

# Anaemia

This page was last modified on 11 June 2024, at 16:42.



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## Condition

Low number of red blood cells (RBCs) or the amount of haemoglobin (the oxygen carrier to tissues in the blood); multiple causes; iron deficiency is a common cause; symptoms can range from fatigue or light-headedness for mild-moderate anaemia to exhaustion, syncope, or problems with ADLs (Activities of Daily Living) or severe anaemia

## Individual at risk

Donor / Recipient

## Recommendation at RECRUITMENT

Establish cause and degree of anaemia. May be acceptable if benign cause and haemoglobin (Hb) level is acceptable. Registries and donor centres should establish a lower limit for an acceptable haemoglobin level based on local reference ranges.

Iron deficiency is acceptable if haemoglobin is within the limit set by the registry/donor centre, and with appropriate follow-up referral and treatment.

It is not recommended to accept donors with G6PD deficiency at recruitment, but due to high allele frequencies in many non-Caucasian populations, it is likely that many male donors will have asymptomatic and undiagnosed G6PD deficiency.

Unacceptable if cause of anaemia is unknown, or due to autoimmunity or malignancy. Recommend to Donor to consult with health professional / practitioner.

Aplastic Anaemia - Defer if inherited disorder. Accept if drug or viral induced and fully recovered.

## Recommendation at CT/WORK-UP

Establish cause and degree of anaemia. May be acceptable if benign cause and haemoglobin level is acceptable. Registries and donor centres should establish a lower limit for an acceptable haemoglobin level based on local reference ranges, and these levels should be taken into account in the context of whether the donation is a bone marrow or PBSC harvest. The local blood transfusion donor Hb guidelines for deferral and follow up are recommended as a minimum.

Iron deficiency is acceptable if haemoglobin is within the limit set by the registry/donor centre, but advice on iron replacement and treatment and even referral if appropriate are advised.

Donors with mild or asymptomatic G6PD deficiency may be acceptable at CT/work-up stage at the discretion of the transplant centre.

Unacceptable if cause of anaemia is unknown, or due to autoimmunity or malignancy. Defer and refer to appropriate medical care/facility.

For Sickle Cell Disease or Thalassaemia Major / Intermedia: see page on [Thalassaemia](#) and [haemoglobin disorder](#).

## Justification

Anaemia most commonly reflects iron deficiency, may be easily remediable and is not necessarily a barrier to donation. If the red cell indices (MCV, MCH & MCHC) & Hb suggest an iron or nutritional deficiency then ferritin, red cell folate and Vitamin B12 levels should be checked and appropriate treatment and referral for follow up recommended. Depending on results, a HB electrophoresis may be requested if a haemoglobinopathy is suspected. However, other causes, such as other inherited diseases or acquired bone marrow disorders may prohibit donation.

A lower threshold of Hb concentration should be set because of the risk of a fall in haemoglobin as a consequence of donation, particularly when donating by bone marrow harvest.

## References

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Version	Published	Changed By	Comment
<b>CURRENT (v. 5)</b>	<b>Jun 11, 2024 17:03</b>	<b><a href="#">Eefke van Eerden</a></b>	
<a href="#">v. 4</a>	Jun 11, 2024 16:50	<a href="#">Eefke van Eerden</a>	
<a href="#">v. 3</a>	Jun 11, 2024 16:44	<a href="#">Eefke van Eerden</a>	Updated recommendations at Recruitment, CT/WU; added references

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