

# TIP STUDY-STUDY AIM 3: ANTENATAL TRANSFUSION FORM (ATF)

Complete this form on all pregnant patients who are:

- transfused prior to the peripartum period (48hrs of delivery) in patients  $\geq 26$  weeks, or
- transfused for any reason in patients  $< 26$  weeks gestation.

**SUBJECT ID:**

**Today's Date:**

<input type="text"/>	/	<input type="text"/>	/	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Day		Month		Year			

## Section 1 – Demographics

1. **Age:**

Years

2. **Height**

cm

3. **Weight at booking**

kg

4a. **Residence for the last 12 months**

Country

\_\_\_\_\_

City

\_\_\_\_\_

Province

Postal Code

4b. **Second residency if patient lived in more than one in the past 12 months**

Country

\_\_\_\_\_

City

\_\_\_\_\_

Province

Postal Code

☐ Did not live in more than one place.

5. **Nationality**

- ☐ South African  
☐ Africa national

☐ Other: \_\_\_\_\_

☐ Don't Know

6. **Race / ethnic origin:** (Choose one)

- ☐ Black  
☐ White  
☐ Coloured  
☐ Asian

☐ Other: \_\_\_\_\_

☐ Don't Know

7. **Gravidity**

(Number of times pregnant)

☐ Don't Know

8. **Parity** (Number of pregnancies carried to viability i.e. through 26 weeks gestation)

☐ Don't Know

## Section 2 - Hospital Data

1. **Was the patient referred for transfusion?**

- ☐ Yes  
☐ No [SKIP TO Q3]

2. **Referring Institution** (if applicable)

\_\_\_\_\_

3. **Was the patient admitted to hospital?**

- ☐ Yes  
☐ No [SKIP TO Section 3]



4. Admission Date:  /  /   
Day Month Year

5. Discharge Date:  /  /   
Day Month Year

6. Highest Level of Care at current institution

- ☐ Ward  
☐ High Care  
☐ ICU

7. Alive at discharge?

- ☐ Yes  
☐ No

### Section 3 – Pregnancy

#### PREVIOUS Pregnancy

1. Previous caesarian sections?

- ☐ Yes  
☐ No [SKIP TO Q2]  
☐ Unknown [SKIP TO Q2]

1a. How many cesarean sections?

2. Delivery complications with PREVIOUS pregnancies?

- ☐ Yes  
☐ No [SKIP TO Q3]  
☐ Unknown [SKIP TO Q3]

2a. If yes, what type? (Mark all that apply.)

- ☐ Antepartum hemorrhage  
☐ Postpartum hemorrhage  
☐ Blood transfusion  
☐ Induction of labor  
☐ Gestation diabetes  
☐ Gestational proteinuric hypertension  
☐ TB  
☐ Anemia  
☐ Malaria  
☐ Urinary Tract Infections  
☐ Other infections  
  
☐ Other \_\_\_\_\_  
☐ Unknown

3. Was a hemoglobin <10g/dL documented at any time during a previous pregnancy?

- ☐ Yes  
☐ No  
☐ Unknown

#### CURRENT Pregnancy

4. Gestational age at time of transfusion:

# Weeks:  # Days:

5. Estimated Date of Delivery:

/  /   
Day Month Year

6. Booking status at time of admission:

- ☐ Booked  
☐ Unbooked [SKIP TO Q10]

6a. Date of booking:  /  /   
Day Month Year

7. Number of visits to the antenatal clinic:

☐ Unknown

8. Was the patient ever seen at the antenatal anaemia clinic (CHB only)?

- ☐ Yes  
☐ No  
☐ Unknown

9. Was a hemoglobin =10g/dL documented at any antenatal visit?

- ☐ Yes  
☐ No  
☐ Unknown

9a. List all medications patient was taking during this pregnancy:

- ☐ Cotrimoxazole (Bactrim)  
☐ Cephalosporin eg Keflex (cephalexin), cefuroxime  
☐ Amoxil (amoxicillin)  
☐ Augmentin (amoxicillin clavulanic acid)  
☐ Penicilin  
☐ Piperacilin  
☐ None

Anti TB Drugs

- ☐ Raifafour  
☐ INH (isoniazid)  
☐ Pyridoxine

Anti hypertensives

- ☐ Aldomet (methyl dopa)  
☐ Adalat (nifedipine)  
☐ Other \_\_\_\_\_

--	--	--	--	--



**10. Complications during THIS pregnancy?**

- ☐ Yes  
☐ No [SKIP TO Q11]  
☐ Unknown [SKIP TO Q11]

**10a. If yes, what complications were there during this pregnancy?** (Mark all that apply.)

- ☐ Malposition/abnormal lie  
☐ Diabetes gestational  
☐ Gestational proteinuric hypertension  
☐ Multiple pregnancy  
☐ Threatened abortion  
☐ Intrauterine death  
☐ Placenta praevia  
☐ Chorioamnionitis  
☐ Syphilis or laboratory evidence of WR  
  
☐ Other → \_\_\_\_\_  
☐ Unknown

**Admission****11. Were there complications during this admission?**

- ☐ Yes  
☐ No [SKIP TO Section 4]  
☐ Unknown [SKIP TO Section 4]

**11a. If yes, what complications during this admission?** (Mark all that apply. This excludes pre-existing conditions)**Organ Dysfunction**

- ☐ Symptomatic anaemia (e.g. palpitations, dizziness shortness of breath)  
☐ Cardiovascular e.g. cardiac arrest, cardiopulmonary resuscitation, Cardiac failure  
☐ Respiratory e.g. intubation or ventilation  
☐ Renal e.g. documented renal failure, dialysis  
☐ Coagulation/hematologic e.g. DIC  
☐ Hepatic e.g. jaundice, HELLP syndrome  
☐ Neurologic e.g. coma, stroke

**Sepsis**

- ☐ Local e.g. endometritis  
☐ Systemic e.g. pneumonia

- ☐ Other → \_\_\_\_\_  
☐ Unknown

**Section 4 - HIV Status and Treatment****1. HIV Status of patient:**

<b>1a. At booking</b>	<input type="radio"/> HIV +	<input type="radio"/> HIV -	<input type="radio"/> Unknown
Date of test:	<div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div>		
<b>1b. At Delivery Admissions</b>	<input type="radio"/> HIV +	<input type="radio"/> HIV -	<input type="radio"/> Unknown
Date of test:	<div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div>		
<b>1c. Other tests during pregnancy</b>	<input type="radio"/> HIV +	<input type="radio"/> HIV -	<input type="radio"/> Unknown
Date of test:	<div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div>		
<b>1d. Other tests during pregnancy</b>	<input type="radio"/> HIV +	<input type="radio"/> HIV -	<input type="radio"/> Unknown
Date of test:	<div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div>		

IF NEGATIVE OR UNKNOWN FOR ALL. SKIP TO SECTION 5.

**2. Last CD4 count:** (e.g. 382)

cells/mm3

☐ Unknown

**2a. Date of CD4 count from question 2:**

Day Month Year

☐ Unknown

**3. Last Viral Load:** (example: 12,000)

copies/ml

☐ Unknown

**3a. Date of viral load in question 3:**

Day Month Year

☐ Unknown

**4. Was patient on ART prior to this pregnancy?**

- ☐ Yes  
☐ No [SKIP TO Q5]  
☐ Unknown [SKIP TO Q5]



**4a. Start Date for ART**

		/			/				
--	--	---	--	--	---	--	--	--	--

Day Month Year

☐ Unknown

**4b. Which ART drugs was the patient taking prior to pregnancy? (Mark all that apply)**

- ☐ AZT – Zidovudine/ Azidothymidine
- ☐ ddI – Didanosine
- ☐ 3TC – Lamivudine
- ☐ D4T – Stavudine
- ☐ ABC – Abacavir
- ☐ TDF – Tenofovir
- ☐ FTC - Emtricitabine
- ☐ NVP – Nevirapine
- ☐ EFV – Efavirenz
- ☐ ETV - Etravirine
- ☐ ATV – Atazanavir
- ☐ LPV/r – Lopinavir/Ritonavir
- ☐ RAL - Raltegravir
- ☐ SQV - Saquinavir
- ☐ IDV - Indinavir
- ☐ FDC- Fixed Dose Combination – w/ AZT
- ☐ FDC – Fixed Dose Combination – w/o AZT

☐ Other: \_\_\_\_\_

☐ Unknown

**5. Was patient on PMTCT during this pregnancy?**

- ☐ Yes
- ☐ No [SKIP TO Q6]
- ☐ Unknown [SKIP TO Q6]

**5a. Start Date for PMTCT**

		/			/				
--	--	---	--	--	---	--	--	--	--

Day Month Year

☐ Unknown

**5b. Which PMTCT drugs is the patient taking? (Mark all that apply)**

- ☐ AZT – Zidovudine/Azidothymidine
- ☐ ddI – Didanosine
- ☐ 3TC – Lamivudine
- ☐ D4T – Stavudine
- ☐ ABC – Abacavir
- ☐ TDF – Tenofovir
- ☐ FTC - Emtricitabine
- ☐ NVP – Nevirapine
- ☐ EFV – Efavirenz
- ☐ ETV - Etravirine
- ☐ ATV – Atazanavir
- ☐ LPV/r – Lopinavir/Ritonavir
- ☐ RAL - Raltegravir
- ☐ SQV - Saquinavir
- ☐ IDV - Indinavir
- ☐ FDC- Fixed Dose Combination – w/ AZT
- ☐ FDC – Fixed Dose Combination – w/o AZT

☐ Other: \_\_\_\_\_

☐ Unknown

**6. Was the patient HIV positive during the preceding pregnancy?**

- ☐ Yes
- ☐ No [SKIP TO Section 5]
- ☐ Not applicable/Primigravida [SKIP TO Section 5]

**6a. Was PMTCT used in that pregnancy?**

- ☐ Yes
- ☐ No
- ☐ Unknown

**6b. Was ART used during previous pregnancy?**

- ☐ Yes
- ☐ No
- ☐ Unknown

**Section 5 –Bleeding in Current Pregnancy**

**1a. Was there bleeding during this pregnancy?**

- ☐ Yes
- ☐ No [SKIP TO SECTION 6]
- ☐ Unknown [SKIP TO SECTION 6]

--	--	--	--	--



**1b. If Yes, what was the estimated blood loss?**

--	--	--	--

**2. What was the cause of the hemorrhage?**

(Mark all that apply)

- ☐ Placental abruption
- ☐ Placenta Previa
- ☐ Abruptio Placentae
- ☐ Vasa Previa
- ☐ Neoplasm (specify e.g. chorangioma)
- ☐
- ☐ Ectopic pregnancy/Extra uterine pregnancy
- ☐ Threatened abortion
- ☐ Incomplete abortion
- ☐ Complete abortion
- ☐ Cervicitis
- ☐ Bleeding during surgical procedure (If checked, specify type of procedure.)
  - ☐ Elective abortion
  - ☐ Dilation and curettage
  - ☐ Salpingectomy
  - ☐ Salpingoophorectomy
  - ☐ Hysterectomy
  - ☐ Hysterotomy
  - ☐ Anaesthesia for non-pregnancy related condition e.g. appendicitis, drainage of abscess
- ☐ Antepartum hemorrhage not specified
- ☐ Other
- ☐ Unknown

**3. APH Management** (Mark all that apply)

**APH**

- ☐ Expectant/conservative
- ☐ Induction of Labor
- ☐ Caesarian section
- ☐ Antibiotics (for cervicitis)

**Miscarriage**

- ☐ Oxytocin
- ☐ Misoprostol
- ☐ Hysterotomy
- ☐ Hysterectomy
- ☐ Evacuation of uterus under anaesthesia
- ☐ MVA (Manual Vacuum extraction) side ward, analgesia
- ☐ Antibiotics

**Ectopic**

- ☐ Laparotomy
- ☐ Salpingectomy

## Section 6 - Transfusion

**Note:** Please applies to transfusion of any blood product, which includes whole blood, packed red blood cells, platelets, plasma and/or cryoprecipitate

**Prior to the current transfusion:**

**1. Had the patient been transfused before the current transfusion?**

- ☐ Yes
- ☐ No [SKIP TO Q2]
- ☐ Unknown [SKIP TO Q2]

**1a. If Yes, when?** (Mark all that apply)

- ☐ During current pregnancy
- ☐ During previous pregnancy
- ☐ For a non-obstetric reason

**2. Had the patient been identified as anemic during current pregnancy?**

- ☐ Yes
- ☐ No [SKIP TO Q3]
- ☐ Unknown [SKIP TO Q3]

**2a. If yes, when was the patient first identified as being anemic?**

- ☐ Booking visit
- ☐ Antenatal clinic follow-up visit
- ☐ Antenatal specialist anemia clinic
- ☐ Medical clinic
- ☐ Admission
- ☐ Other

**3. Was the patient on hematinic therapy during pregnancy?**

- ☐ Yes
- ☐ No
- ☐ Unknown

**3a. What type?**

- ☐ Iron, Oral
- ☐ Iron, Parental
- ☐ Folate
- ☐ Vitamin B1

- ☐ Other →
- ☐ Unknown

--	--	--	--	--



3b. Was the patient reported to be compliant with hematinic therapy?

- ☐ Yes
- ☐ No
- ☐ Unknown

**Current transfusion:**

4. Was the patient transfused?

- ☐ Yes
- ☐ No [IF NO, SKIP TO END]

5. What was the medical rationale and/or diagnosis requiring blood transfusion?

Check ALL that apply (Please be specific as possible: rather than anaemia, bleeding or hemorrhage, provide the underlying cause)

- ☐ Obstetric hemorrhage
- ☐ Surgical (e.g. C/S, hysterectomy or laparotomy)
- ☐ Chronic anaemia
- ☐ Anaesthetic related (required for transfusion)
- ☐ Other→ \_\_\_\_\_
- ☐ Unknown

5. If Chronic anaemia was selected above, specify which type:

- ☐ Iron deficiency
- ☐ Vitamin B12 deficiency
- ☐ Folate deficiency
- ☐ Thalassemia
- ☐ Sickle cell anaemia
- ☐ Hemoglobinopathy or enzyme disorder-other
- ☐ Malaria

6. Were any of the units transfused as emergency blood (uncrossmatched) RBCs?

- ☐ Yes
- ☐ No

7. Physician that ordered the blood and rank:

\_\_\_\_\_  
\_\_\_\_\_

8. What was the highest level with which the decision to transfuse was discussed?

- ☐ Intern
- ☐ Medical Officer
- ☐ Registrar
- ☐ Obstetric/Gynecological Consultant
- ☐ Anaesthetist
- ☐ Critical Care
- ☐ Unknown

9. Patient transfused at:

- ☐ Referring Institution [SKIP TO Q11]
- ☐ Current Institution
- ☐ Both

10. If at the current institution, where was the patient when the blood transfusion was started?

- ☐ Antenatal
- ☐ Labour
- ☐ Post-natal
- ☐ Theatre'
- ☐ Casualty
- ☐ Medical
- ☐ Surgical
- ☐ ICU
- ☐ Outpatient
- ☐ Other \_\_\_\_\_
- ☐ Unknown

11. LAST hemoglobin measurement PRIOR to 1st Transfusion

g/dL ☐ Unknown

11a. Hb hemoglobin method used:

- ☐ FBC
- ☐ Blood
- ☐ Gas
- ☐ Point of Care (e.g. finger stick)

- ☐ Other→ \_\_\_\_\_
- ☐ Not Done
- ☐ Unknown

11b. If an FBC was used, were the results obtained prior to transfusion?

- ☐ Yes
- ☐ No
- ☐ Unknown

--	--	--	--	--



**12. Measurements at the time of hemoglobin measurement prior to 1st transfusion:**

12a. MCV:  fl

12b. MCH:  .  pg

12c. Platelets: ,   
(mCL or x 10<sup>9</sup>/L)

**13. Vital signs at the time of hemoglobin measurement prior to 1st transfusion:**

13a. Heart Rate:  per minute

13b. Blood pressure:  /

13c. Respiratory rate:  per minute

13d. Temperature:  °C

**14. First hemoglobin measurement AFTER last transfusion:**

.  g/dL  
☐ Unknown

**14a. Hb hemoglobin method used:**

- ☐ FBC
- ☐ Blood
- ☐ Gas
- ☐ Point of Care (e.g. finger stick)
- ☐ Other \_\_\_\_\_
- ☐ Not Done
- ☐ Unknown

**15. Vital signs at the time of hemoglobin measurement AFTER last transfusion:**

15a. Heart Rate:  per minute

15b. Blood pressure:  /

15c. Respiratory rate:  per minute

15d. Temperature:  °C

**15. Direct Antiglobulin Test (Direct Coombs Test )**

- ☐ Positive
- ☐ Negative
- ☐ Unknown

**15a. Was there a Transfusion Reaction?**

- ☐ Yes (GO TO Q15b)
- ☐ No [SKIP TO Q16]
- ☐ Unknown

**15b. Type of Reaction**

- ☐ febrile non-hemolytic
- ☐ allergic
- ☐ anaphylactic
- ☐ acute hemolytic
- ☐ delayed hemolytic
- ☐ TRALI
- ☐ TACO
- ☐ Septic
- ☐ Unknown

**Section 7 – NOTES:**

Note: Please print clearly in all capital letters.

---

---

---

---

---

---

---

**CONTINUE TO Question 16 on next page, if patient was transfused.**



## 16. Components Transfused

If not in chart, obtain this from blood bank

Date1	Time 1	Type 1	BUI 1
<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div>Day Month Year</div>	<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> <div>24 HOUR TIME (e.g. 21:53)</div>	<input type="radio"/> Red Cells <input type="radio"/> Platelets <input type="radio"/> FFP (fresh/frozen plasma) <input type="radio"/> Bioplasma/FDP (fresh dried plasma) <input type="radio"/> Cryo	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>
<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div>Day Month Year</div>	<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div>	<input type="radio"/> Red Cells <input type="radio"/> Platelets <input type="radio"/> FFP <input type="radio"/> Bioplasma/FDP <input type="radio"/> Cryo	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>
<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div>Day Month Year</div>	<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div>	<input type="radio"/> Red Cells <input type="radio"/> Platelets <input type="radio"/> FFP <input type="radio"/> Bioplasma/FDP <input type="radio"/> Cryo	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>
<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div>Day Month Year</div>	<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div>	<input type="radio"/> Red Cells <input type="radio"/> Platelets <input type="radio"/> FFP <input type="radio"/> Bioplasma/FDP <input type="radio"/> Cryo	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>
<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div>Day Month Year</div>	<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div>	<input type="radio"/> Red Cells <input type="radio"/> Platelets <input type="radio"/> FFP <input type="radio"/> Bioplasma/FDP <input type="radio"/> Cryo	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>
<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div>Day Month Year</div>	<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div>	<input type="radio"/> Red Cells <input type="radio"/> Platelets <input type="radio"/> FFP <input type="radio"/> Bioplasma/FDP <input type="radio"/> Cryo	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>
<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div> <div> <div></div> <div></div> <div></div> <div></div> </div> <div>Day Month Year</div>	<div> <div></div> <div></div> </div> <div> <div></div> <div></div> </div>	<input type="radio"/> Red Cells <input type="radio"/> Platelets <input type="radio"/> FFP <input type="radio"/> Bioplasma/FDP <input type="radio"/> Cryo	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>

In the event of **massive transfusion**, please list on reverse under NOTES the date, time, component type, and BUI for each additional component.

END OF FORM

