Use of Fresh Whole Blood for Pediatric Cardiac Surgery

On April 17, 2014, Mercy Medical Center transfused the first unit of fresh whole blood to a pediatric patient undergoing open heart surgery with cardiopulmonary bypass. Use of fresh whole blood (≤ 48 hours old) has been implemented in some children’s centers across the U.S and has been shown to improve surgical outcomes by optimizing hemostasis and decreasing blood loss. Because of the low blood volume in infants and children, balancing individual blood component transfusions to achieve an adequate hemodynamic state is difficult. With fresh whole blood, red cell, plasma volume and factors are in proportion to those needed for hemodynamic stability, allowing clinicians to more easily manage the care of this population of patients. Fresh whole blood has also been beneficial when managing pediatric patients on extracorporeal membrane oxygenation (ECMO) post-surgery by reducing the amount of blood replacement following surgery and thereby reducing donor exposure.

To date, five children (ages of 5 days to 3 years) have been transfused with fresh whole blood units at Mercy Medical Center – Des Moines, the first in Iowa to offer this product to pediatric patients.

Due to the extensive coordination needed between the physician, MCL blood bank and LifeServe the use of fresh whole blood has been restricted to very specific patient populations and procedures. To date, five children (ages of 5 days to 3 years) have been transfused with fresh whole blood units at Mercy Medical Center – Des Moines, the first in Iowa to offer this product to pediatric patients.

Based on a request by Mercy’s pediatric cardiothoracic surgeon, Dr. David Hockmuth, Mercy Clinical Laboratory (MCL) worked closely with LifeServe Blood Center and the PICU staff to develop a process for donation, testing and delivery of units compatible with the blood type of the infant (and in some cases the mother) within the defined 48 hours. Units are tested for communicable diseases as are other blood products and must be CMV negative, Sickle Screen negative and irradiated. The units are received refrigerated and dispensed to the patient at the time of surgery.
In Sympathy

Gregory L. Blunt passed away unexpectedly on Tuesday, May 13, 2014. Greg had worked at Mercy Clinical Laboratory in the role of Sr. Manager, Core Laboratory since July 2012. Prior to his service to Mercy, Greg was employed by Collaborative Laboratory Services, LLC in Ottumwa, Iowa.

Our thoughts and prayers go out to his wife and daughter during this time of tragic loss.

Requests for Repeat Testing

MCL is dedicated to the accurate reporting of patient results. If at any time a health care provider finds that a test result does not correlate with other clinical findings, we would be happy to repeat the test either on the same specimen or a newly collected specimen at no charge. Please contact our Customer Service at (515) 247-4471 to request this service.

Mercy Clinical Laboratory Outreach Phlebotomy Team

Phlebotomy is the act of drawing blood from the circulatory system in order to obtain a sample for diagnostic tests. Phlebotomy is performed by puncturing a vein with a needle and is commonly referred to as a “blood draw”.

At Mercy Clinical Laboratory (MCL), our outreach phlebotomy team is made up of 12 trained professionals who pride themselves in creating a caring and confidential environment for our patients. One phlebotomist states, “I like to help people. By drawing a blood sample for testing, we help them get to the root of their medical problems.” The outreach phlebotomists undergo extensive training and are certified by the American Society of Clinical Pathology (ASCP) as Phlebotomy Technicians (PBT) or an equivalent certification.

The outreach phlebotomy team staffs our five patient service centers and the outpatient phlebotomy draw room designed to serve hospital outpatients. Combined at all the draw stations, we average over 1,500 blood draws on a monthly basis! The phlebotomists provide phlebotomy service to clients who come to our patient service centers with orders from their provider. The phlebotomist is a member of the healthcare team and they strive to make the experience as convenient and painless as possible. “A patient drove to my draw station so I could draw his blood as someone else was unsuccessful. I was able to draw the sample and it made me feel good that the patient had confidence in me”, as a phlebotomist states, depicting the pride they have in the work they do each day.

Our outreach phlebotomists are the face of MCL to many patients. Another phlebotomist states that they work hard to “get to know my repeat patients and their families. I follow their progress, both good and bad, through their illness.” This makes the care they provide more personalized and comfortable.
During the next few months the Anatomic Pathology (AP) Department at Mercy Clinical Laboratory (MCL) will be working to implement the Vantage workflow management system. Vantage is designed to improve patient safety and productivity in Anatomic Pathology. Market research has found that each patient specimen is touched eight times in AP. MCL processes approximately 150 cases per day which calculates to nearly 1200 “touches” per day. Vantage will allow us to track specimens at every “touch” point improving quality and productivity within the department.

The Vantage system operates on the LEAN workflow model. Studies have shown implementing single piece flow instead of batch processing specimens helps to reduce errors and the addition of an integrated software solution helps further to prevent these errors.

The Vantage system begins with the accessioning of the specimen. A 2D barcode prints on the specimen cassette and a barcoded label is attached to the specimen. During specimen grossing the cassette and the specimen are again matched. At this time the grossing staff can relay special instructions through the software to the embedding staff such as how many specimen pieces were placed in the cassette or special handling at embedding. If for any reason the barcodes do not match the computer alerts the grossing staff of an issue so that proper steps can be taken. After the specimen is processed overnight it goes to the work station where it is embedded in paraffin by the histotech. Before embedding the cassette is scanned. All information about the specimen is displayed and any special instructions are seen at this time.

The next stop is the microtome where the block is scanned and all information is displayed. The Vantage displays all stains ordered on the specimen and prints out the slide labels for only that case, again single-piece flow. The tissue is cut into 4 micron sections and placed on the slides.

The slides are then stained according to the orders in the computer. When staining and coverslipping are completed the slides are scanned and assembled to be sent to a pathologist for diagnosis. The Vantage system ensures that all slides that comprise the case are placed in the folder before it is released to the pathologist’s office.

Vantage allows for tracking of the specimen at any place in the process. Each staff member who interacts with the specimen is recorded.

We are excited to complete this implementation with the goal of increased patient safety for those served by MCL.

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**New MCL staff**

Mercy Clinical Laboratory is pleased to announce the addition of B.J. Hills to our resource team in the role of Laboratory Billing Specialist. B.J. will serve as the liason between the laboratory and our billing office to ensure charges are posted accurately and invoices are correct from month to month.

Please contact B.J. at (515) 643-2326 with any billing concerns you may have.

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Mercy Clinical Laboratory is pleased to welcome back Keith Wachter in the role of Laboratory Quality Coordinator. Keith has had a long lab career including St. Joe’s in Omaha, Mercy in Des Moines, and most recently Genesis in the Quad Cities. Keith brings a wealth of knowledge to the position.

Please contact Keith at kwachter@mercydesmoines.org or (515) 643-2708.
MCL Patient Service Centers

MCL patient service centers provide prompt, quality service in the five locations listed below. The hospital outpatient phlebotomy stations are 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 serve patients that need multiple outpatient services including lab, hence the visit could be coordinated.

Mercy Outpatient Phlebotomy

Mercy Medical Center
1111 6th Ave., West Building, Level A, Des Moines
Phone: (515) 247-3020  Fax: (515) 643-8552
Hours: Monday – Friday, 6 a.m. to 4:30 p.m.

Mercy West Lakes
1755 59th Pl., Ste. 2260, West Des Moines
Phone: (515) 358-8150  Fax: (515) 358-8987
Hours: Monday – Friday, 7 a.m. to 5 p.m.

For a basic blood draw, please utilize one of our five patient service centers.

MCL Mercy North – Mercy North
800 E. First St., Ste. 1400, Ankeny
Phone: (515) 643-7710  Fax: (515) 643-8176
Hours: Monday – Friday, 7 a.m. to 4:30 p.m.
(Closed approximately Noon-1 p.m. for lunch)

MCL Mercy West – Mercy West
1601 NW 114th St., Ste. 134, Clive
Phone: (515) 222-7500  Fax: (515) 222-7510
Hours: Monday – Friday, 7 a.m. to 5 p.m.

MCL Atrium – Mercy Medical Plaza
411 Laurel St., Level A, Ste. 265, Des Moines
Phone: (515) 643-8924  Fax: (515) 643-8239
Hours: Monday – Friday, 7 a.m. to 5 p.m.

MCL Westown – Medical Office Building
5901 Westown Pkwy., Ste. 236, West Des Moines
Phone: (515) 358-7790  Fax: (515) 358-7791
Hours: Monday – Friday, 7 a.m. to 4:30 p.m.
(Closed approximately Noon-1 p.m. for lunch)

MCL Indianola
2006 N. 4th St., Suite 202A, Indianola
Phone: (515) 358-7678  Fax: (515) 358-7679
Hours: Monday-Friday, 8 a.m. to 4:30 p.m.
(Closed approximately Noon-1 p.m. for lunch)