

American  
Academy  
of Clinical  
Toxicology,  
Inc.



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## President's Corner

G. Randall Bond, MD



Greetings! We are just a few weeks away from NACCT 2007 in New Orleans. Symposia and abstract content are set. Registrations are streaming in. Final preparations are underway for what promises to be an excellent meeting. Thanks to NACCT 2007 Committee Chair, Lewis Nelson, and those who serve with him. It is an overwhelming task.

Unsurprisingly, it continues to be a busy time for our organization and particularly for the Board, the executive, and for me. Please consider this column be a report from the president in anticipation of the business meeting to be held in New Orleans at the Sheraton Hotel from 3:30 pm to 4:30 pm on Monday afternoon, October 22, 2007. I have lots to report!

Most significantly, at its Spring meeting the AACT Board of Trustees voted to embark on a major strategic planning initiative. After sharing visions, discussing the "state of the AACT," and hearing a presentation on the potential value of strategic planning, the Board voted to appoint newly elected President-Elect Michael Greenberg to chair the Strategic Planning Committee. President-Elect Greenberg was charged "...with the task of organizing and leading a process of strategic planning of our organization. It is the hope of the Board of Trustees that this process will be completed before you take office as president in September of 2008." Following an initial fact finding time, the Board met again in June to approve the formation of the Committee and a budget for the process. Joining Mike Greenberg will be: Dan Cobaugh, John Curtis, David Juurlink, Debra Kent, Jim Mowry, Elizabeth Scharman, Donna Seger and Alan Woolf. The main task of the Committee is to find the most effective ways to organize and expend our professional and monetary resources over the next five (5) years to promote the goals of the Academy and support the professional needs of our membership. The Committee will be taking input from all members of the Academy through an online questionnaire. Your personal logon to

the survey site will come to you by email. Please take the time to participate.

In parallel and to support future strategic moves, the Finance Committee has been revitalized. Board member Dan Cobaugh has agreed to chair this committee. In addition to oversight of our budget and planning for next year, the immediate tasks of the committee will include a review of management of our financial resources, reassessment of our insurance needs, and oversight of the auditing process of both the organization and the NACCT.

Past President, Mike McGuigan, is heading a task force to organize and update the policies and procedures of the organization. Based upon his work and that of the Strategic Planning Committee, there may be a need to reactivate the Bylaws Committee.

The Nominations Committee brought forth five (5) candidates for the recent Board of Trustees election. We thank every one of them for their willingness to serve the Academy. **Our "all on line" election process resulted in the election of Chris Holstege, David Juurlink and Karen Simone.** Their terms will start at the conclusion of NACCT 2007. Thank you Tony Scalzo and Bruce Anderson for many years of service!

The AACT continues to be on solid financial footing. NACCT San Francisco was very successful. Expenses have been modest. Even though *Clinical Toxicology* is expanding (see below) and will cost the Academy more, we do not expect any increase in dues. These have been stable for many years now. Given the current Strategic Planning process it will not surprise you that we will be cautious in making new programmatic commitments until we hear from this Committee. That said, we have not been standing still.

One of the keys to our financial health and member service is the ability to offer continuing education (CE). The Education Committee, co-chaired by Matt Sztajnkrzyer and Greene Shepherd, is a hard working committee. They have been active preparing for NACCT 2007. In addition, in 2006 our CPE provider status was renewed for five (5) years (thank you, Jim Mowry!). Our CME provider status was just reviewed and we should hear the result before the meeting. These applications are

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# In The Literature

David Juurlink MD, PhD

Levine M, Boyer EW, Pozner C, et.al. Assessment of hyperglycemia after calcium channel blocker overdoses involving diltiazem or verapamil. *Critical Care Medicine* 35(9):2071-2075.

## Background

Hyperglycemia is frequently seen in patients following overdose of calcium channel blocking drugs, and primarily reflects impaired insulin release resulting from blockade of L-type calcium channels in the pancreas. Clinical experience suggests that the degree of hyperglycemia correlates with the severity of poisoning, but this relationship has not been previously studied.

## Methods

The researchers assembled a case series of adult patients hospitalized with diltiazem or verapamil overdose during an 11-year period at five university-affiliated teaching hospitals, and dichotomously categorized patients as having severe poisoning (died in-hospital, required a temporary pacemaker, or received vasopressors) or not. The authors collected blood glucose values during the first 24 hours of hospitalization, and compared the initial and peak serum glucose values with hemodynamic measurements of patients in both groups. Patients with sulfonylurea or insulin exposure were excluded because of their effects on glucose, and those with dihydropyridine overdose (amlodipine, felodipine, etc.) were excluded out of concern that the chronotropic effects of these drugs might obfuscate the analysis.

## Results

A total of 40 patients met inclusion criteria - 27 with verapamil overdose and 13 with diltiazem overdose. The average age of patients was 51.5 years, and 12 patients (30%) met the composite endpoint defining severity. Among these patients the median peak serum glucose concentration was 364 (267.5–408.5) mg/dL, as compared with 145 (107.5–160.5) mg/dL among less severely poisoned patients ( $p = .0001$ ). The median increase in blood glucose was 71.2% for those

who met composite end points vs. 0% for those who did not meet composite end points ( $p = .0067$ ). Neither the change in the median heart rate nor the change in systolic blood pressure was significantly different in either group.

## Implications for Practice

These findings support the notion that hyperglycemia is directly correlated with the severity of calcium channel antagonist poisoning, and suggest that the relative increase in glucose concentration is a particularly good predictor of severity. Some limitations noted by the investigators include the retrospective nature of the study and the potential for incomplete data collection. Also, this is a small study, and with only 12 patients meeting the composite outcome (death, pacemaker, or use of vasopressors) it was not possible for the investigators to draw inferences regarding gradations of severity.

The authors call for a prospective validation of their findings, but a few points are worth making in the interim. First, the study's results are biologically plausible and consistent with a large body of clinical experience. Second, the findings suggest we should 'sit up and take notice' when confronted with a hyperglycemic patient with calcium channel blocker toxicity, but this is probably something most of us do already because these patients are often hemodynamically unstable.

Finally, this study might make it somewhat easier for toxicologists to convince the front-line clinicians seeking our advice that hyperglycemia is a genuinely worrisome finding, akin to the seemingly modest yet ominous hyperkalemia seen in patients with acute digoxin overdose. Clinicians frequently encounter blood glucose values of 400 mg/dL and higher when caring for patients with diabetes, but this is rarely a genuine emergency and never requires insulin therapy of the magnitude we are likely to recommend. This study might help us convey that hyperglycemia in this setting is not just an incidental laboratory finding, but rather a sign of grossly disturbed physiology that merits respect and aggressive intervention.

## AACTion

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### President's Corner

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MONUMENTAL. Thank you Matt and Greene for all of your work on our behalf!

The Research Award Committee, also under the direction of Dan Cobaugh, has met and awarded three international travel scholarships for NACCT 2007. Congratulations to the winners. Please see their presentations in New Orleans. At the Board of Trustee's meeting, the primary responsibility of this Committee was changed from oversight of a multicenter research award to a junior faculty career development award. In recent years applications for the multicenter research award have been down and some not up to the standards of the Committee. In addition, the most recent awardee had to decline the award due to changes in the leadership of the consortium. The Board decided that the time was right to refocus the use of our funds. Rules and application for this award will be available at the website ([www.clintox.org](http://www.clintox.org)). The Board of Trustees also decided to award the Lampe-Kunkle award less frequently but to raise the amount. Two awards were given out earlier this year.

Several other initiatives are coming to fruition. These include the conclusion of a new contract with the AAPCC for the partnership which hosts NACCT, and the conclusion of a joint contract of AAPCC, EAPCCT and AACT with Informa, Inc., publishers of *Clinical Toxicology*. This contract should lead to an expanded journal with earlier online accessibility to articles and faster paper publication. We have also updated our contract with AHLS to include returns related to the chemical burn course. In July, 10 years of work with the International Union of Toxicology resulted in the first clinical toxicology symposia at an IU Tox congress (held every three years). Several AACT and EAPCCT speakers were represented. Former president Donna Seger served on the planning committee.

New fellows of the academy (FAACT) and winners of the Distinguished Service Award and Career Recognition Award will be announced at the NACCT 2007.

Finally, I hope that you have been to our website ([www.clintox.org](http://www.clintox.org)) recently to see the future NACCT meeting dates and locations through 2010.

I am looking forward to seeing you in New Orleans!

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