MAYO CLINIC LABORATORIES

Specimen Collection and Labeling Instructions for Osmotic Fragility Testing of Erythrocytes

Background

Osmotic fragility testing of erythrocytes may be performed separately (FRAG / Osmotic Fragility, Erythrocytes) or as part of a profile (RBCME / Red Blood Cell Membrane Evaluation, Blood or HAEV1 / Hemolytic Anemia Evaluation, Blood).

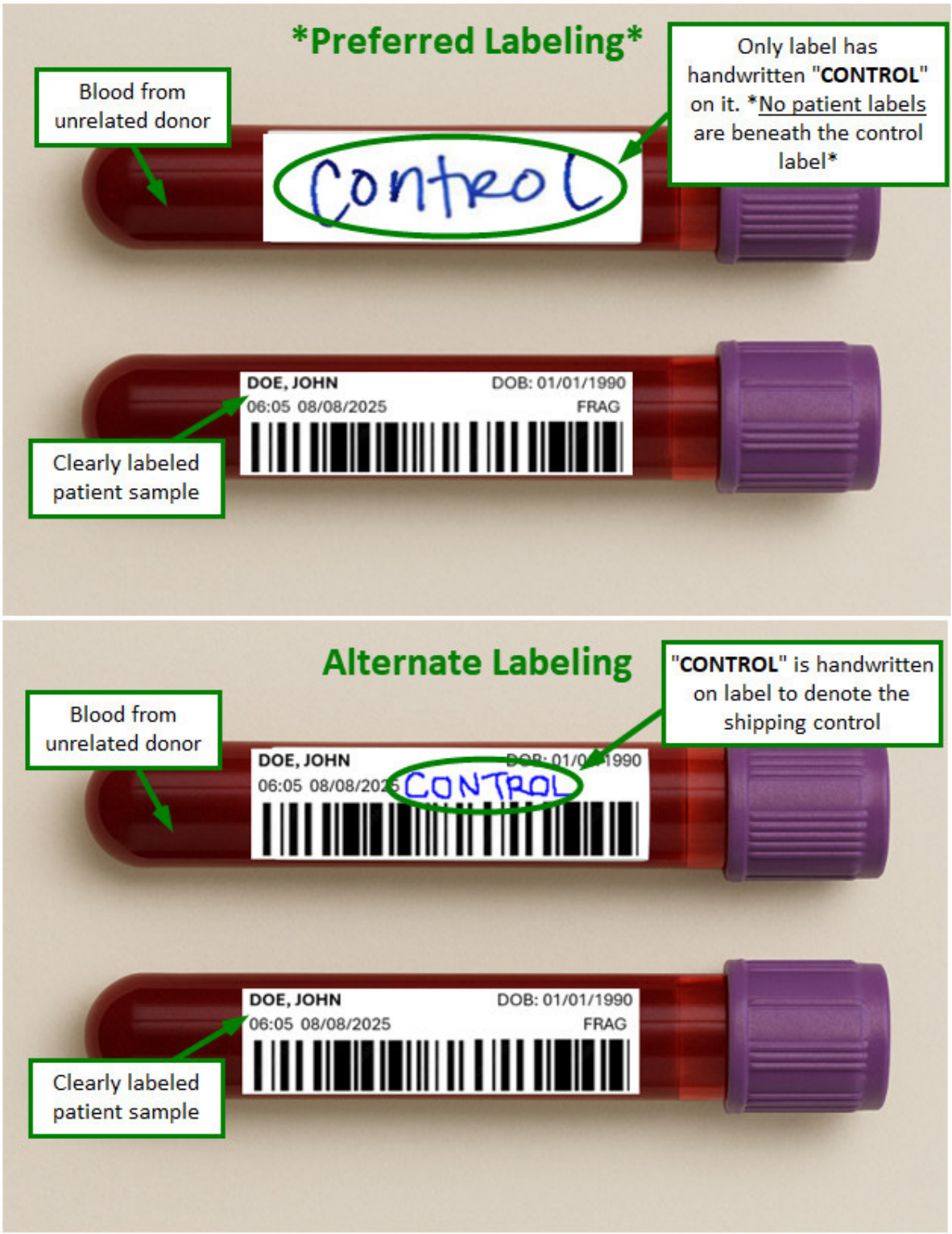
Both a patient specimen and a shipping control specimen **are required**. A shipping control specimen is necessary to evaluate whether specimen handling conditions such as temperature, motion, or other transportation interferences have adversely impacted the integrity of the specimen, which may lead to inaccurate results.

Instructions

1. Collect the shipping control and patient specimens as close to the same time as possible and within 4 hours of each other.
2. **The shipping control and patient specimens must be handled identically from the time of collection through receipt in the testing laboratory.**
   NOTE: Patient and shipping control specimens need to be collected and shipped from the same site. It is unacceptable to collect the patient sample at one facility and the shipping control at another affiliated site.
3. Collect a venous whole blood shipping control specimen.
   a. Identify a healthy unrelated person (eg, a phlebotomist, volunteer, or another healthy patient).
   b. Draw blood in a 4 mL lavender top (EDTA) tube.
   c. Attach a specimen identification label or a plain white label to the tube.
      i. If a specimen identification label is used, clearly handwrite "CONTROL" on the tube.
      ii. If a plain white label is used, clearly handwrite "CONTROL" on the label. There should be no patient label beneath the plain white label.
      iii. Examples of acceptable and unacceptable labeling are shown on pages 2 and 3.
   d. Refrigerate (or place on cold gel pack/small amount of wet ice) immediately after collection.
   e. Do not aliquot the shipping control specimen. Send in the original tube.
4. Collect a venous whole blood patient specimen.
   a. Draw blood in a 4 mL lavender top (EDTA) tube.
   b. Attach a patient specimen label. Do **not** write "control" on the label.
   c. Refrigerate (or place on cold gel pack/small amount of wet ice) specimen immediately after collection.
   d. Do not aliquot the patient specimen. Send in the original tube.
5. Keep the shipping control and the patient specimens together, either rubber banded or in a bag.
6. Test cancellation is likely if a shipping control is not received with the patient specimen or if the patient sample and shipping control are not labeled correctly.

Acceptable Labeling

A shipping control with “CONTROL” handwritten on the label and a patient specimen are required for testing.



Unacceptable Labeling

Sending tubes without a handwritten “CONTROL” on the label or sending multiple patient tubes without a clear control will likely result in test cancellation.