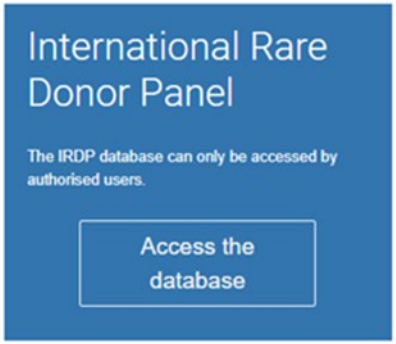


Rare Donor Program

Country: South Africa

Country/Region: South Africa

Rare Donor Program	
Rare Donor Program	*Yes*
National Regional or Facility based	National
Number of Rare Donors	413 total (62 active and 351 lapsed)
Definition of Rare	Someone who is negative for a high prevalence antigen where the frequency of this antigen negative phenotype is less than 1 in 1000.
Are the donors listed in the International Rare Donor Panel	No
Frozen Inventory	Yes
How are Rare Donors found	Selected donor phenotyping and genotyping Corresponding antibody detected in a donor or patient Family studies
Number of Rare Donor Units used per year	>200
ISBT Rare Donor WP Blood Shipment form used	*No*
Outcome of incompatible transfusion form used	*No*
Most difficult types to find	Ge-, Vel-, Lan-
Phenotypes confirmed by molecular testing	hrS- and hrB-

Country/Region: South Africa

Phenotype	Total Active Donors	Group O	O Positive	O Negative	Other ABO/Rh
GE:-2,-3	0	0	0	0	0
Jk(a-b-)	0	0	0	0	0
Ko	0	0	0	0	0
Kp(b-)	2	2	2	0	0
MkMk	0	0	0	0	0
Rh:-34	23	23	18	5	0
U-	4	4	4	0	0
PP1Pk-	1	1	0	1	
SC:-1	0	0	0	0	0
En(a-)	0	0	0	0	0
At(a-)	0	0	0	0	0
Di(b-)	0	0	0	0	0
Jr(a-)	0	0	0	0	0
Rh null	2	1	1	0	1
Vel(-)	2	2	2	0	0
D--	0	0	0	0	0
Oh	2	2	2	0	0
hrS-	9	9	9	0	0
Yt(a-)	1	1	1	0	0

Country/Region: South Africa
How are your rare donors found?

	Yes / No	Method	Comments
Extended phenotyping donors	Yes	All donors typed for Rh (C, E, c, e) and K - Beckman Coulter PK7300 Selected donors thereafter screened for rare types (U, Vel, Jsb, H, kk) using antisera available in the laboratory. Further phenotyping then performed by using enhanced gel column agglutination cards from Bio-rad.	In most cases the rare phenotype is confirmed with molecular testing.
Extended genotyping donors	Yes	Selected donors and patients indicative of having a possible rare genotyped using either the Innotrain FluoQube system or the BIDSXT ID Core kit.	Where antisera is available phenotype is confirmed by serology.
Family studies	Yes	Recruitment of family of donors and patients	Information to recruit family of donors is provided to the donor for discussion with family members. Family of patients are contacted via the treating clinician with patient consent.
Antibody investigations	Yes	All donors and patients are screened for red cell antibodies using various methods and instruments.	Antibody identification in patients and donors may require the use of many different techniques, including molecular testing to determine the specificity.
Other			

Red Cell Product Specifications

Country: South Africa

Country/Region: South Africa

Donor Selection		
Donation	Voluntary	
Age or Weight Restrictions	New donors 16 to 75 years. Above 50kg.	
Donation Interval	56 days (8 weeks)	
Sexual Activity Precautions	Positive for HIV, Hepatitis B/C, Syphilus	Permanent deferral
	Male to male sex	3 month deferral
	Sex worker or contact with sex worker	3 month deferral
Travel Exclusions **If donor has returned from an area endemic for the listed infectious illnesses**	Malaria	Based on the time in malarial area deferral will be between 4 weeks and 2 years.
Lifestyle	Acupuncture, piercing or tattoo	4 months
	Drug use (Non-prescribed injected)	Permanent deferral
CJD restrictions	Permanent deferral	
Covid restrictions	COVID19 vaccine administration	Based on symptoms and well being of donor
	COVID infection	Based on symptoms and well being of donor
	Household contact	Based on symtpoms and well being of donor

Country/Region: South Africa

Mandatory Infectious Diseases Screening of Blood Products		
	Screening test	**Risk of blood transfusion transmission**
HIV	HIV-1/2 Ab (also detects HIV p24 Ag) & RNA by NAT	1 in 1 million risk of blood transfusion transmission
HCV	HCV Ab & RNA by NAT	<1 in 1 million risk of blood transfusion transmission
HBV	HBsAg & HBV DNA by NAT	<1 in 1 million risk of blood transfusion transmission
Syphilis	Treponemal Ab	<1 in 1 million risk of blood transfusion transmission
HTLV (1 & 2)	N/A	<1 in 1 million risk of blood transfusion transmission
CMV	N/A	The probability of a South African donor visiting the affected area, becoming infected and subsequently returning to donate while in the asymptomatic period is estimated to be very low. When this probability reaches a predefined level, additional safety measures would be considered.
Zika Virus	N/A	Given the low number of imported ZIKV infections reported in South Africa, the absence of reported local transmission, the limited distribution of mosquito vectors and rarity of reported transfusion-transmission cases worldwide, at present ZIKV represents a low risk to blood safety in South Africa.
West Nile Virus	N/A	The probability of a South African donor visiting the affected area, becoming infected and subsequently returning to donate while in the asymptomatic viraemic period is estimated to be very low. When this probability reaches a predefined level, additional safety measures would be considered.
Babesia	N/A	Given that no Babesia cases have been reported in South Africa, Babesia spp. currently represent a low risk to blood safety in South Africa.
Trypanosoma cruzi (T. cruzi) Chagas Disease	N/A	Given that no Chagas Disease cases have been reported in South Africa, Trypanosoma Cruzi spp. currently represent a low risk to blood safety in South Africa.

Country/Region: South Africa

Red Cell Blood Product	Red Cells in additive solution	Leucocyte Depleted	Paediatric Leucocyte Depleted	Washed Leucocyte Depleted
Description	A red cell component obtained by removing most of the plasma after centrifuging whole blood collected into anticoagulant. The red cells may be resuspended in other additives to prolong storage.	A red cell component obtained by removing most of the plasma after centrifuging whole blood collected into anticoagulant. The red cells may be resuspended in other additives to prolong storage and are filtered to remove most leucocytes.	A leucocyte depleted red cell component divided into four packs of equal volume for the purpose of reducing donor exposure for small paediatric transfusions and to minimise product wastage.	Red cells leucocyte depleted are washed with sterile SAG-M solution using a manual process to remove the majority of unwanted plasma proteins, antibodies and electrolytes. The washed red cells are resuspended in SAG-M2 additive solution.
Anticoagulant	Citrate phospahte dextrose (CPD) 66.5 mL +/- 10% per pack of whole blood	Citrate phospahte dextrose (CPD) 66.5 mL +/- 10% per pack of whole blood	Citrate phospahte dextrose (CPD)	Citrate phospahte dextrose (CPD) 66.5 mL +/- 10% per pack of whole blood
Additive Solution	Saline adenine glucose mannitol (SAG-M) 105 +/- 10% mL	Saline adenine glucose mannitol (SAG-M) 105 +/- 10% mL	Saline adenine glucose mannitol (SAG-M)	Saline adenine glucose mannitol (SAG-M2) 100 +/- 10% mL
Average volume	300ml +/- 50ml	260 +/- 50 mL	120 +/- 30 mL	>185ml
Storage Duration	42 days	42 days	35 days	28 days
Leukofiltration	Not Leucocyte Depleted	Leucocyte Depleted	Paediatric Leucocyte Depleted	Washed Leucocyte Depleted
Transport Temperature	1 to 10 degrees celcius			
Storage Temperature	2 to 6 degrees celcius			
Irradiation Policy	Irradiation performed on request using Gamma irradiation: 25-50Gy or X-ray irradiation			
Other				

Frozen Inventory

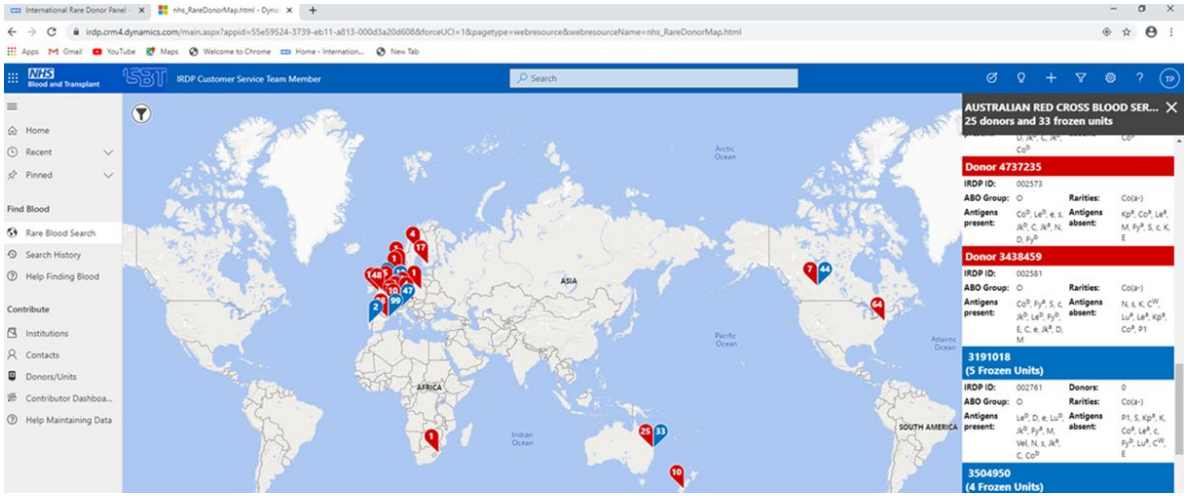
Country: South Africa

Country/Region: South Africa

General Information	
Freezing Method	Glycerolyte 57 using Haemonetics ACP-.215 cell washer
Frozen Expiry (years)	10 years
Storage Temperature	≤ -65°C
Can inventory be issued and sent frozen	Yes
Thawing Method	Deglcerolisation with 12% and 0.9% saline using Haemonetics ACP-.215 cell washer
Thawed Expiry (days)	24 hours
Additive Solution	SAGM
Irradiation Policy	Not a registered process, but may be issued as a patient tailored product
IUT and Neonate use	Not a registered process, but may be issued as a patient tailored product
Supply out of date Policy	No policy in place however in cases treated on an individual basis on consultation with the organisations medical team.

Country/Region: South Africa

Product Specifications	
Volume	> 185mL
Supernatant Haemoglobin	N/A
Haematocrit	0.6 +/- 0.1 (L/L)
Haemoglobin	≥36 (6/unit)
Osmolarity	≤367 (mOSm/KgH2O)
Residual leucocyte content	< 1.0 x 10^6/unit)
Sterility	No growth (Negative)
Other	NA



Ordering and Shipping

Country: South Africa

Country/Region: South Africa

Exporting	
Request form available	Yes
Government Requirements	National Department of Health Approval to Supply Blood Products to Organisations for Use Overseas. Customs invoice to be supplied by organisation for export of blood.
Regulatory Requirements	Export Permit to be issued by Department of Health South Africa
Rare Donor Program Requirements	Preferred courier – World Couriers Completed request form
Other	NA

Country/Region: South Africa

Importing	
Government Requirements	National Department of Health Approval to Procure Blood Products from Organisations Overseas for patient use. Customs invoice to be supplied by organisation sending blood products
Regulatory Requirements	Import permit to be obtained by organisation to allow cross border transport.
Rare Donor Program Requirements	A copy of all test results for the donation e.g. blood group, phenotype and infectious disease screening Temperature monitored transport (Preferred courier – World Couriers)
Other	N/A