

Transfusion demand and capability planning should be an integrated part of the medical planning process for emergency system preparedness” Doughty et al (2016).

Abstract:

Transfusion support is a key enabler to the response to mass casualty events (MCEs). Transfusion demand and capability planning should be an integrated part of the medical planning process for emergency system preparedness.

Historical reviews have recently supported demand planning for MCEs and mass gatherings; however, computer modeling offers greater insights for resource management. The challenge remains balancing demand and supply especially the demand for universal components such as group O red blood cells. The current prehospital and hospital capability has benefited from investment in the management of massive hemorrhage. The management of massive hemorrhage should address both hemorrhage control and hemostatic support. Labile blood components cannot be stockpiled and a large surge in demand is a challenge for transfusion providers. The use of blood components may need to be triaged and demand managed. Two contrasting models of transfusion planning for MCEs are described. Both illustrate an integrated approach to preparedness where blood transfusion services work closely with health care providers and the donor community. Preparedness includes appropriate stock management and resupply from other centers. However, the introduction of alternative transfusion products, transfusion triage, and the greater use of an emergency donor panel to provide whole blood may permit greater resilience.

Full Text

Reference:

Doughty, H., Glasgow, S. and Kristoffersen, E. (2016) Mass casualty events: blood transfusion emergency preparedness across the continuum of care. *Transfusion*. 56(Supplement S2). p.S208-S216.

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