Take 3 – Practical Practice Pointers© February 11, 2019 Edition

Adult Immunization Update 2019, TMP/SMX safety, CME and MOC

From the CDC and the ACIP

1) Recommended Adult Immunization Schedule 2019

This past week the 2019 Recommended Adult Immunization Schedule was published by the Advisory Committee on Immunization Practices (ACIP) of the CDC. The 2019 schedule has also been approved by the AAFP, the ACP, and ACOG. New recommendations include:

Influenza ("old news"):
For the 2018-2019 season, any licensed influenza vaccine appropriate for a patient's age and health status may be now administered, including the use of the intranasal live attenuated influenza vaccine (LAIV).

Hepatitis B:
Approved the use of the new single-antigen recombinant hepatitis B vaccine (Heplisav-B, Dynavax) for prevention of hepatitis B virus infection in adults aged 18 years or older. Heplisav-B is routinely administered in 2 doses at least 4 weeks apart. It can be used as a substitute in a 3-dose series with a different hepatitis B vaccine, but a valid 2-dose series requires 2 doses of Heplisav-B with at least 4 weeks between them.

Hepatitis A:
Approved homelessness as an indication for routine hepatitis A vaccine with a 2-dose series of single-antigen hepatitis A (Havrix, Vaqta) or a 3-dose series of combination hepatitis A and B (Twinrix). Other populations that are at increased risk for hepatitis A infection or severe hepatitis A disease and are recommended to receive routine vaccination include chronic liver disease or clotting factor disorders, travelers in countries with high or intermediate endemic hepatitis A, persons with close personal contact with an international adoptee in the first 60 days after arrival from a country with high or intermediate endemic hepatitis A, men who have sex with men, and persons who use injection or noninjection drugs.

Shingles:
Though not specifically highlighted in this ACIP update, there have been many questions from colleagues regarding Shingrix side effects. Here is the data from the CDC website. In 8 clinical trials of more than 10,000 participants:

- Reactions (vaccination-related reactions severe enough to prevent normal activities) were common (17%).
- About 10% reported injection-site symptoms such as pain, redness, and swelling.
- About 10% reported systemic reactions such as myalgia (muscle pain), fatigue (feeling tired), headache, shivering, fever, and gastrointestinal illness.
- Most people (78%) reported at least some pain at the injection site.

It is also important to note that in adults vaccinated at age 60 years or older, vaccine efficacy wanes steeply the first year after vaccination, and protection by 6 years after vaccination is less than 35%. Therefore, adults receiving the vaccine before age 60 years might not be protected when their risks for herpes zoster (shingles) and its

complications are highest. Studies are ongoing to assess the duration of protection and the need, if any, for booster doses.

My Comment:
Note that some of the local reactions to Shingrix (swelling and erythema) can be quite impressive. Be sure to not mistake this for cellulitis.

John Epling, MD, one of our FM colleagues here at Carilion Clinic, serves as the AAFP's liaison to the Adult Immunization Workgroup - the group that designs and produces the yearly immunization schedule. The group has worked hard over the past couple of years to re-design the schedule to make the graphics and the notes more readable and clearer. Here's a link to an article about this re-design: Link
If you have any feedback about the schedule's new look, please email Dr. Epling at jwepling@carilionclinic.org and he will pass this feedback to the workgroup.

References:
Kim D, et al. Recommended Adult Immunization Schedule, United States, 2019
Ann Intern Med. February 4, 2019;170(3):182-92. Article
CDC ACIP Recommendations and Guidelines: Link
CDC – Shingles Vaccine Safety: Link

From the Carilion Clinic Antibiotic Stewardship Committee

2) Clinical Pearls for the use of Trimethoprim/Sulfamethoxazole

Trimethoprim/sulfamethoxazole (TMP/SMX or Bactrim) is commonly used for many infections. Bactrim provides appropriate coverage for certain MRSA infections as well as many common urinary pathogens. It can be an affordable oral option and has great bioavailability penetrating into difficult to reach areas such as the CNS and bone. In many patients, Bactrim is a safe and effective option, although there are patient populations in which Bactrim should be prescribed cautiously.

- Sulfa-related hypersensitivity/rash
    - Reactions can be severe, including Steven-Johnson syndrome
    - Rash is a delayed reaction often occurring days or even weeks into therapy
- Hyperkalemia
    - Risk of increased potassium, especially in elderly patients with renal dysfunction and/or on additional medications which may increase potassium, including ACE-inhibitors, ARBs, spironolactone, and diuretics containing triamterene (Maxide, Dyazide) or amiloride.
- Increase in serum creatinine
    - Bactrim inhibits tubular secretion of creatinine and can cause slight elevations in serum creatinine not reflective of decline in renal function
    - Bactrim can also cause renal injury, especially in patients with pre-existing renal dysfunction and/or on concurrent nephrotoxic medications
- Gram negative infections
    - Bactrim has classically been used for gastrointestinal and genitourinary infections. The gram negative bacteria commonly associated with these infections have resistance rates >20%, which should prompt prescribers to see if there is a more efficacious and safer antibiotic choice.
- Drug interaction with Warfarin

- Bactrim may increase the anticoagulant effect of warfarin and often requires an empiric dose reduction of 10-20% of the weekly warfarin dose. Increased INR monitoring is recommended when initiating or removing Bactrim therapy in patients also on warfarin.

Take Home Points:

- Patients who have previously developed a rash on Bactrim or alternative sulfa medications should NOT be re-challenged
- Consider alternative agents in patients with baseline high potassium and/or on additional potassium raising medications, especially in the presence of renal dysfunction or those requiring high doses of Bactrim
- Renal dysfunction is NOT a contraindication and dose adjustments for renal impairment do exist. However, alternative antibiotics may be more appropriate in many patients.
- Be mindful of drug-drug interactions and consider an empiric dose reduction of warfarin when using Bactrim

My Comment:
This is an expansion of a 9/17/18 Take 3 Pointer regarding the risks of hyperkalemia for patients taking Bactrim. Many of us have been prescribing Bactrim for such a long time that we may have become a bit desensitized to the risks of it. They are quite real and this Pointer is intended to heighten awareness so that at the least you might "pause" prior to prescribing it and consider risks and alternatives.

Reference:

- Renal Dosing Adjustments: Medscape: Link
- FDA Bactrim Product Information February 2018: Link
- The antimicrobial stewardship team is available 7 days a week from 8 AM to 4 PM by email at Antimicrobial_Stewardship@carilionclinic.org or via Webexchange/hospital operator

From the Maintenance of Board Certification (MOC) and CME Process

3) Wonderfully Easy Ways to Receive MOC and/or CME Credit!

Frequently I try to highlight how to maximize your CME hours and fulfill your MOC requirements. I received so many questions at the recent VAFP meeting that I decided "it's time." Here are some tips for getting up to 64 CME hours from things you are already doing:

Claim your CME Hours for Teaching Students:

- Hopefully many of you have students rotating with you in your practice. If you do, many thanks for "paying it forward." If not, now's a good time to start! If you are an AAFP member (and this may apply to other specialty groups as well), you can claim up to 20 hours of CME for teaching each year. Just go to your AAFP CME site and under your CME transcript click on "report CME", then find the Teaching tab, type in "teaching medical students and residents" and claim 20 hours of **prescribed**, **live** CME credit (60 hours for each 3 year recertification cycle!).

Receive ABFM Part IV MOC credit for the work you are already doing:

- This program was updated on November 1st, 2017 to make it easier to complete. If your organization is not a Portfolio Sponsor (Carilion is not), then you can complete a brief questionnaire outlining a performance improvement (PI) activity that you did alone or with a group (including your scorecard work). This pathway is called the **ABFM Self-Directed Performance Improvement Project – Clinical**. To complete this project:

  1. Go to https://portfolio.theabfm.org/MCFP/Modules.aspx?tab=PPM and click on the link for the ABFM Self-Directed Performance Improvement Project – Clinical and follow the instructions.
  2. Note that you can use data for projects already completed (such as any clinical scorecard data).
  3. The entire process for entering the data for me took about 20 minutes
  4. Once you have received approval you will personally get 20 hours of PI credit and be given a 5-digit group code. If you have participated with other folks in your organization then you would give that 5-digit code to them and they would follow the process above but use the group code you are given. They would just need to attest to participating and not need to complete the detail about the QI project (in essence it takes them about 5 minutes to complete the process). The group code works for up to 10 people including yourself, so it should work for most practices.

Claim 6 hours of CME every quarter for reading Take 3. For this quarter, a link will be available at the end of February. All you have to do is answer 5 straight-forward questions and some additional information to claim your credit. Note that this CME credit is available only for employed physicians/clinicians of Carilion Clinic.

My Comment:
A common complaint I hear regarding the ABFM maintenance of certification (MOC) process is all the additional work that must be done. The recommendations above are an easy way to achieve much of your CME as well as your Part IV requirements. If you've not done so, consider coming to one of the VAFP Group KSA/CSA workshops, which are a fun and educational method to complete these requirements. Here is a link for the 2019 schedule: http://vafp.org/familymedicinecertification/

Additionally, I'm one of the inaugural group participating in the new process for our ABFM certification exam by doing 25 questions each quarter. Thus far, I have found the process to be educational, fun (really), and much preferable to a high-stakes exam!

Feel free to forward Take 3 to your colleagues. Glad to add them to the distribution list.

Mark

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