



QUALITY UPDATE

A monthly publication providing information and updates to CompuNet Clients
Mission: Improving the health of our community through excellence in medical laboratory services.

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Quality Patient Results Series Collecting Quality Specimens

by Lisa Barnhart, *Quality Assurance*

Did you know that CompuNet offers our clients “Quality Assurance for Specimen Collection” training at no charge? Trainings are conducted at our Sandridge facility with a minimum of 3 participants. You can schedule an in-service by contacting our PSC Training Coordinator, Kirsten Seely at 297-8286 or Kirsten.L.Seely@questdiagnostics.com.

A result that best reflects the clinical condition of the patient, at the time of draw, begins with quality collection techniques. There are several steps in the venipuncture process that could affect the patient’s results in varying degrees depending on the test ordered. In addition to the collection guidelines provided in our Directory of Services, let’s discuss hemolysis and its impact on specimen integrity and patient results.

Hemolysis – when serum or plasma appears orange to red in color due to destruction of the red blood cells. The most common tests affected by hemolysis include glucose, potassium, PT/PTT, and CBC results. The Directory of Services also indicates when to avoid hemolysis for a variety of other tests.

Hemolysis can occur for a variety of reasons:

- The tourniquet could be too tight or left on the patient’s arm longer than 2 minutes,
- Patient is pumping their fist before and/or during the venipuncture,

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- Dropping or shaking a tube vigorously,
- Slow blood flow during collection – reasons:
 - The size of the needle (21 gauge is preferred for most venipunctures),
 - Or using a small needle with a large tube,
- Drawing back a syringe too quickly or forcing blood quickly from the syringe into a tube,
- Use of a butterfly needle (one study has shown that the use of a butterfly can increase potassium levels by as much as 4% when compared to the same gauge standard needle. Never use a butterfly to collect PT/PTT tests. If you must use a butterfly, draw a discard tube first, then collect a full blue top. (ALL special coag studies require use of a discard tube),
- A SST tube left unspun for a prolonged period of time (over 1 hour). SST tubes should be allowed to clot for 30 minutes and then centrifuged for 10-15 minutes,
- Specimen in tubes is exposed to extreme warm or cold temperatures. Always maintain the specimen integrity by following the guidelines given in the Directory of Service (DOS) for transfer and storage temperature.

I hope that you have found some of these tips helpful. The laboratory results are truly dependent upon the proper collection of the specimens. An improper specimen collection method can produce erroneous results. That's why at CompuNet, we continuously strive to partner with you, our clients, in providing quality results and services for your patients.

Fixation is the KEY to Specimen Quality

by: Amanda Clark, Cytology & Dan Sushereba, Histology

The diagnosis of cells (cytology) and tissues (histology) is critical to determining the disease condition of the patient. When the Pathologist issues a diagnosis, the patient's physician determines the appropriate course of treatment that should be followed.

Both cytology and histology require lengthy preparation of the material gathered from the patient. Multiple processes are applied to biopsies and body fluids so that the cells of the material can be visualized by the Pathologist in the form of a microscopic slide. The diagnoses are made from these slides. In cytology, fluids are concentrated so that a suitable volume of cells are present for the pathologist to view. The slides become the permanent record of the procedure. In histology, biopsies are made into paraffin tissue blocks from which slides are cut and delivered to the pathologist for review. The tissue blocks as well as the slides are the permanent record of the procedure.

It is important to note that in both cytology and histology we do not look at living cells and tissues. As soon as the specimen has been gathered from the patient, changes begin to take place. An immediate and rapid process of cell and tissue destruction begins when routine circulation or other fluid conditions are terminated. The self destructive processes can be halted and artifactual changes minimized through the use of appropriate **FIXATIVES**. Fixatives are chemical fluids which kill cells and tissues quickly while stabilizing cellular proteins and rendering them resistant to further changes.

Fixation is the single most important step in processing histology or cytology specimens.

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The most important part of producing a good pathology diagnosis is in the hands of those who obtain the specimen. There are 2 major points to get correct for this to occur: 1) Select the correct fixative, 2) Get the specimen into the fixative of choice quickly.

The rule of thumb is:

Cytology

GYN --- Fix in ThinPrep Vial

Non-GYN --- Brushings, Washings, Lavages, Sputum, Urine, and FNA material rinsed from the needle/syringe - Fix in CytoLyt (white top cup with green label)

- Pleural fluids – send fresh,
refrigerated in vacuum bottle

Histology

Fresh or Tissue for Frozen Section--- Send immediately.

- Routine Pathology----Fix in formalin
- Special studies --- Bone Marrow, muscle biopsy, renal biopsy contact Histology prior to the biopsy for instruction 208-3595.

Care360 Tips and Reminders

By: Gina Weimer – IR Department

Here are some friendly reminders:

- 1) You can order your CompuNet supplies directly from Care360. Within Lab Orders and Results just click on the “Client Supplies” tab in the left-hand navigation toolbar. In Physician Portal go to the clinical tab, select lab orders, and then just click on the “Client Supplies” tab in the left-hand toolbar.
- 2) When adding “Recipients” (Copy To) in Easy Order, you must specify the client number to retrieve the client address or manually enter the name and address. You can no longer search for clients by name.
- 3) Please make sure Medicare ABN’s are signed and properly filled out for all patients that require them, including the patient signature.
- 4) If you have any problems or questions with Care360, please contact the Help Desk at 800-697-9302

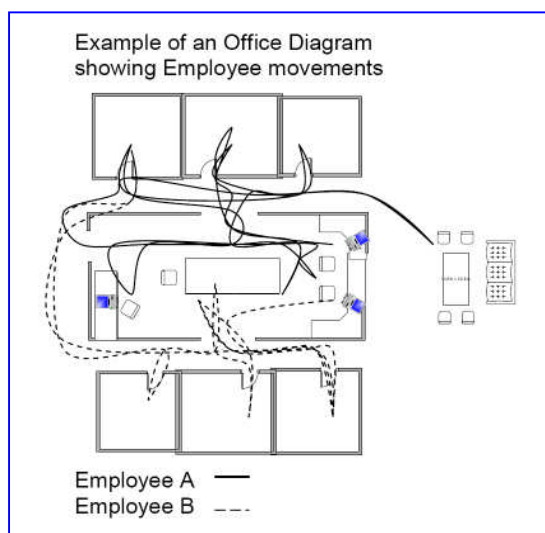
Spaghetti in Your Offices!

By: Carolyn Thaman, Six Sigma

Spaghetti “Diagrams” – not the food – is a process improvement tool useful in redesigning work areas. The following steps are a quick & easy way to try the tool.

Steps:

- 1) Draw the work area that you’re determining needs changed on paper – including all structural pieces such as work stations, counters, chairs, computers, etc.
- 2) Next – using this diagram – you’ll follow an employee(s) through a busy period of time and record all the movements with a continual line.
- 3) From this, you’ll be able to “view” the work stations and determine if there are better placements that could be accomplished.



This is one of the improvement tools from the Lean methodology. It encompasses much further details but this much does provide a great deal of benefit. For further information, feel free to contact Carolyn Thaman at 297-8263.

Patient Service Center News:

Re-opening of Elizabeth Place Location:

One Elizabeth Place; 627 S Edwin C Moses Blvd; Dayton, OH 45408-1461

PH: (937) 222-7423

FAX: (937) 222-7467

Monday – Friday: 8:00 AM – 12:00 PM

1:00 PM – 5:00 PM

Adjustment of Hours: At the request of patients and clients, CompuNet will be adjusting the hours of operations for two of our Patient Service Centers (PSC) effective November 1, 2008.

Urbana PSC

Monday – Friday: 8:00 AM - 12:00 PM

1:30 PM - 5:00 PM

Springfield North PSC (Emmanuel Way)

Monday – Friday: 8:00 AM - 12:00 PM

1:00 AM - 5:00 PM

Saturday: 8:00 AM - 2:00 PM

Drug screen collection hours at both locations end 1/2 hour before lunch and 1/2 hour before closing.
