

Avoidable use of a precious resource: do not use group O D-negative units when there are alternatives

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Background



O D-negative red cells have limited availability and have specific indications



O D-positive red cells are suitable in an emergency for females over 50 years and for most males over 18 years of age

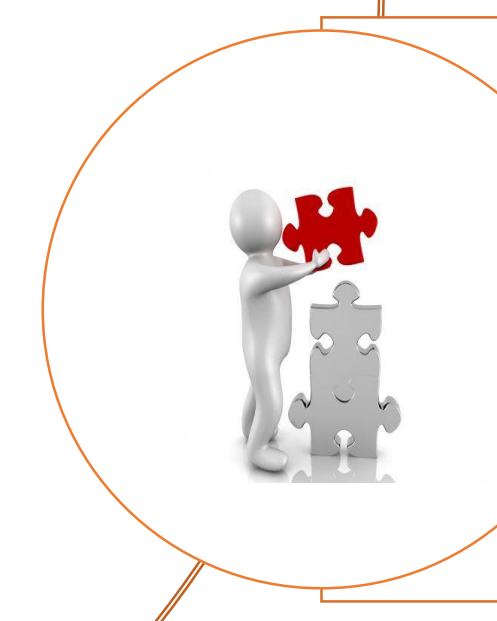


A national audit in 2018 reported that 32% of 193 hospital sites did not have the recommended policy to provide O D-positive red cells in an emergency to patients in the above categories

Aims and Method



To review the cases with avoidable transfusions of O D-negative red cells that were reported to SHOT and identify areas for improvement



A retrospective analysis was undertaken of avoidable transfusion of O D-negative red cells reported to SHOT between 2014-2018

Results



There were 100 reports of avoidable use of O D-negative units between 2014-2018



In 11 cases O D-negative units were transfused in the absence of an emergency including to one asymptomatic patient with folate deficiency



More suitable alternatives were available in 48 cases:
 > In 29 cases cross matched units were available
 > In 19 cases type specific red cells were available



In 10 cases the haemoglobin level was above the threshold for transfusion



In 25 cases reasons included pre-transfusion sample identification errors, delays in processing, documentation issues and information technology failures



In 6 cases avoidable use of O D-negative units was due to lack of preoperative sample

Conclusions and Recommendations

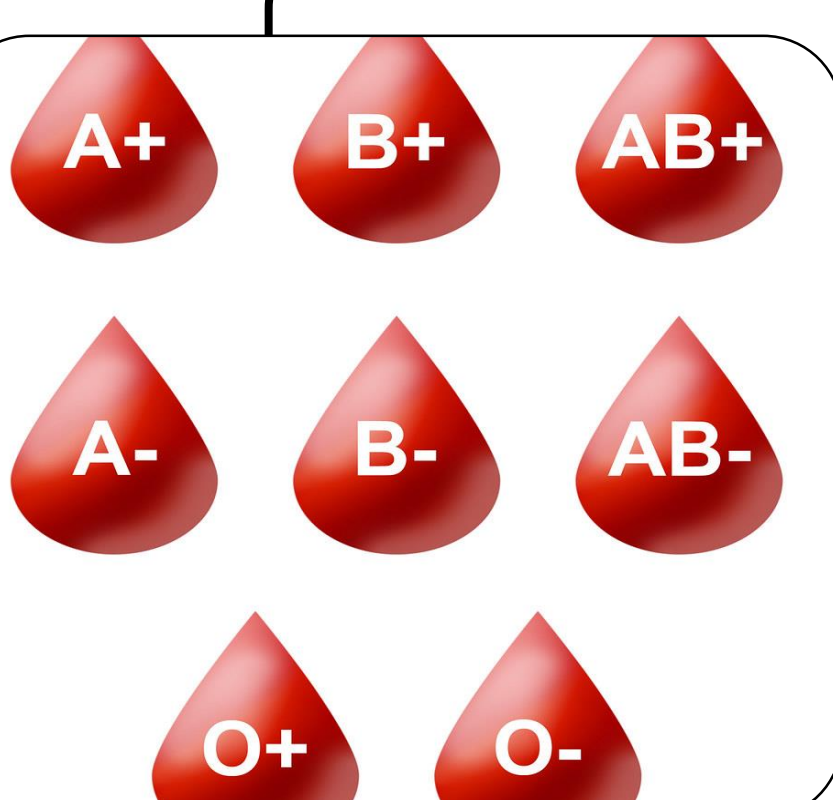


O D-negative red cells, a precious resource, should be conserved for necessary indications. All clinical and laboratory staff should promote the safe and appropriate use of O D-negative red cells to reduce wastage of this valuable component

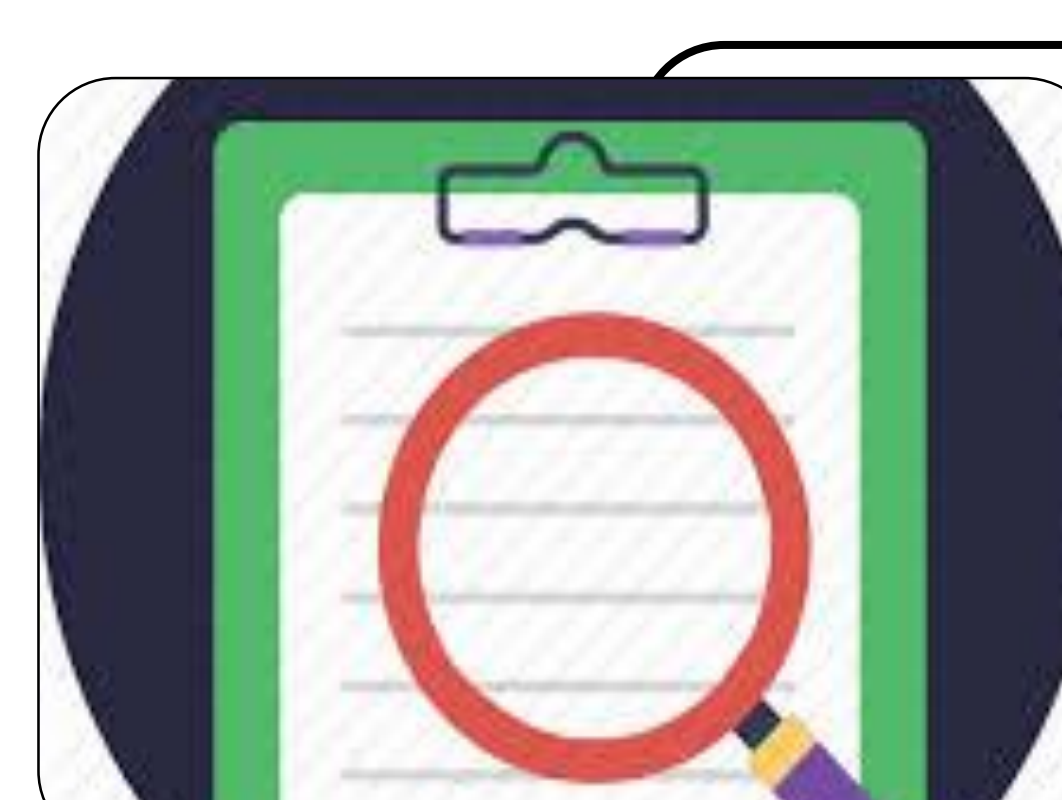


In major haemorrhage, when the patient has a positive antibody screen or known antibodies for which compatible blood is not available, aim to give ABO-, Rh- and Kell-matched red cell units

Do not put the patient at risk from a delay in transfusion in an emergency; every second counts



Crossmatched or group specific red cells are preferable when available. O D-negative red cells are not safe for all patients as they may be incompatible in patients with irregular red cell antibodies and result in haemolysis



All hospitals must regularly review their transfusion policies and practices for use of O D-negative red cells and consider using O D-positive red cells for appropriate patients

