

MARCH / 2024

# Laboratory Services



**National  
Doctors Day**

MARCH 30, 2024

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# National Doctors' Day Observed March 30



The first Doctors' Day observance was March 30, 1933 in Winder, Georgia. Eudora Brown Almond, wife of Dr. Charles B. Almond, decided to set aside a day to honor physicians. This first observance included mailing greeting cards and

placing flowers on graves of deceased doctors. The red carnation is commonly used as the symbolic flower for National Doctors' Day and was signed by President George H. W. Bush on February 21, 1991.

***Nationwide Children's Hospital Laboratory Services would like to thank you for your commitment to our patients.***

## Helpful Tips from Our Client Services Team

Whether providing detailed information on our myriad of test offerings or troubleshooting patient result issues, our Client Services Department exists to provide helpful and timely assistance to our clients across Ohio and the country. Over the years, many clients have grown accustomed to working with Chris Shoemaker, a longtime CS representative, to troubleshoot issues. We spoke with Chris to ask her for tips that clients can use to help make their interactions with Client Services more efficient and productive.

According to Chris, one of Client Services most frequent calls is to clarify simple wording differences in test names. Test names can vary between labs and EMRs (electronic medical records). This often leads to confusion when trying to select the appropriate test. Chris says that the simplest way to ensure the correct test is selected is to reference our NCH Test Directory on our website at **[www.nationwidechildrens.org/lab](http://www.nationwidechildrens.org/lab)**. Our new Test Directory will provide synonyms to help in your search. If you do not find what you are looking for, clients can always call Client Services for clarification as well. We're happy to help you find the test you are looking for.

Another common issue that our Client Services staff has to address is errors in patient identification. One of the National Patient Safety Goals under JCAHO is to ensure appropriate identification through the use of two patient identifiers. This requires an exact match in the patient name spelling and date of birth, which appears on both the sample (whether handwritten or on a printed label) and the requisition. Any discrepancies require Client Services staff to follow up with the ordering provider or staff which can result in testing not being performed or significantly delayed. It is important to take the time to make sure all i's are dotted and t's crossed (literally!) before sending a sample for testing.

Chris also says when sending a fax with test orders to Client Services, that clients will find it pays dividends in time and effort to include a fax cover sheet. The fax cover sheet should include the Nationwide Children's offsite lab location (if known) that the patient will be visiting to get their blood/sample drawn. This enables Client Services to direct the order to the correct NCH offsite location and assures that the order is waiting at the correct site when the patient arrives.

Over the years, Chris has developed and maintained first-name relationships with many of our clients and their staff. She empathizes deeply with them. She says, "Even when I need some time to troubleshoot an issue, I'm thankful that our clients are overwhelmingly respectful and patient with our Client Services Team. They realize that, in order to serve our patients as best we can, we need to rely on each other and work together. This sense of community through shared common goals is one of the things that I love most about my job! And we should always strive to get better."



## Spotlight on Chris Shoemaker

Chris has worked at NCH and in Client Services for the past 16 years. Chris's many interests include indoor gardening, spending time with her grandchildren, Benjamin (7) and Eleanor (3), and attending comic book

conventions, or Comicons, with her son Eli, a cybersecurity major at Columbus State. She also aspires to travel to Scotland and Ireland. Chris actually legally owns one square foot of land in Ireland through an environmental organization that helps preserve the country's wild spaces!



# What's the Big Deal with Hemolysis?



**Amy L. Pyle-Eilola,**  
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**Heather Lawrence,**  
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Not getting lab results back because a sample is hemolyzed can

be really frustrating. It helps to first understand the science behind hemolysis, why it's a problem for lab samples, and how collection techniques can improve hemolysis rates.

## What is Hemolysis?

Simply put, hemolysis is the rupture of red blood cells. This most frequently occurs during sample collection, causing the contents of the red cells to spill into the sample. There are two ways in which hemolysis can affect lab results:

1. Analytes in high concentrations inside the red cells leak out, raising the concentration of those in the sample. The main culprits are potassium, AST, and LDH. These are the analytes most affected by even low levels of hemolysis.
2. Hemoglobin can interfere with how the analyzers measure the concentration of certain analytes. Most assay measurements are made by monitoring a color change following a chemical reaction. While the color change is not in the same wavelength as hemoglobin, when hemoglobin is present in excess, it can overwhelm the other color change (figure 1). This affects some tests more severely than others.

## What Causes Hemolysis?

There's a long-held belief that centrifugation causes hemolysis. This myth likely stems from the fact that, while hemolysis may be present in whole blood, it can only be visibly detected once a sample has separated into plasma or serum and cells, which is achieved by centrifugation. However, this is not the case. The vast majority of hemolysis occurs during sample collection. Common causes of hemolysis include:

- Using too small of a needle necessary for the selected vein
- Not allowing the alcohol used to clean the skin to dry completely
- Leaving the tourniquet on the patient for longer than one minute

- Using excessive pressure to pull the sample into the syringe
- Forcing blood into the vacutainer tube by pushing down on the syringe plunger
- Scraping of microtainer tube on patient's skin during capillary collections
- Aggressive finger and/or heel "milking" during a capillary collection
- Shaking the sample to mix it instead of gently inverting the tubes

## Tips for Prevention

- Choose the appropriate needle gauge for the selected vein (22g or larger when possible)
- Remove the tourniquet before one minute
- Do not remove the needle from the vein with the vacuum tube still engaged
- When using a syringe pull back slowly to ensure there is no air between the blood and syringe plunger
- Do not continue phlebotomy once a hematoma has started to form
- Pre-warm capillary puncture site
- Allow drops of blood from capillary collections to fall into microtainer
- Avoid excessively massaging and "milking" the finger
- Invert tubes gently; do not shake

## Sample Bag Replacements



Select offices have historically used blue specimen bags which indicated to our staff that there were electronic

orders for the samples. These bags are no longer available. Standard biohazard sample bags will be supplied and used in their place. Please reach out to Client Services at (800) 934-6575 with any questions.



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## How can Nationwide Children's Laboratory Services help your practice?

If you would like to become a client or learn more information about Nationwide Children's Laboratory Services, contact us at (800) 934-6575 or visit our website at **NationwideChildrens.org/Lab**. Would you like to receive the Nationwide Children's Laboratory Services Newsletter electronically? Please e-mail us at **LaboratoryServices@NationwideChildrens.org** and let us know!

Lab Account Representatives are available via email to assist with any questions or concerns.

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