

As a Trust we have always been conscious of the need to conserve our O negative RBC for those patients who need them the most.

In 2017 Prior to his retirement Malcolm instituted the emergency O positive units for eligible patients. This involved a large education drive from the Transfusion Practitioners and Laboratory Management to educate and empower the clinical areas and laboratory teams.

The emergency O positive units are held in the laboratory and the decision to release is controlled by the Biomedical Scientist overseeing the haemorrhage.

Emergency O negative units still reside in the issue fridge and can be collected by a porter and taken directly to the clinical area depending upon the severity of the situation, to counteract any risk of delay in blood provision.

Since 2018 all major haemorrhages in the Trust have been reviewed including the use and group of any emergency blood used.

In early 2020 with the country in the grips of the pandemic and concerns over blood supply we made a move to audit the use of O negative blood within our Trust. [The Audit Template is shown in Appendix 1.](#)

Monthly figures for transfusion are extracted from the LIMS and each fated O negative unit further investigated via scrutiny of the LIMS.

The first audit showed us that 50% of O negative stock was transfused to RhD positive patients, in some cases this was to meet special requirements or emergency use, however the majority was due to prevent time expiry.

After a few months and some push back from the BMSs' whose use of O negative blood had been questioned, led us to realise we needed to communicate the purpose and scope of the audit to the team.

In October we produced a recorded Teams presentation on the appropriate use of O negative RBC, [see Appendix 2.](#)

This led to an improvement in 40% of the units being used in RhD positive patients, however we have been hit with various lockdowns and each one resulted in a reduction in blood usage within our Trust due to operations being cancelled and this had a knock on effect of an unexpected excess of stock.

However, in Aug/Sept/Oct 2021 we managed to achieve a further reduction of only 30% of our O negative units being transfused to RhD positive patients ([see Appendix 3](#)) and have made the brave decision to reduce O negative stock holding.

This has been achieved by regular audit and effective targeted education and communication with the laboratory team.

Carol Stenning

Senior Specialist Biomedical Scientist, Blood Transfusion



Appendix 1:

| | | |
|------------------------------|-------------------------|----|
| Horizontal Audit Form | Record Filename: | XX |
|------------------------------|-------------------------|----|

| | | | | | |
|--------------------|-----------|-----------------|-------------------|-----------------|----|
| Department: | Pathology | Section: | Blood Transfusion | Auditor: | XX |
|--------------------|-----------|-----------------|-------------------|-----------------|----|

| | | | |
|-----------------------|--|--------------------------|-------------|
| Date of audit: | | Activity audited: | O neg usage |
|-----------------------|--|--------------------------|-------------|

Purpose of audit

To audit the usage of O neg blood within X site/s

Scope / Details of audit

From the monthly path manager statistics the O negative units used were scrutinised against the LIMS.

Each request was checked for blood group, SR and further investigations where O negative units were used for any other group than O negative.

Audit findings

XX O negative units used in XX across XX site/s

XX% were issued to O negative patients

XX% were issued to other D negative

XX% were issued to RhD positive patients

Of these reasons were as follows;

XX% were given due to stock time expiry <96 hours, majority were < 24 hours left

XX% were to meet SR primarily in haem patients

XX% were issued as flying squad

XX% require investigation into why the units were used;

Site/s XX had O negative requests as part of total blood requests at XX% (Aiming for 12%) and XX reported XX wasted O neg unit.

Include highlight report

Please note that this month included a % of national lockdown due to C19 pandemic.

Nonconformity / Improvement

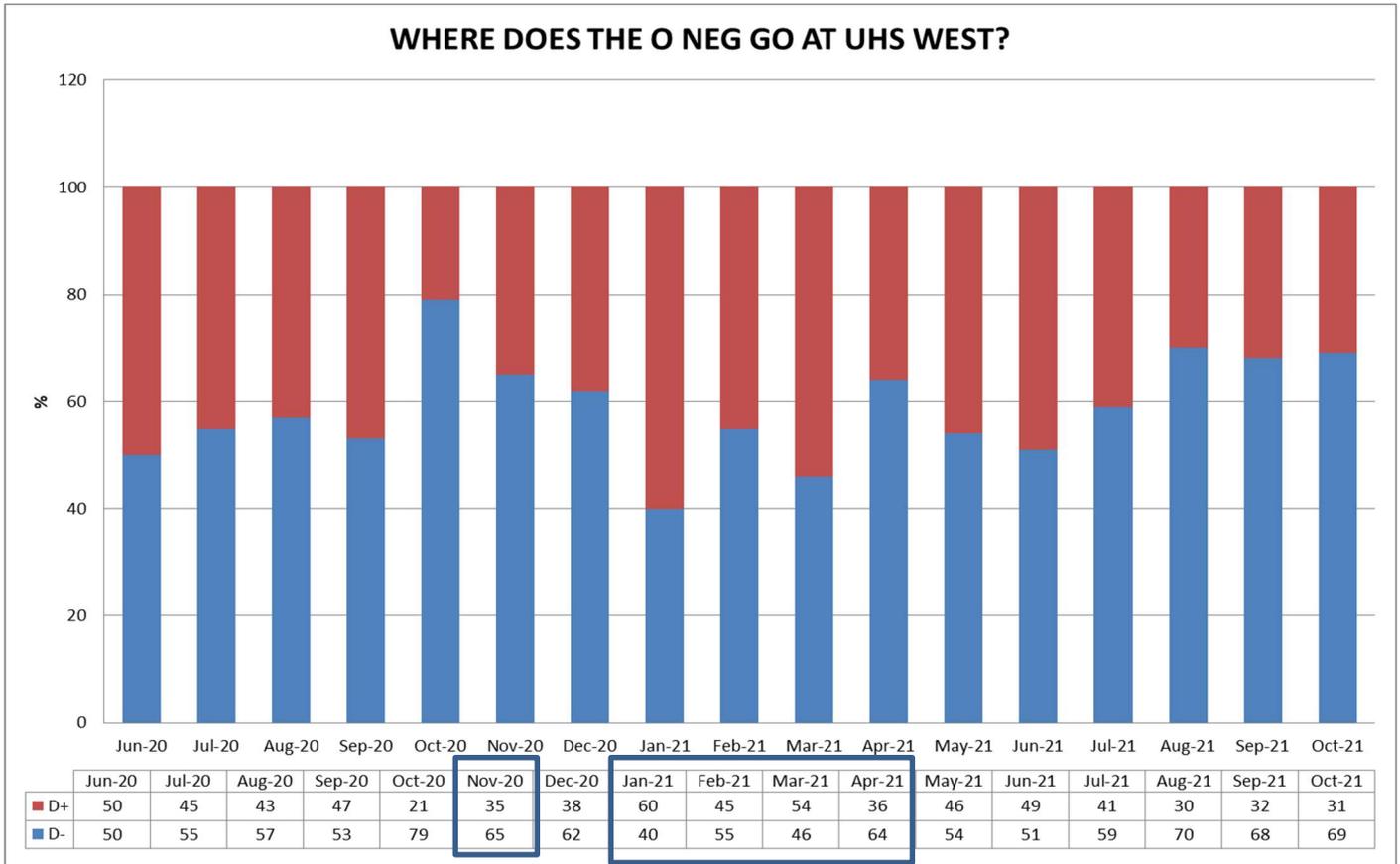
| Q-Pulse No. | Details |
|-------------|---------|
| | |

| | | | |
|---|--|---|--|
| Signature of auditor & Date: | | <p>This report has been reviewed and signed/dated by a member of the Pathology Quality Team to confirm that the audit has been conducted to the required depth and scope, and that the level of detail included is sufficient to evidence this.</p> | |
|---|--|---|--|

Appendix 2:

| | | |
|---|--|--|
| <p style="text-align: center;">Appropriate use of O negative blood</p> <p style="text-align: center;">Ruth O'Donnell & Carol Stenning</p> | <ul style="list-style-type: none"> • Demand for blood drops year on year, due to improved surgical techniques and increased blood management knowledge. • Despite this the demand for O negative blood increases. • The current donor population is ~7% O negative but the demand is 12%. | |
| <ul style="list-style-type: none"> • Reduced the specification of O negative units • Introduced O positive emergency units • Ongoing education of clinical areas regarding emergency blood • Ongoing education and empowerment of BMS staff about use of D negative blood • Stocking routine O negative, K + units • Begun performing monthly audits on the fate of our O negative blood. | <ul style="list-style-type: none"> • So far for Jun, Jul and Aug all of the findings have been consistent; • > 50% of the O negative units were transfused to D positive patients, typically patients 75 plus. • The reason for this was due to time expiry, however this varied from <24 hours to 7 days. • Our total O negative requests from NHSBT were > than the recommended national average of 12% of your total stock | <ul style="list-style-type: none"> • Considerations; • High use Haematology patients – unavoidable • Ongoing pandemic • Distance from Tooting • Flying squad being taken by clinical area without lab being aware • Nervousness of using D positive blood in a D negative patient. |
| <ul style="list-style-type: none"> • Review stock levels & reduce • Improve comments regarding use of D negative blood in D positive patient • Stock sharing • Reduce use of time expiring blood to < 72 hours for both K negative & K positive blood • Brighton merger | <p style="text-align: center;">Resources</p> <ul style="list-style-type: none"> • https://hospital.blood.co.uk/patient-services/patient-blood-management/o-d-negative-red-cell-toolkit/ • https://www.shotuk.org/wp-content/uploads/myimages/O-neg-BBTS-poster-2019-final-pbm-.pdf | <p style="text-align: center;">Resources</p> <ul style="list-style-type: none"> • https://nhsbtbe.blob.core.windows.net/umbraco-assets-corp/16952/using-the-issuable-stock-index.pdf • https://nhsbtbe.blob.core.windows.net/umbraco-assets-corp/15541/o-d-negative-k-positive-and-negative-red-cells-when-is-it-safe-to-transfuse.pdf • https://bloodeducation.co.uk/portfolio/o-d-neg-blood • https://nhsbtbe.blob.core.windows.net/umbraco-assets-corp/19584/o-d-neg-top-tips-eofe-rtc-2020.pdf |
| <p style="text-align: center;">Resources</p> <ul style="list-style-type: none"> • https://nhsbtbe.blob.core.windows.net/umbraco-assets-corp/19584/o-d-neg-top-tips-eofe-rtc-2020.pdf | | |

Appendix 3:



Periods of C19
 lockdowns