OSGNA™
Ohio Society of Gastroenterology Nurses and Associates

The Scope

Spring 2014

President's Message

Hello Everyone,

2013 President, Joan Metze

I am sitting here writing this note and outside my window it is snowing. I don't know about anyone else but I am very tired of snow. I spend a lot of time daydreaming I'm on a beach in the hot sun. I truly can't wait until spring arrives.

The education committee is very busy working hard putting the spring conference meeting together. This year's meeting will take place in Cincinnati at the Oscar Center in Fairfield on March, 29th. We have had it there in the past and everyone liked the facility. There are hotel rooms on hold at the until February 28th. The cost is $99.00 a night. I encourage anyone interested in staying over Friday night to reserve your room ASAP.

We are still looking for members interested in joining the board. What we want to do is mentor these members now so that they have a better idea of what each position entails. Please call if you have interest. We will also be able to answer any questions at the March meeting

Don't forget that the SGNA national conference will

Continued on pg 2

Officers

President .....Joan Metze
Past President .....Debbie Vance
President Elect .....Terri Geil
Secretary .....Kim McNary
Treasurer .....Karen Strader-Helton
Education/Legislation .....Shirley Flowers
Historian/Newsletter.....Sandy Amos

Our Medical Advisors for 2012-13 are Dr. Carmen Meier and Dr. Christopher South. Thank you for your dedication and service.

Upcoming Events

March 5, 2014 - Nurses Day at the Statehouse
Enter The Conversation Change the World
Ohio Statehouse, Columbus OH

March 29th - OSGNA 2014 Conference
Oscar Event Center in Fairfield, OH (next to Jungle Jim's)

May 2-6, 2014 – SGNA 41st Annual Course
Nashville, TN

Continued from pg 1

take place this year in Nashville, Tennessee. The conference is from May 2nd-6th. Since it is so close to Ohio this year, it may be a great time to attend. If you have never attended this conference it is such a great opportunity for networking and keeping up to date on the latest and greatest in GI.

Stay warm and I hope to see you at the Oscar Center,

Joan Metze

President

Helicobacter pylori: An Update on Testing and Treatment.

By Bennie R Upchurch, MD., Associate Professor of Medicine, Division of Gastroenterology, Department of Internal Medicine, Ohio State University Wexner Medical Center

Helicobacter pylori (H. pylori) infection is one of the most common infections worldwide. It is responsible for gastrointestinal illnesses such as gastritis, peptic ulcer disease, and gastric cancer. The World Health Organization classifies it as a class I carcinogen. Fortunately, the prevalence of H. pylori infection is decreasing in the United States, yet it is estimated as much as 30 to 40% of the US population is infected. Older age and lower socioeconomic conditions are independent risk factors for the infection and the infection is more common in developing countries. Individuals born outside of the US are approximately 55% likely to be infected.

Since the discovery of H. pylori infection and its role in peptic ulcer disease in 1982, by doctors Warren and Marshall, investigators and clinicians have worked to refine strategies for the diagnosis and management of H. pylori infection. Several factors in recent years have made this more challenging. First, with a decreasing prevalence in the United States, particularly in children, performance characteristics of some testing strategies are reduced. Secondly, the ubiquitous nature of proton pump inhibitors prescribed for a variety of gastrointestinal symptoms or conditions also confounds certain testing options. Finally, increasing antibiotic resistance has required the development of second and even third line regimens (so-called salvage regimens), given the failure to eradicate the infection with an initial course of therapy approximately 30% of the time. The most recent studies suggest that standard triple drug regimens including amoxicillin and either clarithromycin or metronidazole with a proton pump inhibitor are now only effective in special populations.

Diagnosing H. pylori Infection

In general terms, H. pylori testing options are divided into noninvasive or invasive testing. Specifically, these could be clarified as non-endoscopic and endoscopic tests. In clinical situations where endoscopy is warranted, such as concern for bleeding ulcers or neoplasm that may require endoscopic intervention, the expense, inconvenience and risks of endoscopy can be avoided. There is no particular "gold standard" for H. pylori testing. The choice of testing may rely on the clinical situation, prevalence in the patient population, cost, local expertise and availability. Arguably, the most pertinent distinction for a clinician deciding on management plans would be tests of H. pylori exposure versus tests that diagnose active infection.

Endoscopic Testing Options:

> **Histology**- excellent sensitivity and specificity, but requires endos copy with inherent risk and expense. Limited by recent antibiotic, bismuth or PPI use.

Continued on pg 3

Rapid Urease Testing (e.g. CLO test)- good sensitivity and specificity, again requir ing endoscopy and limited by aforementioned medica tion usage.

Culture and Polymerase Chain Reaction (PCR)- both can offer acceptable sensitivity and specificity, they are endoscopically obtained and subject to the limitations with the proximity of medication usage. Neither is widely available, methodologies are not standardized across laboratories, and can be very expensive. Susceptibility testing has become necessary to individualize regimens that have reduced success because of antibiotic resistance. For this reason, culture and susceptibility testing is being utilized in increasing numbers.

Non-Endoscopic Testing Options:

Urea Breath Testing- excellent sensitivity and specificity. Noninvasive and has gained more widespread use in recent years. It is a test of active infection, and is deemed the test of choice to prove eradication. Clinical thought leaders, researchers and industry guidelines suggest waiting at least one month after eradication regimens, including the proton pump inhibitor, before testing for successful eradication.

Fecal Antigen Testing- excellent sensitivity and specificity. Widely available and relatively inexpensive. Some patients find collection of the stool sample distasteful. It is a test of active infection and can be used to confirm eradication, similarly awaiting four weeks off of eradication regimens before retesting.

Serology- is widely available, with reasonable positive predictive value in a higher prevalence population. Negative predictive value is also very good. In settings where the prevalence is low, the false positive rate might be unacceptably high. It is inexpensive and widely available. It is not able to confirm an active infection. Thusly it cannot be used to determine eradication of the infection, as obviously the antibody test remains positive long after successful eradication.

Treatment Regimens

First-Line Therapy- in areas where clarithromycin resistance is less than 15%, standard triple drug regimens including a PPI, amoxicillin and either clarithromycin or metronidazole, all given BID for 10 to 14 days, is still recommended in international guidelines. It is often difficult, however to determine the local antibiotic resistance characteristics.

There is no significant difference between a 7- and 14-day based triple therapy, but the longer the therapy is continued, the greater the side effects of such as dysgeusia with a metallic taste, diarrhea, nausea, epigastric discomfort. Studies have demonstrated that the addition of probiotics reduce eradication-related side effects and may improve patient's compliance.

Alternative treatment options for H pylori infection are **bismuth containing and non-bismuth containing quadruple therapy** and triple therapy with new drugs such as levofloxacin, moxifloxacin, rifabutin and furazolidone. The Maastricht IV/Florence consensus report recommends bismuth-containing and non-bismuth-containing quadruple therapy as first-line empirical treatment for H pylori infection in areas of high clarithromycin resistance.

Second Line Therapy- Choice depends on what has been used as first-line; therefore it should use different antibiotics. Quinolone-based, bismuth-based and non-bismuth-based treatments are all acceptable options for second-line therapy.

Sequential therapy consists of five days a PPI plus amoxicillin followed by the PPI plus clarithromycin and tinidazole for the next five days. It is often employed as a second or third line option with good success.

Non-bismuth quadruple therapy, also termed "**concomitant**" consists in four drugs regimen containing PPI, clarithromycin, amoxicillin and metronidazole, which are all given for the entire duration of therapy (10 days). Recent studies showed advantages in terms of compliance and eradication.

Continued on pg 4

Continued from pg 3

Hybrid therapy consists of a PPI and amoxicillin for 14 days with amoxicillin clarithromycin metronidazole or tinidazole, given for the final 7 days, all twice a day. This combines **sequential** and **concomitant** therapy with all four drugs given together.

In summary, despite decreasing prevalence in the United States, H. pylori infection remains a common and challenging infection to diagnose and successfully eradicate. Advances have been made in testing with a better understanding of the role of tests of active infection and their use, rather than tests such as antibody testing with its inherent limitations. It is important to recognize the poor sensitivity of tests of active infection while taking proton pump inhibitors or when testing less than four weeks from completing a course of eradication therapy. Antibiotic resistance is a major factor in the United States and worldwide, ushering in a new era of individualized treatment strategies that incorporate bacterial culture, molecular testing (such as real-time PCR) , and susceptibility data, to allow treatment choices that offer the highest eradication regimens. It is similarly important that further study of noninvasive H. pylori testing options continues, advancing toward our goals of providing high quality, evidence-based, and cost effective care.

BU 1/23/2014

Open Invitation to All Members

This is an open invitation to all members to attend any quarterly board of director meetings in 2013 and 2014. We need to prepare, educate and mentor those who are interested in running for office for the 2015-2017 term. Several current board members plan to step down and pass the gavel to our future leaders.

SGNA requires that each region provide its members with contact hours, quarterly newsletters and that the board of directors meet quarterly too. We usually meet at the Jefferson Outlet Mall food court (half way between Cincinnati, Columbus and Dayton) to discuss how we are going to accomplish the SGNA requirements. We always meet the evening before the spring educational conference.

There are benefits of being a Board member. OSGNA pays for the Boards annual dues and waives the spring educational conference fees. All of this is dependent on available funds.

Please consider pursuing an active interest in OSGNA by contacting Kim McNary through this website or check the website for Board meeting location and dates.

OSGNA SPRING CONFERENCE
Oscar Center, Cincinnati Ohio, March 29, 2014, please check website for optional online registration (www.osgna.org), Hotel accommodations available at Hampton Inn, 430 Kolb Dr. Fairfield Ohio 45014 (513 942- 3440)