

# Improving Equivalences

## Recent histocompatibility policies implemented

BY KAREN SOKOHL

Things they are a-changin'—if I may take some liberty with the iconic lyrics of Bob Dylan—and that's certainly true in the world of histocompatibility.

Two policy changes, proposed by the OPTN/UNOS histocompatibility committee, were approved in November by the board and have recently gone into effect. Both recent policies are explained below.

### POLICY 1: HLA TYPING USING DNA METHODS

The most significant of the two policies requires all OPOs and their associated laboratories to perform the HLA typing of deceased donors using DNA methods. The policy also requires OPOs and labs to identify the HLA-A, -B, -C, -DR and -DQ antigens before making any kidney, kidney–pancreas, pancreas or pancreas–islet offers.

The new policy addresses two problems: first, the high error rate associated with HLA typing by older, serological methods and second, the need to type additional HLA antigens that will identify crossmatch incompatible donors. The change *doesn't* apply to extended criteria donors (ECD), which currently don't require any HLA typing. It is recommended, however, that HLA typing be done when possible.

Note that it's possible the ECD designation will be phased out in the near future and replaced by the kidney donor profile index (KDPI). As of now, if this were to happen, the requirement for molecular typing would extend to all deceased donors, regardless of their KDPI score.

The other new policy, which updates Policy 3–Appendix A, reflects changes in HLA typing practices within the transplant community and improves the effectiveness of listing unacceptable antigens. The first phase of the change was implemented March 16.

### POLICY 2: EQUIVALENT AND UNACCEPTABLE ANTIGENS

Appendix 3A, titled “HLA Antigen Values and Split Equivalence” includes two tables: “HLA-A, -B and -DR Matching Antigen Equivalences” and “HLA-A, -B, -C, -DR and -DQ Unacceptable Antigen Equivalences.”

- **HLA-A, -B and -DR matching antigen equivalences.** HLA antigen designations that you should consider *equivalent* for purposes of matching kidney candidates and donors for the HLA-A, -B and -DR antigens (HLA antigen values and split equivalences)
- **HLA-A, -B, -C, -DR and -DQ unacceptable antigen equivalences.** HLA antigens that are *unacceptable* based on the unacceptable HLA antigens listed for a sensitized candidate (HLA-A, -B, -C, -DR and -DQ unacceptable antigen equivalences).

On occasion, there can be differences in the HLA typing reported by laboratories that should be considered equivalent. Both tables in Appendix 3A help resolve those apparent differences. Generally, those differences occur at the level of HLA antigen splits, that is, two or more closely structured HLA antigens that together compose a parent antigen. For example, HLA-A28 (parent antigen) has been “split” to yield two related antigens, or splits: HLA-A68 and HLA-A69.

With current technology, laboratories can identify the splits of many parent antigens, so both donors and recipients are typed and listed in UNet<sup>SM</sup> with the split antigen instead of the parent antigen.

Many laboratories, however, still have difficulty identifying certain splits, particularly when the labs are typing deceased donors but lack the ability to perform confirmatory testing. In the example of HLA-A28 above, HLA-A68 is the most common split of HLA-A28 (representing 98 percent of A28 donor typings) and can be reproducibly identified by most laboratories—but HLA-A69 cannot.

For example, the laboratory might incorrectly report HLA-A28 when it cannot distinguish between A68 and A69. In other words, a candidate typed as HLA-A68 would be considered a match for a donor with HLA-A68, but a candidate typed as A69 would match a donor typed as A69 or A28.

The second table in Appendix 3A—HLA-A, -B, -C, -DR and -DQ unacceptable antigen equivalences—clarifies how to list unacceptable antigens that would exclude candidates from match runs with donors whose HLA types include the candidate's unacceptable antigens or their equivalents;

Unacceptable antigens are those for which a candidate has made antibodies, which can result in positive crossmatches—an incompatible match. If a laboratory lists a parent HLA antigen as unacceptable, all splits of that antigen should also be considered unacceptable.

### ADDED SAFETY FOR SENSITIZED CANDIDATES

Screening candidates from all match runs for which a candidate could be incompatible provides an additional measure of safety for sensitized candidates (those who have antibodies to HLA antigens) who shouldn't be considered for some donors.

Note that it is the frequency of the unacceptable antigens *and their equivalences* that are used to calculate CPRA.


Because of the phased implementation, however, as well as the underlines and strikethroughs UNOS uses to communicate policy changes to members, some of the text may be confusing. The lists on the next page should help to clarify any confusion.

**UNOS EARNS CHARITY ACCREDITATION**

In January, the national Better Business Bureau (BBB) notified UNOS that it had met the standards for accreditation in the BBB's Wise Giving Alliance.

The Alliance's 20 exacting and comprehensive "standards of charity accountability" focus on four major areas: finances, measuring effectiveness, governance and oversight, and fundraising and informational materials.

The BBB, founded in 1912, is a nonprofit consumer advocacy organization that sets and upholds standards for fair and honest business behavior, and its Wise Giving Alliance, founded in 2001, helps donors make informed giving decisions among organizations that solicit contributions from the public.

 To visit the Better Business Bureau's national charity report index, visit [bbb.org/charity-reviews/national](http://bbb.org/charity-reviews/national).

**QUICK REFERENCE**

At present, when calculating a candidate's CPRA you should use the **Unacceptable Antigen Equivalences** listed below, *but these equivalences won't be used for screening candidates.*

**Bw4:** B5, B13, B17, B27, B37, B38, B44, B47, B49, B51, B52, B53, B57, B58, B59, B63, B77

**Bw6:** B7, B8, B14, B18, B22, B35, B39, B40, B41, B42, B45, B46, B48, B50, (B\*4005), B54, B55, B56, B60, B61, B62, B64, B65, B67, B70, B71, B72, B73, B75, B76, B78, B81

**DR51:** DR2, DR15, DR16

**DR52:** DR3, DR5, DR6, DR11, DR12, DR13, DR14, DR17, DR18

**DR53:** DR4, DR7, DR9

When the second phase of the policy is later implemented, the following **Unacceptable Antigen Equivalences** will be used to calculate a candidate's CPRA and will also be used to screen the candidates. For these unacceptable antigens, CPRA is calculated based on equivalencies only.


**Bw4 should exclude:** B5, B13, B17, B27, B37, B38, B44, B47, B49, B51, B52, B53, B57, B58, B59, B63, B77, Bw4

**Bw6 should exclude:** B7, B8, B14, B18, B22, B35, B39, B40, B41, B42, B45, B48, B50, (B\*4005), B54, B55, B56, B60, B61, B62, B64, B65, B67, B70, B71, B72, B75, B76, B78, B81, Bw6

**DR51 should exclude:** DR2, DR15, DR16, and DR51

**DR52 should exclude:** DR3, DR5, DR6, DR11, DR12, DR13, DR14, DR17, DR18, DR52

**DR53 should exclude:** DR9, DR53

 Questions can be directed to Lori A. Gore, UNOS liaison to the OPTN/UNOS histocompatibility committee, by calling (804) 782-4732 or sending an e-mail to [lori.gore@unos.org](mailto:lori.gore@unos.org).

To read the policy notices, visit <http://communication.unos.org>, entering "histocompatibility" in the search box at the top right.

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**'HOSPITAL CAMPAIGN' CREATING DYNAMIC PARTNERSHIPS**

For more than a decade, the Workplace Partnership for Life\* (WPFL) has successfully engaged workplaces—including many that aren't transplant-related—in promoting donation and registering donors. It's been an extraordinarily successful effort, with more than 580,000 donors registered to date as a result of WPFL efforts.

Additionally impressive is the fact that those efforts—that is, the efforts of OPOs, transplant centers, eye banks, and others—have engaged the participation of groups not traditionally thought of as "workplaces."

Among the most successful has been the participation of student groups on college and university campuses who were encouraged to participate in friendly competitions, or "challenges," to register the most donors. Those challenges were especially successful when they played upon existing college rivalries, with the winner announced during the season's big football game.


In June, WPFL launched the "Hospital Campaign," which—by contrast—is based upon building dynamic collaborations, not on competition, among participants.


The campaign is modeled after a successful WPFL initiative in which the Louisiana Organ Procurement Agency (LOPA) partnered with Louisiana Hospital Association (LHA) member hospitals to promote donation registration. That partnership resulted in more than 250,000 new enrollments in Louisiana's donor registry.

**THE HOSPITAL CAMPAIGN**

The WPFL's Hospital Campaign seeks to create dynamic partnerships between staff at hospitals and donation organizations—notably development and public relations staff—to increase donor registrations within their respective facilities and communities. The goal is 300,000 new donor registrations by April 30, 2012.

Staff will reach out to nurses, doctors, hospital administrators and others on the importance of registering as a donor and how to register. They will then in turn be encouraged to reach out to their patients, vendors and the broader community, offer donation information and provide opportunities for donor registration.

For more information and to learn how to participate, see the websites listed below. 

 Want to participate in the WPFL's Hospital Campaign but don't have time to start from scratch? Visit [organdonor.gov](http://organdonor.gov) for the Hospital Campaign toolkit and partner guide—PSAs, posters, tent cards, web banners, news release templates and more, along with strategies and suggestions for planning and promoting a successful campaign. Questions? Visit [organdonor.gov](http://organdonor.gov) or send an e-mail to Ann Pfeifer at [ann@akoyaonline.com](mailto:ann@akoyaonline.com).

\*Created in 2001 by the U.S. Department of Health and Human Services, Health Resources and Services Administration, the Workplace Partnership for Life now has more than 11,000 member companies and organizations.