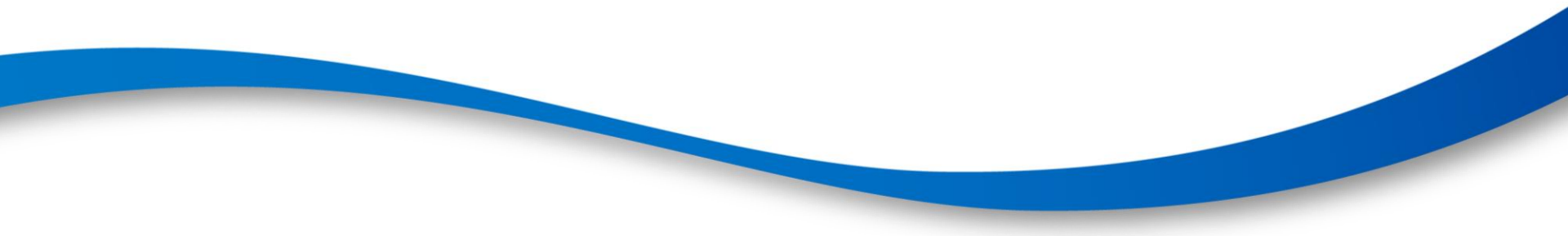


A thick blue wavy line that starts on the left, dips down, and then rises towards the right, spanning the width of the slide.

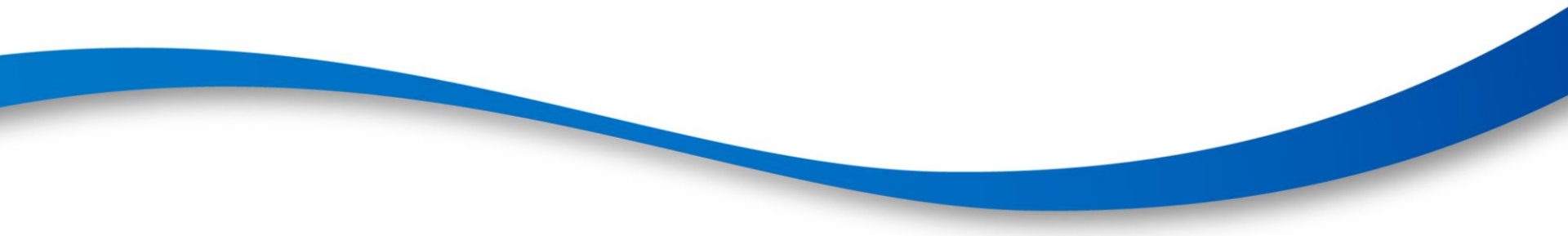
Blood Response to Major Incidents in England

Richard Rackham
Assistant Director Governance and Resilience
NHS Blood and Transplant

NHS Blood and Transplant

- NHSBT is regarded as “The Blood Service”, but also provides tissues in emergencies (esp. Skin)
 - Blood and blood components are provided from stock (we do not normally need emergency donors)
 - NHSBT will move stock to ensure that a centre is reprovided
 - Assumption that most emergency stock is required within the first 8 hours of an incident.
 - NHSBT does recognise some ongoing requirements for returns to theatre
- 
- A thick, solid blue line that starts at the bottom left, dips into a wave, and then rises towards the bottom right corner of the slide.

Challenges

- Hospitals over-order
 - The public response to give blood
 - The tendency to use O Negative blood (even when there is time to provide group compatible) – not just a numbers issue
 - Logistics – crowds, lock-downs and cordons disrupt travel routes and access into hospitals (assistance required for blood services please)
- 
- A thick, solid blue line that curves across the bottom of the slide, starting from the left edge, dipping down, and then rising towards the right edge.

Incidents

- Westminster Bridge - 22 March 2017
 - *WannaCry ransomware - 12 May 2017*
 - Manchester Arena - 22 May 2017
 - London Bridge - 3 June 2017
 - Grenfell Tower - 14 June 2017
 - Finsbury Park Mosque - 19 June 2017
 - Parson's Green Underground - 15 September 2017
- 

	Westminster		Manchester		London Bridge		Grenfell Tower		Finsbury Park		Parson's Green	
Casualties	29		116		48		70		8		30	
Transfused	?		23		?		?		0		?	
	Ordered	Used	Ordered	Used	Ordered	Used	Ordered	Used	Ordered	Used	Ordered	Used
O Neg RBC	20	?	163	31	90	?	0	?	0	0	0	?
O Pos RBC	50	?	80	21	46	?	0	?	0	0	0	?
Total RBC	70	?	334	89	136	?	0	?	0	0	0	?
Total Plt	16	?	18	?	17	?	0	?	0	0	0	?
Total Frozen	12	?	70	?	60	?	0	?	0	0	0	?

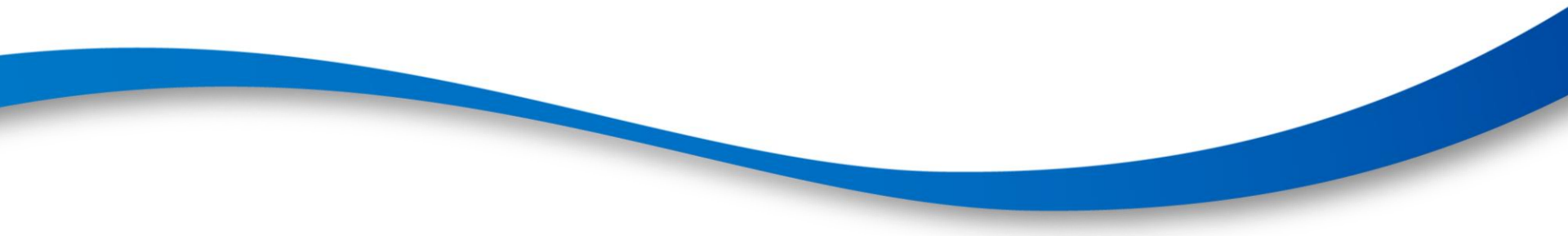
Israeli Experience

- A past Israeli survey of 1645 attacks involving 7497 casualties (Shinar et al, 2006) suggested:
 - 13% death at scene
 - 8% severe (p1) and
 - 12% (p2) moderate casualties
- A total of 20% who may need blood.

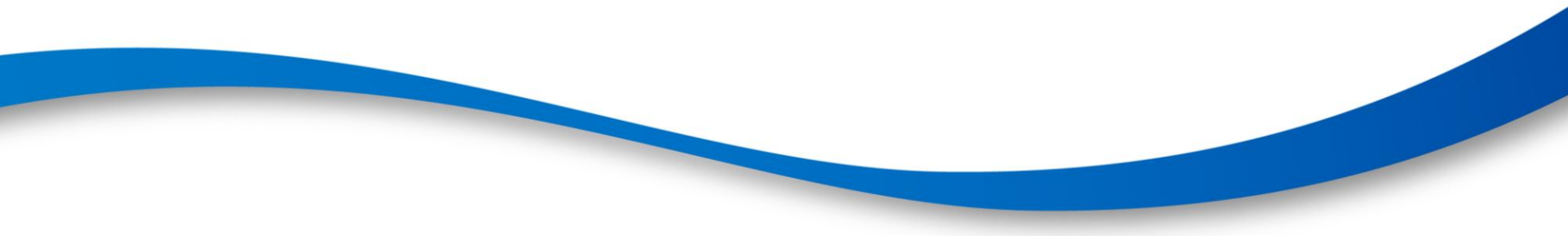
Shinar E et al. (2006) Meeting blood requirements following terrorist attacks: the Israeli experience. Current Opinion in Haematology. 13(6): 452-456.



Our Assumptions

- For casualty numbers we use Government Planning assumptions
 - We assume P1:P2:P3 ratio of 10:20:70
 - 10 units RBC for P1 – haemostatic support in accordance with transfusion guidelines
 - 4 units RBC for P2 – no haemostatic support
 - Nothing for P3
 - 3-fold over-ordering of red cells
- 

Specific Issues

- Cordon going into St. Thomas' (Westminster Bridge) and cordon in Manchester
 - Platelet stock points
 - Not routine for hospitals to report usage
 - Hospital over-ordering (especially O Neg red cells and A Neg platelets)
 - Transport boxes
- 
- A thick, solid blue wavy line that curves across the bottom of the slide, starting from the left edge and ending at the right edge.

Thank You

Richard Rackham
Assistant Director Governance and Resilience
NHS Blood and Transplant
richard.rackham@nhsbt.nhs.uk