Thank you

for **donating blood** today

SANBS

South African National Blood Service

TRANSFUSION REACTION FORM

Important: Please read this pamphlet before commencing the transfusion

Responsibilities of the Doctor Transfusing a Patient with Blood or a Blood Component:

1. Discuss the benefits and the potential risks of blood transfusion and obtain informed consent from the patient. All transfusions must be medically justifiable and alternatives to a blood transfusion need to be considered.
2. Check that the certificate of compatibility on the container has been completed correctly.
3. Ensure that the patient is satisfactorily identified as the correct patient for whom the blood or blood component in each unit is intended.
4. Verify that a pre-transfusion compatibility test has been carried out and ensure that a record is kept thereof. In the case of extreme emergency, blood may be transfused without a pre-transfusion compatibility test provided that such a test is performed when possible, unless the doctor considers such a test impractical or unnecessary.
5. Inspect the container and the blood therein for any abnormalities before it is transfused, in order to ensure that the hermetic seal of the container is intact and shows no evidence of having been pierced. A container of blood shall not be entered/spiked by piercing the hermetic closure for preparing a suspension of packed red cells or removing a sample for testing or for any other purpose unless:
   - the entering/spiking of the container is carried out under conditions which conform with acceptable methods of asepsis;
   - the container of blood is kept at a temperature of 2 – 6°C from the time of entering/spiking until immediately prior to transfusion;
   - the transfusion is completed within 6 hours of the container being entered.
6. Check the expiry date on the unit of blood or blood component to ensure that it has not lapsed.
7. Ensure that each infused blood unit is retained at a storage temperature of 2 – 6°C for at least 48 hours after the completion of the transfusion.
8. In the event of a suspected transfusion reaction deliver a fully completed transfusion reaction form with the empty packs and administration set to the Blood Bank for the purpose of investigating the cause of an untoward reaction or death following the transfusion. (Refer to 8 below)
9. **Report promptly to the Blood Bank any untoward reaction, or death of the patient as an apparent result of the transfusion.**
10. Storage and transportation temperature:
    - Blood must be transported at (1 – 10°C).
    - Blood must be stored at 2 – 6°C until immediately before transfusion.
    - FFP must be transported and stored at less than -18°C (minus).
    - Blood and blood products must **NOT** be immersed in hot water or heated except by using an approved warming device, the temperature of which must not exceed 37°C.
    - Blood must be infused within 4 – 6 hours of warming.
    - Blood must not be frozen.
    - Platelets to be transported and stored at 20 – 24°C and continuously agitated until transfusion.

NB! All issued products must be transfused within 72 hours, if unused/not transfused, must be returned to the blood bank.

IN THE EVENT OF A TRANSFUSION REACTION

1. Stop the transfusion immediately
2. Keep the vein open with normal saline using a new administration set
3. Confirm if unit was intended for same patient
4. Contact the doctor in charge
5. Monitor temperature, pulse rate, BP, respiratory rate and urine output
6. Perform a dipstix on urine sample for haemoglobinuria
7. Contact the transfusion service for advice
8. Send to the Blood Bank as soon as possible:
   - This form fully completed
   - The suspect donor pack (and other previous blood or plasma packs, if any), the administration set and drip filter. (Do not empty the pack or remove drip set)
   - At least 5ml EDTA venous blood taken from the patient from a different site to the infusion, with precautions to avoid haemolysis and bacterial contamination

TRANSFUSION REACTION CATEGORIES

REACTION	SIGNS / SYMPTOMS
ANAPHYLACTIC REACTIONS Severe, usually due to antibodies to IgA immunoglobulin, less frequently severe reactions to other plasma proteins.	Sudden onset. Symptoms include dyspnoea, hypotension/shock, facial and/or glottal oedema plus explosive GI symptoms. May lead to cardiac arrest/death.
ACUTE HAEMOLYTIC REACTION (AHTR) Caused by exposure of patient to incompatible donor red cells (usually ABO mismatched blood). Apparently similar reactions can result from incorrectly heated/stored/administered red cell products	Usually abrupt in onset and within 15 – 20 minutes after initiation of any red cell containing blood products. Fever, chills, nausea, vomiting, pain – flank back, chest, dyspnoea, hypotension, tachycardia, unexpected degree of anemia, renal failure, DIC.
BACTERIAL CONTAMINATION Caused by any contaminated blood product most frequently associated with platelet concentrates.	Usually rapid onset, about one hour post transfusion. Chills, fever, abdominal, cramps, vomiting or diarrhoea, renal failure, flushed dry skin, hypotension and shock.
FEBRILE NON HAEMOLYTIC TRANSFUSION REACTION Cause: Usually recipient leucocyte or platelet antibodies to transfused donor cells.	Onset usually with 1 – 2 hours after start of transfusion. Headache, myalgia, malaise, fever, chills, tachycardia and hypertension. Commonly found in multiparous or multi-transfused patients. Isolated fever > 38°C or, a rise of 1°C from the pre-transfusion value.
TRANSFUSION – RELATED ACUTE LUNG INJURY (TRALI) Severe, usually caused by leucoagglutinins in the plasma of the donor. Generally under-recognised and under reported.	No lung injury prior to the transfusion. Dyspnoea, hypotension, fever, bilateral pulmonary oedema usually occuring within 4 hours of a transfusion.
TRANSFUSION – ASSOCIATED CIRCULATORY OVERLOAD (TACO) This is usually due to rapid or massive transfusion of blood in patients with diminished cardiac reserve or chronic anaemia.	Dyspnoea, orthopnoea, cyanosis, tachycardia, increased blood pressure and pulmonary oedema usually occurring within 4 hours of a transfusion.
DELAYED TRANSFUSION REACTION Extravascular Haemolytic Reaction: Caused by exposure to incompatible red cells in the presence of an atypical IgG antibody such as anti-Kell, anti-Duffy, etc. Severity variable ranging from mild to severe.	Signs and symptoms may appear within hours in a severe reaction (often anti-Kell) & is characterized by a drop in haemoglobin and jaundice. In some cases there may be additional complications, eg. renal failure and DIC. However most cases are mild and are only noticed 2 – 10 days after the transfusion with mild jaundice & anaemia. Often the reaction goes unnoticed if mild.
ALLERGIC REACTION Cause: Allergens to plasma proteins.	Usually mild. NO FEVER. Itching, hives, urticaria, erythema. Limited to muco-cutaneous symptoms only.

ACCOUNT NUMBER	LAB NUMBER	HOSPITAL LABEL

PATIENT INFORMATION

NAME OF PATIENT:			AGE:
SURNAME:		OTHER INITIALS:	FEMALE ☐ MALE ☐
HOSPITAL NAME:		HOSPITAL NUMBER:	
DIAGNOSIS (BEFORE TRANSFUSION):			
INDICATION FOR TRANSFUSION:			
PRODUCTS TRANSFUSED:		UNIT/PACK NUMBERS:	
WAS THE BLOOD WARMED?		HOW?	
BRIEF MEDICAL HISTORY:			

REACTION DETAILS

DATE OF TRANSFUSION: D D M M Y Y Y Y	TIME:	VOLUME TRANSFUSED BEFORE ADVERSE REACTION:
ONSET OF REACTION: ☐ IMMEDIATE ☐ < 1 HR ☐ 1-2HRS ☐ < 1 HRS ☐ > 24 HRS		DATE:

CLINICAL SIGNS AND SYMPTOMS (Compulsory fields, please complete in full)

PRE-TRANSFUSION		POST-TRANSFUSION	
Temp:_____**°C** **Hb:**_____ **BP:**_____ **Pulse:**_____ **Sats:**_____		**Temp:**_____**°C** **Hb:**_____ **BP:**_____ **Pulse:**_____ **Sats:**_____	
RESTLESSNESS/ANXIETY		RESTLESSNESS/ANXIETY	
FLUSHING/SWEATING		FLUSHING/SWEATING	
FEVER		FEVER	
DIZZINESS		DIZZINESS	
NAUSEA/VOMITTING		NAUSEA/VOMITTING	
PRURITIS (ITCHING)		PRURITIS (ITCHING)	
URTICARIA (RASH)		URTICARIA (RASH)	
RIGORS (INVOLUNTARY SHAKING)		RIGORS (INVOLUNTARY SHAKING)	
HYPOTENSION (SBP DROP ≤ 30MM HG)		HYPOTENSION (SBP DROP ≤ 30MM HG)	
HYPERTENSION		HYPERTENSION	
BACK PAIN		BACK PAIN	
HEADACHE		HEADACHE	
DYSPNOEA (SHORTNESS OF BREATH)		DYSPNOEA (SHORTNESS OF BREATH)	
CHEST PAIN		CHEST PAIN	
CYANOSIS		CYANOSIS	
DECREASE IN OXYGEN SATURATION		DECREASE IN OXYGEN SATURATION	
TACHYCARDIA		TACHYCARDIA	
SHOCK		SHOCK	
WHEEZING		WHEEZING	
COLLAPSE		COLLAPSE	
JOINT/MUSCLE PAIN		JOINT/MUSCLE PAIN	
HAEMATURIA		HAEMATURIA	
FACIAL/TONGUE SWELLING		FACIAL/TONGUE SWELLING	
JAUNDICE		JAUNDICE	
OLIGURIA		OLIGURIA	
Other Symptoms:			

TREATING DOCTOR AND / OR NURSE IN CHARGE OF PATIENT

DOCTOR'S NAME:	CONTACT NO.:	SIGNATURE:
NURSE'S NAME:	WARD NO.:	DATE:
TREATMENT/MEDICATION GIVEN:		
CHEST X-RAY RESULTS:		
PATIENT OUTCOME: STABLE ☐ UNSTABLE ☐ DEMISED ☐		
IF DEMISED, STATE DATE AND TIME OF DEATH:		