



Mass Casualties Predictor

In the confusion that often follows a mass casualty event, managing a hospital can be challenging. Past mass casualty events show patterns of hospital use. It is possible to estimate initial casualty volume and pattern after a mass casualty event. Public health professionals and hospital administrators can use this information to handle resource and staffing issues during a mass casualty event.

Patterns of Hospital Use

- Within 90 minutes following an event, 50-80% of the acute casualties will likely arrive at the closest medical facilities.
 - Other hospitals outside the area usually receive few or no casualties.
- The less-injured casualties often leave the scene under their own power and go to the nearest hospital. As a result:
 - They are not triaged at the scene by Emergency Medical Services (EMS).
 - They may arrive to the hospital before the most injured.
- On average, it takes 3-6 hours for casualties to be treated in the emergency department (ED) before they are admitted to the hospital or released.

Casualty Predictor

When trying to determine how many casualties a hospital can expect after a mass casualty event, it is important to remember that casualties present quickly and that approximately half of all casualties will arrive at the hospital within a 1-hour window.

- This 1-hour window begins when the first casualty arrives at the hospital.
- To predict the total number of casualties your hospital can expect, double the number of casualties the hospital receives in the first hour.

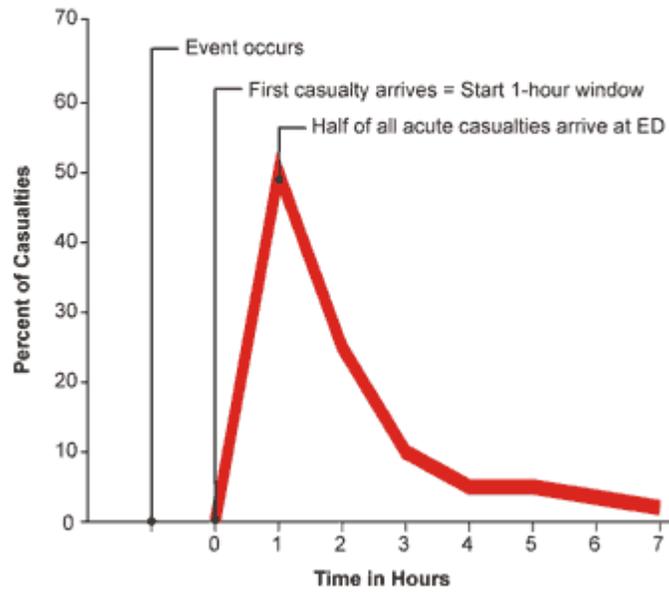
Casualty Predictor

Total Expected Casualties = (Number of casualties arriving in one hour window) x 2

Note: The total expected number of casualties will be an estimate. There are many factors that may affect the accuracy of this prediction such as: transportation difficulties and delays, security issues that may hinder access to victims, and multiple explosions or secondary effects of explosion (such as a building collapse).

Page Located on the Web at <http://www.bt.cdc.gov/masscasualties/predictor.asp>

Figure 1:
Predicted Emergency Department Casualties



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