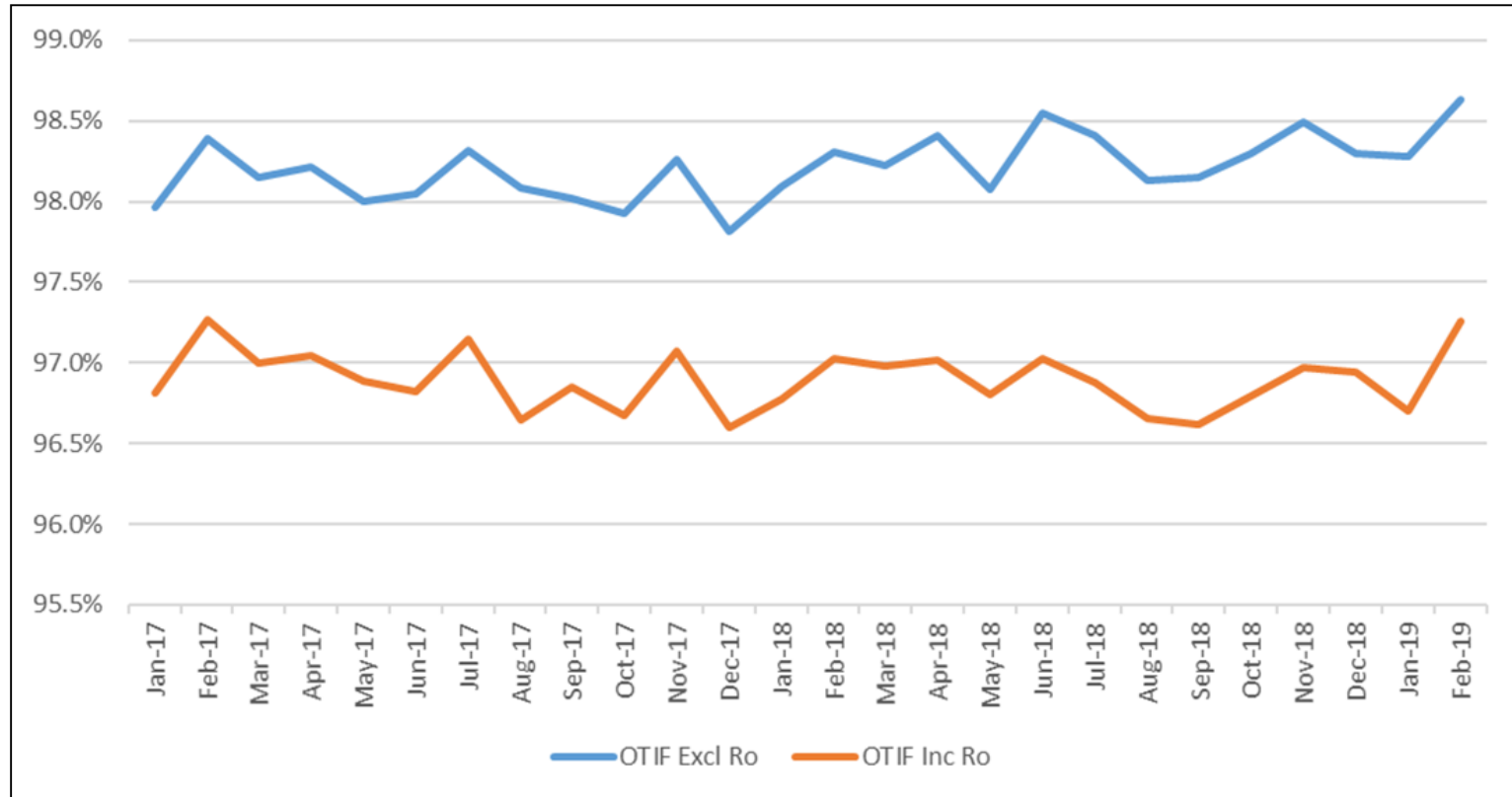


Supply of Blood Components

Educational Day. 8th March 2018

- Forecast demand of blood components from hospitals in England (red cells, platelets, FFP, cryoprecipitate and others)
- Develop plans to outline how many donations and many blood components we need every day to meet the forecast demand
- Management of the validated blood components (once processed and tested) to ensure the right blood component is at the right Stock Holding Unit to meet hospitals orders
- Identify and respond to areas of improvement in the supply of blood components in England

Our service levels to hospitals, excluding Ro, have been improving.



Our way of measuring if we are doing a good job (OTIF)

1. Are we delivering the blood components hospitals order? “In full” fails
2. Are we picking and packing those orders within the times agreed with hospitals? “Timing only” fails
3. What can we learn from hospitals’ complaints?

- Demand for Ro units (cDe) has doubled in the last 3 years driven by an increase in the number of sickle cell patients and the move to automatic exchange programmes (more units required)
- Ro donations are about 50% of the demand; currently offering ABO rr as a substitution. This is clinically appropriate but it is putting pressure on O neg and B neg.
- We need to recruit and retain more black donors (as Ro prevalence is higher among that group)

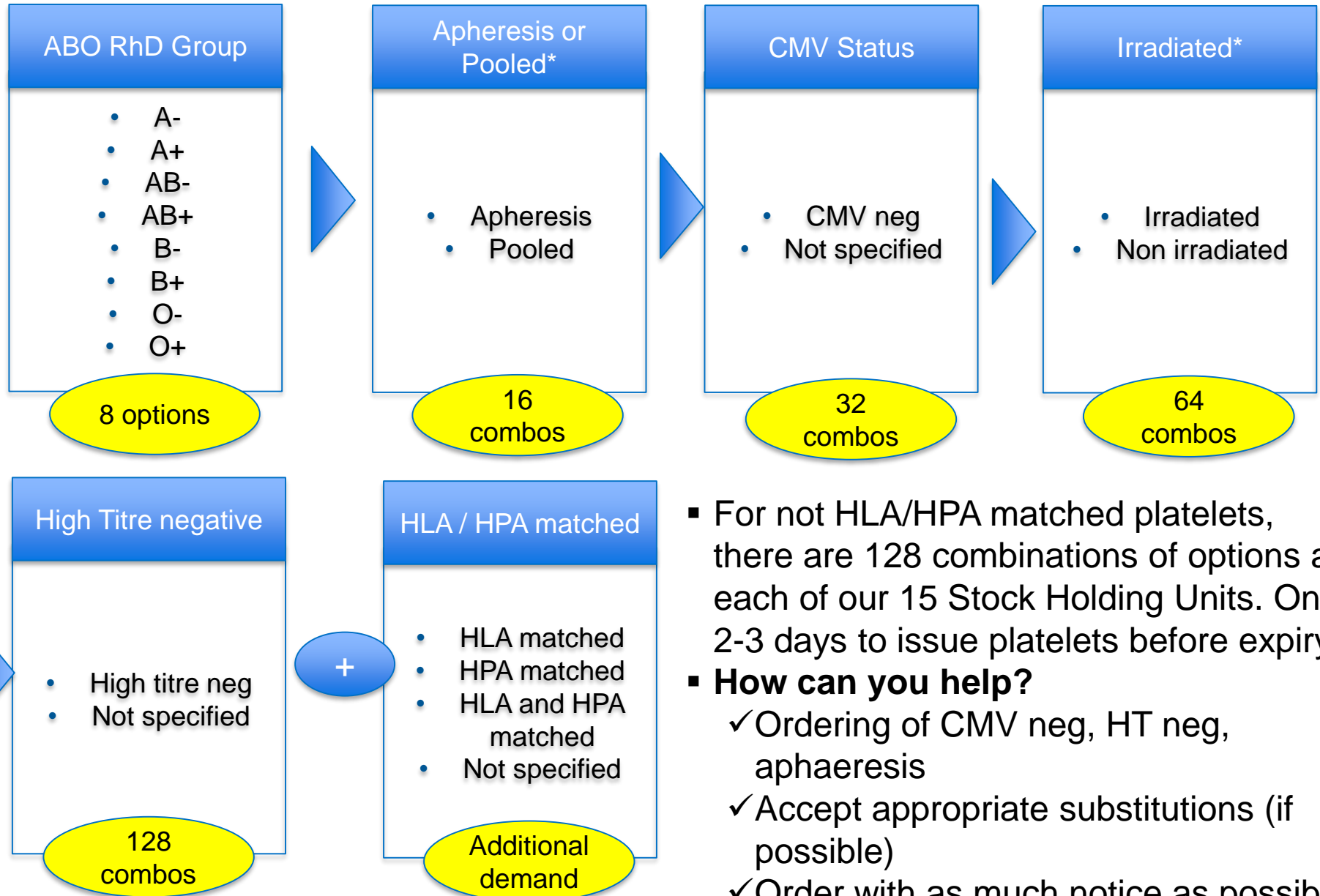


▪ **How can you help?:**

- ✓ Be advocate for us to encourage blood donation within the black community (c40% prevalence vs. c1.6% in white Caucasian)
- ✓ Aim to place Ro orders with at least 24-48 hours notice

- Supply v demand: disproportionate effort to recruit
 - ✓ 9% of donor population is A neg
 - ✓ Demand for A neg is approx. 15.5 % of the total platelet demand (18% required production to include substitutions)
- Aphaeresis collections
 - ✓ Most A neg platelets are produced through aphaeresis (70%) (v pooled) because of limited A neg red cells.
 - ✓ Relying on c,2000 platelet donors donating every 6-8 weeks. High level of commitment (takes up to 2 hours excluding travel)
- Despite high aphaeresis collections, NHSBT is over collecting A neg red cells to meet platelet demand leading to A neg red cell waste
- **How can you help?:**
 - ✓ Stock management of A neg platelets; recommendations on use of A neg platelets
 - ✓ Consider alternative blood groups (HT neg)

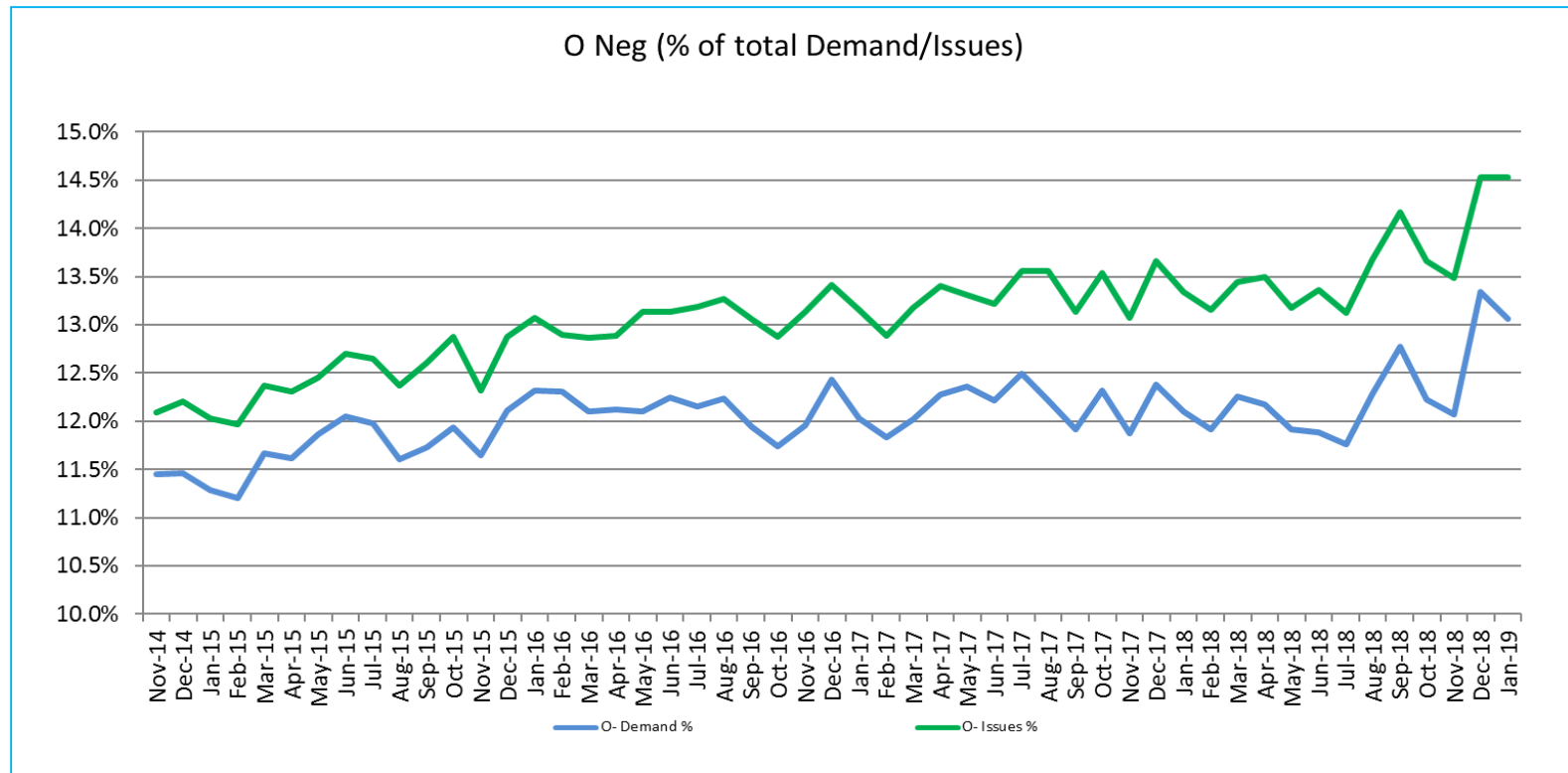
Complexity of adult platelets



- For not HLA/HPA matched platelets, there are 128 combinations of options at each of our 15 Stock Holding Units. Only 2-3 days to issue platelets before expiry
- **How can you help?**
 - ✓ Ordering of CMV neg, HT neg, aphaeresis
 - ✓ Accept appropriate substitutions (if possible)
 - ✓ Order with as much notice as possible

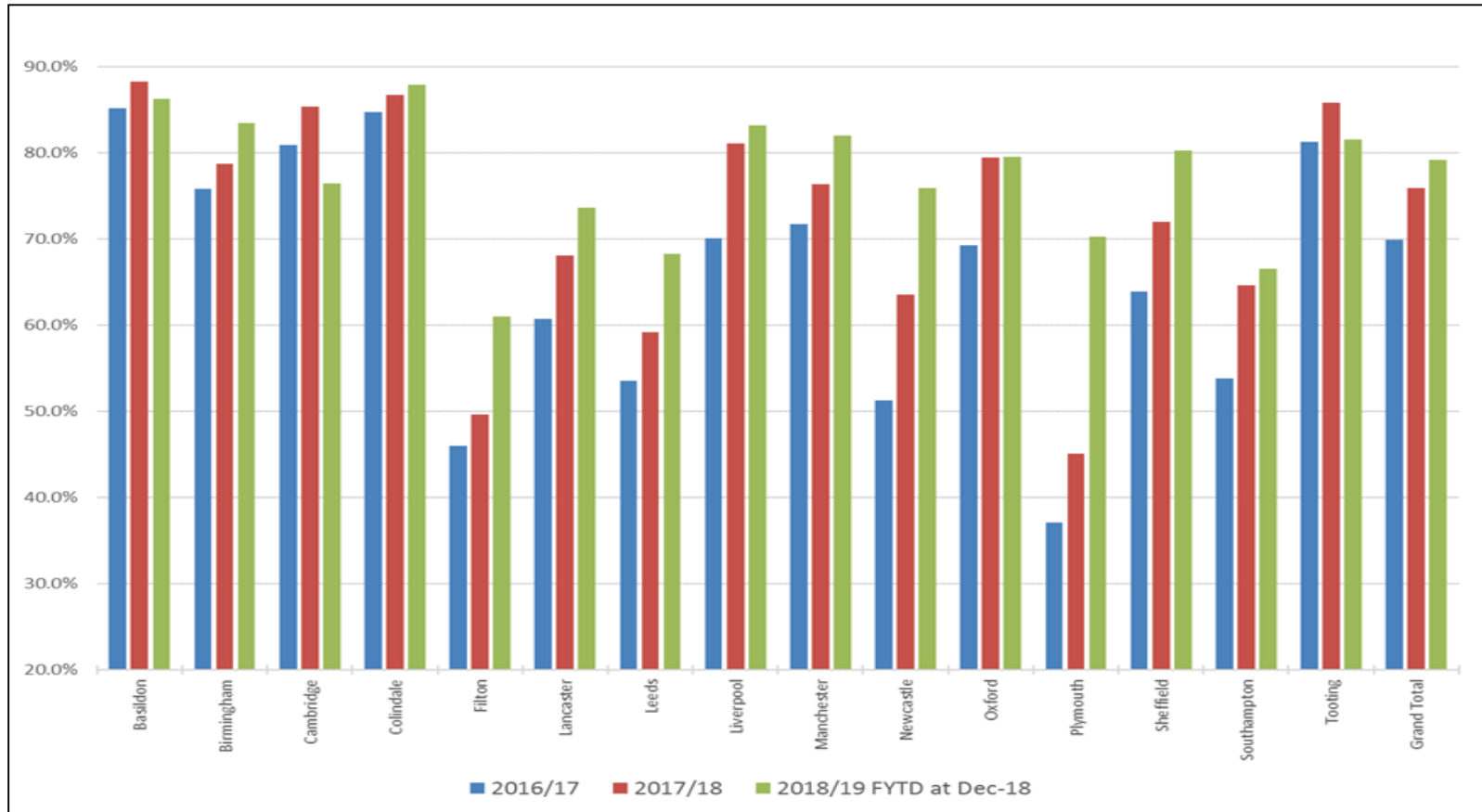
* HLA / HPA matched platelets are all apheresis and irradiated

O neg demand as % of total red cells demand



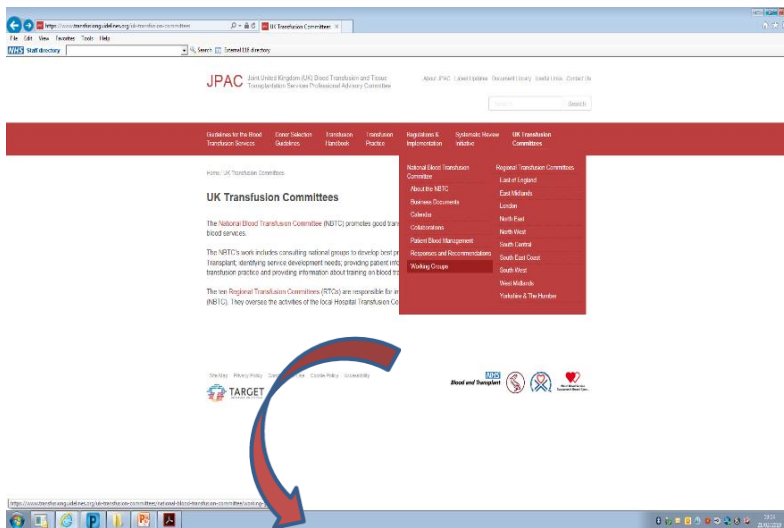
- 7% of the population are O neg vs. issues of c14% of total demand
- After a period of O neg remaining stable at 12-12.5% (blue line), it has started to grow again in the last few months
- The difference between demand and issues increasing due Ro substitutions
- **How can you help?**
 - ✓ Stock management O neg
 - ✓ Recommendations on O neg usage

Increasing demand of O neg Kell neg



- NHSBT collects c10% of O neg as Kell pos
- Increasing demand of O neg Kell neg means that expiring a large proportion of those O neg Kell pos
- How can you help?
 - ✓ Working with NHSBT to achieve a fair distribution of these units and make appropriate use of these

- NHSBT delivers high level of service to hospitals meeting 98- 98.5% of all the orders of blood components placed by hospitals in full and on time
- **Main challenges to supply are:**
 - ✓ Not enough Ro donations to meet increasing demand; need to increase the number of black donors
 - ✓ Disproportionate demand of universal components, specifically O neg red cells and A neg platelets
 - ✓ Challenging to ensure availability of all the types platelets (128 non HLA adult options) in all of our 15 Stock Holding Units at all times
 - ✓ Increasing demand of O neg Kell neg
- **How can you help?**
 - ✓ Be advocates of blood donation within the black community
 - ✓ Stock management/ usage of O neg and A neg
 - ✓ Platelets: accept substitutions (if possible), requirements for extra specification (CMV neg, HT neg)
 - ✓ Work with NHSBT to achieve an appropriate use of O neg Kell pos red cells



Emergency Planning

- [Terms of Reference \(pdf\)](#)
- [Emergency Preparedness, Resilience and Response guidance for Hospital Transfusion Teams \(pdf\)](#)

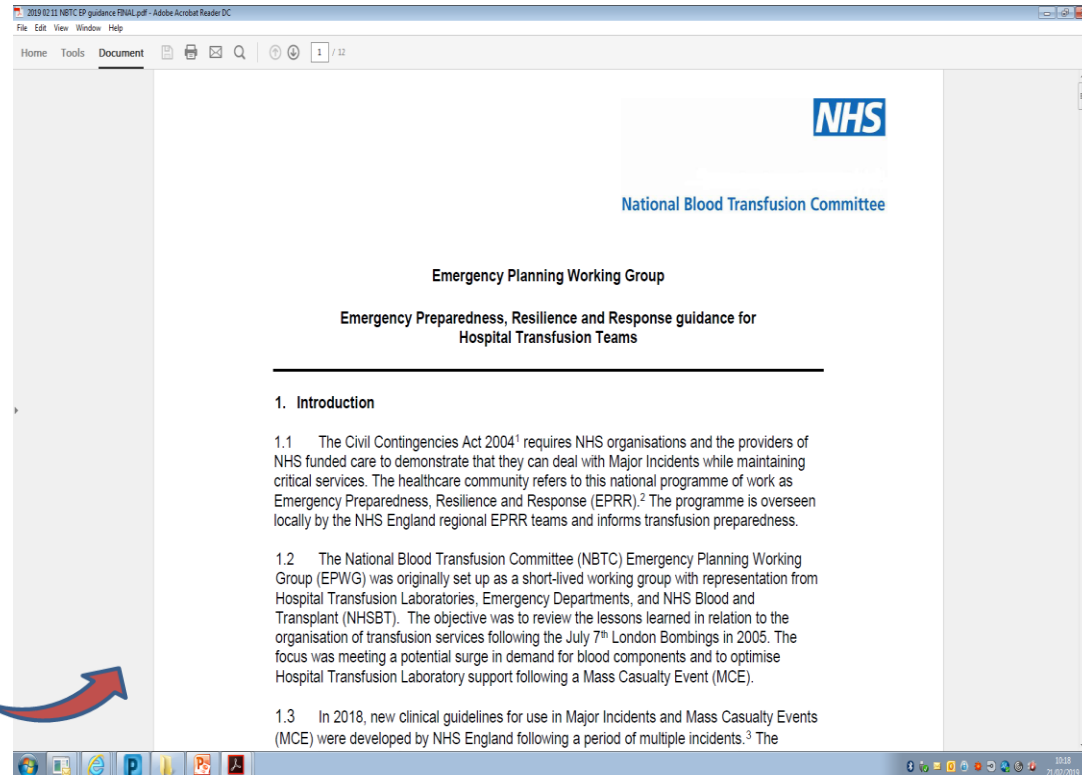
Minutes

- [8 January 2019 \(pdf\)](#)
- [25 July 2018](#)
- [15 February 2018 \(pdf\)](#)

Resources

U.S. Department of Health & Human Services emergency planning website; [Blood and Disasters FAQs](#)

NHS England Clinical guidelines for major incidents and mass casualty events. This guidance document was first published 24 December 2018 under the topic [Emergency Preparedness, Resilience and response](#).



<https://www.transfusionguidelines.org/uk-transfusion-committees/national-blood-transfusion-committee/working-groups>