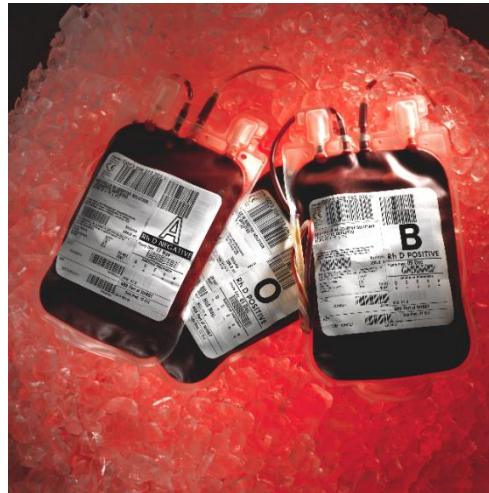


Blood Supply and Demand: focus on Ro



Dr Rekha Anand
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The Ro subtype . blood with a certain combination of genes

The ABO group determines whether you belong to blood group **A, B, O** or **AB**.

The *RHD* gene of the Rh group determines whether someone has + or - blood. If the *RHD* gene is present, it is positive (+) and if the *RHD* gene is absent, it is negative (-). Together, the ABO group and the Rh group create these eight, commonly known blood groups:

A+	A-	B+	B-	AB+	AB-	O+	O-
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The D gene can either be present (D) or absent (d)

D	d
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In addition to the *RHD* gene, there's the *RHCE* gene. The *RHCE* gene can result in one of four variations of the C, c, E and e antigens

ce	Ce	cE	CE
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So when the two different genes combine there are eight possible antigen outcomes:

Dce	DCe	DcE	DCE	dce	dCe	dcE	dCE
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"Dce" is known as "Ro"

The Ro subtype

- “ Found in 2% of donors. Common in Black donors . but not exclusively. 10x as common in individuals from Black African or Black Caribbean ethnic backgrounds as it is in individuals from white ethnic backgrounds.
 - “ In high demand for patients with sickle cell disease on regular red cell exchanges. Demand has increased 44% from 2015/16 to 2017/18.
 - “ If a patient with sickle cell disease has the Ro subtype, they should ideally receive Ro blood.
 - “ A shortage of Ro puts pressure on group O D negative red cells.
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The Ro subtype . facts & figures

- “ Donors with the Ro subtype: 49,674
- “ 19% of Ro donors are black; 65% are white.
- “ Black donors account for 1.1% of active donors
- “ Asian/British Asian donors account for 3.4%
- “ White donors account for 79.7%
- “ BAME: 4.5% of donorbase; 14.5% of UK population (2011 census)

Black donor registrations were for 8994 Sept 17 to Aug 18 compared with 7997 for Sept 16 to Aug 17.



Options available to meet the demand for Ro blood

- “ *Depends on the urgency!*
- “ Liquid units in stock
- “ Special donor call-ups . documented procedure to contact donors and alert session/centre staff
- “ Thaw frozen units
(Liverpool Speke)



Challenges

- “ Finding suitable donors
- “ Finding sessions
- “ Shelf life of thawed units
- “ Reduced volume of thawed cells



How do we ensure that we can meet demand?



- “ Keep recruiting and retaining donors (reactivating lapsed donors)
- “ Increasing session capacity
- “ Keep testing, incl family members
- “ Genotyping . patients and donors
- “ Work with hospital teams



Bleed for the team
Off the pitch we need a different type of hero.



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BLOOD WEEK
#MISSINGTYPE

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Give blood**

