WELCOME READERS

Dear CASMET Members and friends, we would like to welcome you to the first issue of this newsletter, compiled by the Education Committee. We hope that the information contained therein will not simply be interesting but educational, as we seek to adhere to the motto ‘you learn something new every day’. We welcome any comments that you may have irrespective of what they may be, as we seek to improve the newsletter.

We are also happy to invite the submission of articles to be included in future editions as we are sure that there are areas of research or studies that you have been, currently are or will be involved with, that would be of interest to our readers. Please note the contact information as outlined below.

Earther Went (Chairperson): ewent@bcc.edu.bb
Sashoy Duncan: sashoyforbes@hotmail.com
Marcia Robinson-Walters: brian_0299@hotmail.com
Delphia Theophane: djphia41@hotmail.com
Tamara Chambers: tamara.chambers@ncu.edu.jm

Via Post: Miss Earther Went, Barbados Community College, ‘The Eyrie’, Howell’s Cross Roads, St. Michael, Barbados

Celebration Time: Come On!!

Medical Laboratory Professionals Week is April 22nd – 28th, 2012. Let’s show unity and celebrate it together in our respective islands!

CONTRIBUTORS FOR MARCH

Earther Went (Barbados)
Jasmine Hanley (St. Kitts & Nevis)
Cheryl Reechert (The Cayman Islands)
The World Health Organization (WHO):
Marcia Robinson-Walters (The Cayman Islands)
How We Learn

Sometimes the mistake is made in assuming that if someone can read and easily recall, the same should apply to us. Unfortunately, it is not as easy as it seems, simply because that may not be the way that you learn best. According to research, there are four styles of learning i.e.

Visual: eyes – looking at, writing, drawing
Verbal: mouth – asking, explaining
Auditory: ears – listening, questioning (internal voice)
Kinesthetic: body – experiences, moving, touching

To determine how best you learn, please try the following (adapted from www.tridentlearning.org)

Instructions: Check off which list of words appeal to you most. Choose only ONE list.

Learning style word cue list!

<table>
<thead>
<tr>
<th>List #1</th>
<th>List #2</th>
<th>List #3</th>
<th>List #4</th>
</tr>
</thead>
<tbody>
<tr>
<td>. Appears to me</td>
<td>. All ears</td>
<td>. Call on</td>
<td>. Come to grips with</td>
</tr>
<tr>
<td>. Catch a glimpse of</td>
<td>. Clear as a bell</td>
<td>. Clearly expressed</td>
<td>. Get a handle on</td>
</tr>
<tr>
<td>. Dim view</td>
<td>. Earful</td>
<td>. Explain in detail</td>
<td>. Get a load of this</td>
</tr>
<tr>
<td>. Eye to eye</td>
<td>. Give me your ear</td>
<td>. Hear voices</td>
<td>. Get in touch with</td>
</tr>
<tr>
<td>. In light of</td>
<td>. Hidden message</td>
<td>. Idle talk</td>
<td>. Get the drift of</td>
</tr>
<tr>
<td>. Looks like</td>
<td>. Rings a bell</td>
<td>. Loud and clear</td>
<td>. Hold it</td>
</tr>
<tr>
<td>. Mental image</td>
<td>. To tell the truth</td>
<td>. Voiced an opinion</td>
<td>. Lay cards on table</td>
</tr>
<tr>
<td>. Mind’s eye</td>
<td>. Tuned in/ tuned out</td>
<td>. In person</td>
<td>. Pull some strings</td>
</tr>
<tr>
<td>. See to it</td>
<td>. Unheard of</td>
<td>. Description of</td>
<td>. Start from scratch</td>
</tr>
<tr>
<td>. Short – sighted</td>
<td>. Within hearing range</td>
<td>. Verbalized</td>
<td>. Too much hassle</td>
</tr>
</tbody>
</table>

Your Learning Style

Which one best applies to you? !!!!

Learning Style Results:

#1 Visual (See) #2 Auditory (Hear) #3 Verbal (Say) #4 Kinesthetic (Touch / feel)
The Mediserv Cytology Training School: St. Kitts & Nevis

It is here! As you may be aware, there is a severe shortage of Cytotechnologists and Cytotechnicians in the Caribbean, hence the opening of the Mediserv Cytology Training School in St. Kitts, should meet the demand required for these trained professionals.

The school opened on February 4th, 2012, at Taylor’s Range, Basseterre, St. Kitts. The event was blessed by the Venerable Archdeacon Valentine Hodge, while congratulatory remarks were given by Dr. Patrick Martin, the Chief Medical Officer and Mr. Andrew Skerritt, the Permanent Secretary. Congratulations were sent by Mr. Grant Lambert, President of CASMET, whilst remarks were presented by Ms. Valerie Wilson of the Caribbean Med Labs Foundation via Skype.

The owner and primary Tutor, Ms. Jasmin Hanley, informed those present, that no significant decreases in the incidence of cervical cancer in the Caribbean and Latin America had been seen, when compared to other regions. Therefore, her contribution to this problem would be to train medical technologists and other interested persons in the art of detecting premalignant lesions.

This process would allow for the early detection and hence treatment of cervical cancer. Cervical cancers as you know are malignant neoplasms arising from cells originating in the cervix uteri, with or without any presenting symptoms, until they are in the advanced stages. Hence increasing the number of trained persons in the Caribbean is essential.

The school currently has five students (bottom photo), from the Caribbean countries of Barbados, Dominica, the Cayman Islands, and Tobago. Nonetheless, the ideal capacity of the school is 6, as considerable one on one microscopic and interactive training is available.

For those persons who are interested in the programme you may visit the website www.cytologytraining.com for more information.

For those who think they know all about cervical cancer, or if you think you know enough answer the two questions given below: without assistance from anyone or the web:

a. Where did the term ‘PAP smear’ originate?

b. Which agent is the leader in causing cervical cancer?
Latex allergy reactions

Most latex allergies start as cell-mediated chronic urticarial dermatitis. Latex allergies may then progress to mucosal sensitivity. Before I was aware of the ramifications of my latex allergy, I had a mild hypotensive reaction when my dentist inserted a rubber dam in my mouth. Fortunately he was vigilant and quickly removed the offending latex dam; he now uses latex-free products for his latex-sensitive patients.

For approximately 2-3% of healthcare workers, the latex allergy progresses to occupational asthma and may evolve to life-threatening IgE mediated anaphylactic shock. As a pathologist, I performed an autopsy in the case of an unfortunate 45 year old healthcare worker who died during routine surgery after her surgical site was packed with latex strips. In another case an unsuspecting laboratory co-worker at my US hospital developed hypotension and bradycardia and nearly died during a routine hysterectomy; her problem was initially blamed on anesthesia but subsequently was traced to her surgeon’s latex gloves. The medical literature is replete with such episodes, including the tragic death of a woman following C-section.

Preventing tragedy

During the admission process, Cayman Island Hospital staff routinely inquires about allergies. However, some patients are unaware that they are allergic to latex. When admitting patients who currently are or who once worked in healthcare (even if they have retired or changed careers), it is essential to also inquire about reaction to bandages, waistbands of underwear, condoms, diaphragms, and certain foods that may contain cross-reacting antigens. (There are a number of different latex antigens, and as a result 30-50% of individuals allergic to latex show hypersensitivity to some plant-derived foods such as avocados, kiwi, chestnuts, bananas, passion fruit, cassava).
WHO GUIDELINES ON DRAWING BLOOD: 
BEST PRACTICES IN PHLEBOTOMY

The following information was obtained with the kind permission of the World Health Organization (WHO). Additional sections will be placed in subsequent newsletters; however for all those persons who are interested in the complete document and cannot wait for the selected articles, you may access the document via http://whqlibdoc.who.int/publications/2010/9789241599221_eng.pdf; February 29th, 2012.

Issues in Phlebotomy

By its nature, phlebotomy has the potential to expose health workers and patients to blood from other people, putting them at risk from blood-borne pathogens. These pathogens include human immunodeficiency virus (HIV), hepatitis B virus (HBV), hepatitis C virus (HCV), and those causing viral haemorrhagic fevers (Crimean Congo haemorrhagic fever, Ebola, Lassa and Marburg) and dengue (3).

For example, outbreaks of hepatitis B have been reported with the use of glucometers (devices used to determine blood glucose concentration) (4, 5). Diseases such as malaria and syphilis may also be transmitted via contaminated blood (6, 7), and poor infection control practices may lead to bacterial infection where the needle is inserted and contamination of specimens. If a blood sample is poorly collected, the results may be inaccurate and misleading to the clinician, and the patient may have to undergo the inconvenience of repeat testing. The three major issues resulting from errors in collection are haemolysis, contamination and inaccurate labeling.

Factors that increase the risk of haemolysis include:

- Use of a needle of too small a gauge (23 or under), or too large a gauge for the vessel;
- Pressing the syringe plunger to force the blood into a tube, thus increasing the shear force on the red blood cells;
- Drawing blood specimens from an intravenous or central line;
- Underfilling a tube so that the ratio of anticoagulant to blood is greater than 1:9;
- Reusing tubes that have been refilled by hand with inappropriate amounts of anticoagulants;
- Mixing a tube too vigorously;
- Failing to let alcohol or disinfectant dry;
- Using too great a vacuum; for example, using too large a tube for a paediatric patient, or using too large a syringe (10–20 ml).

Serious adverse events linked with phlebotomy are rare, but may include loss of consciousness with tonic clonic seizures. Less severe events include pain at the site of venepuncture, anxiety and fainting. The best documented adverse events are in blood transfusion services, where poor venepuncture practice or anatomical abnormality has resulted in bruising, haematoma and injury to anatomical structures in the vicinity of the needle entry.

For example, one study reported bruising and haematoma at the venepuncture site in 12.3% of blood donors (8). Nerve injury and damage to adjacent anatomical structures occurred infrequently, and syncope occurred in less than 1% of individuals (8).
**Issues in Phlebotomy Cont’d**

Vasovagal attacks occurred occasionally, varying from mild to severe; fainting was reported in 5.3% of cases and usually occurred in first-time female blood donors (8-11).4

Injuries from sharps (i.e. items such as needles that have corners, edges or projections capable of cutting or piercing the skin) commonly occur between the use and disposal of a needle or similar device (12, 13). One way to reduce accidental injury and blood exposure among health workers is to replace devices with safety (i.e. engineered) devices (14–16). Safety devices can avoid up to 75% of percutaneous injuries (17); however, if they are disassembled or manually recapped, or if the needle safety feature is not activated, exposure to blood becomes more likely.

Eliminating needle recapping and instead immediately disposing of the sharp into a puncture-resistant sharps container (i.e. a safety container) markedly reduces needle-stick injuries (18, 19).

Reporting of accidental exposure to blood and body fluids is more frequent from well established health-care systems; however, it is thought that the incidence of such exposures is actually higher in systems that are not so well equipped (20, 21).

Home-based care is a growing component of health delivery, and current global trends suggest that home-based phlebotomy will become increasingly common. In this situation, stronger protection of community-based health workers and the community will be needed. This can be achieved by improving sharps disposal, and by using safety needles with needle covers or retractable needles to minimize the risk of exposure to needles (22) and lancets.

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**Three Examples of Safety Syringes**

![Image of syringes with protective shield, retractable needle, and blunt-tip blood-drawing needle](image)
The Fun Page

Time for real jokes: Complements of Marcia Robinson-Walters

Caller: We have been waiting on a result for a patient by the name of “Bence”
Medical Technologist: What is the surname?
Caller: “Jones”
Medical Technologist: We do not have a patient by that name. What is his D.O.B?
Caller: November 2, 1965
Medical Technologist: We have a test request for a patient with that D.O.B but the name is not the same.
Caller: (Quite Irate) Please just give me the result for Bence, D.O.B is November 2, 1965
Medical Technologist: Well the conclusion I can make is that you need the “BENCE JONES Protein” test result for a patient with D.O.B November 2, 1965!

Customer Screamed at Medical Records Clerk: “I need the hemoglobin result for my stool test that I did a month ago!!!

Quote adopted by Discouraged Medical Personnel—

“We the willing, led by the unknowing, are doing the impossible for the ungrateful. We have done so, with so little, for so long, we are now qualified to do anything with nothing”

By: Mother Theresa of Calcutta

Some interesting ones borrowed from the internet: (www.butlerwebs.com/jokes/medical.htm)

A collection of documentation statements actually found on patient's charts during a recent review of medical records. These statements were written by various health care professionals including (we are afraid) a doctor or two at several major hospitals:

- Bleeding started in the rectal area and continued all the way to Los Angeles.
- Exam of genitalia reveals that he is circus sized.
- The skin was moist and dry.
- Rectal exam revealed a normal size thyroid.
- She stated that she had been constipated for most of her life until 1989 when she got a divorce.
The Test: Some Things To Find Out!!!

1. Which learning style is the one most commonly used for learning?

2. What was the main reason for the establishment of the cytology school?

3. What is a malignant neoplasm and how does it develop?

4. What would be an example of a protein contaminant found in latex gloves?

5. Why would some persons undergoing multiple medical procedures become sensitized to latex/latex particles?

6. What are the symptoms of IgE mediated anaphylactic shock?

7. Identify one other disease besides those mentioned in the WHO article that can be transmitted by blood.

8. How can blood be ‘poorly collected’ and what may be the result of this.

9. What is a:
   a. Tonic clonic seizure
   b. Hematoma
   c. Vasovagal attack

10. What is the correct technique for the capping and disposal of a used syringe?

Answers in the next issue of the newsletter: Stay Tuned!
This Newsletter is a production of the Education Committee of the Caribbean Association of Medical Technologists

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