

Blood Collection Techniques and Specimen Handling

Experiment 2 - Practical Notes

Name: _____ Roll no.: _____ Date: _____

Aim

To identify safe blood-collection workflows and their pre-analytical controls.

Principle

Patient identification, correct tube choice, aseptic technique, specimen quality and timely labelling determine whether a blood-test result is reliable.

Key Points

- Venous, capillary and arterial collection have different indications and skill requirements.
- The ordered test determines tube and anticoagulant; serum and plasma are different materials.
- Identity is verified using the institution's required identifiers before collection.
- Use a trainer or supervised demonstration; arterial puncture is a specialist activity.

Activity Procedure

1. Prepare

Review the request, explain the procedure, obtain required consent and identify the person or mannequin.

2. Select equipment

Choose the ordered tube and collection device; check expiry and prepare sharps disposal.

3. Observe collection

On the trainer, demonstrate hand hygiene, site preparation and the institution-approved collection sequence.

4. Handle correctly

Apply pressure as appropriate; place sharps directly in the designated container without recapping.

5. Label and transfer

Label beside the person according to protocol; document time and test, inspect specimen quality and transport as ordered.

Human Anatomy and Physiology

Record and Observations

Check	Activity record
Identity / request	_____
Method / tube / additive	_____
Asepsis / sharps handling	_____
Label / collection time	_____
Haemolysis / clot / transport check	_____

Result

The collection workflow was demonstrated on _____. Identity, tube, asepsis, label and transport checks were _____.

Precautions

- Invasive collection is performed only by trained personnel under the institution's supervision.
- Use simulated material for the student exercise where appropriate.
- Follow local exposure and specimen-disposal protocols.

Viva Questions and Answers

1. How does plasma differ from serum?

Plasma is obtained from anticoagulated blood and contains clotting proteins; serum is separated after clotting.

2. Why label at collection?

Delayed labelling increases the risk of misidentification.

3. Why can haemolysis matter?

Cell contents can alter some measured analytes and invalidate interpretation.

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