I was just thinking that we are getting into the busy time of year. But what does that mean? The new normal is that every time of year is the “busy time of year.” As military laboratory professionals, we are always busy and there are always process improvements, new technologies to investigate, CAP Inspections to prepare for, the military requirements, and the list goes on!

How do you find time to network? How do let everybody know what’s happening in your lab? How do you initiate a dialogue amongst your peers about the issues in the laboratory that affect all of us? The Society Scope, of course! This edition had a great turnout for submitted articles. Also, a great variety of articles. Let’s try to hold this pace and push ourselves and our peers to submit articles. I learned some new things reading these articles. I hope you do too!

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SAFMLS President Message

What’s Your Why?

Lt Col Angela Hudson

What drives you every day to put on your uniform and go to work? I gather many would say the outstanding paycheck we earn or the fantastic benefits like the healthcare, commissary and morale activities. Besides these great benefits, what describes your commitment? I believe one of the driving forces behind our commitment to military healthcare and the beneficiaries we serve has to do with a passion for achieving Zero Harm in our profession. You may have heard the Trusted Care mantra “What is your why?” If you haven’t, I encourage you to read some of the outstanding articles on the Trusted Care campaign hospitals are adopting to become high reliability organizations.

Every health care staff member has a role and responsibility in achieving Zero Harm. From the nursing and medical staff to the laboratorians and the janitorial staff. What is your why? Was there a harmful event that really affected you or one of your family members? Was there a positive experience as a laboratorian or as a patient you experienced that inspires you to provide and emulate Trusted Care? As leaders in our military treatment facilities, we need to be sharing the great catches happening around us every day that our soldiers, sailors and airmen make that positively impact our patients. I would like to highlight one of our Air Force Medical Service (AFMS) laboratory technicians that was recognized as a Trusted Care Hero for making a great safety catch, SSgt Jessica Tamuzza from Nellis AFB, NV. While on the ward collecting blood, she noticed a patient whose armband name differed from the name on the laboratory test labels. As an Airman First Class, she could have been intimidated to speak up but following her training, she confirmed the error, alerted the nursing staff, and refused to draw the blood. Even though she had alerted the staff, the patient’s blood was drawn by the ward staff and sent to the laboratory for testing. She alerted the lab staff and the blood was not processed. This Airman represents what the culture of AFMS Trusted Care is all about.

These great catches happen every day and sharing them can help promote the safety culture of military medicine as well as encourage others to do the same. The SAFMLS/CLMA annual meeting is a great place to share these, so I encourage you to be an active member at Long Beach in May 2018 with your fellow military and civilian professionals. Bring your great catches, questions and process improvements. Your participation either by attendance or coordinating your staff members to attend is the key to a successful annual meeting. Each year we work to justify our organization and the annual meeting so we need your contribution to the educational, scientific and networking opportunity. We grow through your participation...either as a board member, speaker, poster presenter or running for the next elections.

Your positive example matters. Be involved in SAFMLS and lead others to experience the benefits of associating with officer, enlisted and civilian professionals in their career field. Thank you for your care for our veterans, service members and their families. YOU make a difference!
In the attached from left to right are SGT Brittany Scott, SGT Christopher Stewart, SPC Samantha Skinner, SFC Ronald Lange and myself, CPT Sarah Matthews. We are part of 47th CSH, America's CSH, deployed Oct 2017 to BDSC, Iraq.

In addition to acting as the Role 3 Laboratory, we are working as the Blood Support Unit for OIR distributing blood to this theater of operations. We have set up our own Walking Blood Bank program here and have trained many of the Role 1's and 2's on Walking Blood Bank and prescreen procedures. We are the first to perform titrations in a deployed setting, to be able to identify low titer type O (universal whole blood donors) individuals in theater who were not prescreened prior to deployment. In addition, we are also one of the first laboratories to earn our CLIP (Clinical Laboratory Improvement Program) Certificate while deployed.
On January 19, 2018 the Joint Pathology Center (JPC) was presented with the College of American Pathologists (CAP) ISO 15189 Accreditation plaque by CAP’s President-Elect, Dr. Patrick Godbey. This event marked the first U.S. federal laboratory to achieve CAP ISO 15189 accreditation. This achievement was best summed up by Major General Ronald Place, Director of the National Capital Region Medical Directorate, who said at the accreditation ceremony, “This is a big deal!” JPC’s journey from Initial Operating Capability in 2011 to becoming the first federal lab to achieve ISO accreditation
seven years later has been nothing but a steep uphill climb at double time. This article describes the JPC and its journey to ISO accreditation.

The Joint Pathology Center (JPC) is a “new-old” organization. Although only formed in 2011, its roots are deep. The JPC assumed most of the clinical missions and possession of the largest tissue repository in the world from the dis-established (closed) Armed Forces Institute of Pathology (AFIP), Washington, D.C. The National Defense Authorization Act (NDAA) of 2008 established and gave the JPC four primary missions: 1) Pathology secondary consultation; 2) Pathology education; 3) Pathology research and, 4) Maintenance, modernization and utilization of the Tissue Repository.

Today the JPC clinical activities include:

- provide expert secondary consultation to DoD, DVA, and other federal pathologists
- provide limited primary diagnosis (nerve and muscle biopsies, medical renal biopsies, autopsy brains) to the DoD, DVA, and NIH
- provide depleted uranium and metal analysis of urine and embedded metal fragments for the VA

The JPC has in-house experts for 21 pathology sub-specialities which allow pathologists from multiple sub-specialties to review and collaborate on the diagnoses of cases. Additionally, the JPC has several in-house laboratories including: a Molecular Diagnostics laboratory, a Neuromuscular laboratory, an Electron Microscopy laboratory (transmission and scanning EM), Environmental Toxicology laboratory, and access to an extensive immunohistochemical (IHC) and special stains menu (provided by the laboratory at Walter Reed National Military Medical Center).

The JPC hosts the only veterinary pathology residency in the DoD, a three year post-doctoral residency training program, for the education and training of active duty veterinary pathologists who
will lead or directly support military relevant research initiatives upon graduation. In addition, veterinary pathology consultation is performed by JPC’s veterinary pathologists. This diagnostic consultation service is provided for DoD and other federal government-owned animals, as well as for Service members and Retirees’ privately-owned animals. A core component of the residency training program with enormous impact on training programs globally, the JPC hosts a weekly veterinary online histopathology slide conference with submissions from 125 participating DoD, university, and civilian research institutes from 29 countries.

The prize acquisition from the dis-established AFIP was the Tissue Repository. This is the largest collection of human pathologic specimens in the world. In September 2017, the Tissue Repository celebrated its centennial year. The JPC Repository consists of materials collected by the AFIP since 1917. The collection contains over 31 million paraffin embedded tissue blocks, 55 million glass slides and 750,000 formalin fixed ‘wet’ tissues. JPC’s Tissue Repository is the sole repository for all tissues obtained from military working dog postmortem examinations. Because of the volume and diversity of tissues that are available at the JPC, the Tissue Repository has the potential to supply pathologic materials for countless numbers of research efforts.

What is ISO?

The International Organization for Standardization (ISO) is an independent, non-governmental international organization with a membership of 163 national standards bodies. The American National Standards Institute (ANSI) is the U.S. member body to ISO. The mission of ISO is to promote the development of standardization and related activities in the world with a view to facilitate the international exchange of goods and services, and to develop cooperation in the sphere of intellectual, scientific, technological and economic activities. This work results in international agreements published as International Standards.

ISO has a number of health care related standards. For example:

- ISO 7713 Disposal Serological Pipettes
- ISO 11418 Containers for Pharmaceutical Preparations
- ISO 11991 Airway Management
- ISO 12771 Disposal Plastic Serological Pipettes
- ISO 13485 QMS for Medical Devices
- **ISO 15189 Medical Laboratories Requirements for Quality and Competence**
- ISO 15190 Requirements for Safety
- ISO 51939 Practice for Blood Irradiation Dosimetry
- ISO 15223 Labeling of Medical Devices
- ISO 15225 Nomenclature system for Medical Devices for Regulatory Data Exchange
- ISO 22367 Reduction of Error Through Risk Management and Continual Improvement

Accreditation to ISO 15189 is an accreditation and quality management system that focus on the continuum of care directly connected with improved patient safety and risk reduction. It describes Standards for quality and competence particular to medical laboratories. ISO 15189 examines:

- **Management Requirements**
  - Quality Management System
- Document Control
- Service Agreements
- Examination by referral laboratories
- External Services and supplies
- Advisory services
- Resolutions of complaints
- Identification and control of nonconformities
- Corrective action
- Preventive action
- Continual improvement
- Control of records
- Evaluation and audits
- Management review

**Technical requirements**
- Personnel
- Accommodation and environmental conditions
- Laboratory equipment, reagents and consumables
- Pre-examination process
- Examination process
- Ensuring quality of examination results
- Post-examination process
- Reporting of results
- Release of results
- Laboratory information management

The College of American Pathologists (CAP) ISO 15189 philosophy is, “At the core of the ISO 15189 program is the development of processes that drive quality systems improvements. It is an educational approach based on criteria and procedures that identify best practices and develop technical competence, thus assuring laboratory consumers that the tests, calibration, or data supplied by the lab are accurate and reliable.”

The Centers for Medicare & Medicaid Services (CMS) regulates all clinical laboratory testing (except research) performed on humans in the U.S. through the Clinical Laboratory Improvement Amendments (CLIA). All clinical laboratories, to include all DoD clinical laboratories, must be properly certified through an approved Laboratory Accreditation Program (LAP) in order to receive Medicare or Medicaid payments. While LAP is mandatory, ISO 15189 accreditation is voluntary and is a global standard with a different scope. Laboratories accredited under CAP ISO 15189 still must meet the rigors of a CAP’s LAP with the additional exacting requirements specified under ISO 15189. At the time of this writing there were only 45 laboratories (35 U.S. labs and 10 international labs) world-wide with CAP ISO 15189 accreditation. CAP ISO 15189 accredited labs included ARUP Laboratories, Henry Ford Health System, Mayo Clinic Health System, St. Jude Research Hospital and, ViroMed Laboratories just to name a few.
The JPC’s journey to becoming ISO 15189, *the end of the beginning.*

You may have heard that going ISO is a lot of work, and it is. We will not mislead you into believing that some within the organization are going to jump on board without a lot of pushing, pulling, and pleading. This is normal for any major culture change. But such organization reshuffling can be done, and can be done best with senior leaders’ endorsement and a band of “believers” who will not suffer the slings and arrows of unconvinced employees and will put their back to the wheel and continue to move your lab toward ISO.

The JPC did a step-wise approach to achieving ISO. Starting with teaching the staff Lean quality methods as taught by the Henry Ford Hospital System (HFHS). First, representatives from most of the organization’s sections were sent to HFHS to attend a two-day course to learn HFHS’s *Lean Culture of Continuous Improvement*. These section representatives served as the *Cadre of Quality*, taking lessons they learned at the course along with in-house teaching and training QA sessions back to their sections. They translated the organizations quality tasks to language that their section coworkers could understand. After this initial foray into the quality pool, we contracted for instructors from HFHS to come to the JPC to provide training for the entire staff. In addition to providing Lean training, we conducted a process review of all our clinical operations to identify redundancies while eliminating waste and confusion. We used these basic tools to make incremental quality improvements while seeking opportunities to instill an increased awareness and appreciation for quality. This was all done with a backdrop of government shut-downs, sequestration, staff-shortages and an increasing workload.

At that time the JPC was spread out over three different military installations in the Washington, D.C. area. The Environmental Toxicology (ETL) laboratory (performs trace metal testing on biological specimens) was located on Joint Base Andrews about 25 miles from our main campus on the Forest Glen Annex in Silver Springs, MD. The ETL was hastily located on Joint Base Andrews after the dis-establishment of AFIP. Needless to say, trying to find space on a military installation is always difficult but trying to do so in the Washington, D.C. area is almost impossible. Luckily, our Air Force partners in the NCR were receptive to our mission and able to obtain space in the installation hospital. As a result, we were able to convert the donated space to the environmentally specific needs of a trace analysis laboratory. About a year later, construction on a new hospital on Joint Base Andrews began; Since the ETL laboratory was on borrowed space, construction plans were not considered in the new hospital for the ETL laboratory. Fortunately, during this time tenants on our main campus, Forest Glen Annex, vacated a building which allowed us to convince the Army that this space was optimal for such a unique clinical mission and of a higher priority than others vying for the space. This space required total renovation, essentially building a brand new lab. Due to the extensive work required for movement and
renovation of a state-of-the art laboratory, we thought we could capitalize on this venture and achieve ISO accreditation.

**Going for ISO, the beginning of the end.**

We hired an ISO consultant who performed a gap analysis and started training our workforce for the tasks that lay ahead. Our internal gap assessment revealed we had major work to do in 15 out of 25 ISO standards. To address these gaps, nine teams were formed. They were trained by our consultant (Dr. Rita D’Angelo). Team leads were appointed, and time was given for them to work on filling the gaps. Teams met weekly with either our consultant or our Quality Assurance Manager (Ms. Grace Deneke). This was a team effort in that while team members were working on filling ISO gaps their colleagues had to pick up their work. Given the existing staffing shortages, increasing workload, and the newness of this venture, not surprisingly this was a stressful time within the organization. Nonetheless, we knew that achieving excellence is seldom easy.

**Joint Pathology Center**
**CAP ISO 15189**

![Diagram of ISO accreditation timeline](image)

*Figure 4 JPC’s ISO accreditation timeline as approved by COL Simon*

It has been said that ISO is *document control on steroids*, and indeed there is a high demand for document control with ISO. As we worked to close our gaps we identified the need for and created many new SOPs and policies, while updating antiquated ones. Our manual method of managing our documents proved inadequate. Therefore our QA manager made the bold and innovative move of shifting all our documents into *MediaLab*, a cloud-based document control system. This was a momentous task made even more so in that we did this while in the midst of an ISO accreditation. Although, document control was time consuming, an almost equal amount of time was spent on nonconformance or deviation management.
ISO requires the systematic identification, documentation and analysis of any variation from procedure. Our team had much practice in using quality analysis tools such as process mapping, root cause analysis, etc. Again, the opportunity to improve our processes using these tools or by better document control would not have been possible without a total team effort. While QA-ISO teams were working on this, their colleagues were carrying the workload throughout the sections.

What now?

We are a novice ISO lab. We are still evolving our quality culture to completely embrace this new ISO life. We are not there yet but we feel we are certainly on our way. We are more responsive, more aware, and more agile to the entropy that is found in the daily lab life. We started the JPC with the mission of: “to be the premier federal laboratory.” Achieving ISO 15189, and later as we attempt to achieve Baldrige Performance Excellence, serve as indicators that we are producing quality products. Ultimately, we pursue these quality activities to provide better health, better care, and to lower costs for the Military Health System.
The Impact of Military Laboratory Medicine on the Modern Clinical Laboratory

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2018 is an historic year for medical laboratory science and the transformation of laboratory medicine to a pillar of modern medical support. Military laboratory medicine played a huge part in this transformation. The foundation of what we now refer to as the modern clinical laboratory was laid in the mid-19th to very early 20th century.\textsuperscript{1} It is important to note that in these early times, the word “laboratory” held a different connotation. When someone referred to a laboratory, it was usually understood that this was a research environment and these labs were for experimentation. Occasionally, a “test” would make its way into clinical practice, but there was much skepticism when these tests were adopted. A good example of this is the work performed by Colonel Edward Vedder in the early 1900s as he investigated numerous “new” analytes that we currently view as common and routine testing.\textsuperscript{2} Often neglected are the numerous failures that occurred during these times.\textsuperscript{1} In addition, there were no governmental agencies that regulated these early tests. The determination of whether a test was adopted for clinical use depended on the personal experience of the physician and any scientific communication they happened to see. There was no ASCP, ASCLS, CAP, CLMA, SAFMLS or other professional organizations to disseminate information nor were there peer inspections. It is not a surprise that progress was slow in that era.\textsuperscript{1}

In the first two decades of the 20th century, a convergence of progress in several areas contributed to the rise of the modern clinical laboratory and clinical laboratory professional.
First, there was rapid technical progress. Before 1900, the few laboratory tests that were offered were performed by clinicians at or near the bedside. At this time, the majority of pathologists worked in academic settings and had either little interest or ability to participate in patient care. The limited availability of testing meant that the average physician could personally perform this testing. In addition, these small number of tests could be easily taught during medical education or in peer to peer teaching. The large number of tests introduced in the early 20th century created a new playing field where distinct expertise was needed. A second contributor to this progress were advances in transportation, communication, and availability and accessibility of the publications and periodicals documenting the advancements in clinical pathology. These advancements in knowledge led to physicians to begin applying bacteriology, and chemistry to the medical diagnoses of patients. Improvements in the microscope also aided in treatment (e.g. basic hematology). Due to the need for space to perform laboratory testing and store necessary reagents, glassware and equipment, hospitals became the desired location to house the laboratory. Before this time, laboratories were normally located outside the hospital. The third contributor to advancement is one that is often overlooked. The first world war (1914-1918) is considered the first modern war and it is also appropriate to consider it the first war where modern medicine was practiced. The United States declared war on Germany and entered the war in the Spring of 1917.

Although dedicated medical laboratories were starting to gain acceptance at the onset of the first world war, the large scale of the war and the need for large support hospitals forced the combating nations to prepare and build for medical requirements that had not been seen
before. A major part of this buildup was laboratory support. In the United States, numerous clinical laboratories were established during the leadup and time of the world war. This created a further demand for laboratory technicians. The Army and Navy also established medical departments, causing pathologists and bacteriologists to leave the hospitals to join jobs in the medical departments of the military. The exposure in the world war of many physicians to the importance of and daily clinical use of laboratory medicine led to greater overall acceptance of the clinical laboratory as an adjunct to the practice of medicine. In 1918, the world war ended. The large number of clinical laboratories that had been established in the United States and the exposure of laboratory medicine to those in the war created a great need for trained laboratory professionals. The age of formal clinical laboratory training began. Young women were typically the ones to complete laboratory training programs and begin working as trained laboratory professionals. The first documented formal laboratory training program for laboratory technicians was established in 1918 at the Philadelphia Polyclinic. Laboratory training also began in and about 1918 in many institutions, such as the current program at the University of Arkansas for Medical Sciences. The military also needed these highly skilled professionals and still needs them in 2018. It is a testament that in 2018, METC will graduate more laboratory professionals than any other training platform in the world! As we go about our lives in 2018, please do not forget the importance of military clinical laboratory medicine on the development of the current clinical laboratory and laboratory professionals.


Where Does All the Blood Go?!

Authors: Wilson, E., Miller, S., Taylor, M., Grant, L., Aguilar, D., Cohen, J., Johnson, A.

There is a hidden gem of assignments for Medical Laboratory Technicians in the Department of Defense (DoD). Most military members, including Laboratory Technicians, don’t know what it is until they are somewhat involved— even when its acronym is completely spelled out for them. The Armed Services Whole Blood Processing Laboratory (ASWBPL) is that hidden gem; there are two of them: ASWBPL-East and ASWBPL-West. ASWBPL-East was founded in 1955 and strategically located at McGuire AFB, NJ while ASWBPL-West was founded forty years later in 1995 and strategically located at Travis AFB, CA.

What is so special about an ASWBPL assignment?

We know that it is related to the clinical laboratory, since it employs lab techs. Also, it must have something to do with blood processing, because it is a part of the title. Donor center? No; this lab does not have a phlebotomy section. A transfusion service then? Negative; it is not aligned with any hospital, so there are no patients to transfuse. The ASWBPLs’ main mission is to act as a giant blood depot for military blood. That may not sound special in and of itself, so let’s take a closer look to find out what this organization really does and how YOU and millions of others keep it going every day.

Have you ever donated blood and wondered where it went? Was your blood collected through a military donor center facility? Or was there a civilian blood drive on your military installation?

While there are many blood collection facilities in the United States, they can generally all be grouped into one of four national entities – American Red Cross (ARC), America’s Blood Centers (ABC), Blood Centers of America (BCA) and the Armed Services Blood Program (ASBP). Civilian donor centers will fall under one of the first three organizations while all military donor facilities serve under the ASBP. While any donation could potentially save the life of another human being, the ASBP is the sole provider of blood for military members, continental and overseas. That means if civilian donor centers hold blood drives on your military installation, those units will not be used for military personnel, even though military members donated. Only blood collected by an ASBP facility will go directly towards military members.

The Armed Services Blood Program is a tri-service organization comprised of Air Force, Army and Navy personnel and is the official blood collecting, manufacturing and transfusion program for the U.S. Armed Forces. Each service has its own respective Service Blood Program Office (SBPO) under the ASBP – Air Force Blood Program (AFBP), Army Blood Program (ABP) and Navy Blood Program (NBP). Each SBPO oversees its respective branch’s donor centers and transfusion services. Some of the blood that is collected at a military donor center will, in turn, be sent to a military treatment facility to be used in a transfusion service/blood bank.

What about the rest of the donations? Isn’t blood shipped down range? How does blood get there?
Enter into the Armed Services Whole Blood Processing Laboratories. The ASWBPLs are also tri-service organizations and serve directly under the ASBP. As previously mentioned, while these facilities do not collect nor transfuse blood, their primary mission is to serve as a depot. Donor centers from each service contribute a quota of blood products to each ASWBPL that, in turn, will be shipped worldwide, serving/supplying all five major combatant commands. So, if you donated blood at let’s say the ASBBC-San Antonio, your blood could potentially be saving a wounded service member in one of our AORs.

While the primary mission for both ASWBPLs is to ship quality blood products worldwide, East and West differ in some ways. Both facilities support CONUS MTFs, VA hospitals, US Navy ships and even the POTUS as well as aide in disaster and humanitarian relief. However, ASWBPL-East has the bigger storage and distribution mission with the capability of storing thousands of liquid and frozen blood products. As for distribution, in 2017 alone, ASWBPL-East shipped tens of thousands of units of blood products in support of three major combatant commands. ASWBPL-West also has the capability of storing thousands of liquid and frozen blood products; however, in 2017, ASWBPL-West shipped significantly less blood products in support of two combatant commands.

ASWBPL-West is a little more unique as it is one of only three facilities in the entire DoD with the capability to glycerolize red blood cells. ASWBPL-West is even more unique in that it is the only facility capable of freezing AS-5 preserved blood. There are several benefits to freezing blood. The most obvious is that the life of a unit can extend from 35 or 42 days (depending on anticoagulant used) to up to 10 years. This is especially important for those donors with rare antibodies/blood types. The increase of shelf life is also beneficial to lessen the impact of seasonal shortages. From a military standpoint, reserving a large stockpile of blood in case of a terrorist attack or major natural disaster would prove to be critical as the turn-around time from thawing/deglycerolizing frozen products vs staging blood drives, collecting/processing and then shipping liquid units is significant.

ASWBPL-West contributes more to the DoD than just world-wide blood support by serving as the Air Force’s sole training facility for Expeditionary Blood Transshipment and Frozen Blood teams. Every year, approximately 75-110 personnel enter ASWBPL-West’s doors to receive the highest quality blood training prior to their deployment. Between the two training classes offered, members from four different UTCs receive a thorough, hands-on training experience ranging from effectively serving as a blood depot (receiving, storing and shipping blood products – much like an ASWBPL), to building pallets, constructing an Alaskan shelter, and safely deglycerolizing (or thawing) frozen blood products for patient use.

It is quite remarkable that this small team has such a huge impact for the entire DoD. Consisting of only 12 personnel, each ASWBPL is staffed by 3 Sailors, 3 Soldiers, 3 Airmen and 3 civilian contractors. From receiving, testing and shipping the highest quality blood products across the globe, to manipulating red blood cells, extending their life-saving qualities and finally equipping Air Force personnel with the knowledge and capabilities of practicing our responsibilities – this team is a prime example of a tri-service consistently achieving its mission. One team! One fight!
References:

Scouting Study of the ASCP Choosing Wisely Initiative

“Avoid routine preop testing for low-risk surgeries without clinical indication”

Introduction:
The American Society for Clinical Pathology (ASCP) recently publicized a “Choosing Wisely” initiative (an initiative of the American Board of Internal Medicine Foundation). Physicians were advised to question the preoperative ordering of routine laboratory studies (CBC, PT, PTT, INR, chemistry, UA) in asymptomatic patients without clinical indication for low-risk procedures. A scouting study was undertaken to assess the preoperative lab ordering practices among JBER providers for low-risk procedures. The results of the scouting study will inform whether additional inquiry and/or physician education is warranted.

Methods:
The JBER OR schedule was queried for a two-week period during Mar ‘17. All procedures were reviewed. Those deemed low-risk procedures were evaluated (in AHLTA) for labs ordered (to include CBC, PT, PTT, INR, Chem, UA). When one of these labs was ordered preoperatively, the medical record was reviewed to assess if the test was attributable to an underlying medical condition, or ordered with no known indication.

Results*:
Number of cases evaluated: 106
Number of cases excluded: 29 cases excluded for CBC ordered when the procedure involved a reasonable risk of bleeding, or if the labs were ordered for an underlying (suspected or known) medical condition.
Total number of cases considered: 77

Number of cases without preoperative labs (as listed above) ordered: 76
Number of cases with preoperative labs ordered: 1

Conclusion:
A retrospective scouting study of pre-operative lab ordering practices at JBER reveals little, if any, wasteful preoperative test ordering. Upon review of 106 cases, 29 cases were excluded because the procedures were either complex enough to warrant pre-operative laboratory testing, or because the patient’s underlying medical condition (or symptomatology) were related to the ordered tests. Among the remaining 77 cases, only one case showed a pre-operative lab test ordered among the panel evaluated (CBC, PT, PTT, INR, chemistry, UA). It is therefore reasonable to conclude that, upon initial investigation, JBER providers are not ordering excessive or unwarranted pre-operative laboratory studies.

*Cases Evaluated:
Organized by date with procedures and lab tests ordered listed.
Color Key:

Red = labs attributed to higher risk of bleeding or underlying medical condition

Blue = Reason for preoperative labs cannot be determined

3/16/17 (Training day)

1. Vocal cord bx – CBC (blood thinner), manual diff (excluded)

3/15/17

1. Osteotomy – Chem, CBC (excluded)
2. Nasal cautery – No labs
3. Arthroscopy – no labs
4. I&D – CBC (excluded)
5. Reduction of hip dislocation – CBC, coag panel (excluded)
6. Cataract extraction – no labs
7. Cataract extraction – no labs
8. Cataract extraction – no labs
9. Cataract extraction – no labs
10. Browpexy – no labs

3/14/17

1. T&A – APTT, PT, INR, CBC (excluded)
2. FESS – no labs
3. Septorhinoplasty – no labs
4. Arthroscopy – no labs
5. Arthroplasty, total knee – no labs
6. Arthroplasty, total hip – CBC, Coag panel, chem (excluded)

3/13/17

1. Umbilical hernia – no labs
2. Lumpectomy – no labs
3. Inguinal hernia – UA (excluded)
4. Arthroscopy, lipoma excision – no labs
5. Arthroscopy – no labs
6. Knee manipulation – no labs
7. ORIF – no labs
8. Arthroscopy – no labs
9. Circumcision – no labs
10. Lithotripsy – coag panel (excluded)

3/10/17

1. Bunionectomy – no labs
2. Hammertoe repair – no labs
3. Cheilectomy – no labs
4. Arthroscopy – no labs
5. Arthroscopy – no labs
6. Cholecystectomy – CHEM, CBC, CBC, chem (excluded)
7. Hysteroscopy, myomectomy – CBC, CBC (excluded, patient anemic)
8. Salpingectomy – removed, ectopic pregnancy (excluded)

3/9/17

1. T&A – CBC, chem (excluded)
2. T&A – no labs
3. Nasal mass excision, cautery – no labs
4. T&A – no labs
5. Ulnar shortening (not low risk, excluded)
6. Carpal tunnel release – no labs
7. ORIF, fracture, radius – no labs
8. Cholecystectomy – CBC, coag panel, chem (excluded)
9. Hernia – no labs
10. Arthroscopy – no labs
11. Cystoscopy – UA (procedure-specific, excluded)
12. Cystoscopy – CBC (a/w prior visit for stones, appropriate and excluded)
13. Vasectomy – UA (procedure-specific, excluded)
14. Orchiectomy – (cancer workup, excluded)

3/8/17

1. Finger dislocation, closed treatment – no labs
2. Arthroplasty, knee – no labs
3. Arthroscopy, knee – no labs
4. ORIF clavicle – no labs
5. Cataract extraction – no labs
6. Cataract extraction – no labs
7. Cataract extraction – no labs
8. Cataract extraction – no labs
9. Cataract extraction – no labs
10. Cataract extraction – no labs
11. Cataract extraction – no labs
12. Cataract extraction – no labs
13. Closed reduction, pin, arm – no labs
14. Arthroscopy, shoulder – no labs
15. Arthroscopy, knee – no labs
16. Cholecystectomy – no labs
17. Cholecystectomy – no labs
18. Appendectomy – (clinical sequelae, excluded)
3/7/17

1. Adenoidectomy – no labs
2. Tonsillectomy – no labs
3. Septoplasty – CBC, chem (excluded)
4. Septoplasty, facial excision – no labs
5. T&A – no labs
6. Excision face, oral – CBC (excluded)
7. Arthroplasty, knee – no labs
8. Arthroplasty, knee – Chem (excluded)
9. Arthroplasty, knee – coag, CBC, chem, UA (excluded)
10. Arthroscopy, knee – no labs
11. DeQuervain’s release – no labs
12. Ganglion cyst excision – no labs

3/6/17

1. Hernia, inguinal – no labs
2. Hernia, inguinal – no labs
3. Carpal tunnel – no labs
4. Arthroscopy, wrist – no labs
5. Ureteroscopy – CBC, manual diff (excluded)
6. Vasostomy – CBC, chem, UA (Reason for preoperative labs cannot be determined, included)
7. Cystoscopy – CBC, chem (excluded)

3/3/17

1. Arthroplasty, toe – no labs
2. Hammertoe repair – no labs
3. Foot mass excision – no labs
4. Foot debridement – no labs
5. Carpal tunnel release – no labs
6. Arthroscopy, shoulder – no labs
7. Carpal tunnel release – no labs
8. Tennis elbow release – no labs
9. Cystoscopy, hysterectomy – (not low risk, excluded)
10. Vaginal cyst excision – CBC, manual diff (excluded)
11. Port-a-cath insertion – (not low risk, excluded)

3/2/17

1. T&A – no labs
2. Thyroidectomy – (not low risk, excluded)
3. Arthroscopy, shoulder – no labs
4. Biceps tendonesis – no labs
5. Hernia, inguinal – no labs
6. ORIF, radius – no labs
7. Arthroscopy, knee – no labs
8. EGD – no labs
9. Colonoscopy – no labs
“It’s so nice to have an opportunity like this for some very hard working individuals!”

- ANNE, HOSPITAL LAB DIRECTOR

MEDICAL LABORATORY ASSISTANT (MLA) CERTIFICATION — TAKING LABS TO THE NEXT LEVEL

The Medical Laboratory Assistant, MLA(ASCP) certification is bringing an enhanced level of professionalism and providing laboratory managers and directors a more complete offering of certification options for their laboratory staff.

By earning an MLA credential from the ASCP Board of Certification, laboratory assistants demonstrate their competence to carry out their responsibilities and bring a higher degree of respect to both themselves and their labs. Formal certification serves as a symbol of the individual’s and laboratory’s commitment to the highest standards of the profession and to quality patient care.

Long considered the “Gold Standard,” ASCP BOC certification is sought out by seven times as many laboratory professionals as any other lab professional credentialing organization.

SIX ROUTES FOR APPLICANTS

To make the new certification available to as many as possible, there are six different routes by which individuals may qualify. These include completion of a NAACLS-approved Clinical Assistant (CA) programs, military training, current experience working as a laboratory assistant, and completion of a formal structured laboratory assistant program.

SPREAD THE WORD!

Do you supervise eligible laboratory assistants or work with them? Then make sure to they are aware of this important new certification. And if you don’t supervise them yourself, but you know someone else who does, please share this information with them.

www.ascp.org/BOC
Event: LTC Teresa Terry and SFC Jason Timberlake of RHC-P and TAMC along with LCDR Steven Clifford of USPACOM supported the USPACOM’s Blood Safety Program in Cambodia from 20-31 JAN 18 to assist the international and interagency community in building host nation biosecurity capacity and a sustainable blood program to support humanitarian assistance and disaster response.

Objectives:
• Increase interoperability between US DoD, interagency (CDC), Australian Red Cross (ARC), World Health Organization, Global Fund, USACoE, Cambodian Ministry of Health (MoH)
• Strengthen the Cambodian MoH capacity and capability to provide a safe and secure blood supply
• Establish relationships with Cambodia medical staff to facilitate the planning, training and execution of a National Blood Transfusion Center, four Provincial Blood Transfusion Centers (PBTC), and standardize Quality Management Teams throughout the country

Activities:
• International Partners Transition Meeting at the Cambodia National Blood Transfusion Center (NBTC). Identified International Partners sustainment capabilities to support the NBTC National Strategic Plan to achieve Level I Accreditation preparation by 2020.
• Accreditation Preparation Audit conducted by PACOM and ARC for Blood Donor Center and Transfusion Service at NBTC and PBTC-Siem Reap.
• Construction Site assessment performed at PBTC-Battambang; Equipment move and validation plan discussed with leaders, trainers, staff of Battambang and Takeo PBTC.

Key Take-Aways: Blood Program significantly enhances Cambodia’s professionalization in biosecurity; supports land forces contribution to regional and global security; advances a whole of government approach; advances USPACOM and USARPAC partnership and presence objectives.
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Activities:
- Blood Safety Quality Assurance Workshop: 65 participants from 26 providential blood centers and 9 hospitals conducted collaborative training provided by USPACOM Area Joint Blood Program Team, National Blood Transfusion Center, World Health Organization, and Australian Red Cross
- Battambang Site Assessment and Construction Progress Review. Battambang RTBC tentatively set to open January 18
- Siem Reap RTBC (opened Mar 16) Technical Staff Assisted Visit: document control to include quality control logs and equipment maintenance; cross-match refresher training
- Strategic Correspondence with US Embassy, NBTC, WHO and ARC to follow-up on FY17 equipment procurement for Cambodia NBTC and Regional Centers

Key Take-Aways: Blood Program significantly enhances Cambodia’s professionalization in biosecurity; supports land forces contribution to regional and global security; advances a whole of government approach; advances USPACOM and USARPAC partnership and presence objectives.
OTHER THINGS WE ARE DOING DURING OUR ASSIGNMENTS

The research laboratories Outside the Continental United States (OCONUS) are staffed with many of the best and brightest to meet the mission of the research facility. The mission of our soldiers extends beyond the requirements and definitions of the Military Operational Specialty (MOS) manual at these posts. Soldiers stationed at the research laboratories are charged with being a role model and representing the values and ethics of the Army and the United States of America in supporting the host nation.

The research laboratories in Kenya and Thailand are well known within the Medical Service Corps (MSC); however, everybody may not know our newest research facility just yet. Established in 2004, the Lugar Center in Tbilisi, Georgia has been around for some time. The initial active duty staff of one Chemist (71B), one Microbiologist (71A), and one Veterinarian (64C) did not arrive on site until September 2014. Since then, the staff has tripled in size and consists of eight Active Duty soldiers and one GS civilian.

As the first 71E, I arrived in August 2016 to assist with expanding our clinical laboratory capabilities.

![Map of Richard Lugar Center for Public Health Research in Tbilisi, Georgia](image)

(The Lugar Center is located in Tbilisi, Georgia, marked in green, south of Russia and north of Turkey, Armenia and Azerbaijan).

Shortly after arriving, I was fortunate to participate in a memorial ceremony to recognize the sacrifices made by Georgian veterans. 27 September is widely recognized as a Georgian veterans day of remembrance. It is customary for the President of Georgia, and the
Speaker of Parliament to lay a wreath at the Heroes’ Memorial in Tbilisi, Georgia. This year under the leadership of the Director of USAMRD-Georgia, LTC Mark G. Hartell, the Officers of USAMRD-Georgia participated in the remembrance ceremony. We presented a USAMRD-Georgia wreath alongside the US Ambassador, embassy, and Lugar Center staff. This was the first time USAMRD-Georgia staff participated in this annual event. It was humbling to witness the appreciation shown by the Georgians for our recognition of their fallen heroes and the sacrifices they made for Georgia to be an independent nation. Many women and men came over and thanked us for our participation.

(l-r) LTC Mark G. Hartell (Director), CW2 Kevin Meyers, MAJ Joshua Bast, CPT Carina Hager
After the ceremony at the Heroes’ Memorial, we drove to a small local military cemetery where we placed flowers on 33 marked graves of Georgian soldiers lost in both the 2008 war of Soviet Occupation and soldiers fallen in Afghanistan, supporting US-led operations.

(CW2 Kevin Meyers and CPT Carina Hager placed identical flowers at a local military cemetery)
At the conclusion of the ceremony a great Georgian style lunch was hosted, which consisted of several courses in a relaxing atmosphere with a beautiful view of the city. Georgia has some very unique foods that I was able to try for the first time; namely, khinkali, which is a meat filled dumpling, shashlik, a Shish kebab, and khachapuri, a cheese bread. Georgian meals are wonderful social engagements that can sometimes last hours.

Participating in the memorial ceremony positively affected me as a soldier and an American, as well as strengthened the bond between the United States and Georgia. It is easy for most of us to forget that 240 years ago the United States was a small-inexperienced nation that had to fight for the right to govern itself. Georgia is similar to the United States in its sense of national pride, and it had to fight for independence. This experience has reinforced what it means to be a soldier. We are more than a MOS, a member of a unit, or an Officer or enlisted; to our host countries we are a symbol of what they are striving to be; therefore it is our responsibility to be that role model and uphold the Army values. I am excited about spending two years abroad and to learn more about this region and its culture. After being stationed at MTF laboratories, I am looking forward to the new challenges and experiences in the research field and sharing them in the near future.