

# WGN

## WORLD GASTROENTEROLOGY NEWS

Official newsletter of  
the World Gastroenterology  
Organisation

Vol. 15, Issue 1

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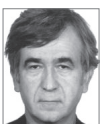
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### Message from the WGO President



Welcome to the inaugural issue of the combined *WGO e-Newsletter* and *World Gastroenterology News*. Under the editorship of Henry J. Binder (New Haven, Connecticut, USA) and Greger Lindberg (Stockholm, Sweden), we hope to bring you the best of both of our electronic publications in a single format, initially to be published four times yearly. National society issues of interest? Read on... Topic overviews? We have them! A summary of London 2009, the most successful gastroenterology meeting ever held in Europe? Stay with us.

This combined publication will be a single arrow in the quiver of the World Gastroenterology Organization (WGO) over the next several years. We have recently signed a contract with the *Journal of Clinical Gastroenterology*, making the journal the official publication of our organization. It will be publishing news about gastroenterology societies in every issue, under the leadership of Michael Fried (Zurich, Switzerland), the chairman of the WGO's Guidelines and Publications Committee. Additionally, we have agreed to publish the WGO's Global Guidelines in the journal and will be placing our imprimatur on four review articles of global interest yearly. Thanks should be extended to Martin Floch of Yale University School of Medicine, the editor-in-chief of *JCG*, who has invited Michael Fried to serve the journal as an Associate Editor, and Dr. Lindberg and Dr. Binder as two of the five WGO appointees to the journal's editorial board.

We can also add to this impressive array of publications a recently renewed contract with Touch Briefings to provide four review articles yearly under the impeccable guidance of the WGO's Past President, Eamonn Quigley — so that we end up with an academic trifecta with wins in all three of our society "races" to provide timely news and education to our constituency.

What else? The few short months since London 2009 have left me breathless. I was privileged to attend a Chinese Society of Gastroenterology (CSGE) meeting in Guangzhou in December. Under the leadership of Dr. D. Fan, President of the Society, I was impressed by the meeting size (approximately 3000 attendees), by the quality of the presentations, and by the dedication of the younger clinicians in the areas of genetics, inflammatory bowel and liver diseases, irritable bowel syndrome, and gastrointestinal cancer, particularly gastric malignancy. The WGO looks forward to further cooperation with the CSGE in

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## Vol. 15, Issue 1

Editor: Henry J. Binder, Greger Lindberg  
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## Message from the editors of *e-WGN*



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Welcome to the first issue of the reformatted *e-World Gastroenterology News* 2010. The mission of the World Gastroenterology Organization is to promote, both to the general public and to health-care professionals, an awareness of the worldwide prevalence and optimal care of digestive disorders by providing high-quality, accessible, and independent education and training. *World Gastroenterology News* is one of the central tools in fulfilling this mission.

We, the new co-editors of *WGN* — Henry J. Binder (Yale University, New Haven, Connecticut, USA) and Greger Lindberg (Karolinska Institute, Stockholm, Sweden) — are proud to have been given the opportunity to present news and views to the world gastroenterology community. We plan to continue to present a mixture of scientific and organizational news that we think will be of interest to gastroenterologists worldwide.

### Training

Part of the mission of the World Gastroenterology Organization is to promote the training of gastroenterologists, especially in resource-poor countries, and to establish [WGO Training Centers](#) for primary and advanced gastroenterology training in the developing world.

These centers are important sources for disseminating knowledge and acquiring skills. More information about WGO-supported training programs will be provided by Professor Jim Toouli of Flinders Medical Center in Adelaide (the WGO's Education and Training Coordinator). In this first issue of *e-WGN*, Prof. Toouli summarizes a symposium on WGO Global Education for Gastroenterologists held at the Gastro 2009 meeting in London.

### World Digestive Health Day

The World Digestive Health Day (WDHD) has become an important event for promoting awareness about digestive disorders. It was first organized in 2005, and its impact has been increasing each year. Last year, WDHD highlighted the topic of irritable bowel syndrome (IBS), and an international IBS Task Force headed by Eamonn Quigley, the WGO's Past President, was set up. Professor Quigley summarizes the task force's efforts in this issue of *e-WGN*. The topic for WDHD this year is inflammatory bowel diseases. The present issue of *e-WGN* outlines the several events that are planned during the coming months to highlight research and care in inflammatory bowel disease. The next issue will include an interview with Professor Charles Bernstein, the Chair of

World Digestive Health Day 2010, and in this issue the WGO's Librarian, Justus Krabshuis, reviews current research on inflammatory bowel disease.

### Global Guidelines

The [WGO Global Guidelines](#) are a set of guidelines aimed at improving the standards of digestive care. The guidelines have the unique feature that they include resource-sensitive cascades, so that they are applicable in all parts of the world, regardless of the level of resources available locally. The most recent addition is a new guideline on hepatocellular carcinoma, which is outlined by Professor Cihan Yurdaydin in this issue of *WGN*.

### Gastro 2009

The World Congress of Gastroenterology was held in London last November as part of the Gastro 2009 meeting. The event was jointly organized by the WGO, the United European Gastroenterology Federation, the British Society of Gastroenterology, and the World Organization of Digestive Endoscopy. The Congress attracted nearly 15,000 participants and was truly a great success. The WGO Brohée Lecture given at the meeting by Professor Kenneth McColl is summarized in this issue of *e-WGN*.

### Outlook

The past year has been characterized by recession in the world economy, which has inevitably had consequences for organizations like ours. We depend on fund-raising and on support from the pharmaceutical industry, and willingness to contribute often declines in times of economic constraint. However, we believe that the WGO's strengths lie in its global perspective and its potential for greater efficiency. ■

## → Message from the WGO President

Shanghai in 2013, when there will be a combined meeting with the Asian-Pacific Association of Gastroenterology (APAGE), the Asia-Pacific Digestive Week Foundation (APDWF), the *Organisation Mondiale d'Endoscopie Digestive* (OMED), and a federation of four of the Chinese gastroenterology societies. Additional visits are planned this year with societies or training centers in Costa Rica, Jordan, Peru (Train the Trainers), Korea, Argentina, and Egypt — to name only a few of our worldwide interactions.

What else has occurred in the transition between Eamonn Quigley's presidency and my own tentative stumbling? The World Gastroenterology Organization Foundation (WGOF),

under Bernard Levin's leadership and with the support of CCS, a professional fund-raising organization, has initiated a formal fund-raising program to ensure the financial viability of future programmatic activity. I have said it before and reiterate it now: support the WGO. Our programs are intended to benefit gastroenterology in developing and developed countries alike.

What else? Charles Bernstein has begun spearheading our approach to increase public awareness of inflammatory bowel disease for World Digestive Health Day (WDHD) on May 29th—the official “founding day” of the WGO, 52 years ago. WDHD may be a misnomer, however, as we will be promoting public awareness through

the year. Nevertheless, watch for a media feeding-frenzy in May. It will be good for our patients with IBD as well as good for our profession.

More? Lots. Too much for me to prattle on about. Instead, read this inaugural issue. Send it to a colleague or a friend. Forget an inoculation; catch the WGO fever. Support our mission: training and education with an emphasis on the developing world. Support our programs (Training Centers, Train the Trainers, Global Guidelines, IDCA, WDHD...). Support our discipline despite the difficulties of day-to-day endeavors or practice. I look forward to working with each and every one of you. ■



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# Brohée Lecture at Gastro 2009

## Acid secretion in the developed world – now too much of a good thing?



### Kenneth E.L. McColl, MD

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There has been a remarkable change in the human stomach in the western world over the past few decades. Fifty years ago, most adults in the western world had their stomach colonized by *Helicobacter pylori* infection. The associated chronic mucosal inflammation caused a progressive loss of specialized parietal cells and a consequent reduction in acid secretion with increasing age. *H. pylori* has colonized the human stomach since at least the time our ancestors migrated from Africa 65,000 years ago.

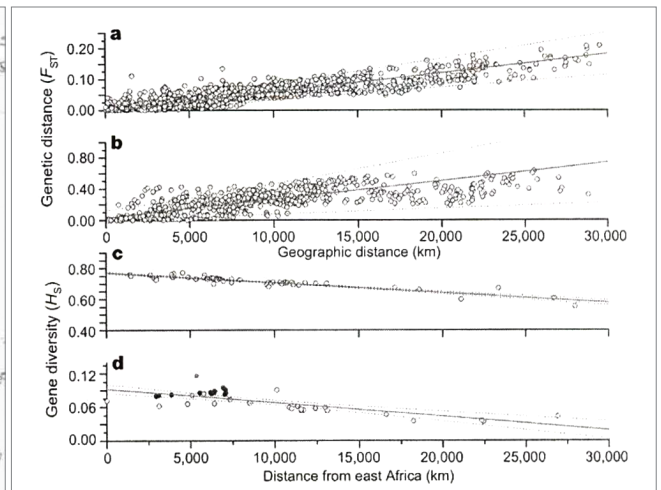
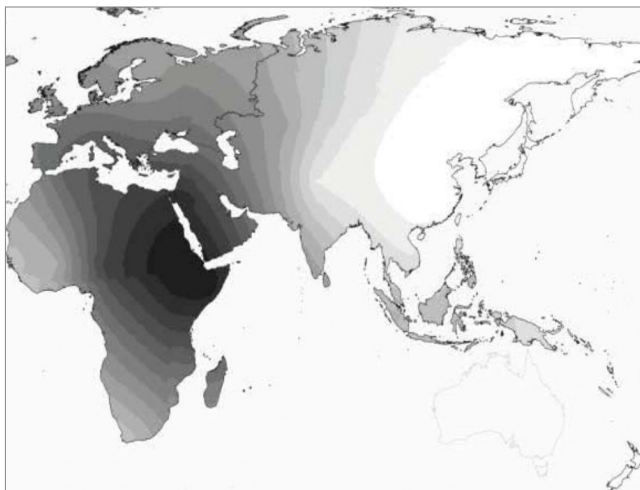
Diminution in acid secretion with increasing age has therefore been a feature of the stomach since as long ago as we know. The very recent disappearance of *H. pylori* infection means that acid secretion is maintained throughout life and is thus now substantially higher in adults than it was in previous generations. One important question that needs to be addressed is whether the new pattern of acid secretion is suited to our current environment in the western world.

Gastric acid secretion is one of

the most sophisticated and highly developed biological functions. It is an energetically expensive process, as it involves creating and sustaining a hydrogen ion concentration gradient of more than 1,000,000 : 1 across the gastric epithelium. For this reason, the parietal cells are full of mitochondria that generate the adenosine triphosphate (ATP) required to drive the proton pump. The production of gastric acid by the stomach is potentially dangerous. The acidic gastric juice and proteolytic enzymes are able to digest human tissue. Furthermore, the potentially damaging gastric secretions are separated from the rest of the body by an epithelium that is only a single cell thick. For that reason, there

## Evidence for long and intimate association between humans and *H.pylori* infection

a, c, = human    b, d, = *H.pylori*

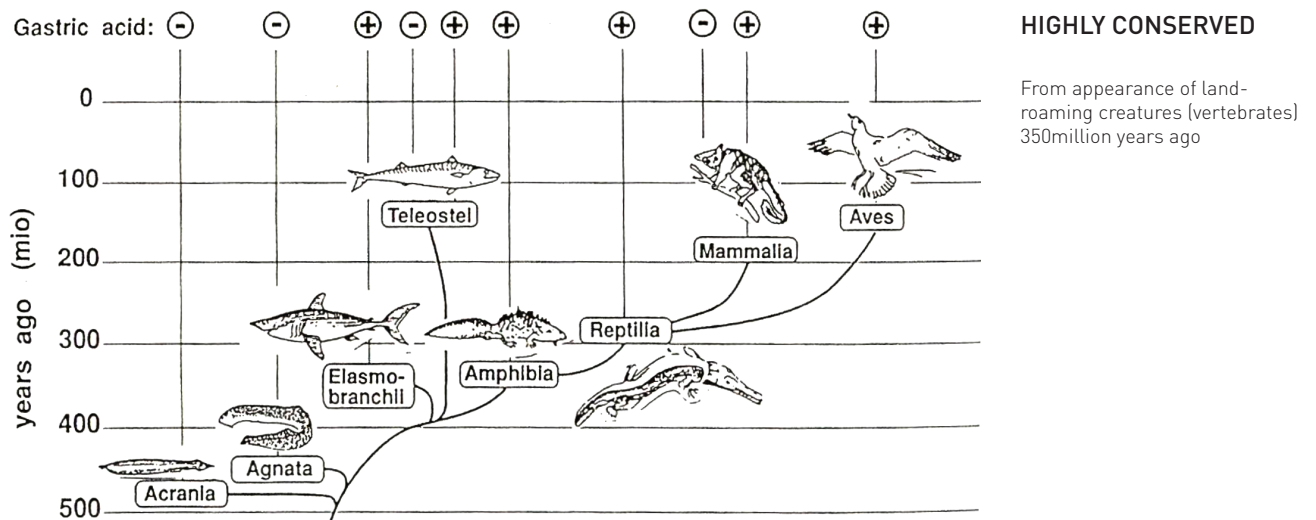


*H. Pylori* travelled in humans out of Africa – 65,000 years ago (Linz et al. *Nature* 2007;445:915-918)

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## Gastric Acid Secretion



is a very complex system for controlling acid secretion and protecting the epithelium.

Gastric acid secretion is highly conserved and is thought to have evolved 350 million years ago when land-roaming creatures first appeared. All these characteristics of gastric acid secretion indicate that it must provide, or has provided, a function that was very important for human survival.

Gastric acid has a number of recognized functions. These include initiation of protein digestion, denaturation of potentially immunogenic proteins, facilitation of absorption of iron, calcium, and vitamin B12, and killing of potentially pathogenic ingested microorganisms. The only one of these recognized functions that could justify the energy and risks associated with secreting gastric acid is the killing of potentially pathogenic microorganisms. Is this original critical function still relevant today, or has it become redundant?

There have been profound changes in the human environment and the

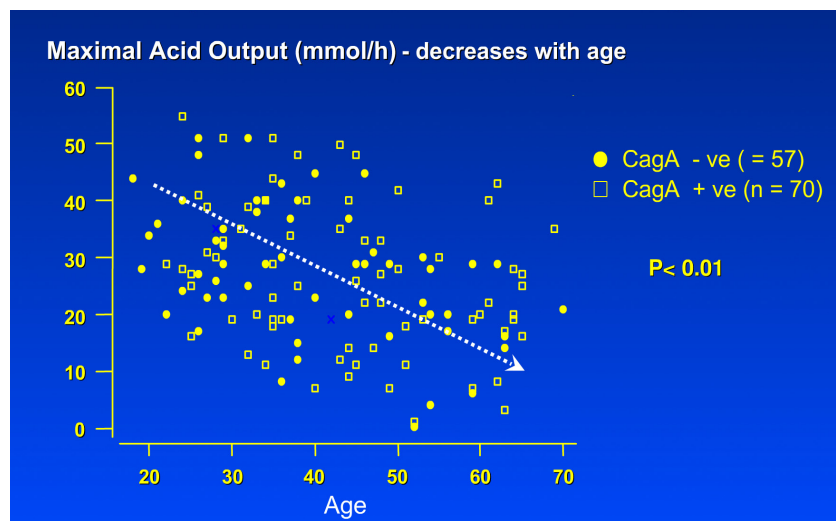
extent to which humans are exposed to ingested pathogens over recent decades and centuries. Approximately 20,000 years ago, humans learned how to control fire and started using it for cooking, and in this way reduced the risk of ingesting contaminated flesh. They became different from other carnivores and from what they had been like for the previous 50,000 or more years. Approximately 2000 years ago, the first sewage systems and clean drinking water appeared in parts of the Roman Empire and have now become standard throughout the developed world. Fifty years ago, food refrigeration appeared, with further improvement in food safety. Over the last 25 years, the production of food and its storage have become much more stringent and free from pathogenic contamination. There has therefore been a progressive and probably exponential decrease in human exposure to potentially pathogenic microorganisms over recent times. Gastric acid secretion evolved to allow survival in a very

different environment from the relatively sterile one that now characterizes the western world.

A number of observations do suggest that acid secretion is redundant and no longer required for life in the western world. Marked long-term suppression of gastric acid with proton-pump inhibitors rarely causes infective complications. In addition, patients who develop autoimmune atrophic gastritis and associated complete achlorhydria rarely have problems, provided they receive the necessary vitamin B12 supplements. Gastric acid secretion is certainly less important in the environment of the western world than it has been in the past.

Paradoxically, the environmental changes that have made acid secretion less important have also increased the amount of acid produced. Previously, when everyone was infected with *H. pylori*, there was progressive damage to the gastric mucosa with increasing age and a progressive decrease in acid-secreting capacity.

## Acid Output in *H. Pylori* Infected Subjects Decreases with Age



[Derakhshan et al J.Clin.Path. 2006;59;1293-1299]

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Nowadays, the stomach retains its capacity to secrete acid into old age, and that capacity may even increase as one gets older. The degree of atrophy developing in *H. pylori*-infected individuals was also greater in previous generations due to the increased salt intake and lack of fruit and vitamin availability throughout the year.

There has therefore been a profound change in the balance between the amount of acid we need to protect us from bacteria and the amount of acid we are producing. Our acid secretion has increased, while our need for acid has actually decreased. Borrowing Churchillian language, we might say that "Never before in the history of human-microbial conflict has so much acid been produced by so many humans to kill so few bacteria."

Is there evidence for the recent increase in acid secretion being potentially damaging? There is

now good evidence that increasing acid secretion does result in upper gastrointestinal disease, and it comes from studies of the effect of proton-pump inhibitor therapy. Although such therapy reduces gastric acid secretion during treatment, it also results in a marked rebound acid hypersecretion following discontinuation of treatment. Consequently, for a month or more after discontinuing such therapy, acid secretory capacity is approximately 50% more than it was prior to starting the treatment. Studies in previously asymptomatic healthy volunteers have now shown that this increase in acid secretion is associated with development of new-onset upper gastrointestinal symptoms, which are probably related to gastroesophageal reflux. An increase in gastric acidity can make previous physiological volumes of gastroesophageal reflux become pathological. Further evidence that we may now be producing more acid than

is good for us is the high prevalence of gastroesophageal reflux disease and its complications and also the significant proportion of the population now taking acid-suppressive therapy.

In conclusion, I think there is now substantial evidence that the level of acid secretion in human adults in the developed world is doing more harm than good. However, it should be recognized that the level of acid secretion in young children and particularly toddlers may be appropriate, as their acid secretion may not be that different from that of previous generations and also because their requirement for it may remain high due to their ingested exposure to environmental pathogens. Their environment may not be that dissimilar from that of distant ancestors or other acid-secreting creatures.

Finally, a word of caution is required. Gastric acid secretion evolved approximately 350 million years ago and has been carefully conserved ever since. It must therefore have served our ancestors well over these many years. The relatively sterile environment of the western world is a very recent phenomenon and may be transient. Humans will need acid to survive in the future if we return to a more typical environment. We should therefore be slow to dismiss what nature has provided for our good and which has served us well for a very long time. ■

# WGO Educational Symposium

## Global education for gastroenterologists

This article summarizes the WGO Symposium on Global Education for Gastroenterologists held at the Gastro 2009 UEGW/WCOG meeting.



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WGO believes that regardless of where its educational programs are presented, their quality needs to be optimal with regard to content, modes of delivery, and evaluation. Accessibility is at the very core of the goals and objectives of WGO's approach to training and education in gastroenterology. There are two major limitations on the acquisition of gastroenterological training in resource-limited countries—firstly, a lack of training programs, and secondly, limited numbers of teachers. Thus, there are many physicians who do not have access in their own country or region to a formal training program in gastroenterology, and for those wanting to pursue this specialty there is no option but to travel to the West to seek such training. This may further exacerbate the “brain drain,” as local priorities and health-care issues in developing countries are rarely addressed adequately by Western training programs. Equally important is the absence of credentialing for specialists and the difficulty in designing gastroenterology curricula in the face of limited resources. Finally, WGO is aware of the fact that in some regions, medical practitioners are dependent on the largesse of the biomedical industry for the provision of continuous medical education—a situation that may lead to substantial conflicts of interest.

To improve the training of gastroenterologists, WGO for the past decade has addressed these two areas by establishing two complementary types of program:

- Train the Trainers (TTT) aims to improve the educational standards in the teaching and training of future gastroenterologists.
- Training Centers (TCs) provide sites for the training of gastroenterologists in developing regions.

The TTT program is discussed in this issue of *e-WGN*, and a future issue will discuss the TC program.

Despite the ever-increasing complexity of medicine and gastroenterology, few if any of those who act as trainers in the specialty have any formal training in educational methods. Although the clinician-educator is pivotal to training, this individual faces extinction in many countries, given current pressures on him/her to provide ever more and more complex clinical care, perform successful research, and contribute to administration. To address these issues, WGO set out to develop the TTT program, which is specifically tailored to the needs of the trainer in gastroenterology. In doing so, WGO recognizes the many skills that have

to be imparted (clinical diagnostic, endoscopic, therapeutic, pathologic, and psychological), and also that such training needs to occur in a context which recognizes the critical roles of the professional ethos, the development of a spirit of enquiry, and an understanding of the importance of the research and science that underpins clinical practice.

The TTT workshops have evolved over the years as more and more colleagues participate. Each TTT workshop includes a set number of educational modules, with subjects varying from education to research. At the core of the development of the TTT workshops has been the evaluation process that takes place after each workshop. Changes are made to the succeeding workshops as a result.

Nine TTT workshops (2003–2008) were evaluated using a questionnaire that was filled in immediately after the workshop by all 373 participants. Seventeen modules were rated on a four-point scale, ranging from 1 = poor to 4 = excellent, in relation to five aspects: the content of the presentation, the quality of the presentation, supportive course material, relevance to the role of the participant as a trainer, and the usefulness of the course on a personal level. There were also questions on the participant's overall impression of the workshop.





Santiago, Chile October 2009

|                | Monday, October 5  | Tuesday, October 6   | Wednesday, October 7                          | Thursday, October 8   |
|----------------|--|--|---|---|
| 07:00-8:00 AM  | Breakfast  | Breakfast  | Breakfast                                     | Breakfast   |
| 08:00-08:45 AM | Introduction & Welcome<br>Module 1<br>Education  | Module 7<br>Evidence-Based Medicine  | Module 11<br>Presentations                    | Module 14<br>Assessment & Appraisal                                       |
| 08:45-09:30 AM | Module 2<br>Group Discussions  | Module 8<br>Critical Appraisal   | Module 12<br>Trial Design                     | Module 15<br>Credentialing  |
| 09:30-10:00 AM | Coffee Break   | Coffee Break   | Coffee Break                                  | Coffee Break  |
| 10:00-11:15 AM | Module 3<br>Breakout Session<br>Education  | Module 9<br>Breakout Session<br>Papers for Critical Appraisal  | Module 13<br>Breakout Session<br>Trial Design | Module 16<br>Breakout Session<br>Assessment, Appraisal &<br>Credentialing |
| 11:15-12:30 PM | Module 3<br>Report Back  | Module 9<br>Report Back  | Module 13<br>Report Back                      | Module 16<br>Report Back  |
| 12:30-13:30 PM | Lunch  | Lunch  | Lunch   | Lunch   |
| 13:30-14:30 PM | Module 4<br>Teaching Procedural Skills   | Module 10<br>Publications  | Local Tour and Dinner                         | Module 17<br>Interpersonal Skills & Team<br>working                       |
| 14:30-15:00 PM | Coffee Break   | Coffee Break   |   | Reflection on Workshop  |
| 15:00-16:30 PM | Module 5<br>Teaching Procedural Skills:<br>Hands-On  | Module 5<br>Teaching Procedural Skills:<br>Hands-On  |   | 14:45-15:15 PM Coffee Break   |
|                | Module 6<br>Small Group Work<br>a. Web search of the Literature<br>b. Preparation of an Abstract<br>c. Professionalism I | Module 6<br>Small Group Work<br>a. Web search of the Literature<br>b. Preparation of an Abstract<br>c. Professionalism |   | 15:30 PM<br>Workshop Quiz<br>Faculty & Participants                       |
| Evening        | Teambuilding Event & Dinner  | Cultural Evening in Hotel  |   | Final Dinner  |

Figure 1. shows an example of a TTT program and the titles of the modules. It is important to note that the interactive modules are aimed at imparting educational principles, rather than knowledge in gastroenterology.

The response rate was 100%, although some answers were incomplete. No educational module scored less than 3.25. Differences between modules were not significant. In summary, the workshops were well received (Fig. 2). Ninety-nine percent of the participants responded positively to the question “Would you like to participate again?”

The three workshops held in Portugal, Brazil, and USA in 2008 were evaluated on the basis of the impact that the workshops had on the participants’ daily working routines

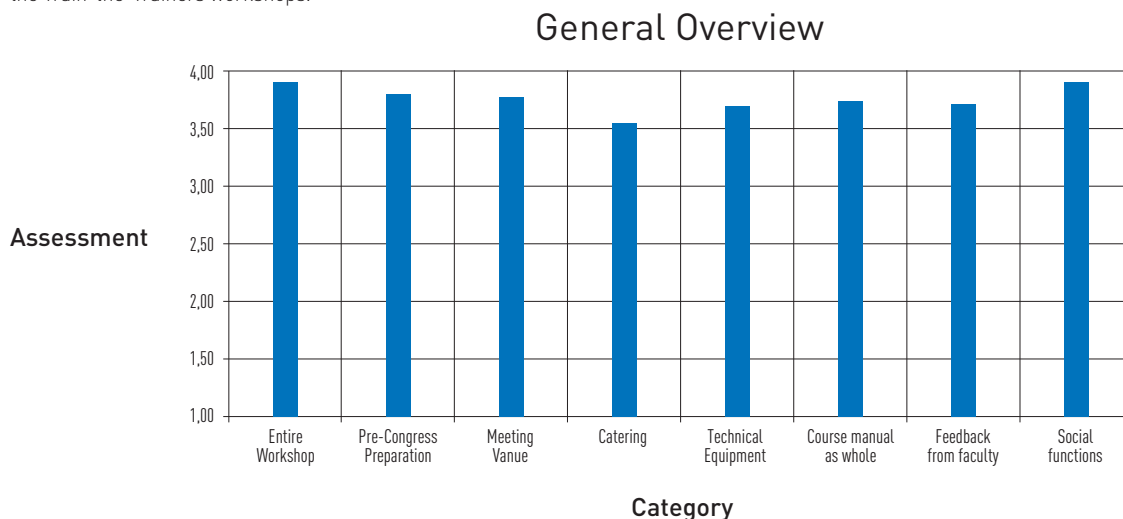
and habits. Six months after the workshop, a significant number of participants reported an increase in their educational activities since the TTT (41% for Brazil, 13% for the U.S.). Some of them (13% in Brazil, 28% in the U.S.) had had a formal change in their educational role at their institution.

Reflecting on the workshop in perspective 6 months later, they found that all of the educational modules had been valuable or very valuable. Educational modules were felt to be more valuable than research modules. The overwhelming majority of the

participants in both programs reported that they had changed their work behavior in every domain, except writing guidelines. Over 80% of the participants were enthusiastic about attending an advanced Train-the-Trainers program on a more focused topic and indicated considerable willingness to pay to attend such a workshop.

From these data, it appears that the Train-the-Trainers programs attract global participation and have a global effect, and that they are addressing topics of high importance to the participants. The participants are able

Figure 2. Participants' assessment of the Train-the-Trainers workshops.



to incorporate what they learn into their daily activities and are likely to increase their educational activity after the program. The overwhelming support for advanced workshops suggests that the program provides a foundation and desire for future learning.

#### Looking into the future

What is the ultimate goal of WGO with regard to TTT and its other educational programs? Put quite simply, it is to establish a global network of training and education with special, but by no means exclusive, emphasis on emerging nations. This network should ultimately empower individuals to promote training and education in their own locale, connect gastroenterologists across the globe in an interactive network, and provide a “gastroenterology community” for all involved. For emerging nations, the network should provide training and education in gastroenterology that may not exist locally, is locally relevant and locally provided with input from regional experts, and is validated and accredited by an organization of

international standing, the WGO. In this way, the WGO should provide a vehicle for delivering education in which all stakeholders can collaborate (including nongovernmental organizations, governments, and the pharmaceutical industry) in order to provide truly independent programs, by acting as the provider, reviewer, and accreditor of sponsored programs. Ultimately, the WGO should act as an independent arbiter of standards for the care of digestive disorders and the training and education of gastroenterologists throughout the world, especially where no other authority for such standards exists.

What are the WGO's ambitions for TTT? The first aim is to maintain the core program in its current format; this has been tried and tested and has proved very successful. Clearly, as new concepts and knowledge develop, individual modules may change, but on the basis of the data presented in this article, the TTT program has achieved a format that works. All educational programs need to have evidence of their impact; with regard to TTT, an excellent start has been

made in assessing the immediate and short-term to long-term impacts of the program on its attendees. Extended follow-up and more detailed, prospective studies of outcome and impact (on trainers, trainees, and training)—coupled, perhaps, with e-learning on educational issues—are required.

The year 2009 saw the advent of the very first “advanced TTT” or “TTT2” program on trial design, held in Dubrovnik (Croatia). This format is to be repeated in Athens later in 2010. The WGO is keen to explore the development of expanded modules of the core program and wishes to engage with member societies with regard to their needs and desires. To date, TTT has been an exclusively English-language program; there has been interest in the development of a Spanish-language TTT, and we are keen to hear about the “translation” and presentation of TTT in other languages.

A future issue of *e-WGN* in 2010 will expand on WGO's educational activities in a review of the Training Centers. ■

## Irritable bowel syndrome 2009 — global recognition, new ideas



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Irritable bowel syndrome (IBS) has long been recognized as an important and challenging disorder for the gastroenterologist in western Europe and North America. Recent studies from Asia and other regions have raised the possibility that IBS may be prevalent elsewhere. For this reason, WGO chose IBS as its focus for World Digestive Health Day (WDHD) 2009 — a choice that proved most propitious, as the topic generated a great deal of interest in the lay press and media, as well as among gastroenterologists and health-care professionals in general. WDHD became WDHYear, such was the interest generated by IBS!

A central part of the WGO's contribution to this exploration of IBS was the creation of a multinational task force on global aspects of IBS. The task force met immediately before Digestive Disease Week at the end of May and shared comments on a draft paper electronically thereafter, with the process culminating in the formal presentation of the proceedings of their deliberations at Gastro 2009 in London. This presentation took place in the context of a WGO satellite symposium on IBS, which set out to explore not only global aspects of IBS, but also new ideas in the pathophysiology of IBS. What did the audience learn?

It is abundantly clear that IBS is indeed common worldwide, with

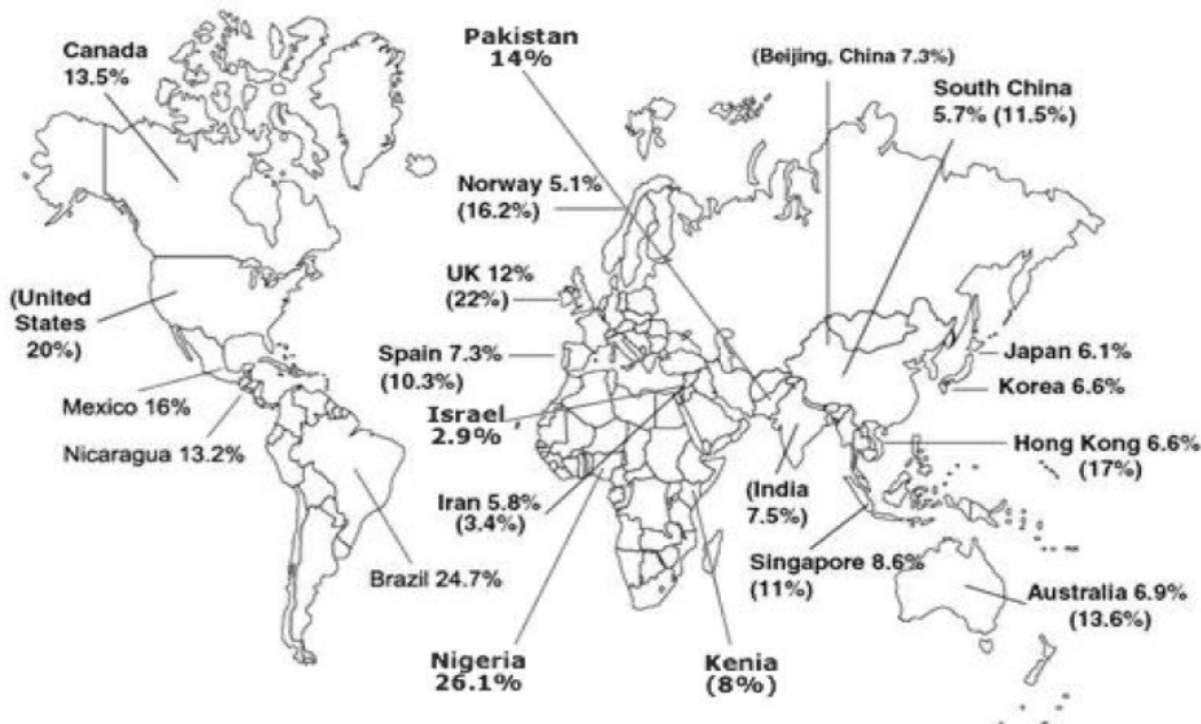
reasonably similar prevalence rates being reported from nations in Europe, the Americas, Asia, and Africa. While the global map of IBS is far from complete and many aspects of its epidemiology need to be investigated further in many parts of the world, some interesting trends are beginning to emerge. Most interesting — and most surprising to a Western audience — is the finding that there are striking differences in the prevalence of IBS among males and females in other parts of the world. In India and China, for example, IBS is not a predominantly female disorder, but is as common among males or, in some surveys, even more common in males. IBS in Asia may also feature somewhat different symptoms at presentation. Although current research is merely scratching the surface of this fascinating area, it is abundantly clear that research into similarities and differences between IBS in different parts of the world has the potential to advance the understanding of IBS for all.

One issue that deserves special attention is the role of pathogens in the initiation of IBS — postinfectious IBS (PI-IBS). PI-IBS has been well described among victims of large outbreaks of food poisoning or enteric infection in Europe, North America, and China, prompting an examination of relationships between the enteric

microbiota, the host immune response, and the development of IBS symptoms. While these interactions are most obvious in the case of PI-IBS, several research centers are currently exploring these phenomena in IBS in general. At the Gastro 2009 symposium, two acknowledged leaders in IBS research, Dr. Francisco Guarner from Barcelona and Dr. Giovanni Barbara from Bologna, addressed the potential roles of the microbiota and immune response in IBS. Dr. Guarner brought us up to date with modern approaches to the full description of the normal microbiota and how these very same techniques are beginning to provide, at the very least, hints that the microbiota may be disturbed in IBS. The precise nature of this disturbance, the species and strains involved, and the primacy of these disturbances remain to be fully defined.

In terms of the immune response, evidence is accumulating at a rapid pace to indicate that there is something amiss in the immune response both in the systemic and mucosal compartments in individuals with IBS. Dr. Barbara and his colleagues have demonstrated, in a series of elegant studies, the central importance of mast cells in the host response in IBS and have shown, not only increased activation of mast cells in IBS but also the release from these mast cells of proteases and other substances that are capable of activating neural pathways relevant to the pathogenesis of pain and reflex responses in IBS. Others have been able to detect raised

Fig. 1 World map of IBS prevalence (2000-2004) based on the Rome II and III criteria, with figures for the Manning criteria in brackets where available. Adapted from Neurogastroenterol Motil 2005;17:317-24.



levels of proinflammatory cytokines in the peripheral circulation in IBS; the question here, as with changes in the microbiota, is whether such alterations are of fundamental importance or represent secondary phenomena. These studies have opened up totally new avenues in IBS research and offer the potential for the development of new therapeutic approaches to IBS.

The bottom line: IBS is a global issue, and its roots may, after all, lie in the gut and in interactions between the microbiota and the immune system. ■

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## 2010 — the year of inflammatory bowel disease

The World Gastroenterology Organization will be celebrating the year of inflammatory bowel disease (IBD) throughout 2010 by developing several tools for both doctors and patients and by cooperating closely with a variety of IBD patient groups to raise global awareness on IBD.

In order to increase awareness about IBD among patients and doctors, we have created several tools that will all be freely accessible on the WGO web site, such as the WGO Global Guideline on IBD, 10 Tips for Living with IBD, a review article on influenza A (H1N1) virus in patients with IBD, frequently asked questions on IBD, and an interview with Dr. Charles Bernstein, the campaign leader for World Digestive Health Day 2010. Further tools will be developed and released throughout the year.

WGO is also very proud to have established close cooperation with a number of IBD patient groups, who are also contributing a special awareness campaign — World IBD Day — to raise awareness about IBD among the general public and IBD patients. We are pleased to endorse this awareness campaign and we will keep members informed about the activities the World IBD Day will entail during the year.

As in 2009, all of the WGO's member societies will be able to promote their own World Digestive Health Day events in a special WDHD 2010 events calendar on the WGO web site and can submit requests to use the WDHD 2010 logo and slogan. In addition to the freely accessible tools and calendar of events on the WGO web site, we can offer assistance with any questions or problems and would like to encourage

everyone interested in World Digestive Health Day 2010 to contact us.

During 2009, more than 60 events took place in over 40 countries all over the world to promote awareness about last year's topic, irritable bowel syndrome (IBS). This year, we are aiming to reach even more of our 109 member societies and to raise awareness about the complexities of IBD to a new level globally. We would like to invite all of the WGO's member societies and other partners to join us in a common effort to launch a campaign on IBD that will have a truly global impact. ■

For more information, please visit the WGO web site:

<http://www.worldgastroenterology.org/wdhd-2010.html>

— or contact us directly at [info@worldgastroenterology.org](mailto:info@worldgastroenterology.org)



World Digestive Health Day May 29, 2010

2010 – YEAR OF INFLAMMATORY BOWEL DISEASE





## The IBD awareness campaign

A few words from the World Digestive Health Day 2010 Campaign Leader:



### Charles N. Bernstein, MD

Section of Gastroenterology, University of Manitoba, 804F-715 McDermot Avenue, John Buhler Research Centre, Winnipeg, Manitoba R3E 3P4, Canada; **E-mail:** [cbernst@cc.umanitoba.ca](mailto:cbernst@cc.umanitoba.ca)

By focusing on inflammatory bowel disease (IBD) in 2010, we are hoping to raise awareness of IBD around the world and also to integrate the progress made in diagnosing and treating IBD in Western countries, where IBD has long been present, with the rising tide of IBD evolving in developing countries. In particular, we at the WGO feel it is important to ensure that health-care providers in nations where IBD is emerging will feel comfortable with modern approaches in the diagnosis and treatment of IBD.

However, it is also a “two-way

street,” as we also feel there is likely to be much that gastroenterologists and scientists from Western nations can learn about the etiology of IBD (and hence ultimately its cure) by studying the recent evolution of these diseases in developing countries. To facilitate scientific exchanges among gastroenterologists from around the world, we have undertaken a number of initiatives. These include the [WGO Global Guideline on IBD](#), which reviews the diagnosis and treatment of IBD using a cascades approach (with different levels of complexity based on

different levels of resource availability) and has been published in *Inflammatory Bowel Diseases* 2010;16:112–24 ([PMID 19653289](#)).

We will be having a task force meeting in May 2010 (sponsored in part by the International Organization for the Study of IBD) so that a number of gastroenterologists from around the world can meet to exchange ideas about the etiology, presentation, and management of the disease. We hope that IBD will be more broadly understood throughout the world and that WGO will be successful in providing a forum for an international exchange of ideas, questions, and creativity in facing these complex and ever-increasing diseases. ■

### IBD RESEARCH REVIEW

As part of the WGO's campaign to raise awareness about inflammatory bowel disease (IBD) throughout 2010, an IBD expert will be recommending and highlighting a “gold standard” article on IBD, with a direct link to the original source, in each issue of e-WGN this year.

#### IBD vs. intestinal tuberculosis:

Dr. Ajit Sood: “Even with today's diagnostic technology, differentiating Crohn's disease from intestinal tuberculosis remains a diagnostic dilemma in developing countries. This article provides predictors for differentiating between two very similar diseases.”

Makharia GK, Srivastava S, Das P, Goswami P, Singh U, Tripathi M, et al. Clinical, endoscopic, and histological differentiations between Crohn's disease and intestinal tuberculosis. *Am J Gastroenterol* 2010 Jan 19 [Epub ahead of print] ([PMID 20087333](#)).

#### WGO information expert Justus Krabshuis comments:

Dr. Ajit Sood of Dayanand Medical College and Hospital (Ludhiana, Punjab, India) is a leading WGO expert on IBD and a proponent of the WGO's efforts to look at IBD from different geographic perspectives. This is a good example involving a unique non-Western aspect: Crohn's disease and intestinal tuberculosis mimic each other to such an extent that it becomes difficult to differentiate between them. This study found that blood in feces, weight loss, focally enhanced colitis, and involvement of the sigmoid colon were the most important features for differentiating Crohn's disease from intestinal tuberculosis.



## New WGO member societies: Costa Rica and Nigeria

In this and future issues of e-WGN, we will be highlighting one or more WGO member societies. The Costa Rican and Nigerian gastroenterology societies are two of the six new national societies that joined WGO at the World Congress of Gastroenterology in 2009.

Tuija Rytönen

### The Costa Rican Gastroenterology Association — a new WGO member society with long traditions

The Costa Rican Gastroenterology Association (*Asociación de Especialistas en Gastroenterología y Endoscopia Digestiva de Costa Rica*) was founded by a group of colleagues in the 1970s and became an official member of the WGO in 2009. The society aims to bring together gastroenterologists in the country, to unify medical criteria, and to improve the standard of gastroenterology in Costa Rica.

The WGO's ties with the Costa Rican society have been developed even further when a new WGO Training Center was inaugurated in San José in March, 2010.

There are currently 54 registered gastroenterologists in Costa Rica, 52 of whom are members of the association. Monthly meetings are held by the 30 most active members. During these meetings, challenging cases are discussed and colleagues are briefed about the outcomes of international gastroenterology meetings. The Costa Rican society

also takes an active part in national conferences, and in 2011 Costa Rica will be hosting the Central American Congress of Gastroenterology and Digestive Endoscopy. "We are looking at inviting top-level speakers from the Dominican Republic and the English-speaking Caribbean, to mention only a few examples," comments Dr. William Piedra Carvajal, Secretary of the Costa Rican society. ■

- [Click here](#) for a link to the Costa Rican association's web site

### SOGHIN — advancing care for digestive diseases in Nigeria



**Professor Bojuwoye**  
President of SOGHIN

Of the approximately 60 gastroenterologists in Nigeria, 48 are members of the Society for Gastroenterology and Hepatology in Nigeria (SOGHIN). SOGHIN was formed in 2007 by a merger between the Association for the Study of the

Liver in Nigeria (ASLIN) and the Nigerian Chapter of the West African Society of Gastroenterology (WASOG). The society will be launching its own journal, the *Nigerian Journal of Gastroenterology and Hepatology*, later this year at its national conference.

SOGHIN usually holds an annual scientific conference and an annual general meeting in June. The annual general meeting of SOGHIN lasts for 2 days and attracts an average attendance of 70 doctors, as well as other health professionals and nonmedical people. SOGHIN also

holds an annual gastroenterology training workshop/conference for resident doctors interested in specializing in gastroenterology or hepatology. With the support of pharmaceutical companies, the society carries out public health awareness campaigns on viral hepatitis and takes an active part in the WGO's digestive health campaign, World Digestive Health Day. ■

- [Click here](#) for a link to the Nigerian society's web site

## The WGO guidelines on hepatocellular carcinoma (HCC)



### Cihan Yurdaydin, MD

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The most recent of the WGO guidelines deals with hepatocellular carcinoma (HCC). World experts in the field, chaired by Peter Ferenci from Austria, have produced a very important document. As with other WGO guidelines, this summary fills an important gap, since in line with the WGO's philosophy it takes a universal approach.

Still, one may ask whether guidelines from the WGO are necessary when other bodies are also producing guidelines on important topics in gastroenterology and hepatology. A direct answer to this question is the very impressive number of downloads the WGO guidelines enjoys. There is no doubt that the WGO's guideline initiative can be regarded as one of the organization's great successes. Why is this so? The simple answer is that WGO guidelines are different from the many guidelines that have been published by major national societies and regional organizations. They do not try to compete with guidelines published by other scientifically established bodies such as the American Gastroenterological Association (AGA), the American Association for the Study of the Liver (AASLD), the United European Gastroenterology Federation (UEGF), the European Association for the Study of the Liver (EASL), the Asian-Pacific Association

of Gastroenterology (APAGE), or the Asian-Pacific Association for the Study of the Liver (APASL). While their guidelines are mainly scientifically oriented, the WGO guidelines take into account not only scientific evidence, but also the applicability of recommendations on a global level. In areas of the world in which parts of these other guidelines on a particular disease may not be applicable, the WGO guidelines on the same topic offer practical and friendly advice.

For this, the resource sensitive approach, which suggests different diagnostic, therapeutic, and management options depending on the resources available, is employed. Minimal-resource, median-resource and high-resource areas are differentiated, and suggestions are made according to the resource status of the region, highlighting a paramount difference between the WGO guidelines and national and regional guidelines. This approach is fully in accordance with the WGO's ideas and goals.

This perspective is important, since despite the great changes taking place around the globe and the advances being made in science and technology, the gap between rich and poor is not shrinking, but rather increasing. The effects of this in medicine are easily seen. In the case of HCC, a typical example that can be given involves

hepatitis B infection and its important role in the development of HCC. Proper treatment of patients with chronic hepatitis B can reduce this deadly complication. Recent guidelines on hepatitis B treatment such as those published by the EASL [1], APASL [2], and AASLD [3] advocate pegylated interferon, entecavir, and tenofovir as the first-line treatment and none of them suggests the use of lamivudine, which is the most widely used and by far the cheapest hepatitis B drug. Although the recommendations are scientifically correct at the global level and especially in areas where hepatitis B is hyperendemic, the first-line treatment modalities suggested are either not available or not affordable in developing countries. As might be expected, these areas are also where the vast majority of HCC cases are encountered, such as China and Africa, as discussed in the WGO guidelines on HCC.

Another typical example can be given about HCC treatment where the availability of liver transplantation, liver resection, radio frequency ablation, etc is of crucial importance in management decision, and expectedly the WGO guidelines have considered these aspects.

In the WHO guidelines on HCC, particular emphasis has been given to the prevention of HCC — the cheapest and the most effective strategy. In the 1990s, Philip Johnson opened his review on HCC [4] with the following description: "Elucidation of the epidemiology of HCC can be

rightly looked upon as one of the major medical success stories of the last half of the 20th century. Important risk factors have been identified and preventive measures based on these results are now being implemented. It will be for the next century to see the fruits of this work.” This statement holds true and is the best strategy for combating HCC globally — a point nicely underlined in the WGO’s HCC guidelines.

The WGO has thus provided an

all-encompassing global guideline on HCC prevention and management. It is an effective, easily readable, and well-focused document that is directed not only to the practicing physician, but also to those involved in strategic health-care planning in particular regions. Those involved in preparing the document deserve to be congratulated. ■

- [Click here](#) to access the WGO global guideline on HCC.

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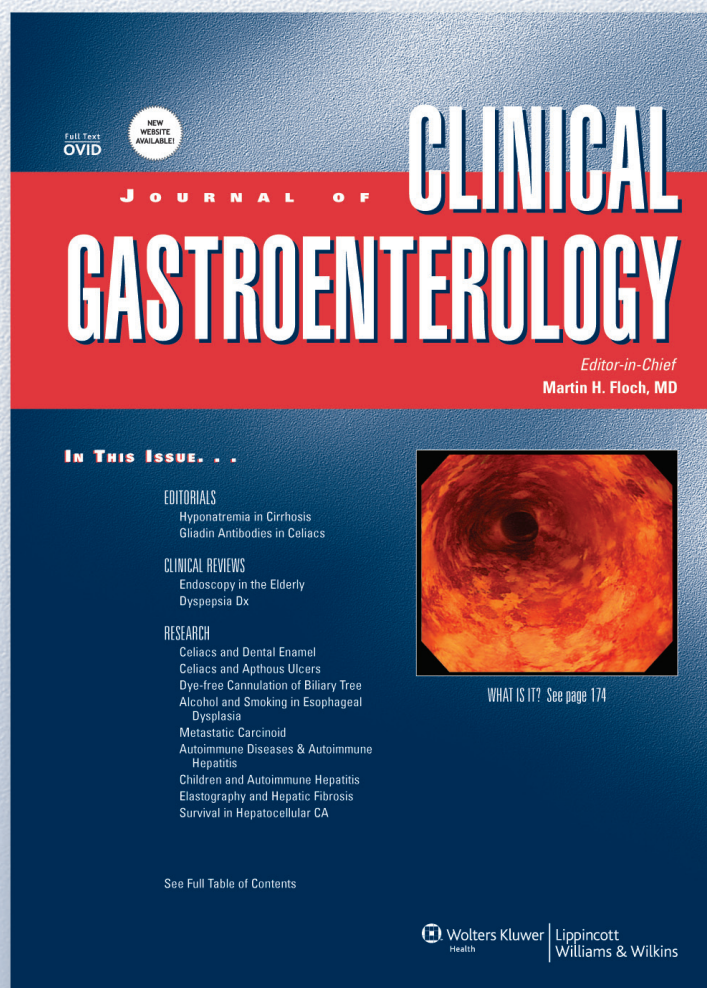
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Published 10 times per year  
ISSN 0192-0790

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on Diseases of the Esophagus and  
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# Helicobacter pylori in developing countries:

## WGO guideline cascades and the Pakistani enigma



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The WGO guidelines are global guidelines, as they take the needs of different regions into account. It is very challenging to obtain a global consensus about the diagnosis and treatment of many conditions, especially *Helicobacter pylori*. The problem is largely due to the fact that not all of the advanced diagnostic and therapeutic facilities that might be recommended are available (or affordable) in all regions of the world. Guidelines made for developed countries may not be applicable in developing countries with limited resources; most guidelines are resource-blind. To fill in the lacunae, WGO introduced the concept of cascades.

This approach is based on the conviction that if it is not possible to provide state-of-the-art comprehensive medical care, as usually emphasized in “gold standard” guidelines, it is important to provide at least good or adequate evidence-based care. A cascade is a selection of two or more such hierarchical options.

Cascades can be ranked in several ways:

- Available expertise
- Available resources
- Cost
- Regional variability

Regional variability in the disease pattern and epidemiology is a great

challenge when developing global guidelines. It is possible to develop a guideline using a regional approach applicable to one particular region. This may be taken into account in a global guideline by including regional cascades. If the availability of facilities is adequate, then regional variability in the approach can be expressed in a flow chart. WGO guidelines include this concept and offer possible solutions for digestive disorders. An example of this is the recent WGO guideline on “*Helicobacter pylori* in developing countries,” which is easy to understand, interpret, and apply.

Pakistan has a very high prevalence of *H. pylori*. The seroprevalence of the infection exceeds 58%. This means that in a country of 170 million people, about 100 million are expected to be positive for *H. pylori* serology. The infection is acquired at an early age and is common in the asymptomatic population. The high prevalence may be related to poor sanitary conditions, low socioeconomic status, and overcrowding. In spite of this, the rate of carcinoma of the stomach is low. The crude incidence rate of gastric carcinoma is 2.3 per 100,000 in males and 1.5 in females. Interactions between genetic, environmental, and bacterial factors are likely to be playing some protective role.

For this reason, the guidelines for

managing *H. pylori* in a low-risk region for gastric cancer such as Pakistan should differ from those in high-risk regions such as Japan or China. The World Health Organization’s *H. pylori* guidelines addressed this issue by incorporating separate flow charts for areas with high and low prevalence for gastric carcinoma.

The availability of medical facilities varies considerably in Pakistan. Although the latest investigational and treatment modalities are available in the major cities, rural areas are still deprived of basic medical facilities. Many family physicians in small towns keep indirect immunochromatography finger-stick kits in their clinics. If *H. pylori* antibodies are present in the patient’s blood, two colored bands are formed on the test region of the kit. One band indicates a negative test. When a patient presents with upper gastrointestinal symptoms, whether reflux or dyspepsia, they do a finger-stick test irrespective of the nature of the symptoms. If the test is positive, they treat the patient with triple therapy without any further confirmation. Symptoms persist in many cases. Some patients drop medication due to side effects. Not surprisingly, there is increasing resistance to clarithromycin and metronidazole. Moreover, the sensitivity and specificity of finger-stick kits are low in comparison with a standard ELISA method of establishing *H. pylori* serology. Serology does not identify active infection, and there is no role for this test for screening asymptomatic individuals. Even the

role of *H. pylori* in non-ulcer dyspepsia remains unclear.

The WGO guidelines suggest that a test-and-treat strategy is indicated for those at risk for peptic ulcer disease or gastric cancer, as well as for those with serious symptoms of dyspepsia and indigestion. The test-and-treat strategy may not be suitable in all countries with a high prevalence of *H. pylori* but with a low prevalence of gastric carcinoma. Many patients receive antibiotics unnecessarily. Serology is not an ideal test in such circumstances. It may be worthwhile to give a trial of proton-pump inhibitors (PPIs) and/or prokinetic drugs. In patients with persistent symptoms and those aged 50 and older, upper gastrointestinal

endoscopy and testing for *H. pylori* infection is still a logical approach. A cascade is provided in the WGO guidelines to help identify the best test according to the resources available, with flow charts to address regional variability in approaches.

The WGO guidelines also highlight “good practice points.” For example, in Pakistan most patients referred to gastroenterology consultants are already receiving PPIs started by their primary care physicians, and these reduce the sensitivity of urea breath tests and stool antigen tests. Patients should therefore be off PPIs for 2 weeks before these tests are ordered. The choice of anti-*H. pylori* therapy depends on the availability

of drugs, cost, resistance pattern, and compliance. The WGO guidelines discuss these aspects in detail. They do not include a formal cascade focusing on therapeutic options, probably due to significant regional variability. However, the tables included provide guidance regarding alternate less expensive regimens and rescue therapies. In our country, doctors prefer giving triple therapy rather than quadruple therapy, as triple-therapy drugs are easily available and due to the availability of good-quality generic antibiotics, there is no major cost difference between more expensive triple therapy and a cheaper quadruple therapy regimen. ■