

PRACTICE PROPER LABORATORY HYGIENE AND SAFETY

It is important in laboratory settings to practice proper hygiene and safety. This can prevent the spread of illness and limit injuries to yourself and others. The following are tips for proper laboratory hygiene:

- Wear appropriate lab attire (lab coats), cover your legs (long pants) and feet (closed-toe shoes) and confine any loose hair or clothing.
- Wear safety glasses, goggles or face shields at all times where eye hazards are a possibility. Contacts and corrective eye wear do not provide protection for the eye; safety eye wear must still be worn.
- Know your laboratory's safety protocols in case of an emergency.
- Wear gloves. Even if you wear gloves, proper hand hygiene can help decrease the risk of contamination or the spreading of infections.

Follow these tips when washing hands to ensure proper hand hygiene:

- Wet your hands with clean running water and then add soap. Use warm water if available.
- Rub hands together to make lather and scrub all surfaces.
- Continue rubbing hands for 15 to 20 seconds. Imagine or actually sing "Happy Birthday" twice.
- Dry your hands using a paper towel or hand dryer. If possible, use paper towels to turn off the faucet.
- If you are unable to wash with soap and water, use an alcohol-based hand gel. Rub hands for 15 to 20 seconds making sure the gel is completely dry, and don't forget to scrub your finger nails.

Avera Laboratory Network Lab Links is published quarterly to provide information of interest from labs of the Avera Laboratory Network. Questions may be directed to your Avera Laboratory Network representative.

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ABSOLUTE NEUTROPHIL COUNT

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Avera Sacred Heart Hospital Laboratory

Absolute neutrophil count (ANC) is a measure of the number of neutrophil granulocytes present in the blood. Neutrophils are white blood cells that fight against infections.

ANC calculation formula:
(segs + band) * WBC = ANC

A normal ANC is more than 1,500 cells per microliter (1.5 K/uL). An ANC of less than 500 cells/uL (0.5 K/uL) is defined as neutropenia and significantly increases the risk of infection. The most common situation where an ANC is measured is during chemotherapy treatment for cancer.

A complete blood count with differential order includes the Absolute neutrophil (Auto) parameter. If a manual differential is required on the sample, an ANC will also be reported. The difference between the two Absolute Neutrophil results extend from the different parameters used to calculate.

1. Auto: NEU number
 - a. Calculated value: Multiply WBC by the automated NEU percent.
 - b. The automated neutrophil percent does include all granulocytes counted in

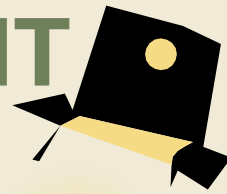
the sample (segs, band, metamyelocyte, myelocytes and promyelocytes).

- c. A sample with a significant number of immature granulocytes will have a falsely increase Auto value.
 - d. Per lab policy, a manual differential is performed on all samples with automated immature granulocyte (IG) percentage of less than 1.0.
2. Absolute Neutrophil: ANC
Calculated value: Multiply WBC by the sum total of the manual segs percent and band percent.

Which value is more accurate? Why are both reported?

The automated method classifies and counts more than 8,000 white cells, opposed to the manual differential where 100 white cells are classified. If the automated and the manual differential are in agreement, the report will include both differentials. In the event that the automated does not agree with the manual, or the analyzer has marked the automated results with suspect data flags, only the manual differential will be reported.

REGIONAL SERVICE CENTER SPOTLIGHT



Each quarter, one of our regional service centers is featured in "Regional Spotlight." In this issue, we share information on the Avera St. Luke's Hospital Regional Laboratory.



Dr. Thomas Buttolph



Dr. Bari Fritz

Avera St. Luke's Hospital would like to welcome Dr. Thomas Buttolph and Dr. Bari Fritz to the laboratory team as pathologists.

Dr. Buttolph received his bachelor's degree at Macalester College, St. Paul, Minn., and his medical degree at Uniformed Services University in Bethesda, Md. He completed a family practice internship at the Naval Hospital in Bremerton, Wash., and his pathology residency at Walter Reed Army Medical Center and the Armed Forces Institute of Pathology, Washington, D.C. He is currently completing a Master's in Public Health from Johns Hopkins University, Baltimore, Md.

Dr. Buttolph practiced in Yankton, S.D., until 2009 when he began to work for the Food and Drug Administration, eventually becoming the branch chief for post-marketing vaccine and blood product safety. Dr. Buttolph is board-certified in anatomic and clinical pathology and has special interests in clinical laboratory medicine, epidemiology and informatics.

Dr. Bari Fritz is a graduate of the University of South Dakota School of Medicine, Vermillion. She completed an anatomic and clinical pathology residency and surgical pathology fellowship at the University of Nebraska Medical Center, Omaha.

Avera St. Luke's Hospital
Regional Laboratory

SAVE THE DATES!

Educational, Professional Updates, Networking Spring Symposium and Annual Meeting April 13, 2012, in The Union at South Dakota State University, Brookings, S.D.

Region V Fall Symposium October 11 – 12, 2012, at the Arrowwood Resort and Convention Center, Alexandria, Minn.

Fall Collaborative Conference November 8 – 9, 2012, at the Ramkota Hotel and Convention Center, Aberdeen, S.D.

BEST CAREERS 2011: LABORATORY TECHNICIAN

As one of the 50 Best Careers of 2011, laboratory technicians should have strong growth potential over the next decade.

Medical technologists (MT) and clinical laboratory scientists (CLS) were declared among The 50 Best Careers of 2011 by U.S. News & World Report (USNWR) in its annual survey of high-demand careers. Editors at USNWR declared "clinical lab technicians and technologists" to be the "unsung heroes of the health care industry." We are behind the scenes, using tests and samples to generate the critical data that health care providers use to help make their diagnoses.

Each year, USNWR publishes its analysis of the 50 Best Careers. In each of the past two years, laboratory technician has made the list. According to the editors of USNWR:

- "Job growth is expected to be faster than average, with the number of clinical laboratory workers rising about 16 percent between 2008 and 2018, adding about 25,000 jobs, according to the Labor Department.
- "Median annual take-home pay was \$36,030 in 2009. For those at the top of the pay bracket, salaries can be more than \$55,210.

- "[Stress level] is pretty low, though hefty patient loads and keeping up with technological and regulatory issues can require some serious multi-tasking. You'll be working in a clean, well-lit lab most of the time.
- "The lower-cost education is a highlight of this occupation. For entry-level work, you'll likely need to have an associate's degree or complete a certificate program. It's possible to learn some of your skills on the job."

Top 10 Best Careers in Health Care

According to USNWR the following are the top 10 best careers in health care:

1. Athletic trainer
2. Dental hygienist
3. Laboratory technician
4. Massage therapist
5. Occupational therapist
6. Optometrist
7. Physician assistant
8. Physical therapist
9. Physical therapist assistant
10. Radiology technologist

CENTER STAGE

CPT Codes

The American Medical Association (AMA) Current Procedural Terminology (CPT) codes are provided for informational purposes only. The codes reflect our interpretation of CPT coding requirements, based upon AMA guidelines published annually. CPT codes are provided only as guidance to assist with billing. It strongly recommends confirmation of CPT codes with a Medicare Administrative Contractor, as requirements may differ from one to another. CPT coding is the sole responsibility of the billing party.

LOINC Database

The Logical Observation Identifier Names and Codes (LOINC) database provides a universal code system for reporting laboratory and other clinical observations. LOINC codes are used by large reference laboratories and federal agencies and are part of the Health Insurance Portability and Accountability Act (HIPAA) attachment proposal. Please visit loinc.org for more detailed information.