viapath

King's College Hospital NHS
NHS Foundation Trust

How to be Positive about K Positive

Tamora Heath[1], Jasmin Purcell[1], Jordan Townrow[1], Sue Cole[2], Jen Heyes[2], David Veniard[1], Richard Whitmore[3]
1. Viapath Analytics. 2. Kings College Hospital NHS Foundation Trust. 3. NHS Blood and Transplant

The Problem

The demand for O D negative, K positive (O D- K+) red cell units from hospitals is low which leads to wastage of these units within NHSBT.

The Reality

The Princess Royal University Hospital (PRUH) is a 525 bedded District General Hospital with an ED, Maternity Unit and Oncology Department. It is classified as a high user by the Blood Stock Management Scheme with 5778 red cell units transfused in 2017.

All O D- units are ordered as K- so they can be used for O D- women of child bearing age or as emergency issue.

Approximately 77% of red cell units are transfused to patients over the age of 50 and 9% of these patients are O D-.

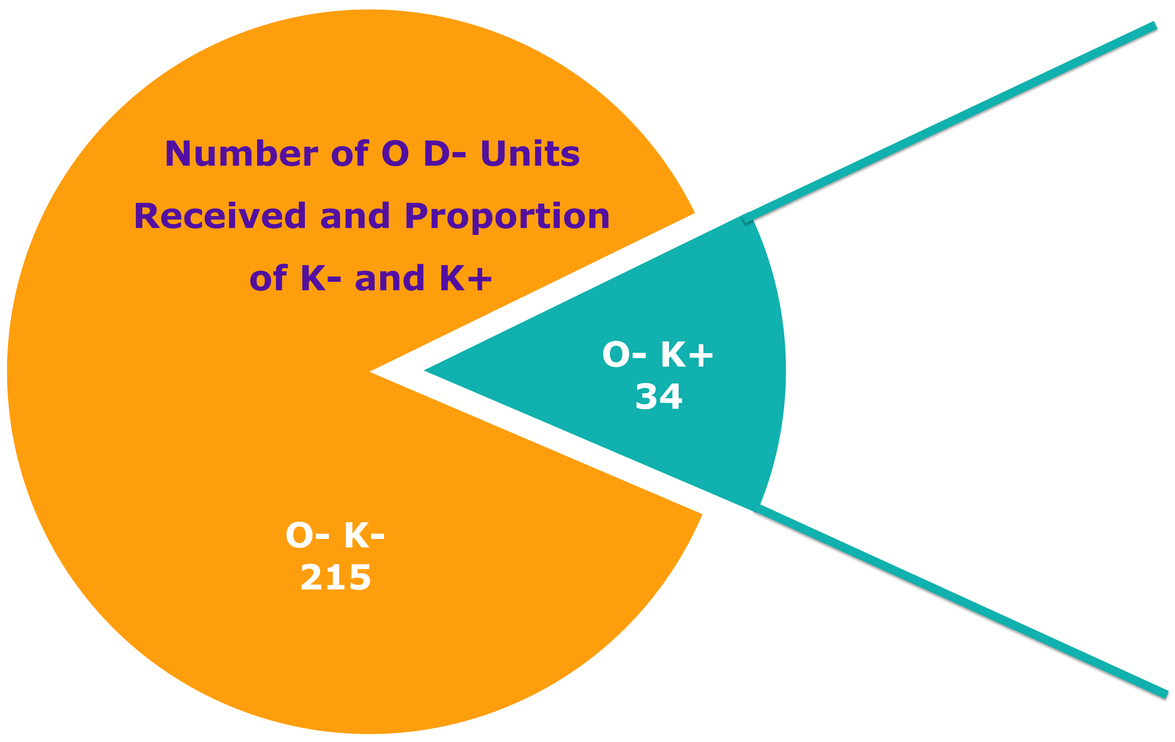
The Proposed Solution

Our data shows that on average ten O D- patients could receive K+ units per month.

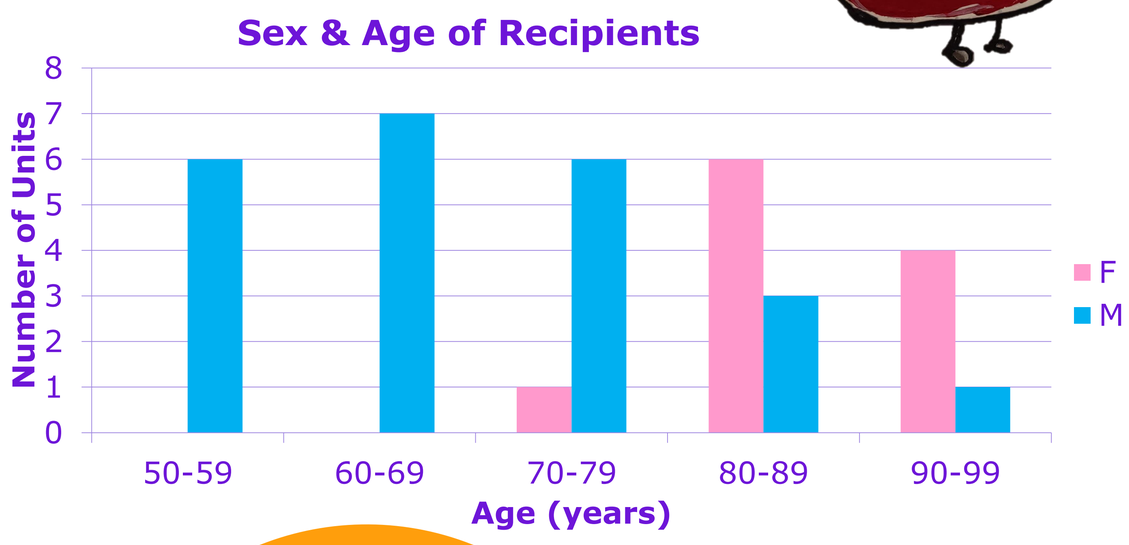
PRUH agreed to request two units of O D- K+ units per week on a standing order.

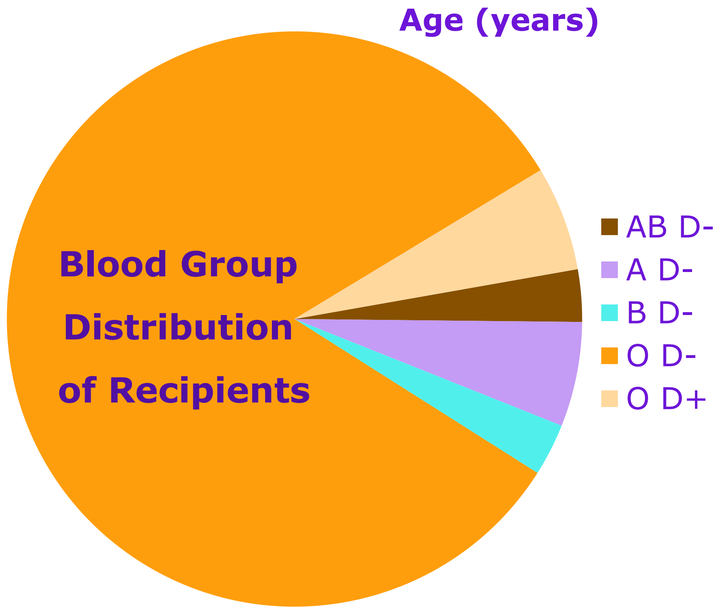
O D- women >50 years old and all O D- men, with no history of atypical antibodies, were deemed as eligible to receive K+ units.

The Results



6 units were transfused to non O D- patients. 2 of these units were transfused with <5 days to expiry to prevent wastage.





Positives

We have shown that O D- K+ units can be ordered and used appropriately at a DGH.

Only one unit was wasted due to a breach in cold chain on the ward. No units were wasted due to time expiry.

Negatives

The % of O D- issues increased from 9 to 14% (target <12.2%).

The Future

The standing order of O D- K+ units was cancelled. Instead the two O D- K+ units were added to the stock holding levels and replaced when used.

As a result the % O D- issues in June has reduced to 9.9%.

An audit to review if patients who receive K+ units develop anti-K will be performed.

References: Re-Audit of the use of group O RhD negative red cells, 2010.
http://hospital.blood.co.uk/audits/national-comparative-audit/national-comparative-audit-reports