

Why does the WCBS ask the race of blood donors?

- ① All of us have molecules, also called antigens on the surface of our blood cells, the best known of these are the A antigen and B antigen, which determine our blood group - e.g. if we have the A antigen alone, we're group A blood type, if we have both, we're group AB blood type, if we have neither, we're group O blood type.

There are many other blood group systems other than the ABO group system.

Blood group systems are inherited, and do vary by race, but do not change throughout life.

WCBS does routine blood group testing on all blood donors, when they first donate to see which antigens the donor either has, or doesn't have, from the two clinically most important blood group systems - the ABO system, and the Rh system (historically known as the Rhesus system).

We then do extended blood group testing on randomly selected units of blood - to see if the donor has antigens from the Duffy, Kidd and MNS blood group systems. Extended phenotyping is costly, which is why we do not routinely do it on all blood donors.

Currently we have done extended blood group testing on about 31 000 of WCBS's 70 000 active blood donors.

The problem we are trying to mitigate is that many patients who have been exposed to multiple blood transfusions over long periods of time - e.g. those with sickle-cell anaemia or thalassaemia - have developed antibodies against antigens from the Duffy, Kidd and MNS systems - and if we transfuse blood with these antigens, the patient may have a transfusion reaction or may destroy the transfused red cells prematurely.

- ① In addition, by doing extended testing on some donors' donations, we can identify those who are negative for other high-prevalence antigens, and allocate some of these donated units of blood to the Rare Donor File, which is national repository of rare blood, for both local and international use. Race is the best marker to help select subsets of blood donors from which to find antigen-negative blood, and is used by many other blood services.
- ① In the blood donor recruitment and communications areas, WCBS uses many types of data (e.g. gender, age, language and race) to communicate with our blood donor base and profiles so that we know what type of communication and marketing initiatives to use to align with various subsets of blood donors.
- ① Apart from blood group testing and screening for infectious markers, WCBS performs ferritin testing routinely on all donations. By knowing the race of blood donors, we are able to compare our results with those of population reference ranges, which often vary by race.
- ① WCBS does not use race as an acceptance criterion for donors to donate blood. There are many reasons why we may defer blood donors from donating blood - in the interests of their own, or patients' safety - but race is not one of them. In addition, WCBS does not use race to match blood products with transfusion recipients.