The Blood Clock

Initiative Type

Redesign

Service Improvement

Status

Deliver

Added

27 June 2019

Last updated

29 June 2023

URL

https://clinicalexcellence.qld.gov.au/improvement-exchange/blood-clock

Summary

The Blood Clock project was launched to avoid blood wastage by utilising a timer attached to MEDEVAC blood boxes from the blood bank to alert Emergency Department (ED) clinicians when unused blood must be returned to the blood bank.

Key dates

Jul 2019

Jun 2020

Partnerships

Queensland Emergency Department Strategic Advisory Panel (QEDSAP)

Key Contacts

PROV-ED Project Team, Healthcare Improvement Unit

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Aim

The Blood Clock aims to reduce O negative blood wastage in the Emergency Department (ED).

Benefits

- Reduced blood wastage in the ED.
- Efficient utilisation of scarce resources.

- Cost savings

Background

The Blood Clock Initiative Lead is Matilda Schmidt, Nurse Practitioner at the Emergency and Trauma Centre, Royal Brisbane and Women's Hospital, Metro North HHS. EDs receive pre-hospital notifications from Queensland Ambulance Service (QAS) when a patient en route to the hospital may require an urgent blood transfusion. In such situations, MEDEVAC O negative blood is often collected from the Blood Bank prior to the patient's arrival. At a cost of around $430 per bag or unit, O negative blood is a precious resource often utilised in severe trauma presentations via the Massive Transfusion Protocol. The blood must either be transfused to the patient, packed appropriately and returned to the blood bank within 2 hours or it is wasted and must be disposed. There is a critical need for O negative blood in all hospitals across Queensland, and unnecessary wastage depletes generously donated valuable reserves.

Solutions Implemented

- A timer is attached to all MEDEVAC blood boxes sent to ED from the Blood Bank.
- Staff education and training.
- Auditing and feedback.

Evaluation and Results

Following implementation at the pilot site, the number of O negative blood units wasted dropped from 7 in 2016, to 1 in 2017. The saving of 6 units of blood equates to a cost of $2,580. This does not account for the high demand, and the efforts taken by community members to donate this valuable resource.

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