Evidence-based Laboratory Medicine Practice Guidelines (EBLMPG)

Two ASM-CDC guidelines were published in the November 11, 2015, issue of *Clinical Microbiology Reviews*.

1. "What practices are effective at increasing timeliness for providing targeted therapy for those patients who are admitted for or are found to have bloodstream infections (e.g., positive blood cultures to) to improve clinical outcomes (LOS, antibiotic costs, morbidity, mortality)?"

2. “Does optimizing the collection, preservation and transport of urine for microbiological culture improve the diagnosis and management of patients with urinary tract infections?"

The February issue of *CAP Today* featured a front page article on the Urine guideline, “Urine Preanalytics guideline effort highlights data need”.

http://digital.olivesoftware.com/olive/ODN/CAPTODAY/

The third ASM-CDC guideline is on *C. difficile* and it is evaluating the evidence to answer the following four questions:

1. Which of the following diagnostic tests/algorithms have the highest diagnostic accuracy for diagnosing *C. difficile*?

2. What is the increased diagnostic yield of repeat testing of EIA or of NAAT?

3. What is the association of toxigenic culture and cytotoxin assay results with clinical outcome such as clinical mortality, length of stay, antibiotic use, time for result reporting?

4. What is the association of a PCR-positive and cytotoxin-/EIA-negative result with clinical outcome such as mortality, length of stay, antibiotic use, time for result reporting?

Drs. Colleen Kraft and Jim Snyder, the guideline leaders, have reviewed more than 6,000 publications and approximately 250 have been identified as meeting the guideline’s inclusion criteria. The evidence is currently being abstracted and it will be completed by the end of the summer. It is anticipated the guideline will be drafted in late 2016.

A survey was recently launched to learn about laboratories’ current microbiological practices related to improving diagnosis and management of patients with *C. difficile* infection. After the ASM-CDC evidence-based guideline is published, another survey will be conducted to learn if the guideline has affected change by comparing it to the current practice survey data.

Professional Development Committee (PDC)

The PPC convened an Online Education Task Force that met in August 2015, to create an online education strategy for the clinical community. The Task Force consisted of Matt Binnicker (Chair), Robert Bowden, Angela Caliendo, Shoolah Escott, Romney Humphries, Audrey Schuetz, and Megan Waller. The Task Force discussed issues related to the intended audience, content,
feasibility, technology, format, frequency, and sustainability, and developed the following strategy for online education:

The initial target audience for ASM’s online educational efforts should be bench technologists, students, medical assistants/nurses and pathologists who oversee microbiology testing but do not have specific subspecialty training in clinical microbiology.

The content should focus primarily on scientific issues followed by career development resources.

It is feasible for ASM to offer professional development content that meets a need, serves as a complement to other ASM activities, and is not already offered by another organization.

The technology should support asynchronous and synchronous learning, encourage interaction with the presenter, and wherever appropriate, incorporate polling/feedback.

The optimal online education format will be dependent on the needs identified by the potential audience. It is anticipated a combination of webinars and multi-week courses will be attractive. It was noted that content should allow for presentation of a single topic in 30 minutes or less and would not exceed more than 12 topics in a course.

The goal of developing online educational resources should be to offer high quality content; the content will define the frequency at which the material needs to be provided.

To methodically, thoughtfully, routinely, and proactivity meet the online education needs of the clinical community, it is recommended that a Professional Development committee be appointed to sustain this initiative.

The PPC approved the task force’s recommendations and the Professional Development Committee (PDC) was formed in September 2015. A needs assessment to learn about the clinical community’s needs and how they like to learn was conducted in late 2015. The survey identified needs and the PDC is now evaluating what content is already available so ASM does not duplicate existing content. A list of proposed 2016-2017 professional development opportunities will be available in mid-April 2016. The PPC and Strategic Alliances will work to seek corporate support for these opportunities.

ASM was asked by American Society for Clinical Laboratory Science (ASCLS) to co-sponsor the free webcast, “Multicare Health System: Quality Urine Samples and Clinical, Process and Fiscal Outcomes.” The timing of this request is serendipitous since the ASM-CDC evidence-based guideline on “Effectiveness of Preanalytic Practices on Contamination and Diagnostic Accuracy of Urine Cultures” was recently published in Clinical Microbiology Reviews. ASM and CDC are working to raise awareness of this guideline to ultimately, change laboratory practice. This is an opportunity to reach ASCLS members who are not ASM members. There is no cost to ASM.
ASM agrees to share information about the webcast with members; ASM’s logo will be added to the webcast’s materials.

The continuing education course, “The Impact of New Microbiology Technology on Patients Outcomes” was offered in mid-2015. This 11-part course explored diagnostic microbiology laboratories as they evolve from profit to cost centers in the era of declining reimbursements and what the clinical microbiologist needs to understand about how technology can impact on the quality of patient care. The latest advances in technology for microbiology, some of the issues surrounding these methods, and the overall impact of these newer tests on patient care and health outcomes were discussed. It was offered in two formats, live and recorded.

ASM.org is undergoing a significant redesign and its 23 websites will be streamlined into one site. Therefore, in time the CM Portal’s content will be folded into asm.org. Mike Miller, CM Portal Chair, and the CM Portal Committee reviewed the portal’s content and tagged the content that should be moved to the redesigned asm.org site. Dr. Miller is also working closely with ASM staff to ensure the redesign’s architecture, organization of content, tags, etc., make sense to clinical microbiologists.

2016 Hot Topics

<table>
<thead>
<tr>
<th>Date</th>
<th>Speaker</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb 1, 2016</td>
<td>Melissa Miller</td>
<td>Multiplex Molecular Testing</td>
</tr>
<tr>
<td>Apr 4, 2016</td>
<td>Bob Sautter</td>
<td>Stuff we should NOT be doing</td>
</tr>
<tr>
<td>Jun 6, 2016</td>
<td>Susie Sharp</td>
<td>IQCP Best Practices</td>
</tr>
<tr>
<td>Aug 1, 2016</td>
<td>Alice Guh</td>
<td><em>Clostridium difficile</em> Update</td>
</tr>
<tr>
<td>Oct 3, 2016</td>
<td>Janet Hindler</td>
<td>Update on MDRO-The Battle Continues</td>
</tr>
<tr>
<td>Dec 5, 2016</td>
<td>Susan Richardson</td>
<td>Competency Testing</td>
</tr>
</tbody>
</table>

Clinical Microbiology Mentoring Committee (CMMC)
Under Janet Hindler’s leadership, the CMMC secured $15,000 from corporations for the New Tech Professional Development Grant Program. Over 40 individuals applied; ten recipients were selected. They will be assigned a CMMC member who will mentor them at ASM Microbe. http://clinmicro.asm.org/index.php/professional-status/asm-awards-fellowships-travel-grants/441-bench-technologist-supervisor-bench-technologist-supervisor

Marie Pezzlo, CMMC member, developed a 30-minute recorded presentation on “how to write a scientific abstract” which was posted to the Microbe abstract webpage. The video was accessed more than 1,500 times. http://www.asmmicrobe.org/index.php/submit-abstract/submit-an-abstract

Kevin Alby, CMMC member, is preparing a presentation on “how to develop a poster” which will also be posted to the Microbe website. Two additional videos, “how to write a clinical manuscript” and “how to prepare a clinical talk” will be developed later this year and posted to the CM Portal and asm.org.
Ms. Hindler and Ms. Pezzlo are working directly with ASM staff on the careers menu on the asm.org redesign to ensure students are aware of the clinical profession and to help those already in the field to advance.

Abby Cunanan, B.S., a 2015 ASM New Tech recipient and a Medical Laboratory Scientist at Sentara Norfolk General Hospital, has agreed to serve on the CMMC. Her input on the professional development needs of the young laboratorian will strengthen the CMMC’s initiatives.

Additional CMMC activities include:

- Drafting the CMMC eNewsletter which provides a biannual summary of CMMC ongoing activities and the materials available to help others with career advice and/or mentoring opportunities. The eNewsletter is distributed to DivC and Clinmicronet listservs and is posted on the portal, http://clinmicro.asm.org/index.php/explore-the-profession/careers-in-clinical-microbiology/clinical-microbiology-mentoring-committee-newsletter.

- Presenting a no-fee career development workshop at asm2015 entitled “Clinical Communication: How to Write and Present Microbiology for a Clinical Audience”. CMMC members served as instructors and described how to prepare poster abstracts, posters, manuscripts and powerpoint presentation during brief lectures. These were followed by breakout sessions where attendees participated in writing exercises.

- Developing new case studies to provide another opportunity to learn more about clinical microbiology. A notice is posted to the ASM MicroEdu listserv so educators are aware of this new resource; they are also posted to the portal. http://clinmicro.asm.org/index.php/explore-the-profession/what-is-clinical-microbiology/418-clinical-microbiology-case-studies-clinical-microbiology-case-studies

- Working with the Membership Board on the new initiative, Microbe Mentoring, by provide clinical microbiology mentoring guidance.

**Committee on Postdoctoral Educational Programs (CPEP)**

Baylor College of Medicine and Texas Children’s Hospital have submitted a joint CPEP accreditation application. The application was submitted by Jim Dunn; it is anticipated a site visit will be conducted this spring. If approved, there will be 20 CPEP-accredited programs. A list of currently accredited programs is available, http://www.asm.org/index.php/postgraduate-training-cpep/cpep-approved-programs.

**American Board of Medical Microbiology (ABMM)**

The ABMM certified 27 new Diplomates in August 2015, bringing the total number of certified Diplomates to 1,224. A list of newly certified Diplomates is available at http://www.asm.org/index.php/professional-certification/abmm/105-professional-development/professional-certification/7423-the-abmm-welcomes-newly-certified-diplomates.
American Board of Medical Laboratory Immunology (ABMLI)
The ABMLI certified six Diplomates in October 2015, bringing the total number of certified Diplomates to 201. A list of the newly certified Diplomates is available at http://www.asm.org/index.php/certification/abmli/105-professional-development/professional-certification/8566-abmli-diplomates.

Since the ABMLI examination is being phased out, applications will be accepted until June 1, 2016. The remaining examinations will be offered in August 2016, February 2017, and August 2017. All examination activities will conclude by December 2017. The board will continue to recertify Diplomates, verify certification status for employers, and maintain a list of Diplomates.

National Registry of Certified Microbiologists (NRCM)
The NRCM certified 48 new Registrants in June 2015; it has certified more than 3,200 individuals since inception.

The NRCM raised its annual dues from $50 to $75 in an effort to cover more of its expenses; dues have not been raised since 2004. The board also revised its emeritus requirements to conform with the ABMM and ABMLI and redefined the Registrants “active” status. http://www.asm.org/index.php/certification/nrcm/105-professional-development/professional-certification/2828-new-nrcm-registrants

Speakers’ Bureau (SB)
The SB is for ASM Student Chapters so they can learn about the myriad of non-academic, microbiology-related career opportunities. Since its pilot program in 2014, the Speakers’ Bureau has hosted 19 events, including one ASM Branch event. Events were held at Georgia Tech (2), George Mason University (2), Loraine County Community College, Rutgers University, University of Houston-Downtown, University of Miami, University of Minnesota (2), University of North Texas, University of Nebraska- Lincoln, University of the Sciences in Philadelphia, University of South Florida, West Virginia University, and Western Michigan University.

Upcoming events will be held at Clemson University and Western Kentucky University. Also, speakers hosted laboratory tours at the Children’s Healthcare of Atlanta, Emory University, and the Florida Department of Health, and the ASM Ohio Branch hosted a career panel at their annual meeting featuring two speakers.

Initially, the SB involved asking microbiological scientists located near the Student Chapters to provide in-person presentations. Its use has changed over the years to provide a searchable database with career information from over 100 ASM-member volunteers. The SB is currently available to all active undergraduate and graduate Student Chapters, as well as ASM Branches throughout the academic year via live, video call, and career panel presentations. The SB features experts in clinical laboratory and industry, including agriculture, biosafety, food, medical device, pharmaceuticals, and policy, who are eager to talk about their dynamic careers in microbiology. Speakers share their career paths, day-to-day responsibilities, and offer suggestions for how to obtain a job in their chosen field.
In addition to publicizing this ASM resource to ASM Student Chapters and Branch leadership, staff has begun informing chapters’ career resource centers of the SB to further raise its visibility within the chapters’ university campus. This initiative has shown added visibility at the universities the strategy was tested on and hopefully, it will have a greater effect when it is publicized at all chapters’ career centers.

Although the SB activities do not necessarily require a committee for operation, it is at the point where receiving input from microbiological sciences professionals will assist in its viability. An advisory board is being formed that will draw on the expertise of a wide spectrum of perspectives, e.g., academia and industry, early vs. later career professionals, and diversity of viewpoints.

**Clinical Laboratory Workforce Shortage**

Peter Gilligan shared with ASM Officers, Joe Campos and Susie Sharp, the clinical microbiology workforce issues that North Carolina is facing. Specifically, only “certified” employees can work in the laboratory and a certification eligibility requirement is one-year of laboratory experience. Joe Campos stated that in D.C., employees can be hired without experience; the discussion illustrated that there are different requirements throughout the country. All agreed there is a workforce shortage.

ASM is exploring if there is an opportunity to help B.S. graduates gain the necessary laboratory experience so they would be eligible to sit for the M(ASCP) exam. In addition to Susie Sharp, Matt Binnicker (PDC Chair), Janet Hindler (CMMC Chair), and Susan Harrington (ASM’s representative to the ASCP’s Board of Certification) are working together to explore how to fill the laboratory experience gap. NAACLS training programs are also having difficulty finding placements for students’ clinical rotations and more states are requiring licensure.

**Industrial Initiatives**

Mykeshia McNorton, Ph.D., joined ASM as a HQ Fellow in October 2015. She is spending a year researching how ASM can meet the professional development needs of industrial microbiologists who practice in cosmetics, food, medical device and pharmaceuticals—the areas of NRCM certification.

Her research to date includes:

- Who are the industrial microbiologists
- What are their job titles
- Where do they work
- What are their professional development needs
- Who are their professional development providers
- What are their professional organizations
- What are the regulatory requirements
- Is there regulatory training
- What are the ASM opportunities
Dr. McNorton’s research shows that there are many organizations that offer professional development content for these industries. Interviewees shared they turn to ASM for basic science and other organizations for their professional development. Her current efforts include talking to large food manufacturing companies—Cargill, Sysco, Nestle and Kraft Heinz—to learn about their hiring and employee challenges, sharing information with them about the NRCM Food Safety and Quality examination, and discussing if there is an opportunity for ASM to help with their challenges. She is also working closely with Membership and providing information about industrial microbiology careers.