

Arizona Anticoagulation Forum Newsletter



For Members

February 2009

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Upcoming Events



Upcoming Meetings for the AZ Anticoagulation Forum

Join us at 6pm, Wednesday
February 11th at **Maggiانو's**,
located at 16405 N.
Scottsdale Rd (Frank Lloyd
Wright & Scottsdale Rd). The
program title is *Managing
Anticoagulation Complications*.
*This program is limited to 60
registrants.

A second program will be
offered on at 6 pm, Thursday,
February 12th at **Camarones**,
located at 3155 W. Chandler
Blvd (across from Harkins
Theater at Chandler Mall).
This program is titled
*Anticoagulation Duration: How
Long is Long Enough?*
*This program is limited to 30
registrants.

Our guest speaker for both
presentations is Robert

Pendleton, MD. Dr. Pendleton
is the Medical Director of
The University of Utah
Anticoagulation Management
Clinic. He has participated in
numerous anticoagulation-
related clinical trials, has
published primary research
and has spoken across the
country on anticoagulation-
related topics.

You are welcome to attend
one or both lectures. Please
RSVP to Carla Parisi at
parisi.carla@mayo.edu
(specify which or both
programs that you plan to
attend) by February 6th.

***It is extremely important
that you attend the program
once you have RSVP'd or
email Carla to cancel.
Programs will fill up fast and
we have limited funding.
The forum limits the number
of attendees to control
costs & must pay for those
that fail to show.***



FEATURE ARTICLE

The Genetics Behind Clopidogrel Hyporesponsiveness

In two recent NEJM articles,
the relationship between a
patient's genetics and their
response to clopidogrel
treatment was explored.
According to Simon et al., a
plausible explanation for an
increased rate of death or
ischemic events up to 1 year
post-MI may be due to
genetic variants in the alleles
that code for the absorption
(ABCB1), metabolism
(CYP2C19/ 3A5) and activity
of clopidogrel (P2RY12/
ITGB3). In a study by Mega
et al., a similar conclusion was
drawn by examining CYP450
allelic enzyme variations in
healthy subjects and patients
with coronary disease.

The research by Simon et al.,
used 2,430 subjects from the
French Registry of Acute ST-
Elevation and Non-ST-
Elevation Myocardial
Infarction and evaluated the
genotype of each subject.

The primary outcomes examined were death from any cause, non-fatal MI, or stroke, and the follow-up period was 1 year post admission for acute MI. The inclusion criteria was the presence of MI serum markers that were at least twice the upper limit of normal, symptoms of acute MI or ECG changes, and symptom onset to time of presentation had to be within 48 hours.

Among the 2,430 subjects, there were 2208 that received clopidogrel. During the follow-up period, 225 died and 94 suffered either a non-fatal MI or stroke. The patients with the highest risk of experiencing an event were those with two CYP2C19 loss-of-function alleles and one or two variant alleles affecting intestinal absorption (ABCB1). In patients with P2RY12 and/or ITGB3 variants (those affecting drug activity), there were no significant clinical outcomes.

In the research by Mega et al., both healthy subjects and acute coronary syndrome (ACS) patients from the TRITON-TIMI 38 trial were evaluated. There were 162 healthy subjects that were studied to determine the effect allelic variations of the CYP enzymes would have on the pharmacokinetics and dynamics of active clopidogrel. It was

determined that carriers of reduced-function CYP alleles experienced a statistically significant reduction of active clopidogrel plasma concentration, along with a decrease in clopidogrel activity. Of the TRITON-TIMI 38 subjects, a total of 1,477 patients with allelic variations were examined to determine their risk for experiencing death from MI, stroke, or general CV causes. Subjects carrying at least one allelic variation made up 27.1% of the population, and had a statistically significant higher risk of experiencing an event. Their risk of stent thrombosis was also significant, and was three times greater than that of subjects without allelic variations.

Although further research is needed, both studies help explain the possible mechanisms responsible for clopidogrel hyporesponsiveness. With more and more patients being treated with clopidogrel, and statistics claiming that approximately 30% of Caucasians, 40% of blacks, and 55% of East Asians have genotypic variations involved in clopidogrel pharmacotherapy, it is important to consider the use of pharmacogenomics in the management of ACS, percutaneous coronary

intervention (PCI), and other conditions.

New England Journal of Medicine
2009;360: www.nejm.org

Upcoming Events / Opportunities

National Anticoagulation Forum Meeting

The 10th National Conference on Anticoagulant Therapy will be held May 7-9, 2009 in San Diego, CA. The conference features world renowned speakers, small group discussions, original research poster session, exhibitors, opportunities to network with colleagues and much more.

Go to

<http://www.acforum.com/conference.html> to print the registration form.

Annual Arizona Pharmacy Association Meeting

Look for Chris Tankersley, PharmD at the Annual AzPA Meeting at the Westin LaPaloma in Tucson, AZ. The meeting is scheduled July 9-12th and Chris will be providing meeting attendees an update on CHEST (ACCP) Guidelines released last year.

Anticoagulation Therapy Management Certificate Program - University of Southern Indiana

This 6 week internet course is offered March 23, May 25, July 27 and October 12, 2009.

This program is designed for English-speaking nurses, pharmacists, physicians, and other health care practitioners who have, or want to prepare for, responsibility for monitoring and managing outpatient anticoagulation therapy.

The cost of the program is \$500, which includes internet instruction, handouts, and a comprehensive exam. The textbook is not included in the cost of the program. There is an additional \$50 charge for pharmacists requesting contact hours.

For more information call 1-877-874-4584 or e-mail anticoag@usi.edu



Anticoagulation Certificate Program from University of Florida

This ongoing online internet program is intended for pharmacists wishing to increase knowledge and skills to assist in caring for patients requiring anticoagulation therapy.

The College of Pharmacy will award 3 continuing pharmacy education credits (3 CEU's) upon completion of all modules and a Certificate from the University of Florida College of Pharmacy, indicating that you have completed a rigorous course of study in Anticoagulation Therapy.

Cost for this program is \$995.

Additional information is provided at www.cop.ufl.edu/programs/ce.

Upcoming CACP Exam Dates

If you were certified on or before December 31, 2004, you are due for recertification on or before December 31, 2009.

Date	Location
5/7/09	San Diego, CA

For more information regarding the exam and possible additional dates/locations visit the website at www.ncbap.org

Career Opportunities

Cigna Medical Group has a position available for an Anticoagulation/Clinical Pharmacist. For more information, visit www.cigna.com > Careers > Enter Job ID: 61717 or you may call Heather Jaeger, PharmD, CACP at (623)876-2231.

Banner Baywood Medical Center in Mesa, AZ has a Clinical Pharmacist position available in the Medication Management Clinic/Anticoagulation Clinic. More information can be found at www.Bannerhealth.com > Careers > Job search and apply (Job ID: 53097).

