Date of publication: 17 January 2011	**Implementation:** 1st February 2011

Change Notification UK National Blood Services No. 13 - 2010

Donor Weight and Donation Volumes

Applies to the Whole Blood and Component Donor Selection Guidelines only

With the replacement of Chapters 3, 4, 5 and 6 of the 7th edition of the Guidelines for the Blood Transfusion Services in the United Kingdom (Change Notification No 12 2010) with the new Chapters 3 (Care and Selection of whole blood and component donors), 4 (Premises and quality assurance at blood donor sessions), and 5 (Collection of a blood or component donation) this entry which refers to a Chapter 6 is incorrect and needs updating.

The safe limit on Extra-Corporeal Volume has been reduced from 20% to 15% reflecting an updated understanding of apheresis, actual blood volumes and the new technology now being used.

Please Delete:

Weight Problems

Obligatory

1. Must not donate if:
a) The donor weight means that they have difficulty in getting onto or off the donation couch.

b) Venous access is very difficult.

c) The safe weight limit of the bleeding couch/chair is exceeded.

2. Component donor:
If a donor is under 70 kg (11 stone) see:
Chapter 6, Volume collected, 'Guidelines for the Blood Transfusion Services in the United Kingdom'.

3. Double red cell donor:
Must not donate if:
Under 70 kg (11 stone).

4. Whole blood donor:
Must not donate if:
Under 50 kg (7 stone 12 pounds).

Discretionary

Treatment with anti-obesity drugs, accept.

See if Relevant

Sleep Apnoea

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Joint UKBTS/HPA Professional Advisory Committee (JPAC)
JPAC Office
NHS Blood and Transplant, Sheffield Centre
Longley Lane
SHEFFIELD, S5 7JN

Tel: 0114 358 4903
Fax: 0114 358 4893
Email: caroline.smith@nhsbt.nhs.uk

Additional Information

Blood service staff should not put their own health at risk by helping donors on and off the donation couch, except in an emergency.

It is recommended that no donor should lose more than 13% of their blood volume during any donation procedure. This is to protect them from adverse effects such as fainting and becoming anaemic. There is a minimum donor weight at which a donation can be accepted. This is not always appropriate, particularly for double red cell donations, but also because of the increasing volume that is being taken at a routine blood donation. Obesity also makes it desirable to use more than a donor's weight to estimate their blood volume. Fat contains far less blood as a proportion of its weight than muscle. In obese individuals the blood volume can be seriously overestimated from weight alone. Overestimating a donor's blood volume makes it more likely that they will have an adverse incident.

Replace with:

Donor Weight

Obligatory

Must not donate if:

a) Under 50 kg (7 stone 12 pounds)

b) The donor weight means that they have difficulty in getting onto or off the donation couch.

c) Venous access is very difficult.

d) The safe weight limit of the bleeding couch/chair is exceeded.

e) They are a double red cell donor and weigh under 70 kg (11 stone).

Discretionary

Treatment with anti-obesity drugs, accept.

See if Relevant

Sleep Apnoea

Additional Information

No donor should lose more than 15% of their estimated blood volume (EBV) during any donation procedure. During apheresis procedures the extra corporal volume should not exceed 15% EBV (excluding anticoagulant). ECV is the total volume of blood and plasma removed from the donor at any time. It includes all blood and plasma in collection packs and contained within the machine harness.
This is to protect the donor from adverse effects such as fainting and becoming anaemic. There is a minimum legal donor weight of 50kg at which a donation can be accepted. This is not appropriate for double red cell donations because of the increased volume, and iron that is being taken from the donor.
Obesity also makes it desirable to use more than a donor's weight to estimate their blood volume. Fat contains far less blood as a proportion of its weight than muscle. In obese individuals the blood volume can be seriously overestimated from weight alone. Overestimating a donor's blood volume(particularly in very short obese donors) makes it more likely that they will have an adverse incident.
Blood service staff should not put their own health at risk by helping donors on and off the donation couch, except in an emergency.

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Email: caroline.smith@nhsbt.nhs.uk

Information

Part of this entry is a requirement of the Blood Safety and Quality Regulations 2005

Update Information

This entry was last updated in:
DSG-WB Edition 203, Release 04.

Reason for Change

This entry has been renamed and updated in line with Guidelines for the Blood Transfusion Services in the United Kingdom (Red Book) guidance

Further information

The supporting paper, Donor Weight and Donation Volumes, leading to this Change Notification can be found in the Document Library/Supporting Papers of the JPAC website:
http://www.transfusionguidelines.org.uk/Index.aspx?Publication=DL&Section=12&pageid=7528

References

1. Nelson; & Mitchell, Richard N. (2007). Robbins Basic Pathology (8th ed.). Saunders Elsevier. pp. 102-103 ISBN 978-1-4160-2973-1

2. American College of Surgeons (2008). ATLS, Advanced Trauma Life Support Program for Doctors. Amer College of Surgeons. pp. 58. ISBN 1-880696-31-6.

Dr Sheila MacLennan
Professional Director - Joint UKBTS/HPA Professional Advisory Committee
☎ Direct Dial: (0113) 214 8638 ✉ sheila.maclennan@nhsbt.nhs.uk