Laboratory results are only as good as the collection technique performed and the appropriate preparation and transportation performed prior to testing. Incorrectly collected specimens with subsequent testing could mislead the physician and inappropriate treatment may be administered. Upon arrival in the laboratory, specimens are observed for acceptability by 2 entities. The specimen label is first observed for appropriateness of patient identification (see “Patient Identification”) and secondly, the specimen is observed for such things as age, hemolysis, clots, lipemia, and for quantity. If there are no deficiencies, the specimen is deemed suitable for testing and is processed into the testing laboratories. Occasionally, the laboratory will need to “salvage” a specimen that does not meet the normal criteria and these exceptions are defined below. Otherwise, for the safety of the patient, those specimens not meeting criteria are deemed “unsalvageable”, and the laboratory’s “Specimen Rejection” process will occur. The laboratory can provide labels with required patient data fields at one’s request.

Specimen Stability charts are provided to each client separately from this publication. As any updates occur, a new chart will be provided to the client.

Very Important: When client or outpatient specimens deemed suitable for testing in the pre-analytical areas reaches the technical areas and the laboratory results are very abnormal to imply an “unsalvageable specimen” or when the analyte results are near inconsistency with a conscious physical state or patient condition, the technologist must first call the client and/or physician to inform them of the results and request a second specimen to repeat testing. One must stress that the results are not being released as official verified results. If the client or physician requests that such a specimen be analyzed and results released, the manager or technologist must first consult a pathologist for approval and/or recommendations. If results are released, they will be footnoted as such on the patient’s report.

Criteria for all Departments

• Salvageable Specimens:
  —Labels
    • Handwritten labels with: minor spelling error—eg, 2 letter variances
    • Missing date and time of collection can be corrected by the collecting personnel
    • Missing identity of collecting personnel can be corrected
  —Specimens
    • Specimen received with absent or inadequate request form

• “Precious specimens” that cannot be easily recollected are as listed below:
  —CSF
  —Various body fluids and aspirates (excludes blood and urine)
  —Surgical specimens for Microbiological testing
  —Surgical specimens for Histology/ Cytology processing

• Unsalvageable Specimens:
  —Labels
    • Labeled specimens that do not contain the patient’s full name. Second identifiers are preferred on client specimens, but are not mandatory.
  —Specimens
    • See the following “Procedure for Unsalvageable Specimens for all Departments” for department specific criteria that defines unsalvageable specimens.

Procedure for Unsalvageable Specimens for all Departments

Specimens arriving in the laboratory can be received through the Client Services department, the Processing department, and individual laboratory departments. Documentation of what occurs is a critical requirement in each process. Specific rejection criteria by individual laboratory sections for unsalvageable specimens is as follows:

• Hematology
  —Specimens of insufficient quantity
  —Improperly collected timed specimens
  —Improperly preserved specimens
    • Citrate specimens for CBC
    • Heparin specimens for CBC
  —Grossly contaminated specimens.
    • Diluted specimens (IV fluids, tissue fluids)
    • Hemoconcentrated specimens (overfill of tubes)
  —Specimens aged beyond reliable time limits.
  —Specimens hemolyzed significantly
  —Specimens with interfering substances, such as, lipemic and/or cold agglutinins unless they can be successfully saline replaced.
  —CBC specimens containing platelet clumps or fibrin strands

• Unsalvageable Specimens:
  —Labels
    • Labeled specimens that do not contain the patient’s full name. Second identifiers are preferred on client specimens, but are not mandatory.
  —Specimens
    • See the following “Procedure for Unsalvageable Specimens for all Departments” for department specific criteria that defines unsalvageable specimens.
—Clotted specimens
—Specimens not meeting stability chart

• Coagulation
  —Specimens of insufficient quantity
  —Clotted specimens
  —Improperly collected timed specimens
  —Improperly preserved specimens
  —Grossly contaminated specimens
  —Specimens aged beyond reliable time limits
  —Red-top tubes or gold-top tubes
  —Grossly hemolyzed specimens for D-dimer.
  Hemolyzed specimens for all other coagulation tests.
  —Lipemic specimens for antithrombin III (AT III), Heparin Anti-Xa, and D-dimer.
  —Icteric specimens

• Serology
  —Specimens of insufficient quantity
  —Improperly collected timed specimens
  —Grossly contaminated specimens
    • Diluted specimens (IV fluids, tissue fluids)
    • Hemoconcentrated specimens (overfill of tube)
  —Specimens aged beyond reliable time limits
  —Specimens hemolyzed significantly
  —Specimens not meeting stability chart.

• Urinalysis
  —Specimens of insufficient quantity
  —Improperly collected timed specimens
  —Improperly preserved specimens
    • Unrefrigerated specimens. Specimens should be refrigerated if not tested within 2 hours after collection.
  —Grossly contaminated specimens
    • Fecal Contamination
    • Radiological residuals
  —Specimens aged beyond reliable time limits
  —Specimens not meeting stability chart

• Microbiology
  —ALL SPECIMENS MUST BE PROPERLY LABELED OR THEY WILL NOT BE PROCESSED. Labeling should be done at the time and place collected, immediately by the person collecting the specimen. Collector is responsible for verifying patient identification. This labeling is necessary on all types of specimens including slides, culture specimens, tissue, tubes, etc. Labels should be permanently affixed to the specimen containers and they should contain the following information:
    • Full name of patient
    • Identification number (if available)
    • Body source of specimen (when appropriate)
    • Date, time collected and initials of collector

—Unsalvageable Specimens
  • Specimens of insufficient quantity for testing
  • Improperly collected timed specimens or duplicate specimens on same day. Multiple urine, sputum or stool specimens on the same day from the same source will not all be processed. One specimen will be processed and person collecting specimens will be requested to collect no more than 1 stool or urine specimen for the same test each day. Additional specimens from same source collected same day will be processed only if extenuating circumstances exist or if physician specifically requests.
  • Improperly preserved specimens. Material received in fixative (eg, formalin or alcohol) and requested for culture will be rejected. Person responsible for collection will be notified to recollect specimen without fixative.
  • Specimens aged beyond reliable time limits. Specimens for culture must be brought to the laboratory immediately after collection or proper preservative must be used to prevent specimen from deteriorating. Urines may be refrigerated or use BD VACUTAINER® urine preservative. Unpreserved urine specimens received more than 2 hours after collection should be re-collected, if possible. Stool specimens should be submitted in ECOFIX™ or Para-Pak® preservative. If the specimen cannot be re-collected, a comment will be made in the report that a sub optimal specimen was cultured and may affect results due to faulty collection and/or transportation.
  • Improperly collected specimens. All specimens are to be properly collected according to specimen collection procedures outlined in the Nursing Laboratory Manual. Hemolyzed, contaminated, partially spilled, broken, or inadequate specimens will be rejected. Specimens for cultures must be sent to laboratory in sterile containers.
• Anaerobic specimens are not appropriate on
the following specimens and should be
rejected after discussion with physician:
  — Sputum
  — Midstream urine
  — Vaginal secretions
  — Prostatic secretions
  — Feces
  — Environmental materials
  — Gastric washings
  — Throat material
  — Nose material
  — Skin material
  — Mouth material
  — Swab material not submitted under
    anaerobic conditions.

• Predominantly esopharyngeal specimens for
  sputum culture (are determined by more than
  25 squamous epithelial cells per low power
  field on gram stain) will be rejected.
  Physician will be notified of quality of
  sputum by note on the chart suggesting
  recollection. Specimen will be retained in
  laboratory for 24 hours and may be processed
  on specific request of physician.

• Material from anus or rectum requested for
  gram stain for gonococci will be rejected.
  Culture may be processed.

• Dry swabs for culture will be rejected. Person
  responsible for collection will be notified to
  recollect specimen.

• Results of Foley catheter tip cultures have not
  been shown to correlate with the presence of
  urinary tract infections, therefore, requests for
  culture of these specimens should be rejected.
  Person responsible for collection will be notified
  and requested to send a urine specimen instead.
  Foley catheter tips will be held in Thio Broth
  until further notification by physician.

• Twenty-four hour sputum or urine collections
  for TB or fungus will be rejected and instead,
  3 single voided urine specimens or 3
  consecutive, early-morning sputum
  specimens will be requested.

• Stool specimens for ova, cysts, and parasites
  containing excess barium or oil will be
  rejected. Person responsible for collection
  will be notified to recollect specimen.

• Cultures of decubitus specimens should only
  be done when taken at surgery or by a method
  that excludes colonized surface material.

• Blood Bank
  — Any of the required labeling information is missing
  or incorrect including 2 patient identifiers which
  are full patient name and medical record number
  for transfusion patients.
  — Blood which has not been labeled at the bedside.
  — Discovery that no armband was present when a
    crossmatch specimen was drawn.
  — Hemolyzed specimens
  — Specimens drawn above an intravenous (IV) site
  — Specimens of insufficient quantity

• Chemistry
  — Specimens of insufficient quantity
  — Improperly collected timed specimens
  — Improperly preserved specimens-examples:
    • Lithium specimen drawn in lithium heparin
      tube
    • Cold agglutinin specimen not kept at proper
      temperature
    • Ammonia specimen that was not transported
      on ice and not run within 1 hour of draw. See
      stability chart for exceptions.
  • Alcohol:
    — Tubes that the rubber top has been
      opened/removed after draw and before
      analysis.
    — Specimens that have been refrigerated
      greater than 2 hours prior to analysis
      time.
    — Specimens maintained at ambient
      temperature greater than 30 minutes
      prior to analysis.
    Note: Specimen must be separated and
    frozen if analysis will not be
    performed within 2 hours post of
    patient’s specimen draw.

• Lactic Acid
  — Not transported on ice immediately
    after draw
  — Stored on ice greater than 1 hour before
    analysis
  Note: Specimen must be separated and
  frozen if analysis will not occur
  immediately or within 48 hours
  of refrigerated storage.

• Homocysteine specimen that was not on ice
  and not analyzed within 1 hour of collection
  or specimen not separated and frozen.
- **B-Type Natriuretic Peptide (BNP) specimen not run within 4 hours of draw or specimen not separated and frozen.**
  
  - Grossly contaminated specimens
  - Specimens drawn above an IV
    - *Therapeutic drugs drawn when the IV is not completed*
    - *Vancomycin specimens drawn from a line.*
  - Specimens aged beyond reliable time limits
  - Specimens not meeting attached stability chart
  - Specimens hemolyzed significantly
  - Send out tests—check the Reference Laboratory manuals before drawing to insure proper specimen is drawn.

**Note:** All clients will be provided plasma separator gel light green-top tubes which provide a plasma/cell barrier when spun. It is imperative that these tubes be inverted 8 to 10 times after collection. All clients should be provided a centrifuge for separation. All specimens must be spun down in order to separate the cells from the plasma within 2 hours of collection in order to separate the cells from the plasma to preserve the integrity of the potassium and the glucose. If client does not have a centrifuge, the client must call for a pick up from the St. Dominic Reference Laboratory within the 2 hour time limit for potassium or glucose. St. Dominic Reference Laboratory will call the client if there is any question about the integrity of a specimen from that office. If a specimen has to be rejected for any of the reasons stated in this “Unsalvable Specimen” section, the person rejecting the specimen must document the reason in the computer so that all information will appear on the patient report.