19-Pre-analytic Procedures

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ANNUAL REVIEW:

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SUPERSEDES: Procedure titled _____

Purpose

This SOP serves to describe the Policy and Procedures for Pre analytical services performed by the lab.

Scope

This SOP applies to all laboratory personnel

Abbreviations

SOP- Standard Operating Procedure
PPE-personal protective equipment

Health and Safety

Be sure to wear appropriate PPE when collecting and handling samples.

Policy

To maintain an orderly system of intake and ensure the quality of results, all specimens brought into the lab will be accessioned. Specimen collection will be accomplished using appropriate techniques.

Procedure

Specimen Collection

1. Specimen Labelling: All specimens are labelled at time of draw with:

a. Last Name, First Name or First Name, Last Name

b. Date of Birth.

c. Date Collected and Time

d. Any special information, like time and dose for therapeutic drug monitoring, and site of sample collection, etc

In the event a sample is received with a label that is incorrect, the following actions must be applied:

1. Investigate.

2. Document in our Nonconforming Events Report.

3. Contact Ordering Practitioners Office.

4. Correct and update the Nonconforming Events Report if required.

5. Run, cancel, or request a redraw, it will depend on the findings of an investigation. Due to the nature of the testing, these samples are irreplaceable. Every reasonable attempt is made to avoid a redraw. There are instances when a redraw cannot be avoided. Should there be any doubt about the integrity of the sample, cancellation and a redraw is always the best course of action.

Specimen Collection, Specimen Integrity

1. Appropriate collection tools/devices/ containers, order of draw
2. Adequate specimen volume
3. Homolysis due to collection technique
4. Clotting due to inappropriate mixing
5. Date and time of specimen collection

Specimen Container Identification

- Bar coded specimen container label is ideal
- Label the specimen container – NOT lid
  - Patient name and second identifier
  - Date and time of collection
  - Identity of collector
  - Beware re-labelling
  - Label all aliquots with two identifiers
  - Destroy all unused labels
  - Label applied at time of collection in presence of patient

  Container should NEVER EVER be pre-labelled!

Specimen Handling Conditions

After collection, samples are to be handled as per the recommendation provided by the testing laboratory, e.g centrifuge or not for plasma or serum, room temperature, refrigerated, frozen during transportation and storage.

After Specimen Collection
- Accessioning of specimen
- Clotting completion
- Centrifugation
- Labelling of aliquots
- Specimen transportation
- Storage of specimen and aliquots

Sample Transport

1. Specimens may be hand delivered by staff where available AND approved by the laboratory.

2. All samples must be transported in the biohazard labelled specimen bag pouches.

3. All samples are considered infectious and should be treated as such.

4. Staff in the clinic areas (If accessioning):

a. Ensure that accession labels are attached to the specimens.

b. Extra labels (if needed) must be placed in the specimen bag pouch.

Courier Transport:

a. Courier service is utilized for specimen transport from Satellite clinical areas.

b. Pickups are made according to a schedule as well as on demand.

c. Date and time log entries are completed by staff members at pick-up locations and at final drop-off points.

d. The Laboratory Spill Response Procedure is followed for any spills occurring during transit.

Sample Request Form

1. A written or electronic test request form must accompany the sample.

2. The test request form must state the following:

a. Patient: Last Name, First Name

b. Patient: Date of Birth

c. Patient: Sex

d. Tests Requested

e. Date of collection

f. Date test was ordered

g. Physician ordering test

h. Physician address

i. Physician signature

3. Any changes or additions will require a new request form.

4. The physician’s signature is the mechanism in which the laboratory ensures that specimens are analyzed only at the request of the authorized person.

5. Unclear test requests are clarified.

sample rejection criteria

- Unlabeled or mislabeled samples (at least 2 unique identifiers required), e.g. patient's name, medical record number, or date of birth.
- Duplicate samples. Most duplicate samples received on the same day are unacceptable and should not be processed
- Collected on wrong anticoagulant or blood/anticoagulant ratio
- Leaky containers
- Contaminated samples
- Wrong container or sample
- Inappropriate sample sources
- Insufficient, clotted, hemolyzed, lipaemic, or icteric.
- Too old, or have exceeded their stability time, which can vary by test. ...
- Delayed transport time and sample processing.

No sample to be rejected without consultation with Lab Director/Supervisor

Accessioning

1. Gather samples to be accessioned (this is the “batch”)

a. Ensure all the collection dates are the same within batches

2. Open CliniSys and navigate to:

REQUISITIONS

then

REQUEST ENTRY FROM REMOTE ORDERS

3. Enter the batch collection and entry dates

4. Scan the barcode on the top right of the requisition OR enter the 10 digit code associated w/ the requisition.

5. Double check all patient information

6. Hit “OK”

7. Correct collection time as necessary

8. Double check tests

9. Hit “OK”

10. Hit F4 to distribute the ICD codes

11. Hit “OK”

12. Hit “OK” again

13. Print 1 label for each tube you received and 1 label for each piece of paper associated with the requisition (it’s usually only one, but can be more).

14. Place labels on tubes and requisition

15. Place tubes in rack to be sent out or run in house

16. Put requisition in the basket to be scanned and stored.

Modify a Requisition

1. Navigate to “Requisitions”

2. Select “Modify Existing Requisition”

3. Enter the Accession # or Patient Information of the requisition you wish to modify.

4. Select “Label” at the bottom of the screen

5. Reprint labels

Specimen Processing-Centrifugation

- The recommended centrifuge time is 15 minutes at approximately 3000-3500 rpms in a fixed angle centrifuge or 10 minutes at approximately 2700-3100 rpms in a swing bucket centrifuge.

- The centrifuge must be properly balanced. This is to prevent excessive vibration and potential breakage of the specimen tube.

o Important to monitor this for gel tubes
• Do not re-centrifuge gel tubes (causes elevated K)
• Post centrifugation check - all identification labels

- **Specimen Storage**
  Follow procedures for storage time and temperature(s)

- Follow manufacturer instruction which indicate different temperatures for different lengths of storage i.e. room temperature, how many hours or days refrigerated and days if frozen
  Different analytes in specimen might have different storage temperatures and lengths of storage, this will play role for possible future add on request

References

CAP all common checklist 2023
COLA accreditation manual 2022