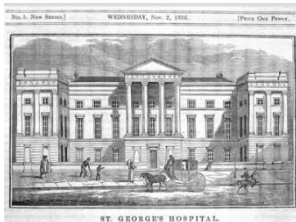


Should Emergency Red Cells Be Anything Other Than Just Group O?



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16 October 2019



Disclosure

I am a haematologist



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History

- Richard Lower in 1665
 - Bled a dog almost to death
 - Revived by transfusion from another dog via a tied artery.

History

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 - Bled a dog almost to death
 - Revived by transfusion from another dog via a tied artery.
- Jean-Baptiste Denis In 1667
 - Physician to King Louis XIV
 - Transfusion of blood from a sheep to a 15-year old boy and later to a labourer
 - Both survived!

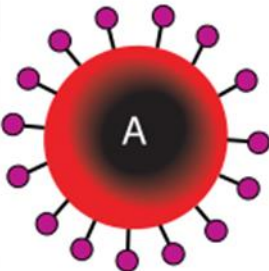
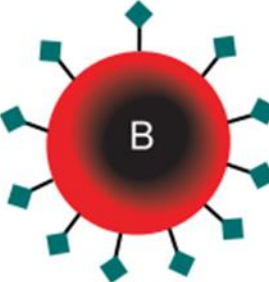
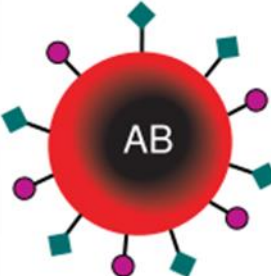
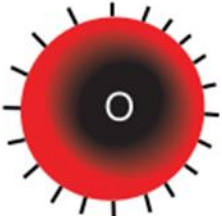






- James Blundell
 - British obstetrician
 - 1818
- Post-partum haemorrhage
- Successful transfusion of human blood





Landsteiner's Law

Individuals lacking a certain ABO antigen have preformed natural antibodies directed against it.

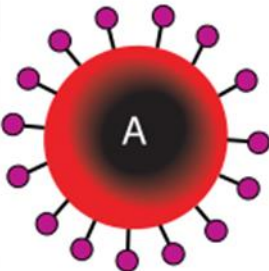
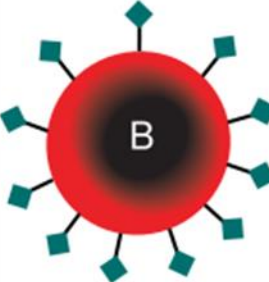
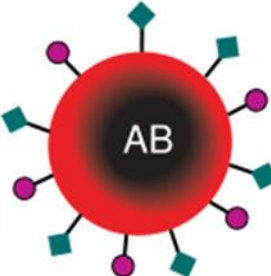
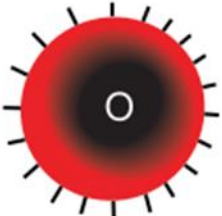






| | Group A | Group B | Group AB | Group O |
|---------------------|--|--|---|--|
| Red blood cell type |  |  |  |  |
| Antibodies present |  Anti-B |  Anti-A | None |  Anti-A and Anti-B |
| Antigens present |  A antigen |  B antigen |  A and B antigens | No antigens |









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Recipient blood group

**Donor Red
cells**

O

A

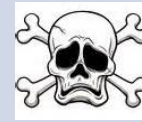
B

AB

O



A



B



AB





LOG IN



Match. Chat. Date.

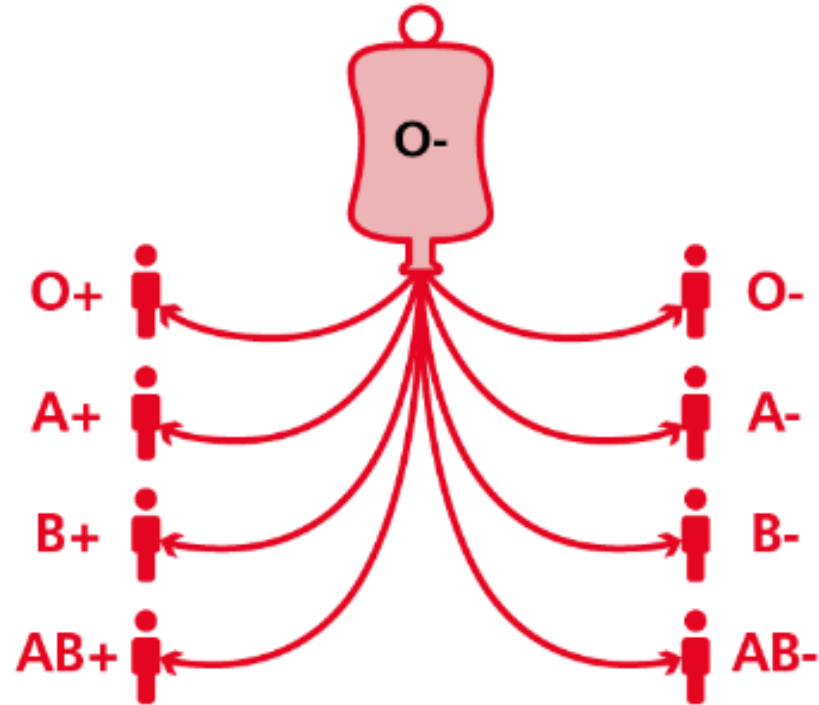
By clicking Sign Up, you agree to our [Terms](#). Learn how we process your data in our [Privacy Policy](#) and [Cookie Policy](#).

SIGN UP

SWIPE LIFE

Tinder uses cookies to assess site usage, provide you ads based on your interests, and enable social platform features. For more info and to adjust your cookie settings, [click here](#). ✕

YOU'RE EVERYONE'S TYPE



| O+ | A+ | B+ | AB+ | O- | A- | B- | AB- |
|------------|------------|-----------|------------|------------|-----------|-----------|------------|
| 35% | 30% | 8% | 2% | 13% | 8% | 2% | 1% |

No. 3. New Series.]

WEDNESDAY, Nov. 2, 1836.

[Price One Penny.]



ST. GEORGE'S HOSPITAL.









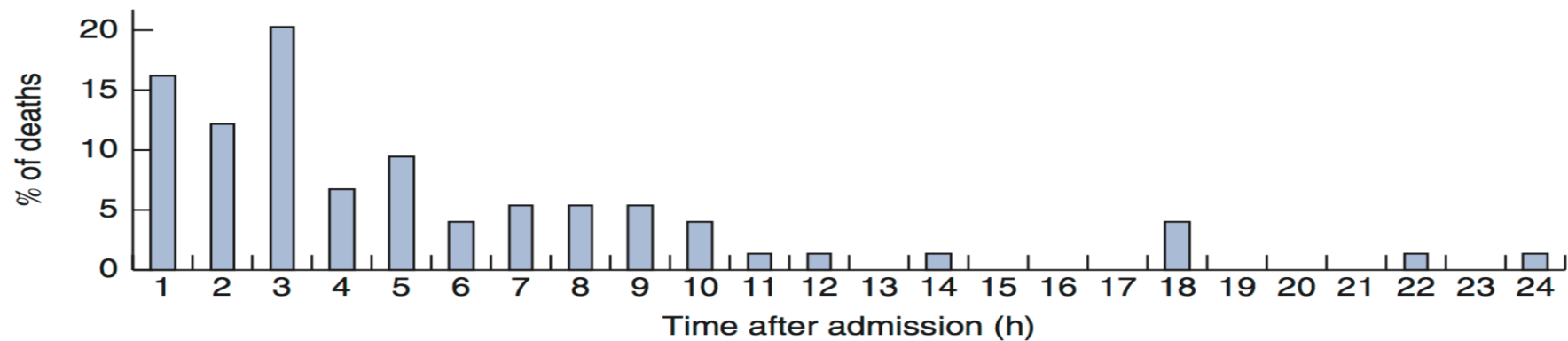


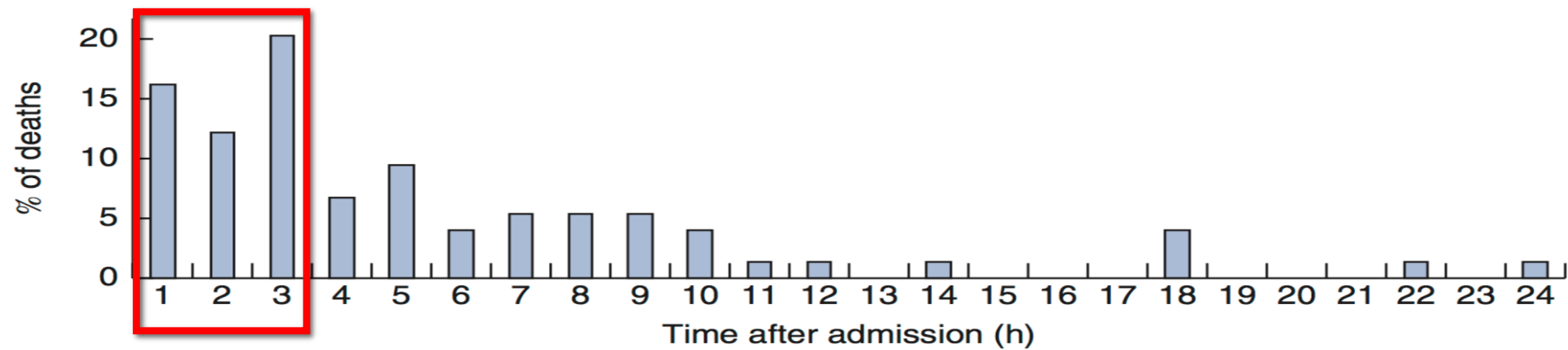
April 2018-Mar 2019

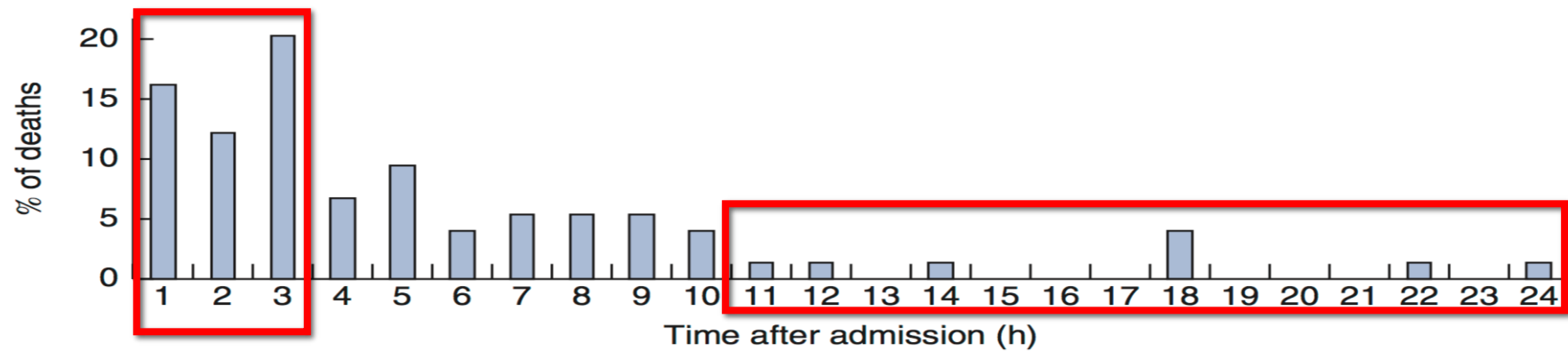
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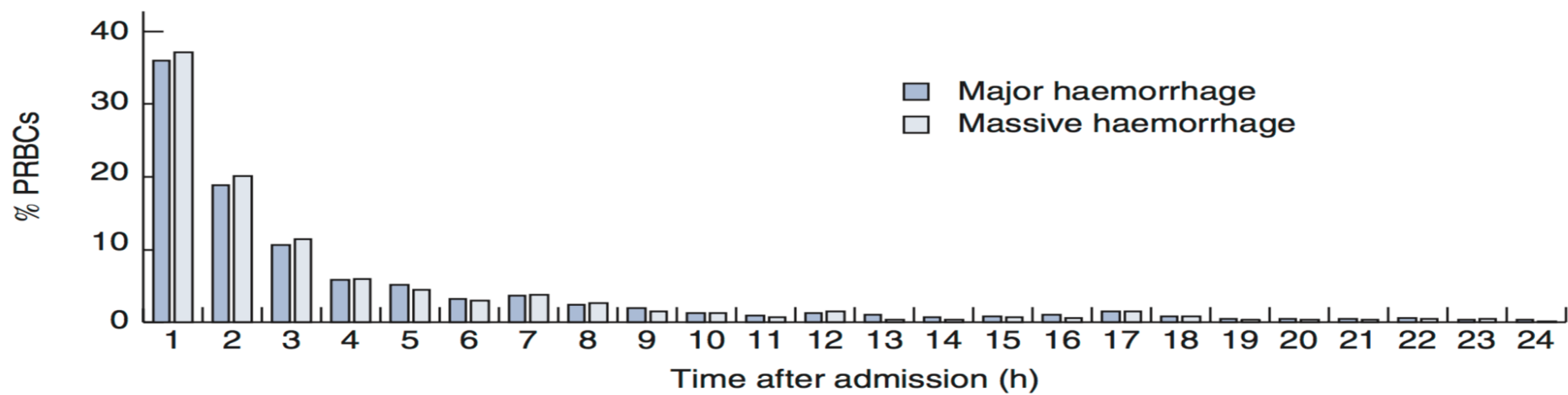
No sample in 8 patients





















Re - bleeding patients (paeds, difficult veins)

Better a venesection than an ABO incompatible transfusion!



CODE RED

Management of ALL Massive Haemorrhage

Trauma/Team Leader/Clinician/Midwife must declare 'CODE RED' if:

- Systolic blood pressure <90 mmHg
- Unresponsive to fluid bolus
- Suspected or confirmed massive haemorrhage

Nominated Team member must contact Blood Bank immediately on dedicated extension number: 6789 and declare 'CODE RED' giving patient details.

Request one **CODE RED** pack 'A' (pack contains packed red cells and FFP)

- Send runner to collect immediately.
- If there is an immediate need for transfusion, collect emergency group O blood units from the nearest satellite fridge.
- Send baseline samples to the laboratory **asap** for: G&S; FBC and clotting screen

If bleeding continues request one **CODE RED** pack 'B' (pack contains packed red cells, FFP, platelets and cryoprecipitate).

Pack B needs to be requested, it is not automatically issued.

Further requests for pack B and other components should be guided by the results of clotting screen and FBC.

Administer further products if:

- Platelets <80 x 10⁹/L – administer 1 unit of platelets
- Platelets <30 x 10⁹/L – administer 2 units of platelets
- Fibrinogen <1.5g/L – administer 2 pools of cryoprecipitate
- APTT/PT ratio >1.5 – administer 4 units of FFP

If bleeding persists contact the on call Haematology SpR on Bleep 6311 or via Switchboard if out of hours

Refer to: http://hospital.blood.co.uk/library/pdf/nbhc_2014_04_rec_indication_codes_2013.pdf

Supplementary Information

Emergency Group O negative stock

The following blood fridges are stocked with group O negative units:

- ED resus (ground floor SJW) – 6 O negative units
- St James' theatre (1st floor SJW) – 2 O negative units
- Lanesborough Theatre (1st floor LW) – 2 adult O negative units, 2 pedipacks
- Cardiac Theatre (1st floor AMH) – 2 O negative units

- These units should only be used in extreme emergency and should be scanned out using the BloodTrack kiosks.
- If O negative blood is used notify Blood Bank immediately
- Patient demographics should be added to the traceability tag, signed and returned to Blood Bank asap.

Blood grouping & Crossmatching:

Following the receipt of a correct, fully labelled sample (two samples from **DISCRETE** phlebotomy episodes if patient is new to SGH):

- Fully crossmatched blood can be issued within 40 minutes if the antibody screen is negative.

Group O red cells, and group A or AB plasma components, will be supplied in emergency, switching to group specific as soon as a valid sample is processed.

Plasma, platelets and cryoprecipitate:

- Pre-thawed plasma is available 24/7.
- If group specific plasma is requested, it will take 30 minutes to issue.
- Platelets are held on site and can be released immediately.
- Cryoprecipitate requires thawing and takes 30 minutes to issue.

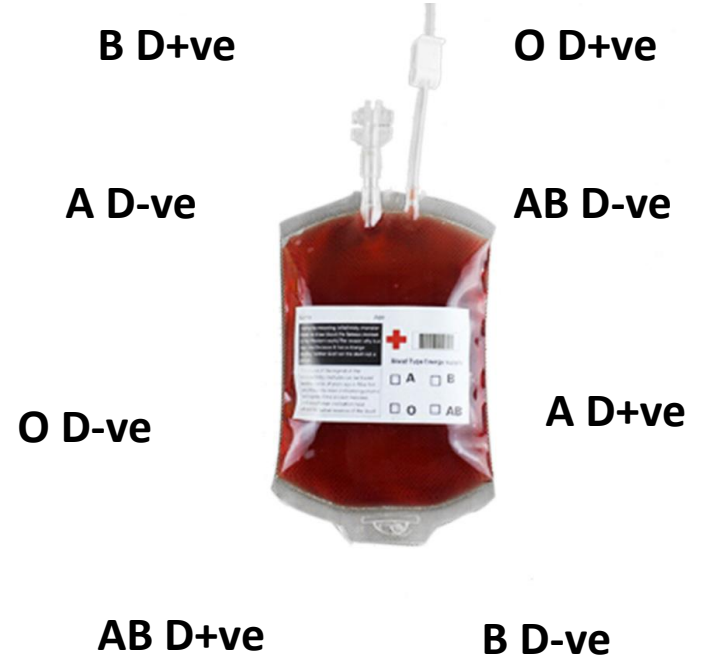


Barriers to issuing ABO identical









Risk of issuing group O



Administration of up to 4 units of LTOWB in civilian trauma resuscitation was not associated with clinical or biochemical evidence of hemolysis.

Group O PRC will need rapid issue of best compatible plasma components

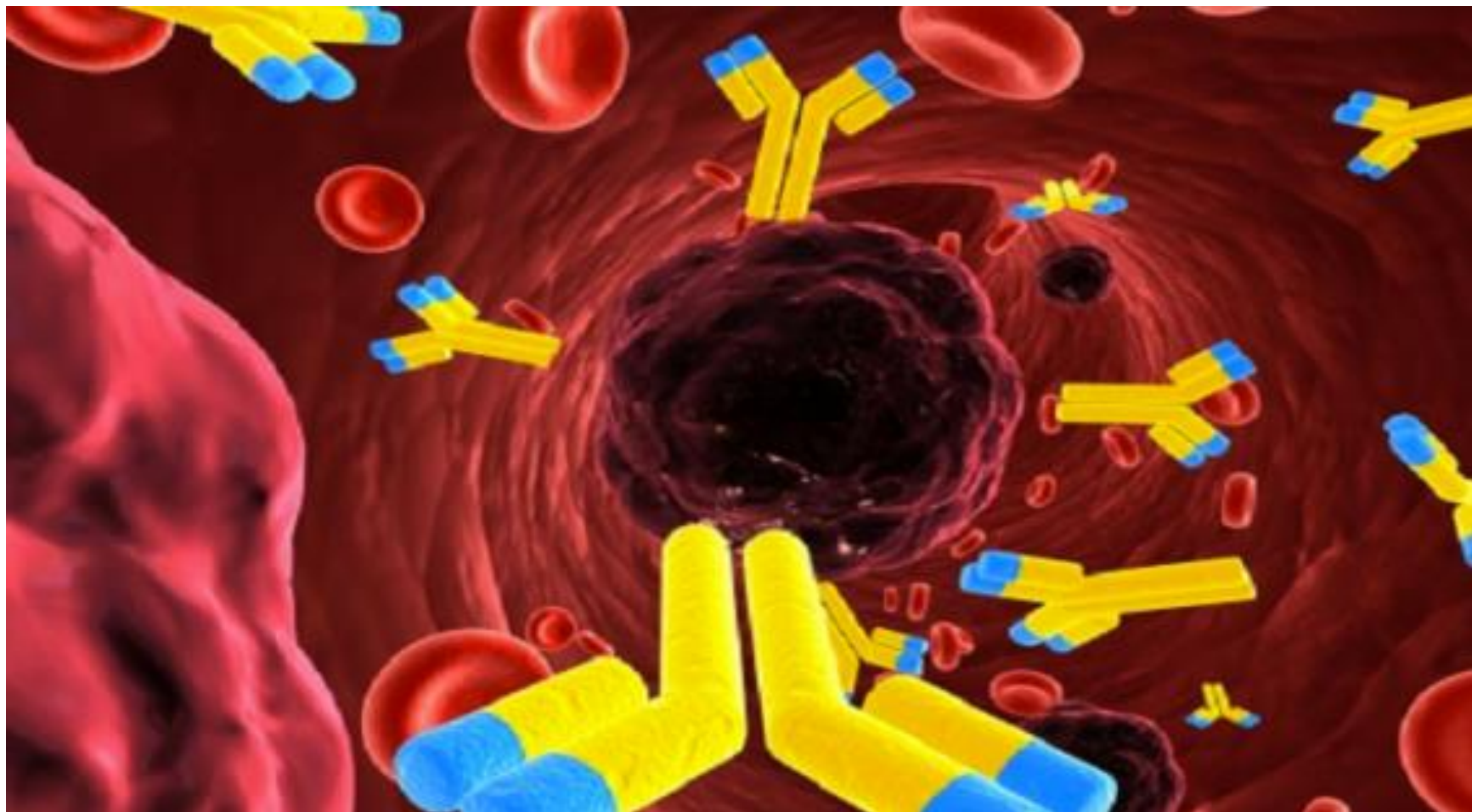


No reported instances of haemolysis after group O
PRC transfusion or group A plasma

In particular B/AB patients did not show obvious
signs of haemolysis



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|------------|------------|-----------|------------|------------|-----------|-----------|------------|
| 35% | 30% | 8% | 2% | 13% | 8% | 2% | 1% |







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| 35% | 30% | 8% | 2% | 13% | 8% | 2% | 1% |

O_Neg_Highlight_London_RTC

| Total issues | O D-ve requests | O D- wastage | O D- as % of requests |
|--------------|-----------------|--------------|-----------------------|
| 1874 | 103 | 2 | 5.5% |

Should Emergency Red Cells Be Anything Other Than Just Group O?









NO



