Bomb blast victims: Longitudinal study on the healthcare burden

Andi Orlowski
Deputy Director of Business Intelligence

Ellie Johnston
Data Analyst
Aim

What is the burden on secondary care for victims of explosions?

- How long does it last?
- How does it vary over time?

Are domestic accidents comparable to assaults with explosive devices?

- Higher number of cases
- Similar injuries
Methods

• HES dataset of national data of all hospital interactions from 2009 to 2019

• All patients from 2011 to 2013

• Matched cohort without event based on average and range of comorbidity index

• Followed for 5 years following the event

• What is the burden on secondary care?
Bomb blast cohorts

Domestic accident

Assault
Bomb blast cohorts

Domestic accident: 1,333 (14.8m)
Assault: 167 (0.5m)

Matched population
Both groups resulted in higher inpatient spells and procedures in the first year after the event.

The assault group resulted in increased inpatient burden over all 5 years compared to the matched population.
Outpatient appointments and procedures

Both groups resulted in higher outpatient spells and procedures in the first year after the event.

Both groups then resulted in a lower outpatient burden over the next 4 years compared to the matched population.
Both groups resulted in higher A&E visits over all 5 years compared to their matched populations. The increase was higher for the assault group.
Assault cohort – treatment specialties

Constant high spells in neurology, general medicine and respiratory medicine, clinical haematology, burns, mental illness and cardiology in 1st/2nd year.

Cardiology and plastic surgery in 4th/5th year since event.
Discussion

There is a greater impact after intended assault compared to accidental explosions especially on inpatient care.

This may be due to the intent to cause harm resulting in worse physical and mental injury.

Aid should be provided over a longer period of time to cover this increased burden.

Next steps will be to include the mental health data set in the analysis.
Contact us

Andi.orlowski@imperialcollegehealthpartners.com
@andrzeio
linkedin/andrzei-orlowski

Ellie.johnston@imperialcollegehealthpartners.com
@DrEllieJ
linkedin/helena-johnston