

American
Academy
of Clinical
Toxicology,
Inc.



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President's Corner

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North American Congress of Clinical Toxicology

The North American Congress of Clinical Toxicology is on the horizon and as you may have seen in the conference brochures, this looks like an outstanding program! The Program Planning Committee has made a

few changes in the program this year that you should be aware of.

First, there will be an increase in the registration fees: this year, the advance (until August 22) registration fee for AACT members will be \$500 (up \$25 from last year). Part of the increase can be attributed to cost of living increases and the fact that San Francisco is an expensive city.

Second, there will be no Presidents' Reception this year. The principal reason for this decision is that San Francisco is filled with great restaurants and evening entertainment and we wanted people to have an opportunity to go out on the town.

Third, the NACCT program schedule will not be published in *Clinical Toxicology* this year; the abstracts will be, but not the program schedule. Instead, attendees will receive a separate booklet containing the program schedule when they register at the meeting. For those of you who would like an earlier look at the schedule, it will be on the AACT website in July.

AACT Business Meeting

The AACT Business meeting will be held on Friday October 6th at 3:00 p.m. It is important for AACT members to attend this meeting because it gives you a chance to hear how the Academy is doing and where it is going—and your input or feedback is extremely useful!

In addition, this year there will be a vote on a By-laws change, so please attend and participate.

Clinical Toxicology

Our journal, *Clinical Toxicology*, is changing its submission and review process from an e-mail based system to an Internet based one starting later in the summer. Taylor & Francis, our publisher, has chosen ScholarOne as the technology partner in this process and will be using their Manuscript Central software. Manuscript Central is an Internet based application that currently services more than 30,000 manuscript submissions per month and supports more than 1,000,000 registered users. It facilitates on-line submission, assignment of reviewers, on-line peer review and associated dialog with authors and referees. I expect that this system will streamline the review process leading to faster reviews and earlier publication. Notifications of the change will be coming out soon, and there will be a transition period during which both submission formats will be acceptable.

In other journal news, we are also going to start using an e-publishing system called E-First. In this system, once an issue of the journal has been filled and formatted, it will be e-published on the *Clinical Toxicology* website; the hard copy of the issue will come out later. This will allow us to get manuscripts out faster than waiting for the hard copy print versions.

Martha Souders

AACT would like to say thank you to Martha Souders for 6+ years of excellent administrative support to the Academy. Many of you may have had contact with Martha in relation to membership or abstract issues. Martha is still working with the Pennsylvania Medical Society, but recently accepted a position providing administrative support to the Executive Vice President of the Society. We wish Martha the best of luck moving forward in her new position.

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In The Literature

David Juurlink MD, PhD

Human botulism immune globulin for the treatment of infant botulism. Arnon SS, Schechter R, Maslanka SE, Jewell NP, Hatheway CL. *New Engl J Med* 2006;354:462-71.

Background: Infant botulism is the most common form of botulism in the United States, with around 80 cases reported annually. The disease typically occurs in children under 1 year of age, with peak susceptibility between 2 and 4 months. In contrast to adults, spores of *Clostridium botulinum* ingested by infants germinate and colonize the large intestine, where they elaborate botulinum toxin (most often type A or B). After absorption, the toxin finds its way to somatic and autonomic cholinergic nerve terminals, where it irreversibly inhibits the release of acetylcholine, producing the characteristic clinical findings of acute ptosis, weak cry and suck, constipation, and hypotonia.

Historically, treatment of infant botulism has consisted primarily of supportive care. In this study, investigators evaluated the safety and efficacy of a drug which neutralizes botulinum toxin, Human Botulism Immune Globulin Intravenous (Human) (BIG-IV), in a five-year, randomized controlled trial at multiple centers throughout California, where the majority of infant botulism cases are reported.

Methods: Between 1992 and 1997, the investigators enrolled 122 infants with suspected (and subsequently laboratory-confirmed) infant botulism. Of these, 75 (61%) had disease caused by type A toxin, and 47 (39%) by type B toxin. Treatment was begun within three days after hospital admission, and consisted of a single intravenous infusion of BIG-IV 50 mg/kg or placebo (an immune globulin preparation that did not neutralize botulinum toxin). The primary safety outcome was the occurrence of adverse events (e.g., possible allergic reactions), and the primary efficacy outcome was the duration of hospitalization required. Several clinically relevant secondary outcomes were also assessed.

Results: Patients in the two treatment groups were similar, although those who received BIG-IV were slightly older at the onset of symptoms as compared to controls. No infant experienced an immediate or delayed hypersensitivity reaction to treatment, and although the study had limited power to detect adverse events between groups, a trend towards more adverse events was evident among placebo-treated patients. Treatment with BIG-IV was associated with shorter hospitalization (2.6 weeks vs. 5.7 weeks) and ICU stay (1.8 weeks vs. 5.0 weeks), as well as decreased duration of mechanical ventilation (1.8 vs. 4.4 weeks) and tube or intravenous feeding (3.6 vs. 10 weeks). Mean hospital charges were also lower among treated patients (\$74,800 vs. \$163,000). The benefits of treatment appeared comparable in patients with type A and type B variants.

The investigators subsequently performed a 6-year nationwide, open-label study of 382 laboratory-confirmed cases of infant botulism treated within 18 days after hospital admission. Infants treated within seven days of admission had considerably shorter hospital stays than those treated later.

Implications for Practice: This trial provides compelling evidence that early administration of BIG-IV significantly reduces hospital stay, resource use, and hospital costs when given to children with infant botulism type A and type B. As anticipated, the product appears considerably safer than equine proteins such as botulinum antitoxin. Moreover, it has a long biological half-life (approximately 28 days), allowing persistent neutralization of additional botulinum toxin that may be absorbed from the colon. The product, now licensed by the FDA as BabyBIG, can be obtained from the California Department of Health Services by calling (510) 231-7600. It should be used promptly in suspected cases of infant botulism, and treatment should not be delayed while awaiting confirmation of the diagnosis.

Register Now for “Getting High, Getting Hooked, and Getting Help”

Marty Caravati, MD, MPH

Brains, Drugs, Labs and Erowid!

The AACT Pre-Meeting Symposium on October 5, 2006 will address new and exciting issues in the area of substance abuse and addiction that are relevant to the practice of toxicology. Nationally recognized experts will speak on a wide range of cutting-edge topics. These include: how chronic substance use affects brain neurocircuitry and subsequent addictive behaviors, a heroin abuse

update and use of “at-home” naloxone, development of vaccines for addiction, opiate detoxification methods and complications, new laboratory pearls, and the history and development of the Erowid website by its original designers, Earth and Fire Erowid. A mid-afternoon adjournment will allow additional opportunity to explore San Francisco. I hope to see you there!

AACTion

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In The News

Michael I. Greenberg, MD, MPH, FACOEM, has been awarded the 2006 William S. Knudsen Award by the American College of Occupational and Environmental Medicine (ACOEM). The award was presented at the ACOEM meeting in Los Angeles in May, 2006. The Knudsen Award is the highest honor that ACOEM bestows.

About the Award

William S. Knudsen (1879-1948) was born in Copenhagen, Denmark. He immigrated to the U.S. when he was 20 years old. In 1938, as president of General Motors (1937-1940), Mr. Knudsen attended the College's annual meeting in Chicago. It was at that meeting that Mr. Knudsen announced the creation of the annual Knudsen Award (to be presented annually beginning in 1939), and made the following comments:

"There is no argument about the value of medical service in industry... With the desire to concentrate and crystallize the attention of the industrial and medical world on the wonderful progress that has been made and is being made in industrial medicine, I am glad to announce an award to be given to the industrial physician making the most outstanding contribution to industrial medicine." (Selleck & Whittaker, Occupational Health in America, p. 281).

Award Criteria

Presented to an individual who has had a distinguished career in one or more disciplines of Occupational and Environmental Medicine.

Previous recipients of the Knudsen Award include: C. Everett Koop, MD; Alice Hamilton, MD; and Harriet Hardy, MD.

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