ALIQUOTING SPECIMENS

Purpose

To give general guidance to laboratory personnel on processing and aliquoting blood specimens. This will ensure that there is continuity and consistency when processing and aliquoting blood samples.

Policy

- All inserts, cups, or secondary containers must be properly labeled with the patient's name and medical record number.
- Pipette must be used instead of pouring when aliquoting blood or CSF sample.
- Do not pipette or pour the aliquoted sample back into the primary tube.
- Aliquoted sample must be capped tightly or parafilmed for transport or storage to avoid any leakage or spillage.
- Aliquot one patient sample at a time to prevent cross contamination and/or patient labelling error.
- The processing staff must initial the label(s) on all secondary containers upon completion of aliquoting.

Workplace Safety

All laboratory employees are expected to maintain a safe working environment and an injury-free workplace. Laboratory employees are responsible for their work safety, the safety of others and adhering to all departmental and medical center safety policies and procedures.

Sample

Whole blood
Urine
CSF

Definitions

- Aliquoting – a small portion of a specimen sample is taken out of the primary container into a secondary container or the removal of serum/plasma from the whole blood product.
    - Any laboratory test(s) that require pre-analytical processing of separating serum/plasma from the blood cells prior to testing (i.e. HIV-1 RNA Viral Load by Real Time-PCR).
    - Any short sample specimen that requires the transfer of serum/plasma from a primary tube to secondary container for testing.
    - Any CSF or urine that requires the transfer of the specimen sample from the primary container to a secondary container for testing.

ALIQUOTING SPECIMENS

Procedure **Aliquoting During Pre-Analytical Specimen Processing**

Step	Action
1	Centrifuge blood specimens according to current policy and procedures.
2	Remove the spun blood specimens from the centrifuge and place into a storage rack.
3	Ensure the secondary collection tubes (i.e. polypropylene tube) for the serum plasma are properly labeled (patient's name, medical record number, accession number, collection date/time, etc.). **Note:** Aliquot one patient sample at a time to prevent cross contamination and/or patient labeling error.
4	Carefully uncap the spun blood specimen to be aliquoted.
5	Pipette out the serum/plasma from the blood cells by squeezing the pipette bulb together at the top. This will enable a suction effect and will avoid any air bubbles in the serum/plasma.
6	Dispense the serum/plasma into the secondary labeled collection tube (i.e. polypropylene tube)
7	Ensure the secondary tube (i.e. polypropylene tube) is properly and tightly capped to avoid any leakage or spillage.
8	Discard the used pipette and the primary blood specimen tube (if applicable) into the appropriate biohazardous waste container.
9	Process the aliquoted serum/plasma (i.e. pack track, refrigerate, etc.) according to established protocols or workflows.

ALIQUOTING SPECIMENS

Procedure

Aliquoting During Specimen Testing

Step	Action
1	Ensure the secondary collection tube for the serum/plasma, CSF, or urine is properly labeled (patient's name, medical record number, accession number, collection dates/time, etc.) **Note:** Aliquot one patient sample at a time to prevent cross contamination and/or patient labeling error.
2	Carefully uncap or unscrew the specimen to be aliquoted.
3	Pipette out the serum/plasma or CSF by squeezing the pipette bulb together at the top. This will enable a suction effect and will avoid air bubbles in the serum/plasma or CSF. **Note:** Urine sample may be aliquoted by pouring into the secondary labeled collection tube.
4	Dispense the serum/plasma, CSF, or urine into the secondary labeled collection tube.
5	Discard the used pipette into the appropriate biohazardous waste container.
6	Load the aliquoted sample onto the analyzer for testing according to established protocol.
7	If applicable, cap or parafilm the aliquoted sample for specimen retention along with the primary tube or container. **Note:** Never pipette or pour the aliquoted sample back into the primary tube.

References

College of American Pathologists Checklist, Northfield, Illinois 60093-2750