AIIMS RAJKOT	SECTION	BLOOD STORAGE UNIT	SOP NO.	AIIMSRJKT/BB/01
			PAGE NO.	1/1
	SUBJECT	PATIENT SAMPLE RECEIVING REGISTRATION & STORAGE	EFF.DATE	14/11/2023
			REVIEW PERIOD	02 YRS

RESPONSIBILITY: Technicians, Residents.

PROCEDURE:

1. If the relative/ ward attendant brings request and the requisition form is not completely filled up, it has to be completed by treating doctor.
2. When it is just a slip of a doctor, a new requisition form has to be filled up by treating doctor.
3. Patient has to be preferably identified with two identifiable parameters like, name & hospital (or hospital registration number).
4. If there is unlabeled sample, do not accept the samples.
5. If the samples collector / ward attendant brings the request form, it is to be completely filled and if in case it is not complete, it has to be completed before acceptance.
6. The relevant information should be entered in the request register simultaneously, The information should include: serial number / Req. No. / Name of Patient with age & sex, old /new patient / Hospital with ward / Hospital registration no./ Doctor/ Blood Group / Blood component / Request received time / Sample collection time and Remarks
7. The Requisition no. is pasted/written on to the form and also on the sample(s). This form and samples are passed on to the technician.
8. Perform group check availability in stock. Give blood bank code (BG) & then transfer samples in appropriate BG tube. Prepare 2 -5% cell suspension from EDTA bulb and take serum with minimum contamination of RBCs
9. Store original samples and tubes for 7 days.
10. For patient who has had multiple / massive transfusion, ask for fresh samples if he/she requires BT again as his/her blood has been almost replaced by the massive transfusion.
11. Store samples of BG & BB for 7 days after transfusion are given.

REFERENCES: WHO technical manual of transfusion medicine, SOP guideline GSACS

	WRITTEN BY	CHECKED BY	APPROVED BY
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SCOPE:

To describe method to perform blood grouping.

RESPONSIBILITY:

Blood bank Technicians, Residents.

SAFETY PRECAUTIONS:

Use universal safety precautions

REQUIREMENTS:

Sample: patient's EDTA and plain blood sample
Materials: Pipettes, test tubes, glass markers, microscopes, blotting papers, slides
Reagents: anti-A, anti-B, anti-AB, anti-D, pool A, B and O

PROCEDURE :

Principle:. These are two distinct parts to ABO grouping. The Direct or Forward grouping requires known anti-A and anti-B typing antiserums for testing unknown cells. The Indirect, Reverse or Back grouping requires a pool of known A and known group B cells. The forward typing antigen-antibody reaction results in visible agglutination of the red blood cells determining the blood groups A and B and AB. No agglutination with anti-A, anti-B, determines the amorphous, group O. In the reverse typing reagent red blood cells agglutinate when antibodies in patient serum react with their corresponding antigenic determinants on the red blood cell. Anti-A and B antibodies in patient serum agglutinates red blood cells possessing A and/or B blood group antigens, while group O red blood cells will not react with the patient serum. Proper determination of the ABO group is necessary when selecting red blood cell-containing products for transfusion in order to prevent immediate hemolytic transfusion reactions.

ABO by Cell method – Forward grouping

Slide method :- For outdoor camps & emergencies.

1. Take 1 drop anti – A & 1 drop anti – B on 2 labeled areas of slide.
2. Add 1 drop of 20% cells to each of the above drops.
3. Mix and spread over 15 mm diameter.
4. Rock slide and leave for 2 minutes at room temperature (20 – 24^{0}C).
5. Rock again and look for agglutination.
6. Interpret according to table.

Tube method :- For routine purpose and discrepancy in slide method.

1. Wash the RBCs 3 times (especially cord blood) and make 5% suspension in Normal Saline.
2. Take 3 labelled tubes and add 2 drops of Anti – A, Anti – B & Anti – AB as per the label. Add 1 drop of washed cells to each
3. Mix and leave at room temperature for 30 minutes OR centrifuge at 1000 rpm for 1 minute after 5 minutes at RT (spin method
4. Observe for haemolysis. Then disperse cell button and check for agglutination.
5. If no agglutination is seen macroscopically, examine under microscope.
6. Interpret according to table

ABO by Serum method – Reverse grouping

Not to be done for child upto 6 months of age.

Tube method :- Prepare pooled A, B & O cells from 3 persons.(as per sop of pooled cell preparation)

1. Take 3 tubes & label A, B & O.
2. Add 2 drops of test serum to each.
3. Add 1 drop of pooled A, B & O cells respectively, washed 3 times.
4. Mix and leave at RT for 30 mins OR centrifuge after % min incubation at RT (spin method).
5. Observe supernatant for haemolysis. Then disperse cell button And see for agglutination.
6. Check all negative results microscopically.
7. Interpret according to table.

- Rh grouping should be checked with anti-sera from 2 different manufacturers.
- Cell grouping & reverse grouping to be done by 2 different persons.
- ABO grouping is to be performed at RT or lower.
- Do daily quality control for antisera & cell pools when in doubt.
- Add serum before cells & check visually for presence of serum in tube (to avoid error of non – addition).
- Use microscope for all negative reactions.

ABO Grouping

Reaction of test RBCs			Reaction of serum with pooled cells			Interpretation Pt. belongs to ___
Anti – A	Anti – B	Anti - AB	A	B	O	
+	+	+	-	-	-	AB
+	-	+	-	+/H	-	A
-	+	+	+/H	-	-	B
-	-	-	+/H	+/H	-	O(has antiA, antiB only)
-	-	-	+/H	+/H	+/H	Oh(has antiA, antiB, antiH) Bombay blood group.

A_1 / A_2 Group to be tested at RT 30 – 60 mins

Reaction of cells with antisera				Reaction of serum with cells			Interpretation Pt. belongs to ___
antiA	antiB	antiAB	$antiA_1$	A	B	O	
+4	-	+4	+4	-	+/H	-	A_1 (= A)
+4	-	+4	-	-/+/H*	+/H	-	A_2*
+4	+4	+4	+4	-	-	-	A_1B (= AB)
+4	+4	+4	-	-/+/H*	+/H	-	A_2B*

- = negative
H = hemolysis
+/+4 = agglutination

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Rh (D) grouping – should be checked within 48 hours of drawing the sample.

Slide Method :- For emergency & outdoor camps.

1. Place 1 drop of anti – Rh (D) & 1 drop of 22% albumin on 2 labeled slides.
2. Place 1 drop of 20% red cells.
3. Mix and spread over 15 mm diameter.
4. Tilt gently & continuously for 2 mins & observe for agglutination.

-ve = -ve in test & -ve in control
+ve = +ve in test & -ve in control
If control shows +ve result, test sample may have auto clumps or test may be invalid. Repeat.

Tube Method: - For routine purpose & discrepancy in above method.
A saline suspension of known Rh (D)+ve & Rh (D)-ve cells should be run in the test as controls.

1. Place 1 drop of anti – Rh (D) in tube & 1 drop of 22% albumin in another labeled tube.
2. Add 1 drop of 5% cell suspension of cells washed in Normal Saline.
3. Mix & incubate at 37^0C for 15 min OR as per manufacturer's directions.
4. Resuspend the cell button & loof for agglutination. If negative, confirm under microscope. Result is read as in slide method.
5. Perform D^u test for all Rh –ve donors. For Rh –ve patients D^u optional (depending upon age, P/H/O transfusion, criticality of BT requirement).

REFERENCES:

1. WHO technical manual of transfusion medicine
2. SOP guideline GSACS

RESPONSIBILITY : Preparation : technician

Interpretation: Doctor

SALINE METHOD (routine)

For Routine CM :- Saline Method – sedimentation method detects IgG Ab.

For emergency CM :- Saline phase – spin method.

Procedure

1. Label 1 tube for each donor sample to be tested.
2. Put 2 drops of pt.'s serum in a labeled tube.
3. Add 1 drop of 5% saline suspended red cells of the donor to the tube. (When in doubt take sample from tube attached to bag)
4. Mix and incubate for 5 min. (spin method) or incubate for 30 min (sedimentation method) at RT.
5. Centrifuge at 1000 rpm for 1 min in spin method ; centrifugation is optional in sedimentation method.
6. Read the result, observe for haemolysis & agglutination which if present indicates a +ve result (incompatible).
7. Minor CM :- As above but using pt.'s cell & donor's serum

BOVINE ALBUMIN METHOD (Albumin as an additive)

If IG phase CM is not giving consistent results, use albumin method

(detects IgG Ab).

Procedure

1. Add 2 drops of pt.'s serum to a labeled tube.
2. Add 1 drop of 5% red cell suspension of donor.
3. Add 2 drops of bovine albumin 22%.
4. Mix and incubate at 37^0C for 15 – 20 mins.
5. Centrifuge at 1000 rpm for 1 – 2 mins.
6. Gently resuspend the cell button & observe for agglutination / haemolysis. If +nt – incompatible.
7. Confirm all negative results under microscope.

8. Minor CM :- As above but using pt.'s cell & donor's serum

IGT FOR IgG COMPATIBILITY : IgG (37^0C)

For Massive transfusion CM

Multiple transfusion CM

Discrepancy in routine CM IG T phase detects IgG Ab

Unknown Ab suspected

1. Put 2 drops of pt.'s serum in a labeled tube.
2. Add 1 drop of 5% saline suspended red cells of donor.
3. Incubate for 30 mins at 37^0C.
4. Centrifuge at 1000 rpm for 1 min, check for hemolysis / agglutination
5. Wash the cells 1 time with normal saline.
6. Perform Indirect Coombs' test. If +ve – incompatible, if –ve – compatible.
7. Add IgG coated red cells to negative Coombs' test.
8. Centrifuge & check for agglutination – if there is no agglutination, test is invalid; if +ve, test is valid & result of step 6 is confirmed.
9. Minor CM :- As above but using pt.'s cell & donor's serum

REFERENCES: WHO technical manual of transfusion medicine, SOP guideline GSACS

RESPONSIBILITY : Prepared by technicians
Interpretation by Doctors

PROCEDURE:

1. Place 1 drop of 2 -5% cell suspension to be tested in a clean labeled tube & 1 drop of sensitized O+ve cells in another test tube (prepared as in ICT) as control. In cases of Rh / ABO incompatibility, baby's cell sample is tested.
2. Wash the red cells 3 – 4 times in a large volume of saline. Completely decant the final supernatant wash.
3. Add 1 – 2 drops of Coombs' serum immediately.
4. Mix and centrifuge for 1 min.
5. Gently shake the tube & examine for agglutination with help of optical aid.
6. Interpretation: If agglutination is +nt, the test is positive.
   If agglutination is -nt, the test is negative.

REFERENCES: WHO technical manual of transfusion medicine, SOP guideline GSACS

AIIMS RAJKOT	SECTION	BLOOD STORAGE UNIT	SOP NO.	AIIMSRJKT/BB/05
			PAGE NO.	Page 1 of 1
	SUBJECT	PROCEDURE FOR INDIRECT AGGLUTINATION TEST	EFF.DATE	14/11/2023
			REVIEW PERIOD	02 YRS

RESPONSIBILITY : Performed by technician

Interpretation by Doctor

PROCEDURE :

1. Place 2 – 4 drops of test serum (fresh) in a tube. (If fresh serum is not available, add AB serum to test sample in 1 : 1 ratio. In cases of Rh / ABO incompatibility, Mother's serum should be tested.
2. Add 1 drop of 4 – 5% suspension of washed fresh O+ve red cells.
3. Mix & incubate at 37^0C for 30 – 60 mins.
4. Centrifuge for 1 min at 1000 rpm.
5. Examine for hemolysis &/or agglutination using an optical aid. Agglutination at this stage indicates presence of saline reacting (complete) antibodies.
6. If no agglutination is seen, wash 3 – 4 times in large amount of saline. Decant supernatant as completely as possible.
7. Add 1 – 2 drops of Coombs' serum.
8. Centrifuge for 1 min at 1000 rpm.
9. Gently shake the tube & examine for agglutination using an optical aid. Leave a non – reactive test at RT for 5 mins, Centrifuge again at 1000 rpm for 1 min and read again
10. Interpretation: If agglutination is seen, the test is positive. If agglutination is absent, the test is negative.
11. Non – reactive test should be confirmed by adding 1 drop of IgG coated O+ve red cells. Mix & centrifuge at 1000 rpm for 1 min. If no agglutination is seen, test is invalid.

REFERENCES: WHO technical manual of transfusion medicine, SOP guideline GSACS

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AIIMS RAJKOT	SECTION	BLOOD STORAGE UNIT	SOP NO.	AIIMSRJKT/BB/06
			PAGE NO.	Page 1 of 2
	SUBJECT	PROCEDURE FOR WEAK D (D^U) CONFIRMATION	EFF.DATE	14/11/2023
			REVIEW PERIOD	02 YRS

RESPONSIBILITY : Performed by technician

Interpretation by resident

PROCEDURE :

1. Take 1 drop of anti – D serum in 3 clean labeled test tubes.
2. Add 1 drop of 5% cell suspension to be tested in one test tube & 1 drop of 5% cell suspension of known Rh+ve & Rh-ve cells as controls in other test tubes.
3. Mix and incubate the test tubes at 37^0C for 15 minutes.
4. Centrifuge at 1000 rpm for 1 min.
5. Resuspend the cell button and examine for agglutination. If agglutination is seen at this level, it means the patient is Rh+ve.
6. If no agglutination is observed, wash the cells 3 times with saline & decant last washing.
7. Now add 1 drop of Coombs' serum into sample test tube. Mix gently & centrifuge for 1 min at 1000 rpm.
8. Resuspend the cell button & examine for agglutination and record the test result. If agglutination is seen, the test is positive, i.e. the group is D^U (weak Rh+ve).
9. If test is –ve, the reaction may be confirmed by adding known IgG sensitized "O" cells, re – centrifuge & re – examine for agglutination, the presence of which confirms the test result.

REFERENCES: WHO technical manual of transfusion medicine, SOP guideline GSACS

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NOTE :-

(1) Recipient : ***D^U+ve*** – Transfuse Rh-ve blood, if it is available.

-- If Rh-ve blood is available, transfuse ,Rh -ve blood to females below menopause & young males. Rest (elderly) may be given Rh+ve blood.

-- In case a D^U young male / female is in a life - threatening condition but Rh-ve blood is not available, confirm P/H/O transfusion with Rh+ve blood.If no Rh+ve blood was given, Rh+ve blood may be given this time. However, if Rh+ve blood was given in past, discuss with clinician. Do not give Rh+ve blood.

-- Write to clinician to inform patient & mention on discharge card " Patient has D^U variant blood, but was transfused with Rh+ve blood because of emergency condition of patient. For future requirement transfuse Rh-ve blood only ".

D^U –ve – Transfuse Rh-ve blood.

(2) Donor : *D^U+ve* – Consider as Rh+ve blood for Donation.

D^U-ve -- Consider as Rh-ve for Donation.

REFERENCES: WHO technical manual of transfusion medicine, SOP guideline GSACS

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RESPONSIBILITY: Blood Bank Technician

OBJECTIVE: To preserve & store blood/blood components at proper storage temperature.

MATERIAL REQUIRED:

- Blood bank refrigerator having inside temperature of 4°C ± 2°C
- Deep freezer having inside temperature of —30°C or —80°C
- Platelet incubator with agitator having inside temperature of 22°C± 2°C

PROCEDURE:

- A designated area shall be used for storage to limit deterioration and prevent damage to materials in process and final products. The access to such areas shall be controlled
- Refrigerator or freezers used for storage of blood, blood components and blood samples shall not be used for any other items.
- All reagents shall be stored in refrigerators with thermograph or temperature monitor.
- Refrigerator shall have inside temperature of 4°C ± 2°C and shall have a system to monitor temperature continuously or at least the temperature shall be recorded every 4 hours. An alarm system and a provision for alternate power supply shall be available.
- Deep freezer shall have inside temperature of —30°C or —80°C having temperature indicator/recording facility with alarm system and provision for alternate power supply.
- Platelet incubator with agitator shall have inside temperature of 22°C± 2°C having temperature indicator/recording facility with alarm system and provision for alternate power supply. The equipment shall keep the platelet units in continuous gentle agitation.

Store the blood and blood components as per table given below:

COMPONENT	STORAGE	SHELF LIFE
WHOLE BLOOD	2-6°C	35 DAYS
RED CELLS WITH ADDITIVE SOLUTIONS	2-6°C	42 DAYS
FRESH FROZEN PLASMA	-30°C	1 YEAR
PLATELET CONCENTRATE/ SINGLE DONOR PLATELET	22-24°C	5 DAYS
CRYOPRECIPITATE	-30°C	. 1 YEAR
CRYO POOR PLASMA	-30°C	5 YEAR

REFERENCES:

1. Standard Operating Procedure of Gujarat State Council for Blood Transfusion.
2. Standards for Blood bank and Blood Transfusion Services By NACO
3. Standards on Blood bank and Transfusion Services By NABH
4. Transfusion Medicine – Technical Manual, 2nd edition, 2003, Ministry of Health & Family Welfare, Government of India

AIIMS RAJKOT	SECTION	BLOOD STORAGE UNIT	SOP NO.	AIIMSRJKT/BB/08
			PAGE NO.	Page 1 of 1
	SUBJECT	PROCEDURE FOR ISSUE OF BLOOD	EFF.DATE	14/11/2023
			REVIEW PERIOD	02 YRS

RESPONSIBILITY : Technicians/BTO/Residents.

PROCEDURE:

1. Check patient's name, ward, unit, indoor reg. no., blood bag no. and blood group testing on bag & demand form – it should be the same.

2. Check date of tapping and expiry date on the blood bag.

3. Check the bag visibly for clots or haemolysis or gas formation. For haemolysis, check the colour of blood in bag and pilot tubes attached to the bag.

4. Check ABO & Rh again from the tube attached with the bag & sealed separately.

5. Apply label, enter in issue register & delete from stock after reconfirming status of crossmatch and serology of the bag.

6. Do not take back a bag once it has been issued. In exceptional cases (death, signature of H.O.D.) , bag may be taken back upto 1/2 hour from the time of issue provided written request is made by Class I Doctor.

REFERENCES: WHO technical manual of transfusion medicine, SOP guideline GSACS

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AIIMS RAJKOT	SECTION	BLOOD STORAGE UNIT	SOP NO.	AIIMSRJKT/BB/09
			PAGE NO.	Page 1 of 2
	SUBJECT	RECORDING OF BLOOD TRANSFUSION REACTION	EFF.DATE	14/11/2023
			REVIEW PERIOD	02 YRS

RESPONSIBILITY : Resident ,BTO

PROCEDURE :

Ask for the following from clinician :

1. Completely filled B.T. reaction form
2. B.T. form
3. Blood Bag & Transfusion Set
4. Pt.'s samples – a) EDTA – For BGRh, CM, DCT
   b) 4 serum – 1 for BGRh & CM
   3 for S. Urea, Creatinine, Bilirubin
   c) Urine – for R/M, haemoglobinuria, BS/BP, Urobilinogen

Tests to be done in Blood Bank & signed by Dr. :

1. Enter details of pt. in BG
2. Reperform BGRh from old Pt. samples by another Dr.
3. Perform BGRh from new sample
4. Perform DCT with new sample

Samples to be sent elsewhere :

1. To CCL – Urine for R/M, haemolysis, BS/BP, Urobilinogen
2. To Biochem – Serum for Urea, Creat., Bilirubin
3. To Micro – Blood Bag & Transfusion Set for Culture

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- When all results have been received, enter in register & file all papers in B.T. Rn. file duly signed by Dr. & BTO.
- Note time of receiving B.T. reaction form & various samples. If a particular sample has not been received or result of Bio/Micro/CCL is not received, mention with reason why.
- Send 1 copy of B.T. reaction test details to the clinician concerned.

REFERENCES: WHO technical manual of transfusion medicine, SOP guideline GSACS

AIIMS RAJKOT	SECTION	BLOOD STORAGE UNIT	SOP NO.	AIIMSRJKT/BB/10
			PAGE NO.	Page 1 of 2
	SUBJECT	BLOOD BANK REFRIGERATOR	EFF.DATE	14/11/2023
			REVIEW PERIOD	02 YRS

RESPOSSIBILITY: RESIDENTS, BBO

OBJECTIVE: TO MAINTAIN REFRIGERATOR TEMPERATURE

PROCEDURE:

- The refrigerator must be positioned in a room with good ventilation allowing space for the outward flowing air to escape.
- Avoid positioning in direct sunlight or near cookers, radiators and similar sources of heat.
- Floor should be horizontal & level.
- Clearance between ceiling and top of cabinet & at the rear as mentioned in the installation guide should be fulfilled to allow adequate ventilation.
- The appliance must be earthed.
- The equipment should be kept dust free.
- The blood bags should be kept in the drawer upright with enough space between them allowing proper air circulation.
- The bags should be arranged number wise and group wise in the drawers.
- The door should be closed properly every time a bag is placed in it or removed from it for issue.
- The equipment is preset to operate within a particular range of temperature. e.g. JEWETT refrigerator $+2^0$C to $+4^0$C.
- The digital temperature power monitor is designed to display temperature and to warn of temperature & power supply failure.
- If an improper temperature occurs, the audible signal will sound, the green safe LED will do off and the red high or low LED will light.
- Temperature is also recorded on the temperature chart recorder. As the pen ink supply depletes, the pen color will become lighter. This indicates that the pen should be replaced.

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- Periodic cleaning of the interior and exterior with water and a good fungicidal detergent that eliminates harmful bacteria, stain & other foreign matter must be done.
- Drawers should be removed and thoroughly scrubbed.
- Clean door gasket periodically.
- No manual defrosting is required.
- With vacuum cleaner / brush. Avoid use of aggressive or corrosive products, abrasive powder, steel wool, abrasive sponges or chemical solvents.

REFERENCES: WHO technical manual of transfusion medicine, SOP guideline GSACS

AIIMS RAJKOT	SECTION	BLOOD STORAGE UNIT	SOP NO.	AIIMSRJKT/BB/11
			PAGE NO.	Page 1 of 1
	SUBJECT	TROUBLESHOOTING FOR BLOOD BAG REFRIGERATOR	EFF.DATE	14/11/2023
			REVIEW PERIOD	02 YRS

RESPONSBILITY: Resident, Technician

PROCEDURE:

S.NO.	*SYMPTOMS / PROBLEMS*	*POSSIBLE CORRECTIVE STEPS*
1.	If Blood Bank Refrigerator is not switched on.	• Check the main A.C. line • Check the plug
2.	If Stabilizer / Transformer not working	• Check the stabilizer / transformer • Replace the stabilizer / transformer with another stabilizer used for air conditioner / other refrigerator (2 KVA or more capacity)
3.	If Compressor not started, hums but trips on thermal overload	• Switch off the main line, star after sometime / 15 minutes. • Correct stabilizer voltage output 220V ± 9%
4.	If Unit is not working	• Check in the temp. control unit, transformer defective. • Call service engineer.
5.	If Door is not closing properly	• Adjustment of hinge screws required • Call service engineer.
6.	If Lock of Door is not working properly	• Adjustment of lock required. • Call service engineer.
7.	If Mist come in the Glass	• Call service engineer.
8.	If Ice accumulates in the Drain Pan	• Call service engineer.
9.	If Light system is not working	• Replace fluorescent tube. • Call service engineer.
10.	If Temperature is not being displayed properly	• Check glycerin water ratio i.e. 2/3rd of the bottle & sensor should be properly dipped.
11.	If Temperature < 2^0C or > 6^0C	• Call service engineer.
12.	If Recorder is not working	• Replace battery.
13.	If Recorder Pen is not moving – No. 1 & 2 points are not working or pen is not moving	• (RTD probe requires replacement) Call service engineer.
14.	If Chart is not moving	• May tighten the nut or use genuine chart paper.
15.	If Pen is not writing / marking	• Replace the pin point with new one.
16.	If Recorder Light flash	• Replace battery.
17.	If D.T.P.M. does not display	• Replace battery. • Call service engineer.
18.	If Light indication display of D.T.P.M. missing	• Replace battery.

REFERENCES: WHO technical manual of transfusion medicine, SOP guideline GSACS

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AIIMS RAJKOT	**SECTION**	**BLOOD STORAGE UNIT**	**SOP NO.**	**AIIMSRJKT/BB/12**
			PAGE NO.	**Page 1 of 1**
	SUBJECT	**PROCEDURE FOR DISCARD OF BLOOD BAG (BIOMEDICAL WASTE)**	**EFF.DATE**	**14/11/2023**
			REVIEW PERIOD	**02 YRS**

RESPONSIBILITY

It is the responsibility of the Lab attendant to autoclave the blood units and other infectious material under the supervision of Technical supervisor /Nursing staff.

Method

- Record the particulars of the bag in the register e.g. Donor's number, Date of collection, Expiry, Screening Report, reason for disposal.
- Keep the bag in vertical position (standing) in polybags
- Follow universal precautions while handling the Blood Bags.
- Autoclave the container with bags at 121ºC &15 Lbs for 20 minutes.
- After autoclaving, handover the container with bag as such to the authorized person and take his signature as per hospital policies for for disposal as per the BMW guidelines
- Maintain the entries in the register.

Note: All sharps should be disposed in sharp containers, autoclaved and send to authorized personnel from Biomedical Waste Department for central disposal.

REFERENCES

- Transfusion medicine Technical manuals, DGHS, 2nd edition.
- Biomedical Waster (Management and handling) rules 1998, Ministry of environment & Forest Notification

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