Surviving Sandy: Toxicology and Public Health in the Eye of the Storm

I’m sure that most of you have seen the sad and graphic images that followed the landfall of Hurricane Sandy in late October of this year. A few of us on the East coast not only experienced the event first hand, but also attempted to maintain our research, education and practice commitments while living through this catastrophe. I’d like to share my personal perspective and relate to you a couple stories of untold “heroes” in our small family of toxicology.

I’ll start with a simple fact for background purposes - I’m a New Yorker. This is my personal home. Moreover, the only professional home I have ever known exists in an approximately 20 square block area of Manhattan that contains: NYU Langone Medical Center; Bellevue Hospital Center; the Department of Health and Mental Hygiene’s Public Health Laboratories Building (which houses the NYC Poison Center); and the Manhattan VA hospital. Also, like my personal home, most of my professional home is in the highest risk flood zone (Zone A) and the rest, we have learned, probably should be as well. The four institutions all had different disaster plans, different circumstances and priorities, and took different actions. The VA evacuated preemptively, extraordinary events at NYU/Langone forced an evacuation in the middle of the storm, and Bellevue evacuated and closed its doors only after every attempt to stay afloat was lost. Here at the poison center our plan was to stay put and maintain continuity as we have through every previous blizzard, hurricane, blackout, and during 9/11. This is not to suggest, by any means that we are smarter or more capable but rather two major factors are in our favor. First our patients are outside our walls so we only have to worry about our staff’s safety and security and second, we are on the other side of the street which puts the poison center ever slightly uphill into a drier zone.

While the wind was amazingly strong and seemed to come from everywhere at once as the canyons of skyscrapers created eddy currents in all directions, the rain was far less than the previous year’s hurricane Irene, and even less than a typical Nor’easter. The water, however, was beyond belief. High tide, a full moon and strong onshore winds put a river of water that was 12 feet deep between me and my dark cold home and dumped an estimated 40-50 million gallons of sewage and brackish water into the Bellevue’s basement. The poison center went on emergency generator as
planned, we lost our fiberoptic phone lines and had to fall back on a copper wire contingency, but the phones rang and were answered as if it were any other day. Just when things looked a little better, mother nature blessed us with about 4-6 inches of heavy wet snow.

So where are these “heroes”? First, as soon as it became obvious that coastal NJ and NY were going to take the brunt of the storm, countless calls came in from surrounding poison centers with a single theme. How can we help you and how can we work together to help each other maintain the public health mission that we consider so vital. With hospitals unable to provide services, 911 and EMS overwhelmed with rescue missions, and local communities destroyed what could be done to maintain poison services? Plans were agreed upon, alternative mechanisms of communications set up and constant contact was established to assure that mutual aid would always be there. While much of this activity was local and along “normal” disaster plans, calls came in from very dry and remote areas of the country. There was no discussion of funding or repayment, just a simple offer to help. Next there were the poison information specialists, many of whom lived in flood zones or places that were destined to lose power. These dedicated professionals put their personal lives on hold and made plans to sleep at the Centers until replacements could come in, and then figured out how to come back when the world about them was in pieces. Finally a good word to our public health partners, who when it became obvious that there were going to be mass casualties from carbon monoxide, food poisoning and gasoline siphoning, all worked together with the local poison centers to develop and rapidly disseminate public safety messages.

You’ve all seen images of the mass evacuations of hospitals, the bucket brigade carrying fuel up the stairs to power Bellevue’s emergency generator and other extraordinary acts. By no means do I want to discount those efforts, just to acknowledge a few fine individuals who did an outstanding job, but remained out of the spotlight. The movies and television portray mass chaos in the aftermath of disasters; sensationalizing looting, violence and anarchy. In a time when all of the media is consumed with horrible things that humans do to one another, I would like to point out that in actuality, in time of need, most people step up with acts of kindness, self-sacrifice and even outright heroism. If we could be as nice to each other when times are good as we are when times are bad I think we would all enjoy our personal and profession lives just a little more.

Let us all hope for a peaceful and productive new year.
As we end a year and begin a new year with many exciting opportunities and possibilities, I would like to take a moment and reflect on this past year’s triumphs and tribulations.

AACT had an exciting year with continued progress and promise for 2013. From the leadership of Alan Woolf to the current leadership of Bob Hoffman, the Academy couldn’t be in a better place. In 2012, we saw continued growth for the Academy: The Envenomation SIG held its first webinar; the first successful journal club from ABAT was held by webinar; Dr. Mark Kirk is the newly named Simulation Education Liaison Director and there is open dialogue with other societies around the world. And we expect continued growth in 2013: Clinical Toxicology is going ‘green’; the Education Committee led by Deb Larsen is working hard for new and innovative continuing education events throughout the year; the Communication Committee led by Dr. Jeff Brent is making strides to bring the Academy into the new world of social media; and the Planning Committee for NACCT 2013 is geared for making it a great Congress.

In this issue, we reflect on this past year, look towards the future and remember how AACT has gotten to the place we know it today. This issue of AACTion highlights one of the founding members of AACT and AACTion, Herbert Anderson, in an interview done by Jess Benson. Though there are differences in AACT from its infancy to the present time, I am struck by the similarities and the one common thread that persists....AACT was created by and driven by people passionate about Clinical Toxicology. I want to personally thank both Jess Benson and Herbert Anderson for their participation and contribution to this issue of AACTion.

As we finished 2012, I am struck by not only the triumphs but also of the tribulations. We have all witnessed and even experienced first-hand natural disaster; the devastating loss in Newtown, Connecticut and the loss of one of our own, Dr. John Haynes. Through these tragedies, I am in awe of the heroic actions that so many have undertaken. It is my wish that we pay tribute to these events and recognize what we as a community have done and continue to do for each other.

I wish each of you all the best in 2013.

The AACT is pleased to announce that, beginning in January 2013, its sponsored journal, Clinical Toxicology, will be sent routinely to active AACT members by electronic version only. This new service will allow members to sort through the Journal’s contents on-line and download any articles or features they may need at any time. Free access to an on-line archive of previous Clinical Toxicology issues will be included in the subscription. The annual dues for AACT membership will still include the cost of these electronic subscriptions. Members who want to receive a paper journal by mail in the future will still have that option, for an additional fee. All subscribers will receive a unique, protected password to access their on-line journal. Previews of selected articles from each issue will continue to be sent to members, along with special offers and journal updates.

Clinical Toxicology is following the trend of other professional science journals that have also converted to an electronic format. This is advantageous for all parties: the publisher, the AACT, and the subscriber, in terms of saving costs, saving trees and paper, operating more efficiently, and assuring the timely delivery of the journal no matter where in the world the subscriber may be. The AACT, along with the journal’s other co-sponsors: the EAPCCT and the AAPCC, welcomes this new format, which is in keeping with the computer age in which we live.
Scientific Content:
Make your plans early for the 2013 NACCT meeting in Atlanta. Plan to join us for both Pre-Meeting Symposia. The American College of Medical Toxicology will be investigating the interface of law enforcement and toxicology during CSI Atlanta: Toxicology, Law Enforcement, and Crime Scene Investigation. The American Academy of Toxicology will present the clinical, pathophysiological and regulatory aspects of adverse drug events during their day long symposium entitled Adverse Drug Events for Toxicologists- From Understanding Mechanisms to Guiding Regulation. During the Main Congress there will be outstanding sessions on chelation myths and realities, major advances in acetaminophen poisoning and the evaluation and treatment of metabolic acidosis. We are also bringing back our favorite sessions including the Year in Toxicology and the Critical Care Symposium. Finally we are expecting several outstanding research sessions.

Logistics:
The NACCT Logistics Subcommittee is responsible for issues related to conference site and scheduling for the NACCT. Chaired by Sandy Giffin, members of the committee are: Ed Krenzelok, Jeff Brent, Kristin Mann and Debra Kent. The group’s most recent work involved reviewing and making recommendations regarding conference locations for NACCT in 2014 and 2015.

Look for more information in the next AACTion NACCT update.

Karen E. Simone, PharmD, DABAT, FAACT

IUTOX will provide financial support to individuals attending the thirteenth International Congress of Toxicology (ICT XIII) in Seoul, Korea from June 30-July 4, 2013. Our ICT meetings occur only once every three years and offer the opportunity to learn the latest developments in toxicological science and regulation through general scientific sessions and continuing education classes.

Two types of fellowships will be awarded. Junior toxicologist fellowships are aimed at individuals at an early stage in their careers. Senior toxicologist fellowships are aimed at those involved in organizational activities in their own national society. The fellowships will assist recipients with their travel and accommodation expenses. The ICT XIII organizers will waive the meeting registration fee for up to 40 fellowship recipients.

For more information, go to http://www.iutox.org/grants.asp. All applications must be received by February 15, 2013

Calendar

May 28 - 31, 2013
XXXIII International Congress of European Association of Poisons Centres and Clinical Toxicologists
Copenhagen, Denmark

June 30 - July 4, 2013
XIII International Congress of Toxicology 2013
COEX Convention Center, Seoul, South Korea

September 27 - October 2, 2013
Annual Meeting of the North American Congress of Clinical Toxicology
Hyatt Regency, Atlanta, GA
It’s pretty remarkable to think of the changes that have taken place over the past 40 years and to recall what was happening in 1972. When the Maryland Poison Center (MPC) finally found a home at the University of Maryland School of Pharmacy, the Vietnam conflict was raging. Hewlett-Packard released the first scientific hand held calculator (with a list price of $395). Richard M. Nixon became the first U.S. president to visit China. The movie, The Godfather, was released in theaters and the first commercially successful video game, Pong, premiered. The Watergate break-ins occurred. The Olympic Games were held in Munich, where Mark Spitz set world records and captured a then record 7 gold medals. The games were also marked by violence as terrorists killed 9 Israeli athletes, coaches and officials. 1972 was also the time of the final Apollo mission and Gene Cernan became the last man to walk on the moon.

World events and technology weren’t the only things dramatically different in 1972. At that time, there were approximately 600 poison centers in the United States. Many of these “centers” consisted of one telephone that was available in an emergency department with no dedicated staff responsible for providing the service. There were few information resources available...certainly no internet or computerized references, but also few textbooks devoted to clinical toxicology. There were a series of nifty index cards from the National Clearinghouse as well. There was no such thing as a certified poison center. There was no such thing as a board certified medical or clinical toxicologist. When the MPC arrived at the University of Maryland School of Pharmacy, the very essence of what a poison center was supposed to be was still evolving.

Initially, the MPC was staffed Monday through Friday from 8AM to 5PM by one person who had a master’s degree in education. The rest of the time, the service was “staffed” by pharmacy and medical students. The medical director of the MPC was a psychiatrist. Initially, the service wasn’t available for parents at home to call about children getting into toxic substances. The focus of the service was on providing overdose information to physicians. That emphasis changed in the mid 1970’s. The service expanded to include home callers. The MPC implemented a state wide 800 number in the mid 1970s to allow anyone to call without cost. A health educator was added in the mid1970s to help increase awareness of the service. Staffing was modestly expanded to meet the increased need; however, budget challenges continued during this time. Health professional students supplemented the staffing until 1996 when we were finally fiscally able to field a staff of full time health professionals 24 hours a day.

Despite these very modest beginnings, the MPC has maintained exceptional service.

Just as video games today bear little resemblance to the original version of “Pong”, the MPC today bears little resemblance to its 1972 version. Despite the outward differences, the commitment to providing the most accurate and appropriate information to our callers is exactly the same today as it was in 1972. Happy 40th to the Maryland Poison Center and to all the people who have helped to make this service successful!
It was October of 1968. Herb Anderson was sitting in a conference room at the Palmer House in Chicago with Eric Comstock, Jock Graeme, John Pepper, Griffith Quimby, Toby Rappolt and a number of other clinicians and researchers, discussing the mission and proposed activities of a newly formed organization called the American Academy of Clinical Toxicology. Everyone who attended this first meeting of AACT had a common bond. They all loved clinical toxicology. Herb was a bit different from the rest – he was the only pharmacist in the group.

Herb began his trip to Chicago many years before the event. Herb graduated from the University of Montana with a Bachelor’s Degree in Pharmacy in 1960. Shortly after graduating, he served as Assistant Director of a Hospital Pharmacy, and developed an intense interest in the care of poisoned patients. It was a time when “clinical” and “pharmacy” did not appear in the same sentence together. In Herb’s words, “I enjoyed solving puzzles and I was drawn toward clinical practice. Clinical toxicology was the perfect venue for an odd-ball like me.” During his time at the hospital, Herb practiced in a busy institutional setting, filling about 300 to 350 prescriptions per day. Still, Herb found time to teach chemistry and pharmacology to student nurses, as well as establish a telephone-based drug and poison information center service within the hospital. According to Herb, “At that time there were no personal computers so you had to know where to look for information and you had to keep a good deal of practical information in your head. Most of all, you learned how to stay calm during stressful situations.”

In 1966, Herb was recruited by Professor William Tester to work at the University of Iowa’s College of Pharmacy’s Unit Dose Research Division. Herb began working on his Master’s Degree in Pharmacy and worked as the Drug and Poison Information Officer within the division. One of the mandatory graduate courses was computer programming. Even though he was not excited about dabbling with punch cards, this course provided an important foundation for Herb’s Master’s thesis - the development of a computerized poison information retrieval system. By the spring of 1969, Herb had completed his degree and developed the first working prototype of a computerized information retrieval system for use by poison centers or drug information centers.1 Herb presented his work at the American Society of Hospital Pharmacists meeting in 1968, where he met a physician by the name of Toby Rappolt. Dr. Rappolt was impressed with Herb’s work and asked him to present it at an upcoming meeting of the American Pediatrics Association in Chicago. Herb was also invited to attend a formative meeting for a new organization devoted to clinical toxicology. The meeting was to be held right after the American Pediatrics Association meeting adjourned, in a conference room of the Palmer House in Chicago, Illinois. Shortly after the Chicago meeting, Herb was selected as a member of the Editorial Board for the journal, Clinical Toxicology.

Over the next six years, Herb Anderson served as the Executive Editor for the AACT’s newsletter entitled, “AACTion”. The newsletter was printed and distributed using equipment from a printing business owned and operated by Herb Anderson. The early newsletters contained many of the same elements found in today’s AACTion. There was a column written by the President, committee reports, and meeting announcements. It also contained original research articles, clinical puzzles, poems, and interesting case reports.

Herb remembers working on the first logo for AACT in 1970. The group working on the logo attempted to create an image that captured both natural and synthetic poisons. Herb recalls, “I suggested a benzene ring to
represent organic toxicants. Someone else added a poppy pod to the logo to incorporate natural toxins. I suggested a coral snake. We also asked members to write in with ideas.” Today’s logo looks exactly the same – minus the poppy and the coral snake.

By the 1970’s, Herb Anderson was a Fellow of AACT and was employed as Director of the THAR Research Laboratory, an institute devoted to studying plant toxicology, cattle growth, nutrition, and electro-magnetic phenomena. Herb’s brush with death came one day when he found himself injured and upside-down in a large truck he was driving. According to observers, a small tornado had flipped Herb’s truck over while he was driving down a minor county road. Over the next twenty years, Herb worked a variety of jobs in different parts of the United States, eventually settling down in Socorro, New Mexico. I happened to run into Herb Anderson when I was giving a talk about poisoning at one of our state pharmacy conferences. Even though Herb lost track of many of his friends and colleagues over his twenty-year hiatus from AACT, he never lost his passion for clinical toxicology. Today he beams with pride when he looks at AACT. He is impressed with the large size, the professional diversity, the closed ties with poison control organizations, the high quality educational offerings, and the continuation of a little newsletter called AACTion. According to Herb, “The original intent of the organization was to create a conduit where everyone who loved clinical toxicology could exchange information and help one another. I am so happy to learn that this idea has expanded over time.”


---

Radiation Special Interest Group

M. Ellen Tsay, PharmD
Ziad N. Kazzi, MD, Co-Chair

This year at the 2012 NAACCT conference in Las Vegas, NV, the Radiation Special Interest Group (RSIG) joined efforts with the Food Safety SIG in a symposium focusing on food and water safety in the aftermath of a nuclear power plant incident. The events that unraveled during and after the Fukushima Dai-ichi nuclear power plant accident affected countries located thousands of miles away and brought to light questions related to food and water safety. Captain Michael Noska, USPHS, of the United States Food and Drug Administration was the invited speaker and gave a comprehensive yet concise overview of different aspects governing radiation in food.

With globalization and the increasing number of nuclear reactors around the world, clinical toxicologists must be knowledgeable and prepared to respond in the event of a nuclear power plant emergency. Additionally, poison centers should expect to receive questions from both the public and health care professionals regarding different issues such as protective measures and the use of potassium iodide. With that in mind, the Radiation SIG hosted a SPI radiation training session on the top 10 questions that a poison center may receive after a nuclear power plant accident. This session was moderated by Ziad Kazzi, MD of the Radiation Studies Branch at the CDC, Leanna Allen MPH, MCHES of the Oak Ridge Institute for Science and Education, Art Chang, MD, MS of the Health Studies Branch at the CDC, and Gaylord Lopez, PharmD of the Georgia Poison Center.

During the annual business meeting, Dr. Ziad Kazzi presented the RSIG annual report. Dr. Art Chang updated the attendees on the poison center radiation roundtable meeting that was sponsored by CDC and Mr. Rick Spiller (Central Ohio Poison Center) and Dr. Fred Aleguas (Northern Ohio Poison Center) shared lessons learned from their respective poison center participation in a statewide radiation exercise.

Looking forward, the RSIG is submitting a proposal to the NACCT planning committee for another exciting and informative program in Atlanta in 2013. Stay tuned for more information and remember to join our interest group by contacting AACT or selecting RSIG when you renew your annual membership.
Announcing the 2013 AACT eLearning Webinar Series

Strike out Disease: The Healing Power of Venom

The Strike Out Disease series is a live online educational program that provides professionals interested in toxicology and/or venom sciences continuing education in a live, interactive format.

This series includes three modules:

- Strike 1. How drugs are developed from venom
- Strike 2. Drugs from venom in use today
- Strike 3. Venom to drug/L what’s in the pipeline

To receive the recertification credit, participants must participate in the live online session, answer all polling questions during the program, and complete the survey/evaluation after the session. A total of 3 hours of credit is available. No partial hours will be offered for credit.

The series is anticipated to begin in Late January.

Look for more information coming soon at http://clintox.org/envsig.cfm
It is with sincere sadness that AACT notes the passing of Dr. John F. Haynes, Medical Director of the West Texas Regional Poison Center and longtime member of AACT, on December 17, 2012. Dr. Haynes accomplished a great deal during his tenure at the Texas Tech University Health Sciences Center at El Paso. He served as Associate Professor of Emergency Medicine at the Paul L. Foster School of Medicine, and in that capacity educated residents in the essentials of medical toxicology. He served as the only Medical Director of the West Texas Regional Poison Center, the nation's first 24/7 completely bilingual poison center since its inception. Dr. Haynes carried out international research on childhood lead poisoning surrounding El Paso's smelter, as well as participating in numerous clinical trials of snake and spider antivenoms. Dr. Haynes was actively involved in medical toxicology teaching in Latin America. He helped to organize several "Toxicology Knows No Borders" conferences in El Paso. He was Associate Director of the Medical Toxicology Fellowship Program at TTUHSC. He served on the Admissions Committee of the Medical School and the P&T Committee of the El Paso Children’s Hospital. Before beginning his medical career, Dr. Haynes served as a Marine in Vietnam and returned to military service in the U.S. Army during the first Gulf War. In addition to his many professional achievements, Dr. Haynes was an avid grower of pistachios and pecans, owning an orchard in southern New Mexico. Known for his ever-present smile and gentle disposition, Dr. Haynes will be missed by his patients, residents and colleagues.

A scholarship fund for Texas emergency medicine residents and medical toxicology fellows has been established in his name and is now accepting tax-deductible donations. Information about the fund can be obtained from Valerie.Sanchez@ttuhsc.edu.

Do you have News to Share?

AACTion wants to know what you are up to. Please send your accomplishments or any updates to AACTion editor, Jeanna Marraffa at marraffj@upstate.edu.