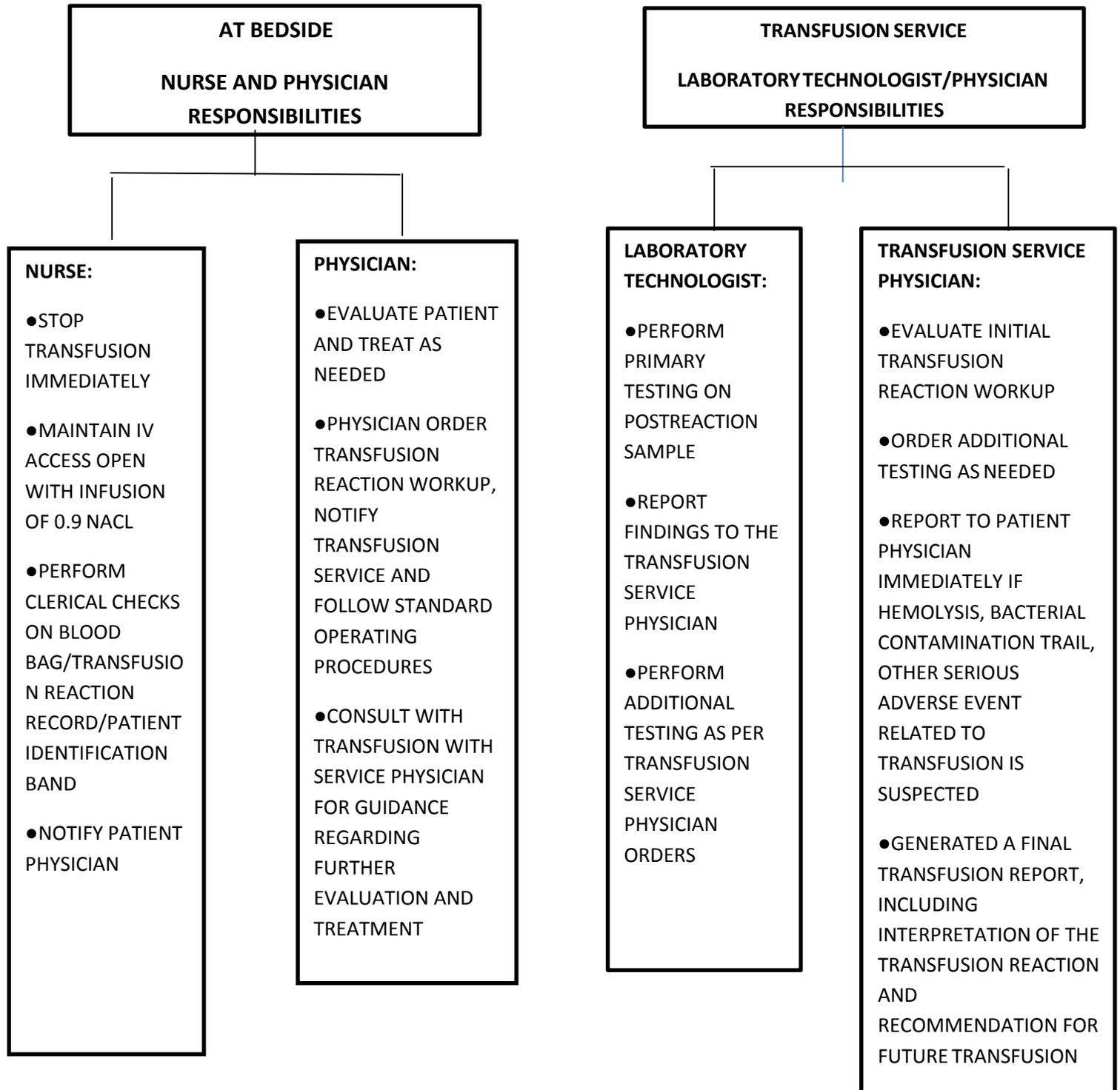




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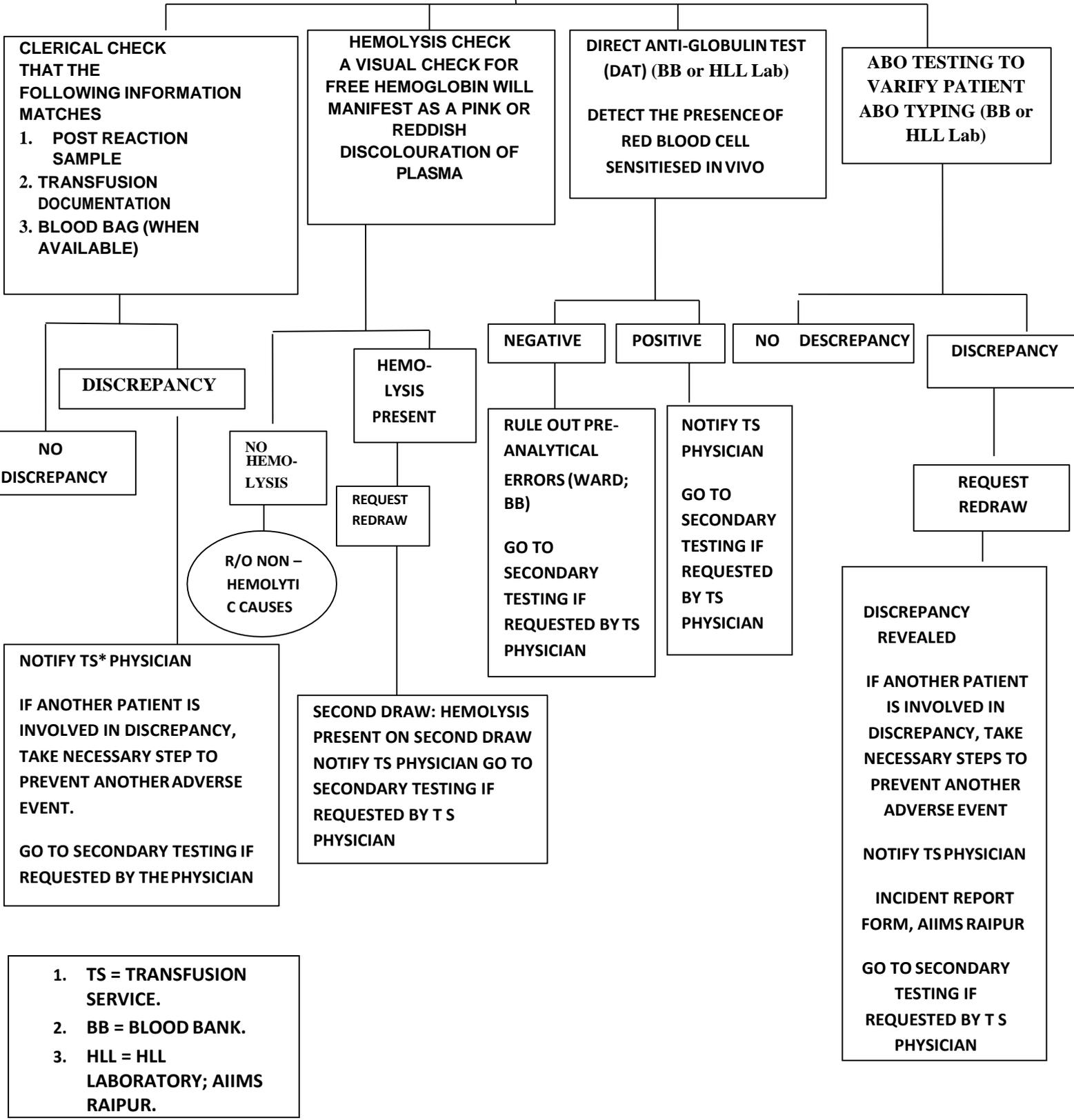
DEPARTMENT OF TRANSFUSION MEDICINE AND BLOOD BANK





**DEPARTMENT OF TRANSFUSION MEDICINE & BLOOD BANK**

**BASIC TESTING POST TRANSFUSION REACTION SAMPLE**

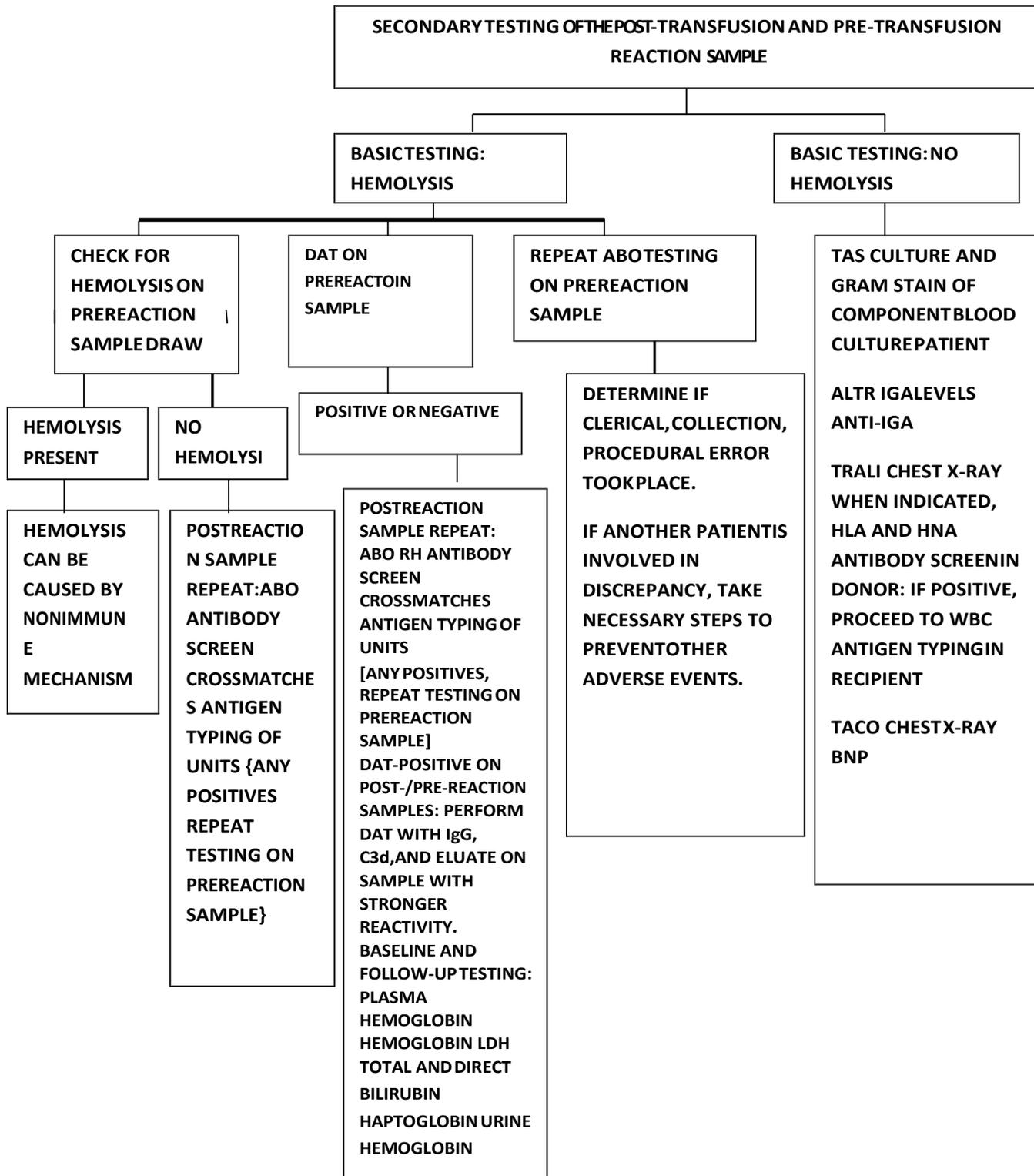


- 1. TS = TRANSFUSION SERVICE.
- 2. BB = BLOOD BANK.
- 3. HLL = HLL LABORATORY; AIIMS RAIPUR.



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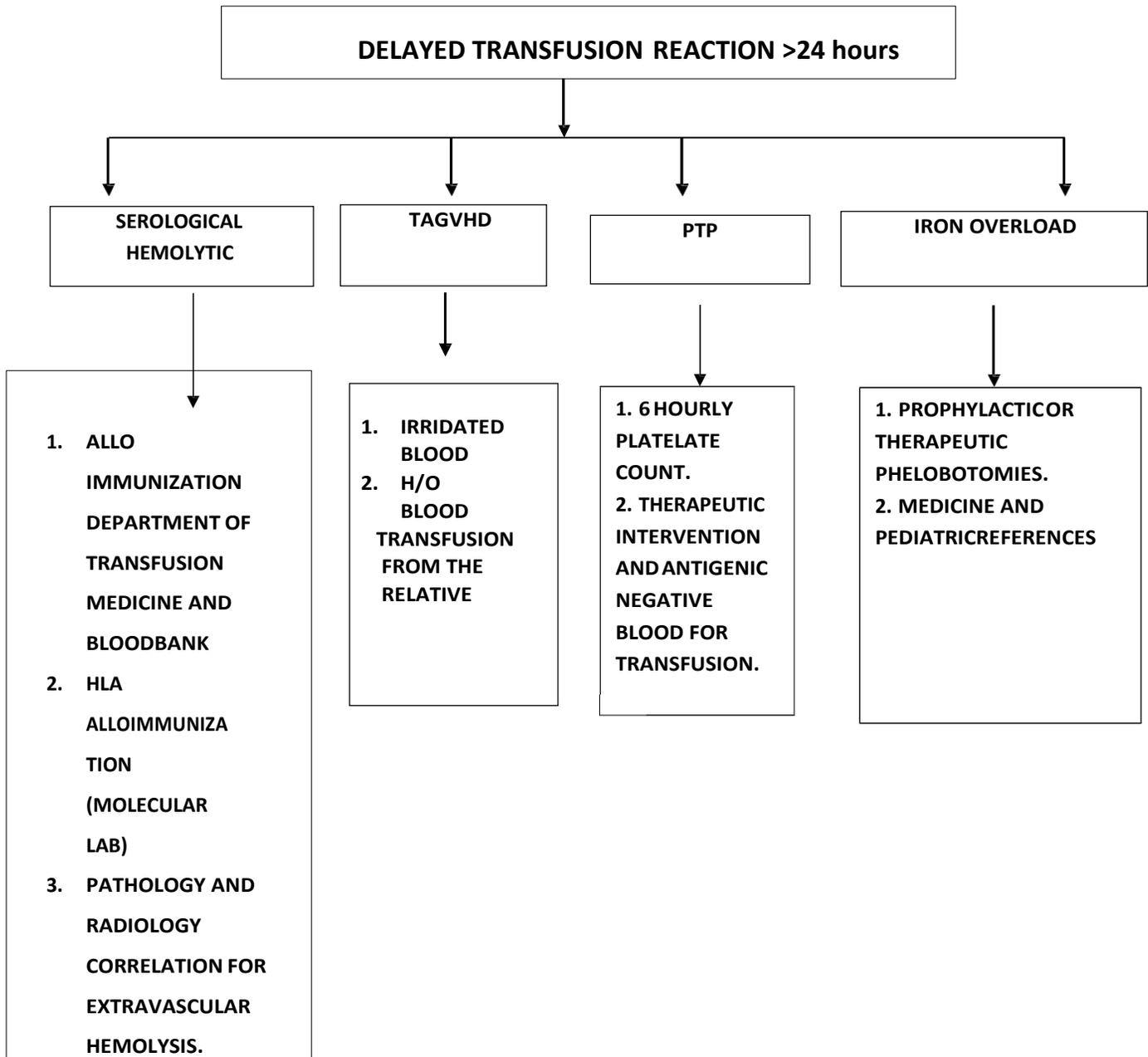
**BASIC TESTING: NO HEMOLYSIS**

- TAS CULTURE AND GRAM STAIN OF COMPONENT BLOOD CULTURE PATIENT
- ALTR IGA LEVELS ANTI-IGA
- TRALI CHEST X-RAY WHEN INDICATED, HLA AND HNA ANTIBODY SCREEN IN DONOR: IF POSITIVE, PROCEED TO WBC ANTIGEN TYPING IN RECIPIENT
- TACO CHEST X-RAY BNP



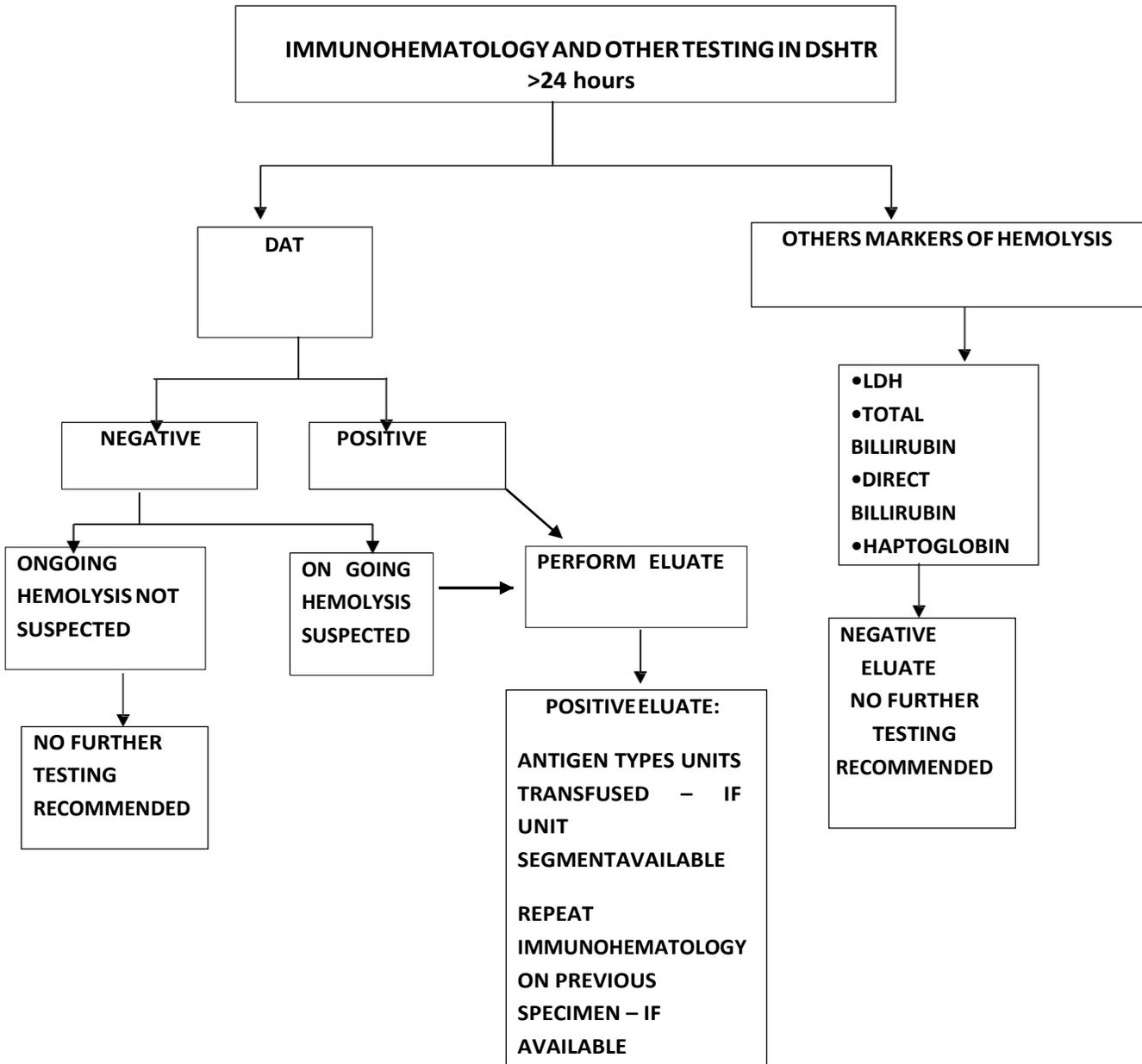
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## **REPORTING WITHIN THE HOSPITAL**

**A periodic review by the Hospital Transfusion Committee for implementation and relevance is required for the following reasons.**

- **Assess the appropriateness of management and investigations.**
- **Plan management for the future transfusions of patients**
- **Ensures the suspected reactions has been reported to the blood center which subsequently report such incidents to the hemovigilance programme of India.**
- **Review the appropriateness of the transfusion.**
- **Identify practice concerns, lessons to be learnt any training requirements.**
- **Identify and monitor trends.**
- **\*Transfusion reaction happening due to blood procured from outside source has to be reported to the respective parent blood bank. The Blood Center of AIIMS Raipur; does not have any accountability for blood storage from the outside sources in its premises because the testing and pre-analytical variables are not under the control of the blood bank officials. Blood center at AIIMS Raipur discourages any blood brought from outside blood banks to be used on the hospital admissions.**

## **SYNOPSIS**

### **SYMPTOMS**

Fever ( $\geq 2^{\circ}\text{C}$  rise or  $\geq 39^{\circ}\text{C}$ ) and/or chills, rigors myalgia, nausea, or vomiting and/or loin pain

Mucosal swelling (angio-edema)

Dyspnoea, wheeze, or features of Anaphylaxis

Hypotension (isolated fall systolic of  $\geq 30$  mm resulting in level  $\leq 80$  mm)

### **INVESTIGATIONS**

Take samples for repeat compatibility testing, DAT, LDH and haptoglobin

Take blood cultures from patients Coagulation screen

Do not discard implicated unit if febrile reaction is sustained, return unit to the laboratory, repeat serological investigation (compatibility testing, antibody screen and DAT), haptoglobin and culture unit.

Standard investigations

Measure IgA level (EDTA sample) if  $< 0.07\text{g/l}$ , and no generalized hypogammaglobulinaemia, perform confirmatory test with sensitive method and check for IgA antibodies

Standard investigations

Check oxygen saturation or blood gases  
Chest x-ray (mandatory if symptoms severe)

If severe or moderate allergy suspected measure IgA level.

If allergy anaphylaxis suspected, consider measurement of serial mast cell tryptase (plain tube) (immediate, 3 hr. and 24 hr.)

If allergy suspected measures IgA level.  
If severe allergy /anaphylaxis consider measurement of serial mast cell tryptase as above Investigate for fever and underlying etiology if clinically relevant.

**DAT , Direct Antiglobulin test; Ig Immunoglobulin; LDH, lactate dehydrogenase .standard investigations; full blood count, renal and liver function test and assessment of urine for hemoglobin.**

### ACRONYMS

<b>TRALI</b>	<b>TRANSFUSION RELATED ACUTE LUNG INJURY</b>
<b>AHTR</b>	<b>ACUTE HEMOLYTIC TRANSFUSION REACTION</b>
<b>TAS</b>	<b>TRANSFUSION ASSOCIATED SEPSIS</b>
<b>FNHTR</b>	<b>FEBRILE NON HEMOLYTIC TRANSFUSION REACTION</b>
<b>TACO</b>	<b>TRANSFUSION ASSOCIATED CIRCULATORY OVERLOAD</b>
<b>TAGVHD</b>	<b>TRANSFUSION ASSOCIATED GRAFT VERSUS HOST DISEASE</b>
<b>PTP</b>	<b>POST TRANSFUSION PURPURA</b>
<b>DAT</b>	<b>DIRECT ANTIGLOBULIN TEST</b>
<b>LDH</b>	<b>LACTIC DEHYDROGENASE</b>
<b>ALTR</b>	<b>ALLERGIC TRANSFUSION REACTION</b>
<b>HNA</b>	<b>HUMAN NUTOPHIL ANTIGENS</b>
<b>BNP</b>	<b>B TYPE NATRIURETIC PEPTIDE</b>
<b>C3D</b>	<b>COMPLIMENT FRAGMENT 3D</b>
<b>HLA</b>	<b>HUMAN LEUCOCYTE ANTIGENS</b>
<b>WBC</b>	<b>WHITE BLOOD CELL</b>
<b>DHTR</b>	<b>DELAYED SEROLOGIC/HEMOLYTIC TRANSFUSION REACTION</b>