

Transfusion and Iron Chelation

What is iron overload?

When you are having regular blood transfusions you will be getting more iron than your body needs. Some patients with sickle cell anaemia may require regular blood transfusions and all thalassaemia major patients will need lifelong blood transfusions to manage their condition.

A result of frequent blood transfusions is that iron builds up in the body to a level where it begins to accumulate in the tissues, blood and organs

What problems can iron overload cause?

Iron overload can cause major problems in major organs of the body such as the liver, heart, spleen and endocrine organs.

Too much iron in these organs can result in delayed puberty and growth problems, diabetes, liver damage and heart failure.

How will iron overload be diagnosed?

Iron is stored in the body in an iron storage protein called ferritin. The amount of ferritin in the blood is measured by a blood test. The ferritin needs to be taken a few times and a ferritin trend that is consistently high indicates iron overload. The ferritin level needs to be reduced and this can be done with medication, known as chelation.

You will also have regular scans of your liver and heart (MRI) to show how much iron you are storing in these organs

What is Chelation?

Chelation is the process of removing too much iron from the body. Chelators work by binding the iron so it can be broken down by the body and removed.

Chelation drugs

Iron chelators currently used are Desferrioxamine, Deferiprone and Desferasirox

- Desferrioxamine (desferal) has been an important first-line treatment for chronic iron overload over a period of 30 years. It is usually given subcutaneously (under the skin) over 8-12 hours, 3-7 times a week, often with a pump at nighttime. It has led to significant life expectancy gains for those with conditions such as thalassaemia major. However, the infusion regime is demanding and so compliance can be difficult.

The prevention of infection is a major priority in all healthcare and everyone has a part to play.

- **Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available**
- **If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111**
- **Keep the environment clean and tidy**
- **Let's work together to keep infections out of our hospitals and care homes.**

- Deferiprone and deferasirox (Exjade) are newer, oral chelators with slightly different chelating properties. Compared with Desferrioxamine, Deferiprone is more efficient in removing cardiac iron. Less is known about the effect of deferasirox on cardiac iron.

Which Iron Chelator should I be using?

Your doctor at the hospital will carefully determine which chelator to use and will discuss this with you in more depth at your hospital appointments. There are a lot of factors that have to be taken into account when starting iron chelation. This includes age, weight, ferritin levels, how often you require blood transfusion.

You will be given more information about the individual chelation drugs available. Please ask your hospital doctor or Clinical Nurse Specialist for more information on the individual drugs available.

Whichever chelation medication you are started on the most important thing is that you take it regularly and do not miss your medication. Chelation is essential and is the only way to reduce iron overload and avoid long term complications. If you are having problems with your chelation please discuss this with your doctor and nurse specialist immediately.

Useful Contact Telephone Numbers

Consultant for Haemoglobinopathies (secretary)
01902 695271

Haematology Clinical Nurse specialists
01902 695276

National Contacts

UK Thalassaemia Society
www.ukts.org

Sickle Cell Society
www.sicklecellsociety.org.uk

English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。