It’s ALL about TEAMWORK!
How MCL Helped During a Kidney Transplant Chain

By Ruth McConeghey, Lead HLA Medical Technologist

The Mercy Histocompatibility Lab (HLA Lab), a division of Mercy Clinical Laboratory (MCL), performs compatibility testing for the Mercy Transplant Center, the Methodist Kidney Transplant Program and the Iowa Donor Network (the solid organ procurement organization for Iowa). Testing includes tissue typing of potential recipients and donors, HLA antibody testing on the potential recipients, and HLA compatibility testing (HLA crossmatching) between recipients and living or deceased donors. HLA tests are required because HLA system is the main genetic system in the body responsible for graft rejection in transplantation.

Mercy Transplant Center has increasingly become known for its progressive living-donor transplant program. In 2012, the HLA Lab began intensively searching for living donors for several patients with high levels of HLA antibody referred to as Panel Reactive Antibody (PRA). Patients with high levels of PRA have difficulty finding compatible kidney donors, and often wait for long periods of time on transplant lists. Many of these patients are also listed on the National Kidney Paired Exchange with the hope of finding a compatible donor swap.

Using routine screening of living donors identified through the Mercy Transplant Center, HLA Lab personnel began to compare HLA test results found in these individuals to results of HLA testing found in patients with high PRA levels.

During a three-day period in January 2013, five kidney transplant surgeries were performed linking together 10 people in a complex kidney donor swapping process. As a result of the media coverage of this event at Mercy, several more humanitarian donors have stepped forward and offer to help others in need of a kidney transplant. The teamwork between the transplant program and the laboratory was instrumental in making this successful.

Recipient 1. His donor wife is ABO incompatible. The recipient is ABO – O, while his wife is ABO – A.

Recipient 2. Has compatible donor (a friend) but the HLA Lab discovered the friend is compatible with Recipient 4 who has a really high PRA. Recipient 2 and his donor friend are ABO – A.

Recipient 3. Her donor husband is ABO incompatible. The recipient is ABO – O, while her husband is ABO – B.

Recipient 4. He is a High PRA. His donor friend is HLA incompatible with his own antibodies to cause a positive HLA crossmatch. The recipient is ABO – AB, while his donor friend is ABO – O. (This is the Recipient who is HLA compatible with Recipient 2’s donor).

Recipient 5. This Recipient had no donor, but when a voluntary humanitarian donor (non-direct) was added to the

Five donors and five recipients were paired for a kidney transplant chain that happened Jan. 7-9. The group reunited on Jan. 23 during post-surgery follow-up visits at Mercy Transplant Center.

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MCL Client Services 24/7

Contact Number

Please direct your calls to our client services staff at (515) 247-4439. This phone is answered 24 hours a day and 7 days a week. The staff is trained to answer questions and direct your call to the appropriate department, if needed. This provides a streamlined process to filter the phone calls. Also, you don’t have to remember where to call and you can just call one number for service. We appreciate your help in utilizing this main number for all of your questions.

MCL’s Involvement in Continuity of Care

Recently, MCL employees have been called upon to assist in the continuity of care of patients from other hospitals. At times, patients visit their community hospital and are then transferred to Mercy Medical Center – Des Moines. When this happens, the patient’s continuity of care is in our hands. MCL staff members have taken it upon themselves to ensure the applicable samples are available for analysis at Mercy to ensure a quick turnaround time of results for the provider to act upon.

This is made possible by the activities of many people. The patient care team at the community hospital identifies these situations and makes the initial contact with the client services staff at MCL. Then, the couriers are sent to the community hospital. When the sample arrives at Mercy, the MCL processing staff ensures the specimen is handled correctly and logged in to the system. MCL performs the testing and ensures quality results in a timely manner. In the last quarter, the teamwork of MCL staff, has provided enhanced quality services by ensuring continuity of care for three patients from three different community hospitals. What a difference this makes in timely treatment for the patient, and enhancing our services to the providers who work with us.

Kit Testing Reminder

If you are sending patients for a kit test, please ensure patients present to the draw station with the kit and all corresponding paperwork. This will ensure prompt service and ensure that the receiving laboratory has what is needed to perform requested testing.

Blue “Frozen” Bag Usage

Please ensure the blue “frozen” bags are only used for frozen specimens. We utilize this color bag for frozen samples so we can be sure they are handled appropriately during transport and receipt to MCL. If you need additional supplies; please contact us and we are happy to additional bags and/or other supplies to you. Thank you for your cooperation to ensure proper handling of specimens.
Blood Culture Bottles
Send to MCL within 24 hours of Collection

Please ensure that blood culture bottles are sent to MCL on a daily basis. Delay in the transport of inoculated bottles is not advised, as it will delay reporting of the culture and can impact the accuracy of patient results. Please store the bottles at room temperature. This is important because when organisms are present in the patient’s blood inoculated into a bottle, they enter a lag phase of growth in which they adjust to their environment. The media in the bottle is conducive to organism growth. The organisms then enter a log phase of growth when they begin to multiply and produce carbon dioxide at a rapid rate. After the food supply is consumed and the metabolic byproducts accumulate, the organisms enter a stationary growth phase in which the carbon dioxide production levels off. The final phase is the decline phase where the organisms begin to die. We want ensure we are capturing the organism in the log phase of growth, which is within 24 hours of inoculation for the majority of the organisms. Your help in sending blood culture bottles to us within 24 hours of collection ensures that positive blood cultures are identified without delay.

When blood cultures are received after 24 hours of collection, a manual process is instituted. The blood culture result can be delayed by up to 48 hours.

MCL Draw Stations offer convenience for patients

We encourage your use of the MCL draw stations (or patient service centers) versus the use of hospital outpatient areas. The hospital outpatient draw station is based on hospital property; therefore, patients must be registered through the hospital and charges are based on a hospital stay. This generally increases the wait time for a blood draw. The hospital outpatient areas are designed to handle patients that have multiple outpatient services including lab; hence the visit could be coordinated.

For a basic lab draw, our draw stations (not on hospital property) are better equipped to serve patients, by providing prompt quality service. There are three convenient locations:

MCL Mercy Medical Plaza Patient Service Center
411 Laurel St., Ste. A265, Des Moines, Ia.
Parking is available in the East Ramp, Green Level

Hours: Monday – Friday, 7 a.m. to 5 p.m.
Phone: (515) 643-8924
Fax: (515) 643-8239

MCL West Patient Service Center
1601 NW 114th St., Ste. 134, Clive, Ia.
Parking is available in the east lot

Hours: 7 a.m. to 5 p.m.
Phone: (515) 222-7500
Fax: (515) 222-7510

Mercy North Patient Service Center
800 E. First St., Ste. 1400, Ankeny, Ia.

Hours: Monday – Friday, 7 a.m. to Noon and 1-4 p.m.
Phone: (515) 643-7710
Fax: (515) 643-8176
mix and investigated the donor swapping process, Recipient 5 came up first on the ABO-B national list to receive the ABO-B donor who was Recipient 3’s husband.

Sound Complicated? It is. Earlier investigations included several other patients with high PRAs, which were ruled out by positive HLA crossmatches. In addition, the transplant coordinators were attempting to swap donors with similar ages, so that a recipient did not trade a 25 year old donor kidney and receive a 50 year old donor kidney.

During three days of surgeries at Mercy, this was the end result:

Recipient 1 (ABO-O) – received the humanitarian donor’s kidney (ABO-O).

Recipient 2 (ABO-A) – received a kidney from Recipient 1’s wife (ABO-A).

Recipient 3 (ABO-O) – received a kidney from Recipient 4’s friend (ABO-O).

Recipient 4 (ABO-AB) – received a kidney from Recipient 2’s friend (ABO-A). This kidney donor was probably one in 100 or more donors that would be compatible for this High PRA recipient.

Recipient 5 (ABO-B) – had no donor on her own, but received the ABO-B kidney from Recipient 3’s husband.

Since that week of surgeries, and the media attention that followed, Mercy has had three more potential humanitarian donors come forward to offer a kidney to those in need of one. All of that teamwork really helped a lot of people, and it looks like more donors are stepping forward to help more people in need of a kidney transplant.