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| **Sample Requirements for the IH-500 and IH-Reader 24** |
| **Purpose** | This procedure provides instructions for to ensure that samples tested on the IH-500 and IH-Reader meet acceptable criteria for testing. |
| **Policy Statements** | * If possible, load only samples with legible barcodes to avoid mistakes caused by the manual entry of barcode information.
* Do not use any samples with clots because undetected clots can lead to incorrect results.
* Sample tubes should contain at least 1 mL or serum/plasma and 1 mL of erythrocytes.
* Pediatric tubes may be configured to use less volume.
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| **Procedure** |  |
|  | **Step** | Action |
| For Blood Grouping | 1 | Patient Samples:1. Fresh blood samples collect in EDTA are acceptable. Samples should be tested as soon as possible post-collection.
2. If testing is delayed, EDTA samples may be stored at 2 to 8°C for up to 10 days post-collection.
3. Do not use grossly hemolyzed, lipemic or icteric samples.
4. A distinct separation between the red blood cells and the plasma is recommended for optimal results. This can be achieved through centrifugation of the sample for 10 minutes at 2000 G.
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|  | 2 | Donor Blood (segments)1. Donor units collected in CPD or CP2D may be tested up to the expiration date of the unit when stored at 1 to 8°C.
2. Donor blood stored in additive solutions AS-1 or AS-3 may be tested up to 30 days post-collection when stored at 1 to 8°C.
3. Prepare segments for testing
	1. If available, label a test tube with a barcode label from the unit
	2. Transfer the blood from one segment into an appropriately labeled test tube for testing on IH-Reader 24. Transfer the blood from one or two donor segments into an appropriately labeled test tube for testing on the IH-500 (a minimum volume of 500 µL of red blood cells is required in the sample tube)
	3. Donor segment samples do not require centrifugation.
	4. Do NOT dilute red cells for IH-500 testing
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|  | **Step** | Action |
| Antibody Screening | 1 | Plasma or serum can be used |
|  | 2 | Samples should be tested as soon as possible after collection. If testing is delayed, samples may be stored at 2 to 8°C for up to ten days post-collection. |
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|  | **Step** | Action |
| Crossmatch | 1 | Donor Cells1. Donor blood collected in CPD or CP2D may be tested up to the expiration date of the unit when stored at 1 to 8°C. Donor blood stored in additive solutions AS-1 or AS-3 may be tested up to 30 days post-collection when stored at 1 to 8°C.
2. If available, label a test tube with a barcode label sticker from the unit.
3. For the IH-500, transfer blood from one or two donor segments into the labeled test tube. A minimum volume of 500 µL of red blood cells is required in the sample tube.
4. Do NOT dilute red cells for IH-500 testing
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|  | 2 | Recipient’s Samples:1. Fresh EDTA samples are acceptable. Serum separator tubes cannot be used.
2. Samples should be tested as soon as possible after collection. If testing is delayed, samples may be stored at 2 to 8°C for up to 10 days post-collection.
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|  | **Step** | Action |
| Direct Antiglobulin Test (DAT) | 1 | Fresh blood samples collected in EDTA are acceptable. Samples should be tested as soon as possible post-collation. If testing is delayed, EDTA samples may be stored at 2 to 8°C for up to 5 days. |
|  | 2 | General guidelines for DAT testing recommend testing within 48 hours. |
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|  | **Step** | Action |
| Weak D testing | 1 | Fresh blood samples collected in EDTA are acceptable. Samples should be tested as soon as possible post-collation |
|  | 2 |  If testing is delayed, samples may be stored at 2 to 8°C for up to 10 days post-collection. |
|  | 3 | Donor blood collected in CPD or CP2D may be tested up to the expiration date of the unit when stored at 1 to 8°C. Donor blood stored in additive solutions AS-1 or AS-3 may be tested up to 30 days post-collection when stored at 1 to 8°C |
|  | 4 | Do not use grossly hemolyzed, lipemic or icteric samples. |
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| **References** | 1. IH-500 User Manual NA V1.0-07/2017, Chapter 3, Section 3.4.4.
2. IH-Reader User Manual, current version
3. IH-Gel Cards, product inserts, current version
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| **Approval****Workflow** | Transfusion Service/Lab Director |
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| **Historical Record** | **Version** | **Written/Revised by:** | **Effective Date:** | **Summary of Revisions** |
| 1 | S. Cassidy | 02/17/2023 | Initial Version |