This document applies to all Department of Pathology and Laboratory Medicine (DPLM) employees at all locations and all personnel submitting specimens for testing to the DPLM.

Responsibility

1. Staff members are responsible for reading, understanding and complying with this document.
2. The Laboratory Administrative Director and/or Manager is responsible for notifying staff of any changes to this document.
3. The Administrative Director and/or Laboratory Manager is responsible for annual review.
4. The Administrative Director is responsible for Initial Approval and all Revisions.

Initial and Annual Review without Revisions

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1 Policy

Specimens may be rejected for analysis if they arrive in the laboratory under conditions other than those specified at the CMH website under Pathology and Laboratory Medicine or in the Laboratory Manual.

Contact the laboratory for information on tests not found in these sources or with any questions. The main laboratory number is (816) 234-3230.

2 Rejection Criteria

Criteria for rejection include, but are not limited to: unlabeled or mislabeled specimens, quantity insufficient for analysis, lipemic specimens, icteric specimens, hemolyzed specimens, clotted specimens from tubes with anticoagulant, improper collection tube or anticoagulant, specimens contaminated with IV fluids, excessive time from draw to receipt in laboratory, specimens which have leaked in transit or toxicology chain of custody specimens where there has been a breach of the chain of custody.

2.1 Mislabeled or Unlabeled

Specimens must be properly identified and labeled. See the Specimen Labeling policy (ADMN400PY). Specimens will be rejected if labeling does not meet the minimum requirements.

2.2 Quantity Not Sufficient (QNS)

2.2.1 Volume

Occasionally, specimen volume may not be sufficient to perform the requested tests. In those cases, the submitting location will be notified and requested to obtain more specimen. When multiple tests have been ordered and the volume is sufficient for some testing but not all, the ordering physician will be contacted to select and prioritize the testing to be completed.

2.2.2 Anticoagulant mix

Vacutainer tubes with anticoagulant have minimum volume requirements to maintain correct blood to anticoagulant ratios.

- Coagulation testing: the vacuum of the citrate tube will draw the correct volume. The vacuum must be allowed to fill the tube. Tube volumes are as follows: 1.8 or 2.7 mL depending on respective tube used.
- CBC or component thereof: less than 250 µL in an EDTA microtainer tube or less than 1.0 mL in an EDTA vacutainer tube may be rejected.
- Ionized calcium collected in sodium heparin: tube must be filled at least ½.

2.3 Lipemia

Grossly lipemic specimens will be rejected for testing in which lipemia interferes with testing. Examples include, but not limited to: Antithrombin III, D-dimer, all Heparin assays, von Willebrand’s Antigen, thyroid, CKMB, hCG quantitative, ferritin, HIV and hepatitis assays.
2.4 Hemolysis

Tests may be reported on hemolyzed specimens with a comment. The comment will notate the degree of hemolysis (slight, moderate or gross). Chemistry tests which are most affected by hemolysis are: bilirubin, iron, LDH, phosphorous, potassium and ammonia.

- Ammonia testing will not be completed on moderately or grossly hemolyzed samples.
- Bilirubin testing will not be completed on grossly hemolyzed samples from patients over 30 day’s of age.
- When grossly hemolyzed specimens are submitted for potassium analysis, the ordering unit/clinic will be contacted and given the option to have the results released or to recollect.
- CSF for protein will not be completed on moderately or grossly hemolyzed samples.

Antithrombin III, D-dimer, all Heparin assays and von Willebrand’s Antigen can not be performed from specimens which are moderate to grossly hemolyzed.

2.5 Icterus

Antithrombin III, D-dimer, all Heparin assays and von Willebrand’s Antigen can not be performed on grossly icteric samples.

2.6 Clotted Specimens

Clotted specimens will not be accepted for: CBC, coagulation testing, CSF protein, cyclosporine, ESR, tacrolimus, blood gases, erythrocyte protoporphyrins and lead.

Modified testing: clotted CSF or body fluids for cell counts; results will include the differential but not a cell count.

2.7 Analyte Stability

Analyte stability can affect some Chemistry and Hematology testing. This is a key consideration in requests for Add-on Testing.

- Testing can not be performed on specimens greater than 4 hours from collection for CRP, Bilirubin, LDH and CK, ESR, platelet reticulocyte, PFA and coagulation assays except PT.
- Specimens left un-spun greater than 4 hours from the time of collection can not be used for glucose testing.

2.8 Fecal specimens

Rejected specimens will include:

- Fecal specimens submitted on a swab for: chemical analysis, Giardia, Ova & Parasites, Rotavirus or WBC.
- Diaper submitted for Rotavirus.
- Fecal samples for Clostridium difficile from patients <1 year of age.
2.9 Microbiology

2.8.1 Unacceptable for culture:
- Dry swabs
- Foley catheter tips
- Samples not collected in the appropriate transport media for the test requested
- Samples submitted in formalin
- Unpreserved urine, sputum or tracheal aspirates held at room temperature for > 2 hours
- Unpreserved urine, sputum or tracheal aspirates held in the refrigerator > 24 hours
- More than one sample of urine, stool, sputum or wound submitted on the same day from the same source
- Stool samples on patients who have been hospitalized for more than 4 days
- 24 hour collection of urine or sputum for AFB or fungus

2.8.2 Sources unacceptable for anaerobic culture:
- Autopsy material
- Bronchial wash
- Cervix drainage
- Drain sites
- Feces
- Gastric washing (other than newborn)
- Midstream or catheterized urine
- Mouth
- Nose
- Prostatic secretions
- Sputum
- Swabs from ileostomy or colostomy
- Intestinal contents
- Throat
- Vaginal

2.8.3 Unacceptable for Parasitology exam
- Hanging drop for *Trichomonas vaginalis* that is > 1 hour old
- Stool for ova and parasite exam not received in preservative
- Stool for ova and parasite exam with excessive barium or oil noted

2.8.4 Unacceptable for Molecular Infectious Disease testing
- Tubes that leak during transit
- Clotted blood tubes
- CSF containing blood clots
- Urine with volume ≥ 30 mL
- CSF <50 μL.
  Samples volumes 50-200 μL will be run with a disclaimer that sample volume is not optimal.

3 Related Documents and References

3.1 ADMN400PY Specimen Labeling
4 Revisions

4.1 Document transferred to the new document management system 06/2004, as revision zero. Annual review was completed 06/2004.
4.2 Revision 1, effective 9/2005. Updated information to more specifically reflect procedures.
4.3 Revision 2, effective 9/2006. Added tacrolimus to Section 2.6.
4.4 Revision 3, effective 12/2008. Added Sections 2.7 & 2.8.4 and information in 2.4 relating to Hematology testing.
4.5 Revision 4, effective 10/2009. Updates to Sections 2.2 through 2.7 and 2.8.4.
4.6 Revision 5, effective 9/2010. Updated testing listed in Section 2.3.