

# NBTC's Emergency Planning Working Group

## Update for London RTC May 2018

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## Manchester 2017

- Manchester arena bombing
- 22nd May 2017
- Suicide bombing at end of Ariana Grande concert
- 22 killed
- >200 injured



# Mass Casualty Events

London 2005

Utoya/Oslo 2011

Olympics 2012

Boston 2013

Paris 2015

Brussels 2016

Croydon 2016

Manchester / London 2017



# London 2017

Date	Location	Mechanism	Impact
22 March	Westminster	Vehicle	4 killed Dozen injured
4 June	London Bridge	Vehicle	8 killed
14 June	Grenfell Tower	Fire	71 died
19 June	Finsbury Park	Vehicle	1 killed Several injured
15 Sept	Parson Green	IED	22 injured



# UK Major Incident

revised definition 2016



*“An event or situation, with a range of serious consequences, which requires special arrangements to be implemented by one or more emergency responder agencies”*

Transfusion Emergency Preparedness is one element of an important integrated healthcare response

# Transfusion support

Haemorrhage is a leading cause of preventable mortality

50% of deaths in the first 24 hours

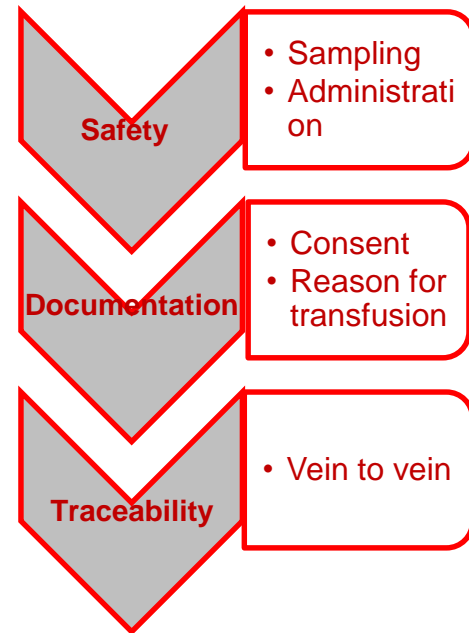
Early use of appropriate blood / components can reduce mortality and morbidity.

## Essential transfusion support includes:

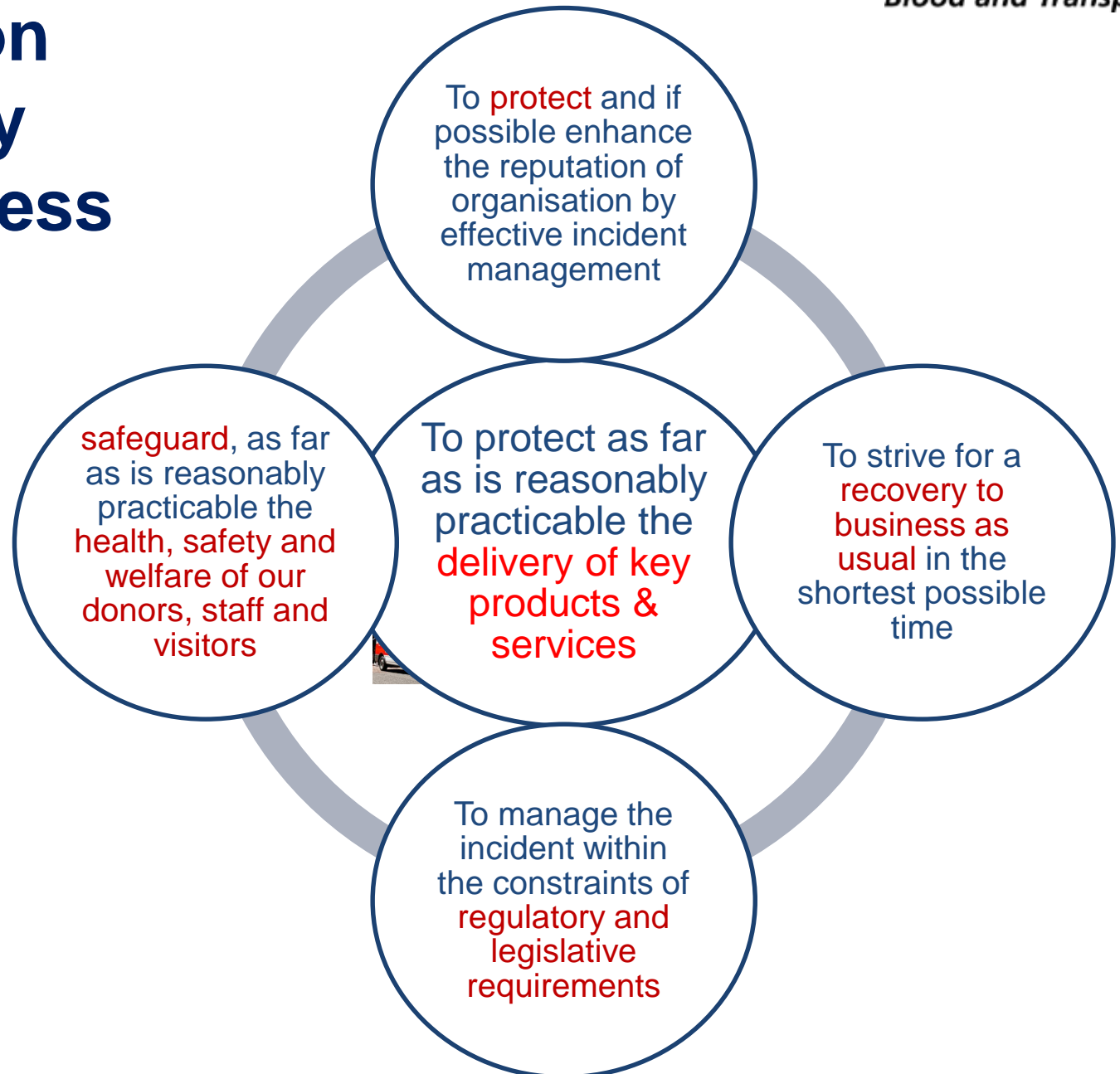
Transfusion triage

Provision of blood and blood components

Blood grouping (and screening for atypical antibodies)



# Aims of Transfusion Emergency Preparedness



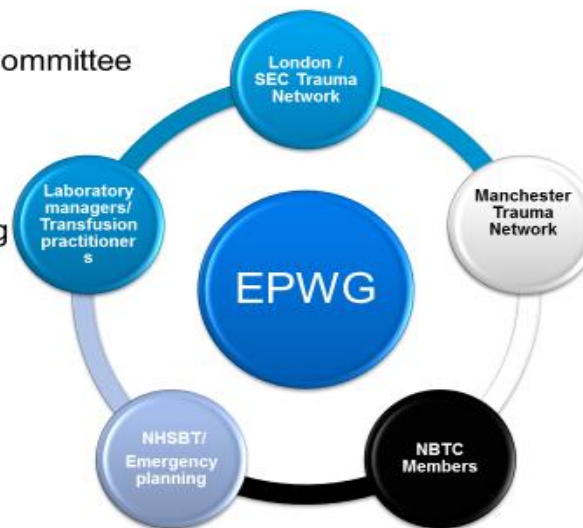
# NBTC EMERGENCY PLANNING WORKING GROUP

## Process

Date	
2006	Review following July 7 2005 London bombings
Oct 2017	First revised draft
Nov-Jan	Consultation - process
Feb 2018	Telecom – identify remaining issues and determine TORs
Mar 2018	Presentation of TORs to NBTC
April 2018	Address ongoing issues and wider consultation

## Group Formation

- National Blood Transfusion Committee
- Recent experience
- Multi-disciplinary
- Integrated with wider planning





# TORs: Remit

To provide hospitals with ongoing guidance for

Transfusion emergency preparedness

Response to **Major Incidents** and

**Mass Casualty Events**

in consultation with a range of stakeholders

# TORs: Scope

Area served by NHS Blood and transplant

Collaborate with other UK services & international community

Provision of blood transfusion support across the continuum of care

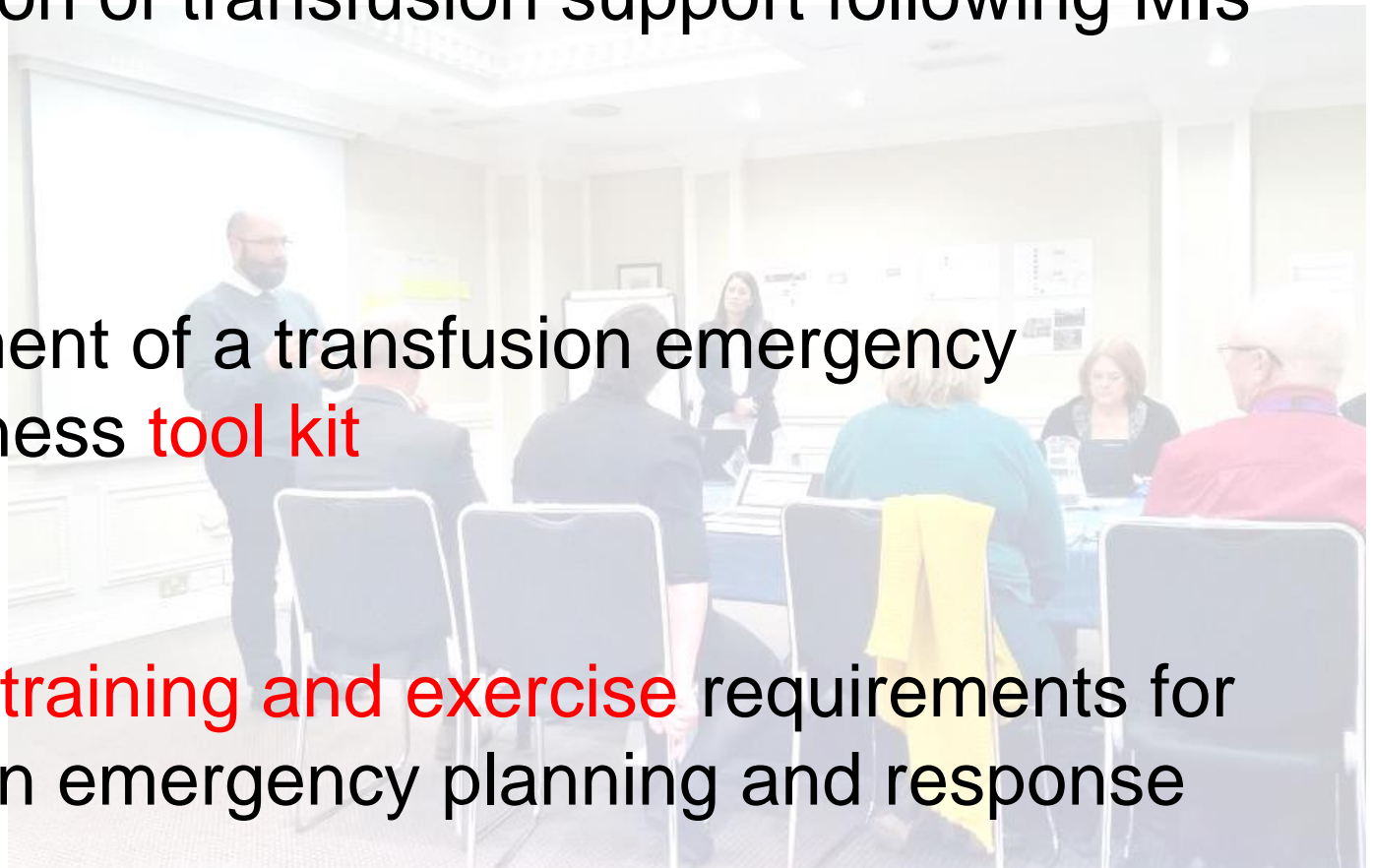
Does not cover CBRN (NHS England)

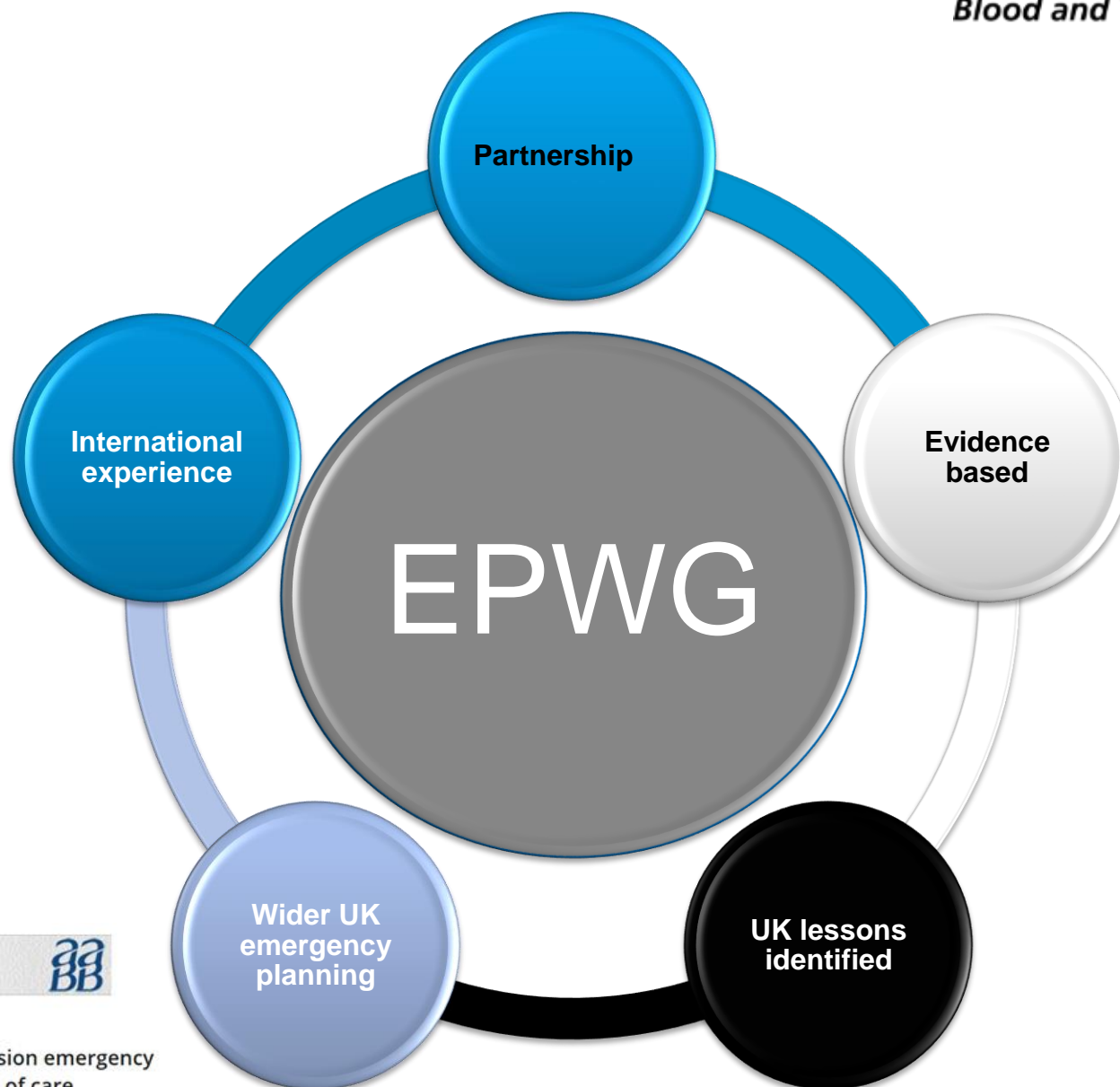
Does not cover detailed Business Continuity planning



# TORs: Outcome measures

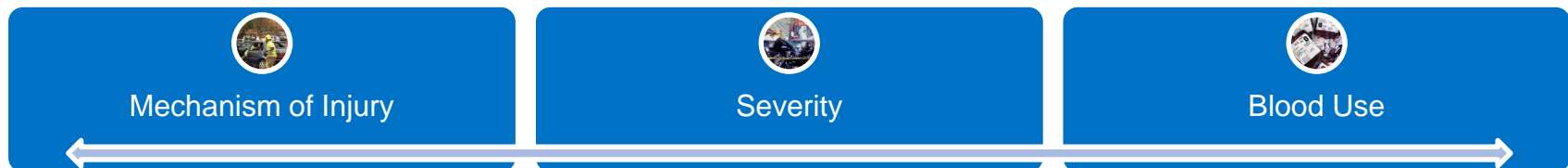
- Revision of existing recommendations for the organisation of transfusion support following MIs and MCE
- Development of a transfusion emergency preparedness tool kit
- Advise of training and exercise requirements for transfusion emergency planning and response





# Literature

- Overall 2-3 RBC per casualty. 6 units RBC per critically injured.
- May be less RBC if other components or WB used
- 2/3 (62-74%) RBC used within first 4hr,
- 27% Group O, un-cross-matched



## A comprehensive review of blood product use in civilian mass casualty events

Glasgow, Simon BSc, MD; Davenport, Ross BSc, MD; Perkins, Zane MD; Tai, Nigel MD, MS; Brohi, Karim MD

Journal of Trauma and Acute Care Surgery: September 2013 - Volume 75 - Issue 3 - p 468-474

doi: 10.1097/TA.0b013e318298efb9

Review Articles

British Journal of Surgery. 100():31, MAY 2013

Issn Print: 0007-1323

Publication Date: 2013/05/01

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## A 100 year review of blood use in civilian mass casualty events - how best to predict future needs: 099

S. M. Glasgow; Z. B. Perkins; R. Davenport; N. R. M. Tai; K. Brohi



# Regional Incident Response Plans

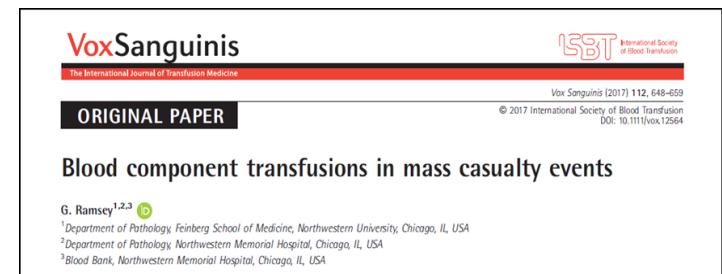
Hospital planning assumptions and stock holdings should be guided by the **pre-determined** casualty regulations and capability chart from their regional MI plan.

- P1s to Major Trauma Centres,
- P2s to Trauma Units

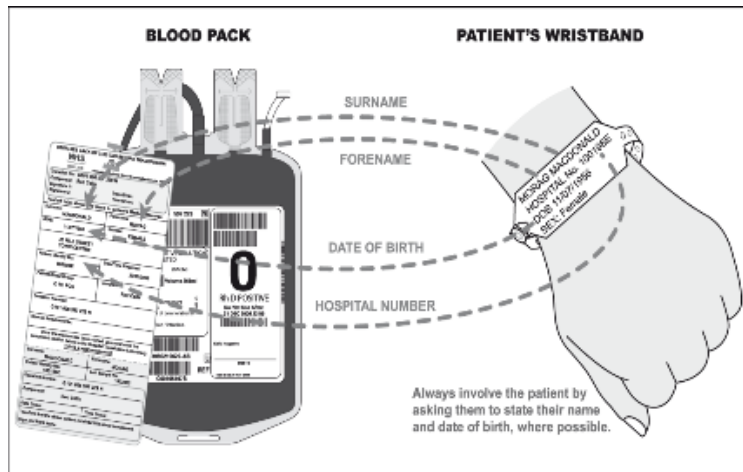
## General guidance

3 units RBC per casualty admitted

7 units with components for more severely injured



# Identification and information



*'Labelling of transfusion samples from unknown patients in emergency situations' Transfusion Medicine 2013, 23, Suppl 2. White J, Milkins C, Rowley M.*

*See future Patient Safety Alert.*

Emergency patient identification should include:

- Non sequential Unique Identifier Number
- Gender
- ? Hospital ID
- ? Age
- Additional information:
  - Treatment priority
  - Transfusion before sample

# Roles & Responsibilities



*Exercising the role of a forward transfusion co-ordinator in Ex Pandora, University Hospitals Birmingham 2017.*

Consider sending haematology and transfusion staff forward to support:

- Emergency Department
- Trauma theatres
- Roles could include:
  - Transfusion **triage**
  - **Traceability** of blood units
  - Transfusion **sample security** (second transfusion samples and changing ID)

# Hospital Stock Management

- Activate Blood Bank Major Incident Plan
- Alert NHSBT
- Review current blood stocks. Estimate immediate & early requirements.
- Clarify casualty numbers & type (women and children)
- Recover issued stock (from wards)  
Consider cancellation of surgery
- **Pre-thaw plasma if P1s – Prepare Shock packs**
- Place blood orders to NHSBT



H. A. Doughty & S. Allard (2006)  
Responding to Major Incidents –  
Lessons Learnt from July 2005 London  
Bombings. *Blood Matters (NHS Blood  
and Transplant)*, **20**, 14 - 15.

# Planning advice for blood services

## Bottom-up planning for incidents

- Number of casualties x
- Amount of blood required x
- Red cell demand: use ratio = x 3

## Assumptions

- Early use of blood components
- Increased use of 'universal components' (75% group O RCC)
- Few casualties should require massive transfusion
- Consider nature of incident and need for continuing support and repeat surgery



Glasgow SM, Allard S, Doughty H, Spreadborough P, Watkins E. (2012) Blood and bombs: the demand and use of blood following the London Bombings of 7 July 2005- -a retrospective review. *Transfusion Medicine*. 22(4):244-50



# Cybersecurity

Aim to signpost this rapidly changing area.  
Recent example:

## Announcement from Dept of Health and Social care on 28 April 2018

A deal with Microsoft will ensure all healthcare organisations are using the **latest Windows 10** software with **up-to-date security settings** to help prevent cyber attacks.

Establishment of a new digital security operations centre to prevent, detect and respond to incidents. The centre will:

- allow NHS Digital to respond to cyber attacks more quickly
- allow local trusts to detect threats, isolate infected machines and kill the threat before it spreads



<https://www.gov.uk/government/news/plans-to-strengthen-nhs-cyber-security-announced>

# Working Together

