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Blood donors could give blood more often

New research shows that blood donors could safely give blood more frequently than is allowed at present. At the moment in the UK men can give blood every 12 weeks, women every 16 weeks. The new research demonstrates that in certain situations and for certain donors, shortening the donation interval is a viable approach for blood services to take.

Blood donations began more than a century ago but until now there has been no research to discover how frequently donors can give blood without it affecting their health.

The study showed that, over a two-year period, allowing donors to give blood more frequently boosted the supply of blood to the NHS without having a major impact on their health.

The study, published in the Lancet, was carried out by a team from Cambridge and Oxford Universities and NHS Blood and Transplant, with funding from the National Institute for Health Research and NHS Blood and Transplant.

The study involved 45,000 blood donors. The men were randomly assigned to groups giving blood at 8-, 10- and 12-week intervals; the women to groups giving blood at 12-, 14- or 16-week intervals. The results showed that, giving blood at the shorter intervals resulted in much more blood being collected without it having a major impact on the donors' quality of life, mental function or physical activity. However, some of those who gave blood more frequently did report minor symptoms including tiredness and restless legs, and the research suggests this may have been due to giving blood.

According to the lead author, Dr Emanuele Di Angelantonio from the University of Cambridge, the study also showed that donors who weighed above average and those with higher initial stores of iron were able to give more blood.

Senior author Professor John Danesh, also from the University of Cambridge, said, "Our data give blood services the short-term option of more frequent collection from donors if the supply falls or demand rises. We have also measured how much iron is lost after two years of repeated donation, and this will help towards framing the safety guidelines in countries where blood donation is more frequent than in the UK."

The results from the trial suggest that better screening methods should be sought to detect low haemoglobin in potential donors. NHS Blood and Transplant and the University of Cambridge have started the COMPARE study to test different ways to measure when a donor has a low haemoglobin and should not give blood.

According the study's other senior author, Professor Dave Roberts from the University of Oxford, "In the future we can use our results to predict which donation intervals suit individual donors and move towards personalized donation intervals. Crucially, we will also study the science behind donating blood and use the study to

see why some donors can give blood more often than others and why some donors get side effects from donation and others don't."

One of the donors who took part in the study, Paul Harvey, comes from a family of blood donors and both he and his brother were delighted to sign up.

"I was on a 10 week cycle and the specialist team who looked after us made it easy to book my appointments for my next donation. Being able to give blood is a great way of giving something back to society and it is nice to know we might be able to do it more frequently as a result of this study"

Gail Miflin, NHS Blood and Transplants Medical and Research Director commented that "The INTERVAL study has shown how effectively we can collaborate with leading academics to generate the evidence to support our clinical practices. Our collection teams have been able to run donor recruitment and donation at different intervals within their normal working environment." She added that "We now need to review the findings in greater depth to understand which donors can safely donate more frequently without this having an adverse impact on their iron stores. The study clearly shows that some donors could donate more frequently than the current donation intervals but it also highlights that some donors should donate at longer intervals."

Ends

Background information:

- More than 1•6 million units of blood are donated each year in England (100 million worldwide)
- In Germany, France and the USA, donors give blood every 8 weeks; in France, every 12 weeks.
- The INTERVAL study was set up by the Universities of Cambridge and Oxford in collaboration with NHS Blood and Transplant, who jointly funded the study with the National Institute for Health Research Blood and Transplant Research Unit in Donor Health and Genomics at University of Cambridge Research with help from the UK Medical Research Council, and British Heart Foundation.
- For more information on the COMPARE study see the website http://www.comparestudy.org.uk/

NHS Blood and Transplant is responsible for ensuring a safe and efficient supply of blood and associated services to the NHS in England. We are also the organ donation organisation for the UK and are responsible for matching and allocating donated organs.
For further information, visit the NHSBT website http://www.nhsbt.nhs.uk/

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Contact information: For interviews with the following people:-

- Article lead author Dr Emanuele Di Angelantonio, University of Cambridge and NHS Blood and Transplant, Cambridge, UK

- Article senior author Professor John Danesh, University of Cambridge, Cambridge, UK

- Article senior author Professor Dave Roberts, University of Oxford and NHS Blood and Transplant, Oxford, UK

Please contact Penny Richardson 0151 268 7033 OR NHSBT Press Office on 01923367600 – out of hours 0117 969 24 44