

This guidance refers to Platelet Concentrate units, hereby referred to as platelet units.

### Expiry dates of platelet units

Platelet units may be stored for a maximum of 5 days from the date of collection.

All expiry dates are shown on the unit label. On the date of expiry, the unit must be discarded as clinical waste.

### Receipt of platelet units

All practices should have an acceptance policy in place for the receipt of blood products. Acceptance of blood products into your facility should be performed by a trained member of staff and as soon as possible after receipt of the delivery.

All our platelet units are subject to quality control checks prior to release, which includes confirmation of the integrity and normal appearance of the unit. Please inspect your platelet unit as part of your acceptance policy. If you have received a damaged or discoloured unit, we kindly ask that you inform us within 24 hours of receipt so we can investigate this.

Changes to the platelet unit that are reported after 24 hours of receipt may not be subject to replacement as the changes may have occurred because of sub-optimal on-site handling and storage. To maintain the optimum quality of your platelet units, please follow our storage guidance below.

### Storage of platelet units

Platelet units that arrive at the practice and are intended for immediate transfusion should be kept at room temperature 22°C (+/- 2°C) and gently agitated continuously until the point of use. Where storage is intended, to ensure platelets maintain their in vitro quality and in vivo effectiveness, it is vital the correct storage equipment is used. A temperature-controlled room or platelet incubator along with a platelet agitator and continuous alarmed max/min temperature recording thermometer is ideal. Take care when positioning your platelet agitator to avoid placing it in direct sunlight or close to heating or cooling vents. Agitation of the platelet concentrate ensures that the platelets are continuously oxygenated, that sufficient oxygen can enter the unit, and excess carbon dioxide can be expelled. Continuous platelet agitation should be performed using guidelines from the agitator manufacturer. Under no circumstances should the platelet unit be placed into cold storage.

The minimum and maximum storage temperatures should be checked and recorded at least twice daily and fluctuations outside of the normal range immediately reported to a designated member of staff. We have a platelet incubator (room) temperature log available for download on our [website](#).

The zip lock bag platelet units are delivered in must be removed prior to storage. Ensure good stock rotation occurs so that older units are administered first.

We recommend that a trained person inspects your platelet units each day to document and report any colour change or abnormality to a designated member of staff.

If agitation is interrupted, for example due to equipment failure or prolonged transportation, the platelet unit(s) remain suitable for use and retain the same shelf life provided the interruption is for no longer than a total of 24 hours and no single interruption lasts for more than eight hours.

### Appearance of platelet units

A normal platelet unit should be transparent and have a slight pink tinge (see figure 1). It should not be opaque. However, if the unit was produced using lipaemic plasma, the unit will be slightly cloudy and the lipaemic score will be noted on the label. Abnormal features of platelet units include:

- Discolouration, such as bright yellow, orange, brown-green, or grey
- Cloudy appearance (with no lipaemic score on label)
- Milky or opaque appearance
- White or opaque strands, deposits, or clumps of any size
- Frothy

In addition, normal platelet units will show a platelet swirl when backlit and gently agitated. Always check your platelet unit for the presence of a platelet swirl prior to transfusion. Absence of a swirl means the platelets may no longer have the same efficacy and we would advise the unit is discarded. Scan the QR code opposite to see a healthy platelet swirl.

Due to their high storage temperature, platelet units are at increased risk of bacterial proliferation. Contaminated units typically darken in colour or develop a floccular or milky appearance. The presence of froth in the unit indicates the build-up of gas and is associated with the presence of bacteria in the unit. Figures 2-4 show abnormal platelet units.

If you are in any doubt over the appearance of a platelet unit, do not transfuse it. Please notify Pet Blood Bank as soon as possible of any abnormalities prior to discarding the unit. We may wish to investigate this further in line with our [returns policy](#) and this may require the unit to be returned. Ensure that the unit is clearly marked to indicate it cannot be administered to a patient.



Figure 1: normal appearance of a platelet unit





Figure 2: discoloured platelet unit

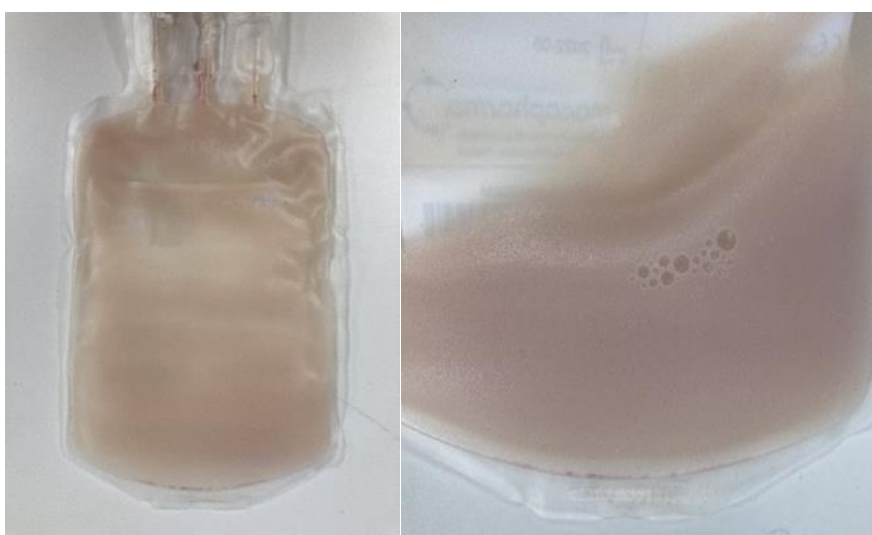


Figure 3: opaque platelet unit

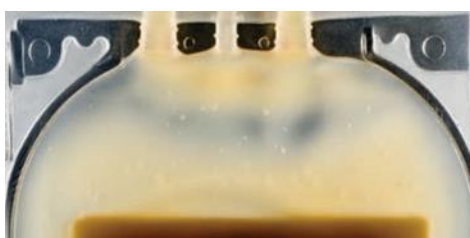


Figure 4: platelet unit with particulate matter (white flecks)

### References

National Blood Service. (2013). [Guidelines for the Blood Transfusion Services in the United Kingdom](#), 8<sup>th</sup> edition. TSO