

**Information for  
patients needing  
irradiated blood.**

**Including  
important  
patient card  
and patient  
record  
stickers.**

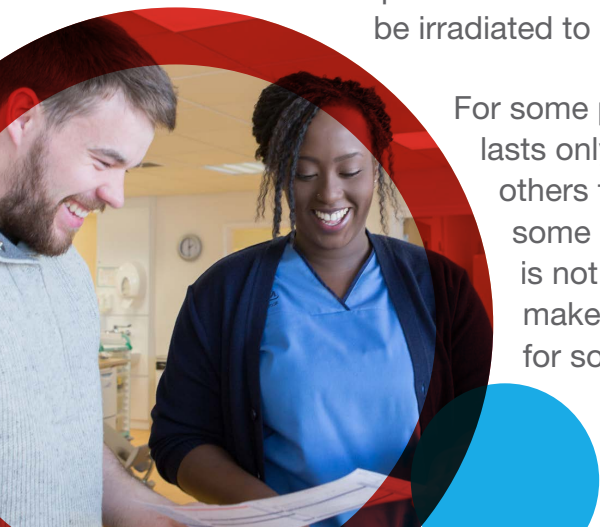
## Information for patients needing irradiated blood

This information leaflet has been developed to help answer questions you or your family may have regarding irradiated blood, platelets or other blood components. Your medical team has requested that you should receive irradiated blood and this information has been added to your medical record. However, as an extra precaution, you should always show the attached card to the medical team responsible for your care and ask if the blood transfusion you are receiving is irradiated before it is transfused.

### What is irradiated blood?

Donated blood, even after processing and filtering, contains living cells capable of growth. This is healthy, but in some cases blood cells may recognise a transfusion recipient as foreign, which in turn can set off a reaction similar to organ rejection. Although very rare indeed, such a reaction can be life threatening. The risk of this type of reaction, called transfusion associated graft-versus-host disease (TA-GvHD), is small but can be prevented by treating the blood with irradiation which removes the risk of living cells remaining in the transfusion. Only some patients are at risk, so not all blood needs to be irradiated to prevent TA-GvHD.

For some patients the risk of TA-GvHD lasts only a short time, while for others the risk remains life-long. In some situations, the period of risk is not known and hospitals may make different recommendations for some groups of patients.



### Which patients are at risk of TA-GvHD?

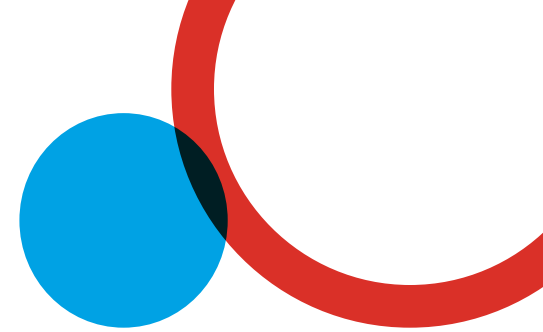
Some patients are at particular risk of TA-GvHD, these include:

- Those receiving transfusions from family members and/or tissue type matched donors
- Those born with severe immune system disorders
- Those who have a weakened immune system due to Hodgkin's lymphoma
- If you have a bone marrow/ stem cell transplant or CAR-T therapy
- Unborn babies and babies needing exchange transfusions
- In the treatment of certain conditions with drugs that cause a strong degree of suppression to the immune system such as Fludarabine, ATG and Alemtuzumab

Your doctors should have advised you about this when the drugs were administered. The list of drugs changes from time to time, so always ask if you need irradiated blood.

Your medical team will advise you whether you, your child or relative have one of these conditions that needs irradiated blood and for how long.

Professional guidelines are available on [www.b-s-h.org.uk/guidelines/](http://www.b-s-h.org.uk/guidelines/)



## Why irradiate blood?

Irradiation of blood prevents lymphocytes (a type of white blood cell) dividing and causing harm in the recipient.

## Is all blood routinely irradiated?

No. Red cell transfusions are not routinely irradiated and need to be irradiated 'on demand' for patients at risk of TA-GvHD. It is important that you remind your medical team of your need for irradiated blood as they need to order it specially.

In Scotland, all platelets are irradiated but this is not true everywhere and you should check if you need platelets when travelling. All granulocyte (white cell) and tissue type matched transfusions are routinely irradiated.

Plasma products such as fresh frozen plasma, cryoprecipitate, anti-D immunoglobulin, albumin and intravenous immunoglobulin do not cause TA-GvHD and, therefore, do not need to be irradiated.



## Does irradiation damage the blood?

Irradiation does not cause significant damage to normal red cells or platelets and irradiated transfusions are as effective as blood which has not been irradiated. Some salt leakage may occur after irradiation and the 'shelf-life' of the donation may be shortened, however this is a normal part of the storage process. The blood donation does not become radioactive and is not a hazard to you or anyone around you.

## What if blood is needed in an emergency?

Although irradiated blood is recommended for you, if you receive non-irradiated blood the risk of TA-GvHD is very small. In emergencies, there may not be enough time to arrange for irradiated blood to be provided as it may be more important to provide blood quickly. The medical team treating you will judge the balance of these risks and make the decision in your best interest.

## Other information

### Duty of Candour

The Scottish National Blood Transfusion Service complies with Duty of Candour legislation. It will act in an open and transparent manner where an unexpected or unintended event has occurred, which appears to have caused harm or death in direct relation to transfusion. Please ask your healthcare team for further information or access the following link:

[www.gov.scot/policies/healthcare-standards/duty-of-candour/](http://www.gov.scot/policies/healthcare-standards/duty-of-candour/)

**Hospital/ward contact Details:**

This publication can also be made available in large print, braille (English only), audio tape and in different languages. If you would like further information contact:

**nss.communications@nhs.scot**

**Scottish National Blood Transfusion Service**  
**0131 314 5510**

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Name \_\_\_\_\_

DoB \_\_/\_\_/\_\_ Consultant \_\_\_\_\_

CHI/Hospital number \_\_\_\_\_

Hospital for enquiries \_\_\_\_\_

Reason for irradiated blood \_\_\_\_\_

\_\_\_\_\_

Irradiated blood needed indefinitely or until  
\_\_/\_\_/\_\_

Date of issue of card \_\_/\_\_/\_\_

Bend sheet back across here to peel off card

**I am at risk of  
transfusion-associated  
graft-versus-host disease**

**If I need to have a transfusion of cellular  
blood components (red cells and  
platelets) they MUST BE IRRADIATED**



**Please inform your blood  
transfusion laboratory**

Please detach the above card, complete the details on the reverse and hand to the patient. This card must be shown to the patient's medical team before each transfusion.

Please attach these stickers to the patient's notes:

**This patient is at risk of  
transfusion-associated  
graft-versus-host disease**

**If this patient needs to have a transfusion  
of cellular blood components (red cells  
and platelets) they MUST BE IRRADIATED**



**Please inform your blood  
transfusion laboratory**

**This patient is at risk of  
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and platelets) they MUST BE IRRADIATED**



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