

# Evaluation of the Patient Sample

## GUIDELINE 3: Hematology Sample Acceptance and Rejection

Do Not Reject Samples Considered Difficult to Collect	
<p>Samples considered difficult to collect are:</p> <ul style="list-style-type: none"> <li>• Samples collected in the operating room</li> <li>• CSF samples</li> <li>• Tissue samples</li> <li>• Sterile fluid samples (i.e. joint fluid)</li> <li>• Aspirate samples</li> <li>• Samples collected from infants/pediatrics (Age: birth to 5 years old)</li> <li>• Surgical pathology samples</li> </ul>	

Hematology Criterion	Required Action
<p><b>Clotted sample</b></p> <ul style="list-style-type: none"> <li>• CBC, ESR or Coagulation</li> </ul>	Reject
<p><b>CBC sample</b></p> <ul style="list-style-type: none"> <li>• room temperature sample greater than 24 hours old</li> </ul>	Process for Hematology profile. <ul style="list-style-type: none"> <li>• if testing is further delayed, make a peripheral smear and store at 2 – 8°C</li> <li>• test within 72 hours of collection time</li> </ul>
<p><b>CBC sample</b></p> <ul style="list-style-type: none"> <li>• sample at 2 – 8°C and greater than 72 hours old</li> <li>• less than 1 ml blood in 3.0 ml EDTA</li> <li>• less than 250ul in 500ul EDTA microtainer</li> </ul>	Reject
<p><b>Reticulocyte sample:</b></p> <ul style="list-style-type: none"> <li>• room temperature sample greater than 8 hours old</li> <li>• sample at 2 – 8°C <b>and</b> greater than 6 days old<sup>(2)</sup></li> </ul>	Reject



Hematology Criterion	Required Action
<p><b>Infectious Mononucleosis Sample:</b></p> <ul style="list-style-type: none"> <li>• serum at 2 – 8°C and greater than 3 days old</li> <li>• whole blood at 2 – 8°C and greater than 48 hours old (Clearview Mono kit only)</li> <li>• hemolyzed</li> <li>• serum or whole blood stored at room temperature greater than 2 hours</li> </ul>	Reject
<p><b>ESR Sample</b> <b>Sodium Citrate (black tube)</b></p> <ul style="list-style-type: none"> <li>• under-filled or over-filled (must fill to fill line)</li> <li>• sample at 2 – 8°C and greater than 72 hours old</li> <li>• sample at room temperature and greater than 4 hours old</li> </ul> <p><b>EDTA (lavender tube)</b></p> <ul style="list-style-type: none"> <li>• underfilled – minimum 1.2 ml required</li> <li>• sample at 2 – 8°C and greater than 48 hours old</li> <li>• sample at room temperature and greater than 24 hours old</li> </ul>	Reject
<p><b>ANA sample</b></p> <ul style="list-style-type: none"> <li>• serum not centrifuged and aliquoted immediately after collection</li> <li>• sample at room temperature and greater than 2 days old</li> <li>• sample at 2 – 8°C and greater than 5 days old</li> </ul>	<p>Reject</p> <ul style="list-style-type: none"> <li>• freeze sample if transit time greater than 5 days</li> </ul>
<p><b>aDNA sample</b></p> <ul style="list-style-type: none"> <li>• sample at room temperature and greater than 24 hours old</li> </ul>	<p>Reject</p> <ul style="list-style-type: none"> <li>• samples should be aliquoted and frozen until testing can be performed</li> </ul>



Hematology Criterion	Required Action
<p><b>Blood Parasite sample (malaria etc.)</b></p> <ul style="list-style-type: none"> <li>Smears not made within 1 hour of collection time</li> <li>EDTA samples for Malaria Rapid Test (pending approval)</li> <li>sample at 2 – 8°C and greater than 72 hours old</li> </ul>	<p>Reject when EDTA samples were stored at 2 – 8°C and when greater than 72 hours old.</p> <p>Proceed with making the smears even after 1 hour of collection and add a comment that it was a delay in slides preparations</p>
<p><b>Body Fluid cell count and differential sample: (includes CSF)</b></p>	<p>Proceed with testing – never reject body fluid samples</p> <ul style="list-style-type: none"> <li>all samples should be evaluated for abnormal cells</li> <li>refer to H BFA 0003 for appropriate test cancellation comments if sample is clotted or too old</li> </ul>
<p><b>Cryoglobulin / Cryofibrinogen sample</b></p> <ul style="list-style-type: none"> <li>not fresh or midstream urine</li> <li>greater than 3 hours old</li> <li>not stored at 4° C</li> </ul>	<p>Reject</p>
<p><b>Cryoglobulin / Cryofibrinogen sample</b></p> <ul style="list-style-type: none"> <li>not received at 37°C</li> <li>lipemia present in serum/ plasma</li> <li>patient receiving heparin or other blood anticoagulants</li> </ul>	<p>Reject</p>
<p><b>Bone marrow sample received without fixative</b></p>	<p>Place:</p> <ul style="list-style-type: none"> <li>Bone marrow <b>biopsy</b> in B Plus Fixative and forward to Anatomic Pathology</li> <li>Bone marrow <b>aspirate</b> in 10% formalin and forward to Anatomic Pathology</li> </ul>



Hematology Criterion	Required Action
<p><b>Coagulation sample: (Sodium Citrate blue top)</b></p> <ul style="list-style-type: none"> <li>• under-filled or over-filled by more than 10 of fill line</li> <li>• hemolyzed plasma</li> </ul> <p><b>PT sample:</b></p> <ul style="list-style-type: none"> <li>• un-centrifuged PT samples stored at room temperature and greater than 24 hours old</li> <li>• plasma aliquot stored at room temperature and greater than 8 hours old</li> <li>• any PT sample stored at 2 – 8°C</li> </ul> <p><b>PTT sample:</b></p> <ul style="list-style-type: none"> <li>• not centrifuged within 1 hour of collection and patient receiving unfractionated heparin</li> <li>• any other PTT centrifuged or un-centrifuged sample greater than 4 hours old</li> </ul> <p><b>Any other coagulation test:</b></p> <ul style="list-style-type: none"> <li>• greater than 4 hours old and plasma not frozen</li> <li>• “platelet poor plasma” not indicated on tube</li> </ul> <p><b>Any frozen plasma aliquot:</b></p> <ul style="list-style-type: none"> <li>• received partially or completely thawed</li> <li>• “platelet poor plasma” not indicated on tube</li> </ul>	<p>Reject</p>
<p><b>Fibrinogen <sup>(1)</sup> sample:</b></p> <ul style="list-style-type: none"> <li>• whole blood sample at room temperature and greater than 4 hours old</li> <li>• plasma aliquot stored at: <ul style="list-style-type: none"> <li>◦ room temperature and greater than 8 hours old</li> <li>◦ minus 20°C and greater than 2 weeks old</li> <li>◦ minus 70°C and greater than 12 months old</li> </ul> </li> </ul>	<p>Reject</p>



Hematology Criterion	Required Action
<p><b>Thrombin Time <sup>(1)</sup> sample:</b></p> <ul style="list-style-type: none"> <li>• whole blood sample at room temperature and greater than 4 hours old</li> <li>• plasma aliquot stored at: <ul style="list-style-type: none"> <li>◦ room temperature and greater than 2 hours old</li> <li>◦ minus 20°C and greater than 2 weeks old</li> <li>◦ minus 70°C and greater than 12 months old</li> </ul> </li> </ul>	Reject
<p><b>D-Dimer Sample:</b></p> <ul style="list-style-type: none"> <li>• plasma aliquot stored at: <ul style="list-style-type: none"> <li>◦ room temperature and greater than 8 hours old</li> <li>◦ minus 20°C and greater than 1-month old</li> </ul> </li> </ul>	Reject

(1) Reference: 2015-12-14 Fibrinogen and Thrombin Time Sample Stability Recommendation (Approved: 2016-02-04)

(2) Reference: 2014-05-01 Reticulocyte Sample Stability Validation (Approved: 2014-04-14)

- When rejecting samples, provide written notification of rejection to ordering physician using DOE: Cancel Orders CIS SM 220 or <fs> LIS order cancellation direction
- Select appropriate cancel reason and append additional cancellation information as required