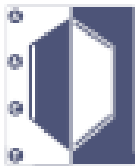


# AACT*ion*

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## President's Corner Michael I. Greenberg, MD, MPH, FAACT



### Start at the Beginning

I have lately been thinking about how I can help AACT enhance the practice of clinical toxicologists. To be sure, this may be easier said than done, given the very heterogeneous

nature of the AACT membership. Our diversity of member background and practice settings creates a real challenge for coming up with ideas and initiatives to enhance the practice of clinical toxicology across the board. In musing over this conundrum, one overriding thought keeps coming to my mind: clinical toxicology has, at its core, what amounts to a "public relations problem".

Even in discussions with my most sophisticated colleagues in internal medicine or surgery or almost any sub-discipline in the house of medicine, it is quite clear that most are unsure about what a clinical toxicologist does or can do. Many of my colleagues believe I work in a laboratory (probably late at night), holding a turbid test tube up to the light and coming up with some esoteric analyte value that does something or other. Relatively few people involved in patient care, industry, academic medicine, public policy, government, military, or community medicine know anything at all about clinical toxicology, and that is the essence of the problem. Because when I sense that occasional breakthrough moment, when a colleague suddenly realizes that a) clinical toxicologists of all stripes actually are involved in the direct care of patients, b) clinical toxicologists have a special knowledge base that can be helpful to other practitioners and c) clinical toxicologists are not a threat, but rather an extreme enhancement to diagnosis, treatment, public health and disaster management, the entire game seems to change. Unfortunately those "eureka moments" are too few and far between. One of my favorite discussions with regard to how other

practitioners interface (or don't interface) with clinical toxicologists involves the following made-up (but totally plausible) scenario: Imagine a patient is admitted to a large community hospital with a liver-threatening acetaminophen ingestion. There is a poison center available by phone (to be sure) a clinical pharmacist on staff with clinical toxicology training, and even a medical toxicologist with practice privileges on the medical staff. However, the admitting physician does not contact the poison center, does not discuss the case with the clinical pharmacist and does not consult the medical toxicologist. The patient suffers a poor outcome and a lawsuit ensues. The perfect storm envelops the hospital and all those named in a major lawsuit for, among other things, the prime medico-legal transgression: failure to consult properly. This storm will unfold even if the proper treatment was rendered. Failure to consult an appropriate resource is a very strong issue and not looked-upon favorably by juries. The upshot of this would (or should) be that the entire medical staff becomes fully aware that clinical toxicologists exist, and are necessary and essential to good patient care. Yeah, right. The civilian, non-medical analogy, of course, is the suburban street where people drive too fast. The neighbors want the municipality to put up a traffic light but they just don't act until finally someone is struck and killed by a speeding car.

So I come back again to the how-to of practice enhancement and I think we need to start at the beginning. We need to solve the "public relations" problem and if we can do that, it will go a very long way to expanding the discipline of clinical toxicology, and create new opportunities for clinical toxicologists in a host of venues. A major role for AACT is to help attack this core PR problem. This will take some time and not just a little effort, but this is where the process of "practice enhancement" needs to begin: **at the beginning.**

## Archives of the Drug Information Service at Upstate Poison Center SUNY Upstate Medical University; Syracuse, NY

Christine M. Stork, Pharm.D. DABAT



### Question: What are the symptoms and common drugs associated with Serotonin Syndrome?

Serotonin syndrome (SS) is a term referring to the spectrum or constellation of signs and symptoms that rarely occurs after

recent historical use of serotonergic agents. A complete review of this syndrome, identification and treatment are found elsewhere.<sup>1</sup>

The cause of serotonin syndrome is identified to be the result of acute over-stimulation of the serotonin 5HT-2A and potentially 5HT-1A receptors as well.<sup>2</sup> Drugs that have the potential to result in SS are quite diverse, but have in common the capacity to increase serotonergic activity. SS is classically described as a monoamine oxidase inhibitor (MAOI) drug interaction when combined with another serotonergic agent such as meperidine. It is now clearly documented that the use of an MAOI is not necessary for the development of SS<sup>3,4</sup>.

There are a wide variety of drugs capable of causing serotonin syndrome. This includes all available antidepressants, many other psychogenic drugs and some atypical drugs that would not be normally considered to be serotonergic. A short list of common offenders includes:

- All antidepressants (MAOIs, SSRIs, TCAs, atypicals, etc)
- Cocaine
- Dextromethorphan
- Some opioids: meperidine, fentanyl, pentazocine
- Lithium
- Linezolid (antibiotic)

Diagnosing and distinguishing SS from neuroleptic malignant syndrome (NMS) is sometimes difficult, and has led to numerous published potential diagnostic criteria.<sup>5-7</sup> Common to both clinical entities included in the criteria by Radomski, Hunter and Sternbach are the findings of altered mental status, autonomic instability, fever and neuromuscular abnormalities.

A careful history is important to establish the diagnosis of SS. Findings typically occur within hours of initiation of an offending drug or drug interaction and require the use of serotonergic drugs. Other potential distinguishing features of SS are that in SS there appears to be a lower limb prominence in neuromuscular findings, specifically hyper-reflexia; and an overall shorter duration of toxicity in SS as the offending drugs are metabolized. NMS

occurs due to receptor modulation after blockade of the dopaminergic receptor. As such, onset is slower, occurring in the first weeks-to-months after initiation of neuroleptics treatment or after a dose escalation, and resolution is typically slower, requiring up to 7-10 days.

Fortunately, the identification of the exact cause of rigidity and fever syndromes is not necessary for adequate management of the medical crisis. All drugs should be discontinued and the patient should be actively and aggressively cooled and sedated to prevent subsequent sequelae (hyperthermia, rhabdomyolysis, renal failure, etc).

For known cases of SS, cyproheptadine (Periactin®) can be initiated in patients who are able to tolerate oral medications. Cyproheptadine is an effective serotonergic antagonist with documented symptom abatement after use for serotonin syndrome.<sup>8</sup>

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## Editorial Change to *Clinical Toxicology*

Michael G. Holland, MD, FAACT

*Clinical Toxicology* publisher, Informa Healthcare, has announced that there will be a change in editor-in-chief of the journal, beginning in March 2009. The new editor will be D. Nicholas Bateman, BSc, MD, FRCP, FRCP(E), FBPharmacolS, FBTS.



Dr. Bateman

Dr. Bateman is Professor in Clinical Toxicology and Consultant Physician at the Royal Infirmary of Edinburgh. Dr. Bateman is also the Director of the Scottish Poisons Information Bureau, NPIS Edinburgh.

Michael McGuigan, MDCM, MBA, current Editor-in-Chief, decided in December 2008 to step down after many years of dedicated service. This change is to take effect in mid-March 2009. Dr. McGuigan masterfully directed *Clin Tox*



Dr. McGuigan

as its Editor-in-Chief since 2001 and headed the implementation of the iFirst electronic publications of the journal. Dr. McGuigan also recently crafted several key improvements to the journal that were announced at NACCT 2008 in Toronto (AACTion November 2008). Among the changes were: re-organizing the journal into relevant sections for ease of reading; emphasizing peer-reviewed, state-of-the-art reviews and original research; assurance of timely publication (within 6 months of acceptance); implementation of a new "fast-tracking" system for rapid dissemination (within 2-3 months of acceptance) of important new research to the readership. Dr. McGuigan also announced at NACCT 2008 that the long-term plan was to expand from the current 10 issues per year to 12 issues.

*Clinical Toxicology* is currently distributed to 2000 subscribers worldwide, to an international audience of clinical toxicologists, poison center personnel, and other interested professionals.

When Dr. McGuigan announced his plans, Phil Garner of Informa Healthcare, publisher of *Clin Tox*, began working closely with the three sponsoring societies of the journal (AACT, AAPCC, EAPCCT) to identify and recruit a suitable replacement. Informa Healthcare also advised that Dr. Bateman will take the reins in mid-March, and until that time will be working closely both with Dr. McGuigan and Mr. Garner to ensure a smooth transition.

Mr. Garner informed AACTion that the next priority is to determine the optimal Senior Editorial Board structure for Dr. Bateman, and to identify who is to fill the positions. This will be aligned with the key objectives of the journal- namely, to publish top-quality international research from across all relevant subject areas.

AACT is excited about this appointment, and would like to take this opportunity to welcome Dr. Bateman to his new role as Editor-in-Chief of *Clinical Toxicology*. The Academy would like to again thank Dr. McGuigan for his years of hard work and self-less dedication to the journal as its editor. He has been instrumental in taking the journal to its prominent place in the field of clinical toxicology literature.

The Journal will continue to publish abstracts of both the NACCT and EAPCCT annual meetings and the NPDS annual report of U.S. poison center experience from the AAPCC. It will also continue to publish official communications and guidance from its three sponsoring societies.

All published *Clinical Toxicology* work, including iFirst and archived issues, is available to AACT members online at the publication website:

<http://www.informapharmascience.com/ctx>

## AACT Developing New Website to Enhance Member Services

Michael G. Holland, MD, FAACT



The AACT Communications and Technology Committee, working closely with AACT President Michael I. Greenberg, MD, has been hard at work over the last several months developing a new, more

powerful and interactive website. The committee began this task early in 2008. At that time, the Committee Chair worked with a part-time web designer, and laid the groundwork for the new website. Committee Vice-Chair Jamie Nelsen, PharmD worked many hours on updating all of the toxicology web links from the current website. Many of these links were outdated and no longer linked to the listed resource page.

After taking office as President of AACT in September 2008, Dr. Greenberg interviewed and investigated several large professional web design firms to take the task to the next level. After settling on Philadelphia Web Design Company, he conveyed to them the needs of the Academy and his vision for what the website needed to do for our members. Dr. Greenberg's main charge to the web designer and the Committee was to modernize the website, make it more user-friendly, and allow us to manage most of the Academy's business electronically (membership applications, renewal notices, dues payments, etc).

To that end, AACT has enlisted PayPal for secure on-line payment of dues via credit card. With this commercial PayPal service,

members can pay with any major credit card (via secure on-line encrypted technology) whether they have a PayPal account or not. In addition, AACT membership applications and Fellow designation application forms will be available electronically to streamline the application process. Other enhanced features include a more secure login procedure, with use of self-designated passwords, and updated links to the toxicology resources available on the Internet.

The President of the web design presented the beta version of the new website to the AACT Board of Trustees at their winter meeting in January 2009. He demonstrated the new site to Board members, and to get their input on what final adjustments and enhancements will need to be effected prior to full roll-out of the new site. Board members were given the new beta site weblink so they could visit the site for a few weeks and become familiar with the changes. Initial impressions were overwhelmingly enthusiastic, and the Board expects AACT members will find the new website very helpful and useful. It will be a noticeable improvement from the current website, which has not been update for years.

Tentative date for "going live" with the new website is sometime in March of 2009. The transition from the current website and the new will be seamless, as the current web address will automatically migrate to the new address when implemented. AACT members should notice nothing but enhanced functionality and a beautiful new website. Many thanks to Dr. Greenberg and the Technology Committee for all their hard work on this endeavor

## Upcoming Meetings

NACCT 2009  
September 21-26  
San Antonio, Texas  
[www.clintox.org](http://www.clintox.org)

XXIX International Congress of the European  
Association of Poisons Centres and Clinical  
Toxicologists  
May 12-15, 2009  
Stockholm, Sweden  
[www.eapcct.org/show.php?page=congress](http://www.eapcct.org/show.php?page=congress)

AAPCC 2009 Mid-Year Directors Meeting  
February 24/25, 2009  
Albuquerque, New Mexico  
<http://www.aapcc.org>

ACMT Spring Meeting  
March 27/28, 2009  
San Juan, Puerto Rico  
<http://www.acmt.net>

Preventive Medicine 2009  
February 11-14, 2009  
Los Angeles, CA  
[www.preventivemedicine2009.org/](http://www.preventivemedicine2009.org/)

Society of Toxicology (SOT) Annual meeting  
March 15-19, 2009  
Baltimore, MD  
[www.toxicology.org/ai/meet/am2009/](http://www.toxicology.org/ai/meet/am2009/)

American Occupational Health Conference  
ACOEM Annual Scientific Meeting  
April 26-29, 2009  
San Diego, Ca  
[www.acoem.org/conferences.aspx](http://www.acoem.org/conferences.aspx)

Venom Week 2009  
June 1 - 4, 2009  
Albuquerque, NM  
<http://hsc.unm.edu/conf/venomweek2009/>

**Save the Date:** The 2009 NACCT Meeting in San Antonio, TX will be held September 21- 26. A post-symposium MRO course on September 26 & 27, 2009 immediately follows NACCT 2009, and will satisfy the US DOT pre-requisites for certification as an MRO for workplace drug testing reviews.