

My Story: Mercy Ships

Katie Gould, Senior Scientist, Transfusion Policy and Education, Australian Red Cross Lifeblood



Twice in my career as a scientist I have had the opportunity to volunteer with Mercy Ships, a not-for-profit organisation that provides free surgical procedures in parts of east and west Africa. What makes this organisation unique is that all operations are conducted entirely on-board a cargo ship, the *Africa Mercy*, which has been reconfigured into a hospital.

Following an invitation by a country and a scoping visit by the advance screening field team, the *Africa Mercy* docks for approximately ten months. Screening days are held in the port city, where several thousand patients seeking care are assessed for the type of operations that can be performed.

Unfortunately, patients often present in the extreme of their conditions: football sized goitres, burns from previous wars, limbs bent in opposite directions.

Surgical procedures include ophthalmic, maxillofacial, orthopaedic, reconstructive plastic (for severe burns, congenital abnormalities and tumours), obstetric fistula and some general (goitre and hernias). Dental surgery and oral health care are also provided.

Volunteers from around the world donate their time to serve on-board the ship, and often participate in medical capacity building projects with local healthcare staff to pass on vital surgical skills. They are also the blood donors for patients requiring transfusion support. A fully stocked blood fridge does not exist!

Potential donors complete a pre-donation questionnaire and have samples taken for infectious disease screening as well as testing for haemoglobin, blood group and antibodies. Eligible donors are then called upon to donate when a patient requires a transfusion. Whole blood is donated, and is often transfused shortly after collection so that viable platelets and coagulation factors can be utilised. "It's still warm!" is a frequent exclamation made by the anaesthetists.

Patient blood management varies, often depending on the type of procedure and pre-operative clinical condition of the patient. Blood wastage is minimal, with only one or two discarded units per field service. This is an incredible feat, given that over two hundred whole blood units can be donated throughout the entire time *Mercy Ships* is docked!

Presently during this pandemic, the field service in Senegal ceased early and the *Africa Mercy* is currently in dry dock. *Mercy Ships* is still active in follow-up tele-medical capacity building programs, and is committed to the ongoing supply of PPE to partners in Senegal, Guinea, Liberia, Benin and Cameroon.



Blood bank workstation in the pathology lab. Paper based reporting, and all testing performed by tube method (plastic tubes!).



Paperwork and whole blood unit that has been split. This is by letting the unit sit upright for 24hours.



Sign displaying dates and times for the screening days, with images of previous patients as examples of the types of procedures that Mercy Ships can perform.

Please visit [Mercy Ships Australia](http://MercyShipsAustralia.org.au) website for more information about the organisation. If you are interested in specific laboratory aspects not covered here, please send an email to kagould@redcrossblood.org.au