Transfusion Alternatives for Patients who refuse Blood Components and Products

This leaflet explains alternatives to blood transfusion available at St George's University Hospitals NHS Foundation Trust. If you have any further questions, please speak to a doctor, nurse or midwife caring for you.

Drugs used to prevent / manage blood loss as transfusion alternatives

Red blood cells carry oxygen around the body. When your haemoglobin, which is a measure of the number of red blood cells in your body, becomes low this is called anaemia. Consequently, your body does not receive enough oxygen which may cause you to feel short of breath or tired.

A blood transfusion can be used to treat this by increasing your haemoglobin with a bag of red blood cells from a blood donor. There are currently no alternatives to transfusion of red blood cells that can improve the oxygenation of blood. However, there are some drugs or methods that can be used to help minimise the effects of blood loss. The use of such drugs depends on the type of surgery you will be having and your current medical condition.

Your medical team will talk to you about the use of such medicines and other treatments during your blood refuser meeting. (Please see the patient leaflet *Blood Transfusion Refusal*.)

gesh is a collaboration between St George's University Hospitals NHS Foundation Trust and Epsom and St Helier University Hospitals NHS Trust.

Tranexamic acid is a medication routinely used to help prevent and to treat bleeding. It can be given by tablet or intravenously (through a “drip”). It helps to stop clot breakdown.

Side effects of Tranexamic acid include **nausea, vomiting and diarrhoea**.

Iron treatments

If you have a low iron level, then this may contribute to anaemia (when the number of red blood cells in your body is low). You can also help raise your own iron levels by including plenty of iron rich foods in your diet, such as liver, meat, nuts and dried fruit. Iron can be replaced using either tablets or through a drip. See Iron deficiency anaemia clinic leaflet. Further information on Iron deficiency anaemia can be found here www.nhs.uk

Erythropoietin is a naturally occurring hormone produced by the kidneys. It helps the body to produce more red blood cells and can be used to treat anaemia in certain cases.

Erythropoietin is usually given by injection between one and three times per week. It is not used routinely.

Side effects of erythropoietin include **high blood pressure, skin reactions, headaches, bone pain and flu-like symptoms**.

rFVIIa (Novoseven) is a blood clotting factor that helps blood to clot when the body’s own clotting factors are not working. It can sometimes be used to replace clotting factors in life-threatening bleeds. The manufacturer does not recommend its use in this situation.

rFVIIa is **not** derived from human plasma but the manufacturing process uses small amounts of mouse, cow and hamster proteins.

It has serious possible side effects including blood clots, **heart attack and stroke**.

Other treatment options

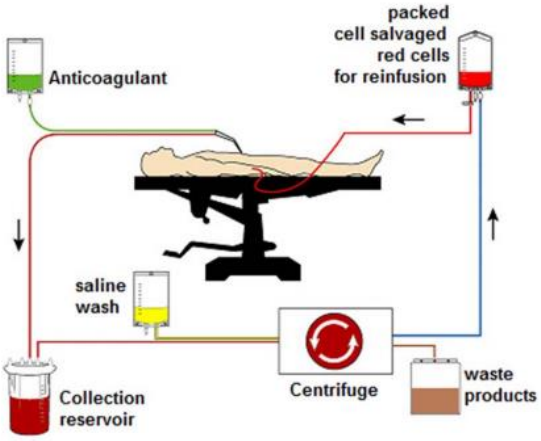
You may also wish to speak to your doctor about the use of surgical adhesives, tissue sealants and plasma (volume) expanders to see if these are suitable for use during your treatment / surgery.

Techniques used as transfusion alternatives

Intraoperative cell salvage is a way of collecting the blood that is lost during your operation, so that it can be given back to you. It is sometimes called autologous blood transfusion (using your own blood). Cell salvage has been used safely for more than 30 years and is subject to strict guidelines.

Blood that is lost during your operation is collected using a cell salvage machine. We collect your own lost blood during the procedure using gentle suction and add an anticoagulant drug to it to stop the blood clotting. Your own salvaged red blood cells are then washed, filtered and returned to you via a ‘drip’ during or just after your operation (see diagram). Your red cells will only ever be given to you and will never be used for someone else.

The blood loss in many operations is not enough to enable cell salvage to be used. In addition, cell salvage is not recommended in certain cases e.g., some bowel surgery and presence of active infections.



Intraoperative cell salvage

Contact us

If you have any questions or concerns about the above information, please contact the **Transfusion Practitioner team** on 020 8725 4652 (Monday to Friday, 9am to 5pm).

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.stgeorges.nhs.uk

Additional services

Patient Advice and Liaison Service (PALS)

PALS can offer you advice and information when you have comments or concerns about our services or care. You can contact the PALS team on the advisory telephone line Monday, Tuesday, Thursday and Friday from 2pm to 5pm.

A Walk-in service is available:
Monday, Tuesday and Thursday between 10am and 4pm
Friday between 10am and 2pm.

The Walk-in and Advisory telephone services are closed on Wednesdays.

Please contact PALS in advance to check if there are any changes to opening times.

PALS is based within the hospital in the ground floor main corridor between Grosvenor and Lanesborough wings.

Tel: 020 8725 2453 **Email:** pals@stgeorges.nhs.uk

NHS UK

The NHS provides online information and guidance on all aspects of health and healthcare, to help you make decisions about your health. **Web:** www.nhs.uk

NHS 111

You can call 111 when you need medical help fast but it's not a 999 emergency. NHS 111 is available 24 hours a day, 365 days a year. Calls are free from landlines and mobile phones. **Tel:** 111

AccessAble

You can download accessibility guides for all our services by searching 'St George's Hospital' on the AccessAble website (www.accessable.co.uk). The guides are designed to ensure everyone – including those with accessibility needs – can access our hospital and community sites with confidence.

Reference: CLH_ABT_LP_04 **Published:** June 2024 **Review date:** June 2026