



February 12, 2016

To: Hospital Transfusion Services and Clinical Laboratories

From: Juan A. Merayo-Rodriguez, MD  
Medical Director, LifeSouth Community Blood Centers

Subject: Mitigating the Anti-CD38 Interference with Serologic Testing

In November 2015, the first therapeutic CD38 monoclonal antibody [daratumumab (Darzalex, Janssen Biotech, Horsham, PA)] was approved by the Food and Drug Administration and other CD38 monoclonal antibodies are under development.

These antibodies may bind to CD38 on reagent RBCs causing in vitro panreactivity and showing positive reactions in indirect antiglobulin tests (IATs), antibody detection (screening) tests, antibody identification panels, and antihuman globulin (AHG) crossmatches performed in plasma samples. Positive IATs could persist for up to six months after anti-CD38 is discontinued.

In order to provide timely and accurate Immunohematology tests results, LifeSouth encourages its customers to appropriately complete all fields in our Request for Immunohematology Services form including a complete list of medications the patient is currently taking, it is acceptable to attach additional documentation if necessary.

To avoid problems with transfusion, hospitals may choose to perform one or more of the following mitigation strategies for any patient scheduled to begin taking anti-CD38:

- A baseline type and screen.
- A baseline phenotype or genotype.

If a patient is already taking anti-CD38:

- For antibody detection (screening) and identification, dithiothreitol (DTT)-treated cells can be used to eliminate the interference. Because DTT treatment destroys Kell antigens, K-negative units should be provided unless the patient is known to be K-positive.
- A phenotype or genotype.

The Turn-Around-Time for these patients is expected to be similar to patients with other causes of panreactivity (i.e. autoantibodies or antibodies to high incidence antigens).

As always, LifeSouth is committed to providing a safe blood supply that meets or exceeds the needs in each community we serve, and to provide a variety of services in support of ongoing and emerging blood and transfusion related activities.

Please feel free to contact me at 1-888-795-2707, if you have any further questions.