Greetings SOID Members! It certainly has been a busy Spring and Summer 2012 thus far.

First, I wanted to update all of you on the status of the interprofessional telephone consult CPT codes which the AAP and I have been working on. I’m pleased to tell you that four time-based codes (5-10 minutes, 11-20 minutes, 21-30 minutes and ≥31 minutes) have been approved by the AMA CPT Editorial Board. This fall, representatives of the AAP and I will be going to the AMA/Specialty Society RVS Committee RUC Meeting in Chicago, where work Relative Value Units (wRVUs) for these codes will be debated and assigned. While the effort to get interprofessional telephone consult codes has taken almost three years, the AAP joined with several other academic/societies to make this idea a reality. I hope to have further information for you on this subject for the Spring 2013 SOID Newsletter.

By now, I assume that many of you are aware of the Immunization Measures instituted by the Center for Medicare and Medicaid Services (CMS) through The Joint Commission (TJC, previously JCAHO). These two measures, one for influenza vaccine and the other for pneumococcal vaccine, began with January, 2012 hospital discharges and affect all those hospitalized persons ≥6 months of age (influenza) and those hospitalized persons ≥6 years of age with one of seven underlying conditions (HIV, nephrotic syndrome, asplenia, etc.), respectively. Through one of our sister organizations, the Pediatric Infectious Diseases Society (PIDS), two other AAP and PIDS members (Sandra Fowler, MD, at MUSC, and Chris Harrison, MD, at Mercy Children’s Hospital in Kansas City) and I created an algorithm for use in the children ≥6 years of age with qualifying underlying medical conditions when screening them for their pneumococ-
cal vaccine status. Dr. Fowler and I now sit on the Immunization Technical Expert Panel for CMS/TJC. While some “tweaking” of these two measures will undoubtedly occur over the next year, one of the CMS/TJC overriding goals is to better ensure that “at risk” infants and children are appropriately immunized.

Speaking of immunizations, in reviewing a new policy statement on influenza prevention and treatment, and, given the interest in influenza immunization status of hospitalized patients (as above), should children ≤ 2 years of age, hospitalized with influenza disease, and who did not receive annual influenza vaccine, receive a dose of influenza vaccine prior to discharge? As we all know, there are 3 (or 4 in 2013) influenza strains in each vaccine in an attempt to produce an immune response to different circulating viruses throughout influenza season. We also know that children 6 months to 2 years are a population group at greatest risk for hospitalization from influenza disease. What is the risk for a second infection with influenza (different strain) in children with underlying diseases or in those 6 months to 2 years of age? The topic of immunizing the young unimmunized child hospitalized with influenza prior to discharge to prevent a second infection could make a great case for discussion among pediatricians.

Finally, in terms of immunization, the SOID has successfully revised the Refusal Form, the new form and cover letter should be available to you shortly.

I would like to acknowledge the contributions of Craig Shapiro, M.D., who recently completed two years of service as pediatric infectious diseases fellow-in-training on our SOID Executive Committee. Craig was involved in a variety of SOID-related activities, but he took the lead on the recent SOID survey of pediatric infectious diseases fellows-in-training. The SOID Executive Committee will be using the results of this survey to help plan more fellow-in-training and young physician activities by the Section.

As usual, we have an informative and broad-ranging program of infectious disease topics at this year’s AAP National Conference and Exhibition (NCE) in New Orleans. I will be participating along with our newest fellow-in-training and SOID Executive Committee Member, Andrea Hahn, MD, from Cincinnati, in a “speed-dating” information session regarding various careers in pediatrics. This event takes place on Saturday, October 20th. In addition, the SOID will also be presenting our Education Award at the NCE to a very deserving recipient. S. Michael Marcy, MD is the 2012 Section on Infectious Diseases Award for Lifetime Contribution in Infectious Diseases Education recipient. I have known Dr. Marcy for > 15 years and he is truly committed to education as well as a strong advocate for pediatric infectious diseases. Congratulations Mike!

Earlier this year, at the Spring SOID Executive Committee meeting, we participated in strategic planning to develop achievable goals for the SOID over the next several years. We will be finishing this exercise at our October SOID Executive Committee meeting. The Executive Committee and I remain committed to increasing our membership, both those formally trained in infectious diseases as well as those general pediatricians who have specific interest in infectious diseases. We also remain committed to ensuring that our members have access to outstanding Continuing Medical Education programs as well as updates using “hot topics” or a Pedialink module in infectious diseases. For those members who are interested and have time to do so, we occasionally need additional expertise to review AAP Policy Statements, Clinical Guidelines, and other draft AAP or external organization publications. The SOID Executive Committee and the AAP want to be responsive to your needs and interests. Please do not hesitate to contact Suzanne Kirkwood (skirkwood@aap.org) or me (dmurray@georgiahealth.edu) if you have concerns or have ideas for your organization, the SOID. Thanks.

Until the Spring, 2013 Newsletter, please have a safe and enjoyable Fall and Winter.

Dennis L. Murray, MD, FAAP, FIDSA
Professor, Department of Pediatrics
Chief, Pediatric Infectious Diseases
Georgia Health Sciences University
Augusta, GA
and
Chair, SOID Executive Committee

By Sarah Williams, MD and William Hitchcock, MD FAAP

The concept of “cocooning” to prevent serious pertussis infection in infants by vaccinating all close contacts and caregivers was discussed at the March, 2012 Cocooning Expert Meeting convened by the American Academy of Pediatrics (AAP). The experts reviewed the challenges, potential solutions and needs of critical stakeholders in order to implement cocooning programs effectively.

One major challenge is a lack of strong evidence that cocooning is effective. Although the concept of protecting infants by preventing infection in close contacts is logical, infant cases of pertussis are relatively rare and thus studies would need enormous sample sizes and incur tremendous costs to show a statistically significant effect of this strategy. There are some data supporting the effectiveness, however. In 2010, California implemented a comprehensive cocooning strategy after the 2009 pertussis epidemic. As a result, there were no deaths and fewer than 3,000 pertussis cases were reported in 2011, a decrease from more than 9,000 cases reported in 2010. More evidence is needed to successfully promote cocooning to patients, providers, stakeholders and the public. More research is also needed regarding Tdap immunization during pregnancy, including studies which clarify the degree of infant protection when immunization occurs before conception, during pregnancy, or postnatally, as well as additional safety data on Tdap administered in pregnancy. The participants noted that vaccinating pregnant women with Tdap after 20 weeks of gestation has the strongest evidence for preventing infant morbidity in the first 4-8 weeks of life. However, whether vaccinating at 20 weeks is as effective as 35 weeks is uncertain. A forthcoming CDC study should provide insight on these issues.

The importance of communication was also discussed. Key audiences include obstetrician–gynecologists, nurse midwives, nurse practitioners, birthing hospital staff, pediatricians, and family physicians. Healthcare providers should have a clear understanding about the difference between Td and Tdap and the varying recommendations for each. Also, if providers do not offer Tdap themselves, they should promote access to the service elsewhere. For specific organizations and provider offices, it is vital to build alliances and networks in order to address challenges like billing, accessing medical records, and reaching fathers and other family members. Support for cocooning needs to occur not only across organizations but also within organizations. Provider groups (such as the AAP and the American Congress of Obstetricians and Gynecologists can encourage vaccination uptake by issuing strong statements to their members in favor of immunization and cocooning. Official statements from government agencies (i.e., the CDC, U.S. Department of Education) supporting cocooning also will help communicate the dangers of pertussis and the importance of immunization.

Financial and insurance issues present broad challenges to immunization. First, the cost effectiveness of cocooning is controversial and additional studies to evaluate this are currently underway. For publicly funded programs, restrictions and funding shortages hamper vaccination and cocooning efforts. For example, many states use the federal Public Health Service Act’s “Section 317” funds for immunization efforts. In the event of a natural disaster, states may redirect 317 funds to emergency activities. Further, after 2013, 317 funds may not be used to provide services to individuals who have health insurance. Additionally, state Medicaid programs do not cover vaccines for adults, and the federal Vaccines for Children (VFC) funds can only be used for individuals under age 19. More flexibility in the use of federal funds will help states and communities support cocooning programs. If the federal Affordable Care Act (ACA) is fully implemented in 2014, immunization services will be covered and promoted through its exchanges and prevention services. Payment is a barrier with private payers as well, and these groups could help ensure immunization services by covering vaccines separately from the bundled payments, and covering vaccines provided in a variety of settings that are convenient for adults.

Finally, statewide vaccine registries should be expanded to help track adult immunizations, minimize over-vaccination and duplicate doses, and alert consumers about needed vaccinations.

The AAP Technical Report, “Immunizing Parents and Other Close Family Contacts in the Pediatric Office Setting” can be accessed at: http://pediatrics.aappublications.org/content/129/1/e247.full.pdf
Global Vaccine Advocacy and the AAP  

By Beth Doby, MD

As a pediatric infectious diseases fellow, it would be difficult to find a more passionate vaccine advocate than me. I have heard the stories of pediatricians who remember life (and deaths) before the *Haemophilus influenzae* type B vaccine. I have never known the fear of a polio virus outbreak. Personally, I have seen the dramatic decrease in hospitalizations due to rotavirus following widespread vaccination. So, when Dr. Murray encouraged me to participate in the AAP’s Global Vaccine Advocacy Day in Washington, DC in June, I was very excited and honored to attend.

Coordinated by the AAP’s Department of Federal Affairs, the Global Vaccine Advocacy Day was organized beautifully and an amazing experience. I received excellent training in legislative advocacy and learned more about the role of our government in funding global vaccination, specifically through the Global Alliance for Vaccines and Immunization (GAVI Alliance) and the CDC Global Immunization Program. I was able to meet with staff of both of my senators and my representative, in addition to a representative from my birth state. The following day, I heard five child health experts participate in a congressional briefing educating staff members about the critical importance of funding global childhood vaccination efforts. As a follow-up to my participation in this event, I was invited to attend a celebration for the United Nation Foundation’s Shot@Life Campaign, which educates and encourages Americans to support global vaccine efforts. Immediately following this wonderful event, I was able to meet again with the local office staff of my two senators, encouraging them to support funding for childhood vaccination programs. These meetings were extremely productive and positive, and hopefully laid the foundation for partnerships and dialogue in the future.

Participation in these two events and witnessing the important work our Department of Federal Affairs is doing made me incredibly proud to be a member of the AAP. The advocacy of the AAP is vitally important to ensuring that our government continues to support programs and policies which enable children to attain optimal health. While the AAP is certainly dedicated to improving the health of children in the United States, our motto is, “Dedicated to the health of *all* children.” *All* children. The AAP sagely recognizes that improving the health of children around the world is good for us all, and directly improves the health of children in our own cities and communities. The AAP has been dedicated to global child health for more than 80 years through programs such as Helping Babies Breathe (HBB) and other programs focused at improving child safety and prevention of non-communicable diseases.

However, the AAP is also vitally important in ensuring ongoing funding for global programs supporting childhood vaccination, including the GAVI Alliance and the CDC Global Immunization program. Immunizations are a core component of child health and possibly the most cost-effective public health intervention we have. Vaccine-preventable diseases claim the lives of about 1.7 million children every year—that is one child every 20 seconds. In the last 20 years, over 20 million deaths have been prevented. Vaccines are truly a modern medical miracle. And I am proud to be a member of an organization which is working to ensure that vaccines are accessible to *all* children.

Please go to [http://federaladvocacy.aap.org/](http://federaladvocacy.aap.org/) to visit the AAP’s Federal Advocacy Resource Center to learn more about ways you can get involved. We also invite you to post comments about this article on the AAP SOID discussion board ([http://www2.aap.org/sections/infectdis/forums/index.cfm](http://www2.aap.org/sections/infectdis/forums/index.cfm) - AAP ID and password required).
I would like to thank all of the pediatric infectious disease fellows who responded to our programming survey sent out last April. Based on your responses we will be working on creating more educational and career planning programming that target fellows in training. By incorporating the section website and collaborating with PIDS, we hope to make these offerings more accessible and interactive. Here is a brief summary of your responses to the survey questions:

• 159 training fellows received the 20 question survey and 45 responded for a 28% response rate.
• Fellows from all years of fellowship responded: 1st year- 41%, 2nd year- 25% and 3rd year- 34%.
• Response was highest from programs located in Georgia, Massachusetts, Texas, Pennsylvania and New York.
• 48% of respondents did not realize that, if they were AAP members, that they were automatically added to the Section on Infectious Diseases (each fellow who is a member of the AAP should receive a welcome letter from the Section on Infectious Diseases indicating all of the membership benefits)
• 69% had not visited the SOID website: http://www.aap.org/sections/infectdis/
• The majority of respondents indicated that they would find programming related to Board review and career planning of value. (Board review is offered through both the on-line PREP-ID self-assessment questions (http://prepid.aap.org/) which requires a subscription and the PREP ID live review course offered every other year preceding the board examination.)
• The majority of respondents attend neither the Pediatric Academic Societies meeting or AAP National Conference and Exhibition. If a meeting is attended, it is typically the IDSA and/or PIDS meetings.
• 31% of 2nd and 3rd year fellows responding indicated that their career plans had changed since entering fellowship.

If there are any questions or comments regarding the survey or if you are interested in helping plan future programming please contact Beth Doby, MD (Beth.Doby@hsc.utah.edu) or Andrea Hahn, MD (Andrea.Hahn@cchmc.org)

Have you logged on recently? Check out the new case and questions regarding tuberculosis. How do I access the discussion board (DB)? You can do so in a couple of ways:

• Simply follow this link: http://www.aap.org/sections/infectdis/forums/
• Once there, review the "Quick Reference Guide" if you have questions
• The DB can also be accessed by going to the SOID website at: http://www.aap.org/sections/infectdis/ and clicking on the DB icon in the upper right-hand corner

We welcome your feedback on how to make this column as useful as possible for training fellows. Please feel free to contact us at the email addresses above with any questions or ideas for future editions.

We are also always looking to reach out to those training fellows who may not be members of the AAP. If you know of any training fellows who are not AAP members, please ask them to contact us to find out how they can take advantage of the great benefits that come along with being an AAP and SOID member!

From the ACIP Meeting of June 2012

The slide sets for the meeting of June 20-21, 2012 have been posted at http://www.cdc.gov/vaccines/acip/meetings/slides-jun-2012.html Each set contains slides in pdf format.

A link for each presentation is available in a table included in the e-version of the newsletter. The minutes of the June meeting are available at http://www.cdc.gov/vaccines/acip/meetings/meetings-info.html
Review of the Recent Infectious Diseases Literature

These summaries and commentaries are completed by volunteer Contributing Editors from the SOID. Each is responsible for reviewing the current infectious disease literature for several journals. They select an interesting article and present it for your review to help keep you current on various issues. We hope that you enjoy!


Reviewed by: Stephen C. Aronoff, MD FAAP, Temple University School of Medicine

This is one of multiple reports published since 2003 from the California Encephalitis Project. This project began in 1998 and identified adult and pediatric immunocompetent patients > 6 months of age, with encephalopathy (depressed or altered level of consciousness ≥ 24 hours, lethargy or a personality change) AND at least one of the following: fever, seizure, focal neurological findings, CSF pleocytosis or EEG or imaging findings suggestive of encephalitis. All patients underwent an exhaustive, standardized etiologic evaluation. In 2007, a patient who fulfilled inclusion criteria with autoantibodies directed against the N-methy-D-Aspartate Receptor (anti-NMDAR) was identified. Subsequently, patients enrolled in the project with movement disorders, autonomic instability or psychosis were screened for autoimmune N-methyl-D-aspartate receptor encephalitis.

Between September 2007 and February 2011, 761 patients ≤ 30 years of age were enrolled. Of the 79 patients (10%) with an identified etiology, 32 (41%) had anti-NMDAR; enterovirus (38%), HSV-1 (9%), VZV (6%) and West Nile Virus (6%) accounted for the remaining cases with an identified etiology.

Sixty-five percent of the patients with anti-NMDAR were ≤ 18 years of age and 75% were female. Aphasia (72%), movement disorders (63%), hallucinations (66%) and psychosis (59%) occurred more commonly in anti-NMDAR patients than patients with other etiologies. Seizures (69%) also occurred commonly. Significantly more patients with anti-NMDAR required intubation than those with the other forms of encephalitis. Patients with anti-NMDAR had abnormal EEGs (88%), normal imaging studies and relatively benign CSF profiles with normal glucose and protein concentrations and slightly elevated cell counts.

Reviewer's Commentary:
The California Encephalitis Project is the first attempt to evaluate prospectively a large cohort of encephalitic patients using an extensive diagnostic protocol. By 2005, 1,570 patients were enrolled; 370 (24%) patients were assigned a confirmed or probable cause for their symptoms. Infectious etiologies were identified in 67% of these patients and enteroviruses were the most common infectious etiology. The present study suggests that anti-NMDAR is a more common cause of encephalitis than enterovirus in patients less than 18 years of age.

Florance, et. al. detailed the natural history of anti-NMDAR in 32 children anti-NMDAR. The clinical features of the disease (behavior changes, seizures and movement disorders) were similar to those described in the current report. Thirty-one percent of girls less than 18 years of age had an ovarian teratoma identified. Patients without tumors received immunotherapy in the form of corticosteroids, IVIG and/or plasmapheresis. Patients unresponsive to initial immunotherapy were variably treated with cyclophosphamide, rituximab, or both.

Overall, 29% of patients had a full recovery and tumor removal was associated with a high rate of full recovery. Forty-five percent had mild residual deficits, while 26% showed limited improvement. No deaths were reported.

References
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Reviewed by: Jane Gould, MD, FAAP, Assistant Professor of Pediatrics, Drexel University College of Medicine, Hospital Epidemiologist, Attending Physician, Section of Infectious Diseases, St. Christopher’s Hospital for Children, Philadelphia, PA

Every pediatrician has diagnosed staphylococcal skin and soft tissue infections in their patients and in the last decade these infections have become increasingly more challenging to treat. In some parts of the United States, more than 50% of the Staphylococcus aureus isolates are methicillin resistant. The highly efficient and virulent USA 300 strain of community acquired methicillin resistant S. aureus (MRSA) has become the most frequent cause of skin and soft tissue infections. Infections caused by this organism require broader spectrum antibiotics, fueling the national problem of antibiotic resistance, and often require prolonged hospitalization and surgical intervention resulting in higher medical costs. Frequently these painful infections are recurrent and, with the lack of effective treatments to eradicate colonization and prevent infection physicians, their patients and families quickly become frustrated. Despite the common occurrence of skin colonization with S. aureus, only a minority of patients will develop infection because human skin is capable of producing antimicrobial peptides such as defensins and cathelicidins. Until the mechanisms USA 300 employs to cause skin and soft tissue infections are fully elucidated, better therapies and preventative measures like vaccination will not be able to be designed. Soong et al have provided a glimmer of light at the end of the tunnel. In their manuscript, they provide insights into a mechanism that USA 300 uses to invade the human skin barrier.

Reviewer’s Commentary:
Soong et al, using human keratinocytes and USA 300 strain, show that \(-\)hemolysin (Hla) production by USA 300 is required, as well as a unique feature of human keratinocytes that is exploited by the organism— the ability to constitutively express pro-IL-1 which primes keratinocytes for inflammatory activation. Hla results in pore dependent K+ efflux which causes keratinocyte stress and activation of caspase 1, resulting in production of IL-1, a proinflammatory cytokine that is critical for PMN recruitment, ultimately producing a pustule or abscess. By activating caspase 1, USA 300 causes keratinocytes to undergo cell necrosis or pyroptosis with loss of cell membrane integrity creating an open door for the organism to enter and proliferate. The pyroptotic keratinocytes were focal in pattern which parallels what is seen clinically in most patients with USA 300 infection. Additionally they showed that caspase 1 inhibitors were able to rescue keratinocytes from Hla-mediated pyroptosis and inhibit entry of USA 300 into keratinocytes. Interestingly protein A (SpA) and Panton Valentine Leukocidin (PVL) are not required for pyroptosis of keratinocytes. However, Protein A has been shown by other groups to be essential for staphylococci to penetrate airway epithelial cells. Of note, neither Hla A nor SpA are unique to USA 300 strains of staphylococci. These findings, which recognize the role of Hla1 and caspase 1 in the pathophysiology of S. aureus skin and soft tissue infections, could provide new understandings of why some people progress from colonization to infection and other do not, as well as provide potential novel targets for anti-staphylococcal therapy.


Reviewed by: Sherman Alter, MD, FAAP, Associate Professor of Pediatrics, Boonshoft School of Medicine Wright State University, The Children's Medical Center of Dayton, Dayton, OH

Kawasaki Disease (KD), the leading cause of acquired heart disease among children in developed countries, is an acute vasculitis that can result in acute coronary artery abnormalities in up to 20% of untreated patients.1 Treatment with high-dose intravenous immunoglobulin (IVIG) decreases the risk of coronary artery aneurysms. In this multicenter randomized trial from Japan, investigators examined the efficacy of an intensified treatment regimen of prednisolone plus standard IVIG and aspirin in 248 children with severe KD. The Kobayashi score2 (validated among Japanese chil-
Review of the Recent Infectious Diseases Literature

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dren) was used to identify individuals at risk for lack of response to initial IVIG (serum sodium < 133 mmol/L, < 4 days of fever at diagnosis, aspartate aminotransferase concentration ≥ 100 U/L, white blood cell count with ≥80% neutrophils, platelet count ≤ 30 x 10^4/µL, C-reactive protein > 100 mg/L, and age < 12 months). One hundred twenty-three patients were randomly assigned to receive standard treatment while 125 received standard treatment plus a minimum of 5 days of intravenous prednisolone (2 mg/kg/day) followed by a tapered oral dose. The median time until initiation of primary treatment was 4 days. The mean duration of corticosteroid therapy was 21 days.

At 4 weeks, the incidence of coronary artery aneurysms identified by echocardiography was significantly lower in the prednisolone group than in the group receiving standard therapy (3% vs. 23%). Patients in the prednisolone group had significantly shorter duration of fever, less need for IVIG rescue treatments, and lower Z scores of all the major coronary artery diameters. Serious adverse events did not differ between groups.

Reviewer’s Commentary:
While the efficacy of corticosteroid treatment in children with KD has been controversial, the results in this important trial suggest that select, high-risk children might benefit from a prolonged course of corticosteroids in addition to conventional therapy. As noted in an accompanying commentary, the longer duration of corticosteroid treatment in a highly-selected patient population might account for some of the differences in outcome from previous studies. A challenge now, however, is to better identify those high-risk children in all populations who could benefit from added corticosteroid therapy.

References

Welcome to our New SOID Executive Committee Member

Dr. Andrea Hahn is our new executive committee fellow liaison. Andrea is a native of Michigan and received her BS degree in Biomedical Engineering from Marquette University in Milwaukee, WI. She attended medical school at The Ohio State University and stayed in Columbus, OH to complete her Pediatrics residency at Nationwide Children’s Hospital. Andrea is now a second year Pediatric Infectious Disease fellow at Cincinnati Children's Hospital Medical Center. She also just began a second fellowship in Pediatric Clinical and Developmental Pharmacology with an NIH-supported T32 grant.

As a graduating medical student Andrea was awarded the Pediatric Departmental Award. She also received the Resident Advocacy Award in both her second and third year of residency secondary to her extensive involvement in advocacy efforts to improve children's health. Andrea has also been previously involved with the AAP, serving as a resident liaison during her third year of residency.

Andrea is currently a member of the AAP, PIDS, and ASCPT (American Society for Clinical Pharmacology and Therapeutics). With her background in biomedical engineering, she has always been drawn to the analytic component of pharmacology. Her current interests include the pharmacokinetics and pharmacodynamics of antimicrobials and the ability to create PK/PD models in children as a way to provide safer and more efficacious therapies. She also hopes to look at pharmacogenomics as a predictor of the side effect profiles of antimicrobials. She attended the 3rd Annual Antimicrobial Stewardship Conference this past year and is working to improve the treatment of osteoarticular diseases at her own institution as part of a quality improvement project. She has also presented five research abstracts at four national meetings and has a case report accepted for publication.
Section on Infectious Diseases Award for Lifetime Contribution in Infectious Diseases Education

This award is given annually to an Academy member who has made outstanding contributions to education in infectious diseases. The candidate's contribution is indicative of a substantial long-term dedication to the highest ideals of education. This year we are pleased to present the award to Dr. S. Michael Marcy.

S. Michael Marcy, MD is an instantly recognizable name in the field of Pediatric Infectious Diseases because of his many outstanding contributions over many decades, and especially with regard to educational activities. Dr. Marcy is a graduate of the University of Pennsylvania School of Medicine and served his Pediatric residency at the Massachusetts General Hospital and the Boston City Hospital. After military service in Germany, he was a Pediatric Infectious Diseases fellow at Harvard University and Boston University.

Dr. Marcy is board certified in pediatrics and pediatric infectious diseases and a member of both the Academy and the Infectious Diseases Society of America. He has served on many committees on the national, state and local level including those of the CDC, NFID, WHO, and also AAP/SOID and ACIP. He has also served on the Red Book Committee of the Academy, on many editorial boards and is an active reviewer for many journals. In addition, Dr. Marcy has participated in numerous clinical investigations and trials, and has published more than 150 peer-reviewed articles and 50 book chapters.

It is his educational realm where Dr. Marcy has thrived. He continues to be a most active participant in post-graduate courses, lectures and other programs throughout the U.S. He co-chaired the live PREP ID course for several years and many other programs and courses over the past several decades. Overall, he is an outstanding spokesman, advocate and educator for the field of Pediatric Infectious Diseases.

Please join us at the award presentation for Dr. Marcy to be held at the Meet the Red Book Committee session (session S3030) on October 22, 2012 at 8:00 am at the AAP National Conference and Exhibition in New Orleans, LA in the Ernest N. Morial Convention Center, room R08-R09.

Take a Look at What’s New: Key 2012 Red Book Links

- Red Book video: www.aapredbook.org or http://youtu.be/Ih6kVivlVMo

- 2012 Red Book Summary of Major Changes: www.aapredbook.org/content/1/SEC7.body

- Red Book Member Benefit information (AAP log-in required): www.aap.org/redbookmemberbenefit

- Red Book Webinar on Summary of Major Changes (AAP log-in required): www.aap.org/redbookwebinar
  (special member benefit archived event available until mid-September!)

- Red Book Facebook page: www.facebook.com/aapredbook

- June 2012 AAP News article about the new Red Book - http://aapnews.aappublications.org/content/33/6/1.3.full

- AAP Bookstore: http://tinyurl.aap.org/pub185271 (print) and http://tinyurl.aap.org/bsub38665 (online + mobile)
Strategic Planning
The initial Section strategic plan was established in 2008 and through Executive Committee Section member support several goals have been achieved over the past four years. The plan provided a framework and guidance for the Committee regarding how best to focus their efforts and limited resources. Top among them was providing leadership opportunities for young physicians through the addition of the ID Training Fellow Liaison positions to the Executive Committee. The training fellows have been an invaluable addition to the Committee and have participated in many activities including:

• Participating in the planning and launch of the Section discussion board
• Serving on the editorial board of the Section newsletter and initiating a bi-annual column
• Writing an AAP News article for the Focus on Subspecialties column in May, 2011
• Attending the CDC/AAP Preparedness meeting in April, 2011 as an SOID representative and writing an article in the newsletter
• Attending a global vaccine advocacy day in Washington, DC
• Working to increase SOID fellow-in-training membership
• Participating in the technical review of draft policy statements/clinical and technical reports
• Working with the Chair to revise a chapter in the Textbook on Pediatric Care
• Serving as a reviewer for three influenza-related Pedialink “Hot Topics” developed in 2010-11
• Completing a training fellow survey in 2012 that will assist in identifying ways to enhance Section membership.
• Providing their views and suggestions via email on routine Section related activities as well as attending all Section Executive Committee meetings

In preparation for the planning session, the Executive Committee was asked to offer suggestions of what they would like to achieve in the four key areas above and how it might be achieved. In addition, several internal AAP Committees/Councils/Sections were asked for issues/topics that the Committee might consider and/or ways that the groups might work together. These ideas along with the brainstorming will be considered as the goals and objectives are established. The key areas that the Committee will focus on during the current planning process will be consistent with the goals and objectives of the Academy and include:

• Connection to Chapters
• Membership
• Value to Members
• Partnerships

The final version of the plan will be shared with Section members in future communications and posted on the SOID website.

CDC Parasitic Infection Activities:
The SOID is assisting the CDC to increase the awareness of several “emerging” parasitic diseases in the U.S. population. To better educate AAP members, an article was published in the Focus on Subspecialties column in the May, 2012 AAP News regarding Chagas Disease and can be accessed at: http://aapnews.aappublications.org/content/33/5/12.1.full.pdf Two additional articles regarding: 1) toxocariasis and toxoplasmosis and 2) cysticercosis will be forthcoming. The CDC has also fielded two surveys to assess pediatrician knowledge of and experience with toxocariasis and the results are pending.
Highlights of the Committee on Infectious Diseases (COID)  
Meeting of April 17 - 18, 2012

Red Book 2012
The 2012 Red Book was published in June, 2012 and the online version will be available as the AAP member benefit. A webinar was held on June 14th and reviewed the key content changes and rationale, provided an overview of key enhancements to RBO, including the mobile download, demonstrated new context-sensitive “pop-up images” in the online and mobile versions, highlighted Red Book Online’s Visual Library (expanded to over 2,500 color images) and demonstrated how to access online updates to stay current between editions. (To access the archived webinar go to: http://www2.aap.org/pcorss/webinars/redbook/index.html) The print edition will still be available at the member discounted price.

Dr. Larry Pickering has served as editor of the Red Book for 15 years - 21 if you include the time that he served as associate editor – and the publication of the 2012 Red Book will mark his last year in that role. Dr. David Kimberlin, MD FAAP, who has served as associate editor for 2 editions of the Red Book and will assume the editor position beginning with the 2015 Red Book.

More information regarding the evolution of the Red Book and the editorial transition can be accessed at:
http://aapnews.aappublications.org/content/33/6/1.3.full.pdf
http://aapnews.aappublications.org/content/33/8/1.1.full.pdf
http://aapnews.aappublications.org/content/33/8/2.full.pdf

AAP policy statements under development
The following policy statements are in the process of development by the COID:
1. Care of the Infant and Child with Staphylococcal Infection
2. Raw Milk
3. Tuberculosis Testing
4. Judicious Use of Antibiotics
5. Management of Neonates Born to Women with Active Genital Herpes Lesions - Pending AAP Board approval
6. *Clostridium difficile* - Pending AAP Board approval

The following AAP policy statements have been retired by the COID:
1. Prevention of Pertussis Among Adolescents: Recommendations for use of Tetanus and Diphtheria Toxoids and Acellular Pertussis (Tdap) - The 2012 Red Book comprises the current policies regarding the use of Tdap.
2. Prevention of Rotavirus Disease: Guidelines for use of Rotavirus Vaccine (Addendum The 2012 Red Book includes the current policies regarding the use of the rotavirus vaccine.)

The following clinical practice guidelines are in the process of development:
1. Fever in Infants Under 3 Months of Age
2. Management of Sinusitis
3. Diagnosis and Management of Acute Otitis Media

AAP endorses WHO recommendation to retain use of thimerosal
The AAP has endorsed a recommendation by the World Health Organization's Strategic Advisory Group of Experts (SAGE) on Immunization that the preservative thimerosal be retained for use in the global vaccine supply. The announcement is in response to a United Nations Environment Programme (UNEP) proposal to remove mercury from all products and processes. Such a ban would mean thimerosal, which contains ethylmercury, could not be used in any vaccine products worldwide. WHO states that replacing thimerosal with an alternative preservative may affect the quality, safety, efficacy and access to life-saving vaccines. SAGE proposed and the AAP concurs that this portion of the proposed ban should be dropped from the UNEP treaty. Visit AAP News for more information: http://aapnews.aappublications.org/content/early/2012/06/01/aapnews.20120601-1
A previously healthy 14 year old female competitive swimmer is referred to you for follow-up after being seen in the local ED last night. She has a 4 week history of increasing pain in the left ear and 3 week history of drainage from the same ear. She has not been febrile but failed a 7 day course of ofloxacin otic drops for a diagnosis of swimmer's ear made at an urgent care center 2 weeks ago. She is alert, afebrile, and not ill appearing. Her examination today is normal except for:

1. Visible half dried purulent material in the cup of the auricle,
2. Swollen and nearly closed left ear canal with visible mucopurulent debris,
3. Very tender erythematous indurated swelling over the left mastoid, and
4. Tenderness over proximal left sternomastoid with no erythema, induration or palpable adenopathy.

You immediately know that this is not a simple swimmer's ear because of the mucous mixed with the debris and purulence in the canal. There are no mucous glands in the external ear canal. So the presence of mucous confirms a communication with the middle ear space, i.e. there is a perforation of the tympanic membrane. The external canal is also inflamed, so this teen has at least a primary acute otitis media that perforated and also has a secondary external otitis media. This makes sense because her other finding, a tender mastoid, suggests acute/subacute mastoiditis, which is nearly always associated with acute otitis media (AOM).

She is not systemically ill or toxic appearing, but you are concerned about the etiology of this likely mastoiditis. You recall that this is an age in which you do not frequently see mastoiditis. It is more common in children < 5 years of age. The most common pathogens in that age group are *S. pneumoniae*, group A streptococcus, and in the last decade, *Staphylococcus aureus*, in particular MRSA. Other standard otopathogens are also possible but less common. Even in young children, acute mastoiditis appears more frequently in children who do not have a longstanding history of frequent or recurring AOM. Most have not been on systemic antibiotics when they present. The characteristic physical findings are forward rotation of the otic pinna and tenderness over the mastoid bone. An added unusual feature here is that it is more a subacute presentation and neck pain. The neck pain raises concern for Lemierre syndrome.

You obtain a CT scan (see Figure 1) which shows coalescent mastoiditis with abscess formation but no evidence for Lemierre syndrome. You decide to admit her for IV antibiotics and an otolaryngology consult. Her CBC is unremarkable with a WBC of 11,500/mm³, with 60% neutrophils, 31% lymphocytes and 9% monocytes, but her CRP is 11.2 mg/L.

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(normal = <1.0). She is started on clindamycin at 600mg (10mg/kg/dose) every 6 hours IV plus ceftriaxone 2 grams once daily. This designed to provide coverage for ~90% of pneumococci, all group A streptococci, and 85% of S. aureus (MSSA and MRSA) in your area. Additionally it provides nearly complete coverage for other usual otopathogens. You decide vancomycin is not needed due to absence of signs of CNS involvement or of toxicity, so empiric clindamycin is reasonable as MRSA coverage. The otolaryngologist decides to wait 48 hours to see if the drainage and inflammation will “cool off”. When her pain and the drainage continue with little change at 48 hours of IV antibiotics, the otolaryngologist performs a complete mastoidectomy and obtains cultures from the canal and mastoid bone.

These cultures reveal a nearly pure culture of *Eikenella corrodens* and a few colonies of MSSA. The former is a surprise. You remember that it is also one of the Gram negative HACEK organisms associated with endocarditis (*Haemophilus*, *Actinobacillus*, *Cardiobacterium*, *Eikenella*, and *Kingella* species). You recognize that *Eikenella* also occurs in periodontitis, human bite infections, boxer injuries (fist striking teeth with skin laceration), and occasionally dog bites or abscesses of the head and neck. But, it is very unusual as a cause of otitis media – a usual perquisite to mastoiditis.

Given the two pathogens that were detected, you reason that the more classic potential otopathogens may have been rendered unviable by 48 hours of IV antibiotics. You also reason that because clindamycin is bacteriostatic and MSSA is more readily isolated than most otopathogens, it may not be unexpected that some MSSA was still viable. But why was the *Eikenella corrodens* not affected?

Your investigation on-line reveals that *E. corrodens* is a facultative anaerobic Gram negative rod (often looks like a coccobacillus – i.e. pleomorphic) (Figure 2), related to *Neisseria* and *Kingella* spp. *E. corrodens* species’ name comes from the fact that it erodes pits into the agar on which it grows (Figure 2). It classically resides as commensal flora in the oral cavity particularly in the gingival sulcus and upper airway, and as such has been associated with indolent infections in the head and neck. It is usually detected in mixed infections. Its laboratory growth is enhanced in CO₂ and with hemin in the media. It is inherently resistant to aminoglycosides and macrolides as well as the standard oral anaerobic drugs, clindamycin, and metronidazole. But it is susceptible to most second and all later generation cephalosporins, to tetracyclines, to penicillins or to amoxicillin and quinolones.

*E. corrodens* is an anaerobe innately resistant to clindamycin and metronidazole.

After 3 more days of IV therapy with ampicillin-sulbactam, there is a dramatic response. You elect to finish her 3 weeks of therapy with high dose amoxicillin-clavulanate which will provide coverage for the isolated organisms, *E. corrodens*. 

*Figure 2*

**Left Panel.** Shiny pale to white colonies with surrounding pits.

**Right Panel.** On Gram stain it can look somewhat like *H influenzae*, i.e. coccobacillus.
dens and MSSA, as well as more classic mastoiditis pathogens. She recovers without incident. It only goes to show that Mother Nature can present us with scenarios that are “outside the box” on a regular basis. So when a disease that you recognize, mastoiditis, presents with an unusual feature (in this case with older age, more subacute than acute), be ready for less than straightforward pathogens – in this case a mixed aerobic/anaerobic infection.

Optional Reading


Welcome to our New SOID Members

If you know of others who might be interested in joining the Academy and the Section please have them call 1-800-433-9016 ext 5885 or go to [www.aap.org](http://www.aap.org). The link entitled Member Benefits will take them to an application. Current Academy members may join the Section by accessing the [online application](http://www.aap.org) (member ID and login required).

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Welcome to our New SOID Members  
Continued from Page 14

A special welcome to training fellows who were automatically added to the Section.  
(As of July 1, 2010, Section dues for infectious diseases training fellows were eliminated.)

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New Policy/Guidelines

Andrea Sperduto, MD FAAP

Besides the individual web sites listed below, links to the AAP ID policies, IDSA policies and the CDC ID Recommendations and Reports are all available at the SOID website:

I. AAP
   a. HPV Vaccine Recommendations- Committee on Infectious Diseases
      *Pediatrics* 2012;129:602-605.
      -Revised statement supporting ACIP recommendations for use of HPV vaccine in males and updates those for females.
      [http://pediatrics.aappublications.org/content/129/3/602.full.pdf](http://pediatrics.aappublications.org/content/129/3/602.full.pdf)

   b. Recommended Childhood and Adolescent Immunization Schedules-United States, 2012- Committee on Infectious Diseases
      *Pediatrics* 2012;129:385-389.
      [http://pediatrics.aappublications.org/content/129/2/385.full.pdf](http://pediatrics.aappublications.org/content/129/2/385.full.pdf)

   c. Strategies for Prevention of Health Care-Associated Infections in the NICU
      *Pediatrics* 2012; 129: e1085–e1093
      [http://pediatrics.aappublications.org/content/129/4/e1085.full.pdf](http://pediatrics.aappublications.org/content/129/4/e1085.full.pdf)
      [http://pediatrics.aappublications.org/content/129/4/e1104.full.pdf](http://pediatrics.aappublications.org/content/129/4/e1104.full.pdf)

II. MMWR
   a. FDA Approval of an Extended Period for Administering VariZIG for Postexposure Prophylaxis of Varicella
      *MMWR* March 30, 2012/61(12);212.
      1. The period after exposure to VZV during which a patient may receive variZIG has been extended to 10 days (from a former 96 hrs or 4 days).
      2. Can be obtained under an investigational new drug (IND) protocol.
      3. Patient groups recommended by ACIP to receive VariZIG are listed in report.
      [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6112a4.htm](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6112a4.htm)

   b. Updated Recommendations for Use of Tetanus Toxoid, Reduced Diphtheria Toxoid, and Acellular Pertussis (Tdap) Vaccine in Adults Aged 65 Years and Older- ACIP, 2012
      *MMWR* June 29, 2012/61(25);468-470.
      1. ACIP recommends that all adults aged 19 yrs and older should receive a dose of Tdap.
      2. Tdap should be administered regardless of interval since last tetanus or diphtheria toxoid-containing vaccine.
      3. After receipt of Tdap, persons should continue to receive Td for routine booster immunizations according to 2006 ACIP recommendations.
      4. ACIP will begin discussions on need for additional doses of Tdap in future.
      [http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6125a4_w](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6125a4_w)

   c. Prevention and Control of Influenza with Vaccines: Recommendations of the Advisory Committee on Immunization Practices (ACIP) - United States, 2012-13 Influenza Season

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New Policy/Guidelines  Continued from Page 16

These recommendations address changes/updates for the following topics:

- influenza vaccine virus strains included in the U.S. seasonal influenza vaccine for 2012-13
- guidance for the use of influenza vaccines during the 2012-13 season, including an updated vaccination schedule for children aged 6 months through 8 years and a description of available vaccine products and indications
- febrile seizures associated with administration of influenza and 13-valent pneumococcal conjugate (PCV-13) vaccines
- vaccination recommendations for persons with a history of egg allergy; and
- the development of quadrivalent influenza vaccines for use in future influenza seasons.

III. IDSA
    a. DSA Clinical Practice Guideline for Acute Bacterial Rhinosinusitis in Children and Adults

       1. Signs and symptoms that can help differentiate viral from bacterial rhinosinusitis are discussed.
       2. Empiric antimicrobial therapy is recommended.
       3. Recommended management of nonresponsive patients to empiric antimicrobial therapy is made.
       4. Imaging techniques and referrals are discussed.

       To download full Guideline use link below:
       http://cid.oxfordjournals.org/content/54/8/1041

   To dow nload full Guideline use link below:
   http://www.idsociety.org/Orga n_S ystem/#Lower/Upper%20Respiratory

ID Sessions at The AAP’s National Conference and Exhibition (NCE) October 20-23, 2012 New Orleans, LA

Follow this link to access a list of the ID sessions at the NCE: http://www2.aap.org/sections/infectdis/2012IDSessionsNCE.pdf

SOID Travel Grant Awards

One of the roles of the SOID is to promote the education of those physicians interested in infectious diseases. We are pleased to be able to offer NCE travel grants to residents or fellows in training with an interest in infectious diseases. The following recipients were selected by lottery and will receive $1,200 to defer the costs of airfare, registration, hotel, meals, and incidentals to attend the 2012 AAP National Convention and Exhibition.

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Update on HIV Guidelines

Jennifer S. Read, MD, MS, MPH, DTM&H, FAAP

Guidelines for the use of antiretrovirals in HIV-1-infected adults and adolescents are updated periodically, most recently on March 27, 2012 (1). The purpose of this document is to provide guidance to clinicians on the optimal use of antiretrovirals for treatment of human immunodeficiency virus type 1 (HIV) infection in adolescents and adults. Major changes in the guidelines since the last version (October 14, 2011) include the following:

1. Two new sections were added to the guidelines.
   a. HIV and the Older Patient: With the widespread use of effective antiretroviral therapy (ART) by HIV-infected individuals, more and more of these individuals are living longer. Older HIV-infected individuals are more likely to have co-morbidities than those who are younger, and such co-morbidities may complicate HIV therapy. This new section addresses HIV diagnosis and treatment of older HIV-infected individuals.
   b. Antiretroviral Drug Cost Table: The monthly average wholesale price for U.S. Food and Drug Administration-approved brand and general antiretroviral drugs, including fixed-dose combinations, are listed in this new table.

2. Existing sections were updated.
   a. Initiating Antiretroviral Therapy in Treatment-Naïve Patients:
      Changes in recommendations regarding initiation of ART in treatment-naïve individuals were based primarily on an increasing amount of evidence for harm associated with ongoing HIV replication on HIV disease progression. These updated recommendations are based also on newer data indicating the benefit of effective ART with regard to prevention of secondary transmission of HIV. This updated section provides a detailed discussion of the risks and benefits of long-term ART, and the rationale for new recommendations regarding initiation of ART. New recommendations are listed below:

   ART is recommended for all HIV-infected individuals, with the strength of the recommendation varying according to the pre-treatment CD4 cell count (cells/mm³):
   — CD4 < 350 (Strong recommendation, based on data from randomized controlled trials)
   — CD4 = 350-500 (Strong recommendation, based on data from well-designed nonrandomized trials or observational cohort studies with long-term clinical outcomes)
   — CD4 count > 500 (Moderate recommendation, based on expert opinion)

   Initiation of ART is strongly recommended for individuals with the following conditions, irrespective of the CD4 count:
   — Pregnancy (Strong recommendation, based on data from randomized controlled trials)
   — History of an AIDS-defining illness (Strong recommendation, based on data from randomized controlled trials)
   — HIV-associated nephropathy (Strong recommendation, based on data from well-designed nonrandomized trials or observational cohort studies with long-term clinical outcomes)
   — HIV/hepatitis B virus co-infection (Strong recommendation, based on data from well-designed nonrandomized trials or observational cohort studies with long-term clinical outcomes)

   Because ART can prevent HIV transmission among discordant couples (one sexual partner who is HIV-infected, with the other person being uninfected), ART should be offered to individuals who are at risk of transmitting HIV to a sexual partner (strong recommendation, based on data from randomized controlled trials, for heterosexuals; strong recommendation, based on expert opinion, for other transmission risk groups)

   Health care providers may choose to defer initiation of ART on the basis of clinical and/or psychosocial factors, and patients may choose to postpone ART. (Individuals who initiate ART should understand benefits and risks of ART and the importance of adherence to ART.)

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b. HIV-infected Women:
Revisions to this section incorporate an expanded discussion of the use of hormonal contraception among HIV-infected women. Drug-drug interactions (combined oral contraceptives and ARVs) are addressed, as is a possible association between hormonal contraceptive use and acquisition/transmission of HIV infection.

c. HIV/Hepatitis C Co-infection:
This section was revised to incorporate information regarding the newly approved hepatitis C virus NS3/4A protease inhibitors boceprevir and telaprevir, interactions between these medications and ART, and preliminary data regarding ongoing research in HIV/HCV co-infected individuals. Preliminary recommendations regarding co-administration of these NS3/4A drugs and ART are included.

d. Mycobacterium tuberculosis Disease with HIV Co-infection:
This section has been revised to incorporate more in-depth discussions regarding the evidence and rationale for recommendations regarding the timing of ART initiation among HIV-infected individuals with tuberculosis. Recommendations are based on the survival benefits shown for individuals enrolled in randomized controlled trials when ART was initiated 1) during rather than after tuberculosis therapy and 2) within two weeks of tuberculosis treatment among individuals with a pre-treatment CD4 count of less than 50 cells/mm³. Recommendations are as follows (according to CD4 count (cells/mm³) and other factors):

- For individuals with CD4 counts < 50, ART should be initiated within two weeks of initiating tuberculosis therapy (strong recommendation, based on data from randomized controlled trials).
- For those with CD4 counts ≥ 50 with clinical disease of major severity (e.g., low Karnofsky score, low body mass index, low hemoglobin, low albumin, organ system dysfunction, or extent of disease), ART should be initiated within two to four weeks of initiating tuberculosis therapy (moderate recommendation, based on data from randomized controlled trials, for CD4 count 50-500; moderate data, based on expert opinion, for CD4 count > 200).
- For others with CD4 counts ≥ 50, initiation of ART can be delayed beyond two to four weeks, but should be initiated by eight to 12 weeks of tuberculosis therapy (strong recommendation, based on data from randomized controlled trials, for CD4 count 50-500; moderate data, based on expert opinion, for CD4 count > 500).

e. Drug Interaction Tables:
Recent data regarding pharmacokinetic interactions between antiretrovirals and other drugs commonly used by HIV-infected individuals, and recommendations regarding co-administration of these drugs, were incorporated into these revised tables. Important updates include:

- Change in recommendation on dosing of rifabutin with certain antiretrovirals (protease inhibitors)
- New recommendation use rifapentin with certain antiretrovirals (protease inhibitors and non-nucleoside reverse transcriptase inhibitors)
- Incorporation of new information and recommendations regarding the interactions of boceprevir and telaprevir with different antiretrovirals
- Revisions regarding interactions between different ritonavir-boosted protease inhibitors and HMG-CoA reductase inhibitors

f. Prevention of Secondary HIV Transmission
This section was revised to address the use of effective ART to prevent HIV transmission, and evidence-based interventions available to assist providers with HIV risk behavior identification and counseling.

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