, by applying appropriate physiological variables (the 5th and 95th percentile respiratory rates and heart rates) to four length/weight ranges:

- 50–80 cm or 3–10 kg
- 80–100 cm or 11–18 kg
- 100–140 cm or 19–32 kg
- >140 cm or >32 kg

Any child >140 cm or >32 kg is triaged as an adult, similar to the bodily measurements of a 10-year old child⁵—the age range of 70% of the children with terrorism-related injuries. Unlike the two referenced guidelines, the Pediatric Triage Tape system includes airway-opening manoeuvres at the top of its algorithms.

Although Waisman’s “one-age-fits-all” method may be simpler to commit to memory than the four compartmentalized physiological ranges, the data of the Pediatric Triage Tape system is presented on a robust, waterproof, non-tear tape that has been used rigorously in the prehospital setting, and is re-useable. By ignoring objective parameters, Waisman’s system relies on the triage “clinician’s experience of pediatrics and trauma care” to identify life-

threatening clinical signs, whereas Hodgetts' system avoids this with clearly defined parameters that can be used by those with less experience.

Hodgetts' Pediatric Triage Tape system⁴ can be used to temper a clinician's subjective desire to treat all children at

the MCE as a high priority, applying simple, readily measured, physiological parameters appropriate to a child's physiology. As a result, resources can be allocated appropriately to those children with most need.

References

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