

Suggested Modifications / Additions to the 2009 ASHI Standards

| Current Standards | Suggested Modifications | Rationale | Public Comment | Response from QAS |
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| | <p>Verification typing: HLA typing performed on an independent sample (or, for a cord blood unit, from an attached segment or from the unit itself) with the purpose of verifying concordance of that typing assignment with the initial HLA typing assignment. Concordance does not require identical levels of resolution for the two sets of typing but requires the two assignments to be consistent with one another.</p> | <p>This definition replaces “confirmatory typing” in practice for the purpose of clarifying the intent of HLA typing of a second specimen and aligns ASHI standards with histocompatibility definitions with the European Federation of Immunogenetics, CAP, AABB, donor registries worldwide and Foundation for the Accreditation of Cellular Therapy (FACT).</p> | | |
| <p>C.1.3 Laboratories must not send their own proficiency testing samples or results of their own for analysis to another laboratory.</p> | | <p>For clearer understanding</p> | <p>As written this is confusion. I would suggest changing to:</p> <p>C.1.3 Laboratories must not send <u>their proficiency testing results</u> or their own proficiency testing samples for analysis to another laboratory.</p> | <p>QAS accepted this change as:</p> <p>C.1.3 Laboratories must not send <u>their proficiency testing results</u> or their proficiency testing samples to another laboratory for analysis.</p> |
| <p>D.5.2.2.19.2 It is recommended that each wipe test amplification be run without added DNA and with added DNA as a control for wipe test inhibition.</p> <p>D.5.2.2.19.3 If contamination and/or inhibition is detected, clean the area to eliminate the contamination or source of inhibition and document re-testing, as well as the measures taken to prevent future contamination.</p> | <p>D.5.2.2.19.2 It is recommended that each wipe test amplification be run without added DNA and with added DNA as a control for wipe test inhibition.</p> <p>D.5.2.2.19.2 If contamination and/or inhibition is detected, clean the area to eliminate the contamination or source of inhibition and document re-testing, as well as the measures taken to prevent future contamination.</p> | <p>The only inhibitor found by these wipe tests is bleach. If bleach is present it will also inhibit the spiked control. If either a contaminant or inhibitor is present, the solution is to clean the area with bleach. If water is used to remove the bleach, there is the risk of introducing a new contaminant. QAS wishes to open this for discussion among the ASHI membership.</p> | <p>THANK YOU for this change!! I have long had a concern that diluting the wipe test enough to allow the inhibition control to come up may also be diluting potential contamination. If labs want to continue using an inhibition control, they may do so, but I really appreciate this change. Besides, isn't the point of the bleach to inhibit amplification?</p> | <p>You're welcome!</p> |

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| <p>D.5.2.2.19.4 Document acceptable electrophoretic conditions used for each gel electrophoresis.</p> | <p>D.5.2.2.19.3 Document acceptable electrophoretic conditions used for each gel electrophoresis.</p> | <p>D.5.2.2.19.3 Numerical change.</p> | | |
| <p>D.5.2.12.7 Compare the current ABO/Rh group with previous records that are readily available. Any discrepancy found between the current results and the previous record must be resolved before transplantation.</p> | <p>D.5.2.12.7 Compare the current ABO/Rh group, <u>including sub group when applicable</u>, with previous records that are readily available. Any discrepancy found between the current results and the previous record must be resolved before transplantation.</p> | <p>Additional wording to include all aspects of ABO/Rh typing.</p> | | |
| <p>D.5.3.3.1.2 Repeat HLA typing of recipient using a new sample such that the individual's HLA typing is confirmed prior to final donor selection for both related and unrelated donor transplantation.</p> <p>D.5.3.3.1.3 Repeat HLA typing of a related or unrelated stem cell donor using a new sample such that the individual's HLA typing is confirmed prior to stem cell collection. For unrelated donors, registry data is acceptable as the first of these two samples.</p> | <p>D.5.3.3.1.2 Repeat HLA typing of recipient using a new sample such that the individual's HLA typing is <u>verified</u> prior to final donor selection for both related and unrelated donor transplantation.</p> <p>D.5.3.3.1.3 Repeat HLA typing of a related or unrelated stem cell donor using a new sample such that the individual's HLA typing is <u>verified</u> prior to stem cell collection. For unrelated donors, registry data is acceptable as the first of these two samples.</p> | <p>These changes align ASHI standards and histocompatibility definitions with the European Federation of Immunogenetics, CAP, AABB, donor registries worldwide and Foundation for the Accreditation of Cellular Therapy (FACT).</p> | <p>I think that D.5.3.3.1.2 falls short of achieving the intended purpose of the standard.</p> <p>As stated, D.5.3.3.1.2 Repeat HLA typing of recipient using a new sample such that the individual's HLA typing is confirmed verified prior to final donor selection for both related and unrelated donor transplantation, the standard does not prevent that unrelated donors coming to the HLA labs prior to recipient's typing verification. This is so, because Bone Marrow Tx coordinators may choose to call for confirmatory typing of unrelated donors prior to the patient's typing verification. Coordinators interpret that this verification may be done just prior to transplant (prior to final donor selection). If the patient's type is not verified with the type of original sample (not verified),</p> | <p>Following discussion, QAS recommends no additional changes.</p> <p>Timing of verification typing is a clinical transplant protocol decision that must be made prior to final donor selection.</p> <p>Verification typing serves a dual purpose: 1) to verify the identity of the specimen 2) to verify the HLA type of the patient or donor</p> <p>See the definition of Verification typing for more detail.</p> |

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| | | | <p>then, the lab and transplant program have perhaps typed those unrelated donors in vain, and would have to type more once the patient's true HLA type is verified. I think the problem is on the definition of FINAL DONOR selection; is this to be performed prior to when the NMDP sends unrelated donors to the typing center? Or could this be after all CTs are typed and the final Donor for transplantation is selected; my transplant program operates per the latter interpretation. This created an adverse event and more donors had to be typed. The original donors that came to the lab based on the wrong HLA typed had to be credited to the patient's insurance and the laboratory did not get paid. Also, there were three months that were lost looking for a match based on the wrong patient's type. I believe that the standard needs to be clear so as to prevent unnecessary CTs and prolongation of wait time due to donor searching on the wrong patient type.</p> | |
| | | | <p>My main concern is in regard to the definition of the new term "<i>verification typing</i>". Firstly, before writing the actual phrasing of this new term we should think what is the goal of this typing stage. Is this typing of a new independent sample meant to</p> | |

verify the correctness of the typing or to verify the identity of the person who gave the original first blood sample. This conceptual question has implications on the practice of this 'verification typing' step.

Option 1: Meaning of "*to verify the correctness of the typing*" = We don't have any doubt about the source of the first original blood sample that was tested. We know that the blood was collected from the correct donor or recipient. Our current intention with this new fresh independent sample is to verify the correctness of the HLA typing of that person. The practical meaning of this interpretation is that high-resolution typing of A*, B*, C*, DRB1* and possibly DQB1* must be repeated in order to verify the correctness of the original high-resolution typing.

Option 2: Meaning of "*to verify the identity of the person who gave the original first blood sample*" = We don't have any doubt about the correctness of the HLA typing that was carried out on the first original sample. We know that this is the correct high-resolution typing of that original sample. Our current intention with this new fresh independent sample that is collected from the designated donor/ recipient/ CBU is to

verify that the original sample was indeed collected from the right source.
The practical meaning of this interpretation is that it does not require identical levels of resolution for the two sets of typing but requires the two assignments to be consistent with one another.

Now it is clear that there's inconsistency in the new Proposed Revisions to the ASHI Standards.

The new suggested definition of '*verification typing*' does not require identical levels of typing resolution and therefore I conclude that the interpretation is according to **Option 2** that was explained above.

On the other hand, the revised paragraphs D.5.3.3.1.2 and D.5.3.3.1.3 define that the interpretation is according to **Option 1** that was explained above, meant to verify the correctness of the HLA typing.

In my view, this expresses an inherent contradiction in the ASHI standards that could have significant consequences on our laboratories.

If indeed the purpose of the verification typing is to verify the identity of the person/
CBU: then paragraphs D.5.3.3.1.2 and D.5.3.3.1.3

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| | | | should be re-edited as they explicitly express that the purpose is for verification of the HLA typing correctness. | |
| <p>D.5.3.3.1.4 In the case of cord blood units, verify the HLA assignment using a sample obtained from a contiguous segment of the cord blood unit.</p> | <p>D.5.3.3.1.4 In the case of cord blood units, verify the HLA assignment using a sample obtained from a contiguous segment of the cord blood unit.</p> <p>D.5.3.3.1.4.1 Repeat typing for low-intermediate resolution assignments at HLA-A, B and high resolution HLA-DRB1, is usually sufficient to verify the HLA type.</p> <p>D.5.3.3.1.4.2 When the laboratory performs the verification typing, document that HLA assignments are concordant with previous HLA typing assignments.</p> | <p>New standards to address cord blood units.</p> <p>D.5.3.3.1.4.1 reflects HLA typing requirements in the 4th edition (January 2010) of <u>NetCord-FACT International Standards for Cord Blood Collection, Banking, and Release for Administration.</u></p> | <p>Would it be possible to carry forward the wording that was used in the definition of “Verification Typing” so that the standard would read:</p> <p>In the case of cord blood units, verify the HLA assignment using a sample obtained from a contiguous segment <i>(or from the unit itself)</i>.</p> <p>There are thousands of cord blood units that do not have an attached segment and the verification testing must be performed on a sample from the unit.</p> | <p>The Standard will be revised as follows:</p> <p>D.5.3.3.1.4 In the case of cord blood units, verify the HLA assignment using a sample obtained from a contiguous segment <i>or from the unit itself.</i></p> |
| | | | <p>-I wonder if it is appropriate for the standards to include something as specific as D.5.3.3.1.4.1. Shouldn't this appear under the ARB guidelines?</p> <p>-Numbering the last two standards as D.5.3.3.1.4.1 and D.5.3.3.1.4.2 makes it appear that they are referring only to cord blood. If they are referring only to cord blood, aren't the same standards appropriate for other donors as well?</p> | <p>-This standard is taken from NetCord FACT International Standards for Cord Blood Collection, Banking, and Release for Administration. It's also consistent in EFI standards.</p> <p>Modifications to D.5.3.3.1.4.2 will be considered during the next cycle of Standards revisions.</p> |

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| <p>D.5.3.3.1 Laboratories performing testing for <u>blood, bone marrow and stem cell transplantation</u> must:</p> <p>D.5.3.3.1.4 Perform augmented testing (e.g. MLC, T cell precursor frequency, SNP analysis, typing of minor histocompatibility antigens) as appropriate for the transplant protocol and optimal donor selection.</p> | <p>Delete D.5.3.3.1.4</p> | <p>The intent of this standard is covered by D.5.3.1.1.1 thus D.5.3.3.1.4 is redundant.</p> | | |
| <p>E.6.1.2 Have laboratory training that includes any of the following:</p> <p>E.6.1.2.1 Completion of a clinical laboratory training program in an ASHI-accredited laboratory or an equivalent organization approved by HHS. This training may be included in the 60 semester hours listed in paragraph E.6.1.2.3 of this section.</p> | <p>E.6.1.2.1 Completion of a clinical laboratory training program in an ASHI-accredited laboratory or an equivalent organization approved by HHS. This training may be included in the 60 semester hours listed in paragraph E.6.1.1.3 of this section.</p> | <p>Corrected standard number in reference.</p> | | |