

# Diagnostic Error in Medicine

4th International Conference



October 23-26, 2011

## KEYNOTE SPEAKERS

**Gary Klein, PhD**

**Ian G. Stiell, MD, MSc, FRCPC**

## FEATURED PRESENTATIONS

**Diagnostic Error "Hot Topics" Debate**

**Critical Misdiagnoses with Common Symptoms**

**Diagnostic Error Disclosure**

**How Much Diagnostic Safety Can We Afford?**

**How Can Computers Best Help Us Avoid Misdiagnosis?**

**Hyatt Regency ■ Chicago, IL**

*The thematic image of the conference reflects the uncertainty of understanding the human condition. The image is a commemorative medallion created by the Portuguese artist Irene Vilar (1931-2008) for the 4th National Congress of Medicine, Lisbon, used with permission of her estate.*

# Pre-Conference Short Course

SUNDAY, OCTOBER 23, 2011

DEM AFTERNOON HALF-DAY SHORT COURSE

*Separate registration required for short course*

**1:00 - 5:00 PM**

## The Role of Testing in Diagnostic Error

*Moderator:* **Philip E. Castle**, PhD, MPH, Executive Director, American Society for Clinical Pathology Institute and Center for Health Services Research, Washington, DC

### *Faculty:*

**Leonard Berlin**, MD, FACR, NorthShore University HealthSystem, Skokie Hospital, Skokie, IL

**Mark L. Graber**, MD, DEM Executive Committee, RTI International, St James, NY

**Michael Laposata**, MD, PhD, Vanderbilt University Hospital, Nashville, TN

**Stephen S. Raab**, MD, University of Washington, Seattle, WA and Memorial University of Newfoundland/Eastern Health Authority, St. John's, NL

### Welcome

**Jennifer F. Rhamy**, MBA, MA, MT (ASCP), SBB, HP, Executive Director of the Laboratory Accreditation Program, The Joint Commission, Oakbrook Terrace, Ill

**1:00 - 1:15**

### Introduction of Short Course

**Philip E. Castle**, PhD, MPH, Executive Director, American Society for Clinical Pathology Institute and Center for Health Services Research, Washington, DC

**1:15 - 1:45**

### Introduction to Diagnostic Errors

**Mark L. Graber**, MD, DEM Executive Committee, RTI International, St James, NY

**1:45 - 2:30**

### Errors in Test Selection and Result Interpretation: A Major Source of Poor Patient Outcome.

**Michael Laposata**, MD, PhD, Edward and Nancy Fody Professor. Executive Vice Chair of Pathology, Dept of Pathology. Pathologist-in-Chief, Vanderbilt University Hospital, Nashville, TN

It has long been thought that errors in laboratory tests selection largely result in the performance of additional, inexpensive, and automated laboratory tests. Similarly, errors in test result interpretation have been widely regarded as relatively harmless, and primarily related to a delay in achieving the correct diagnosis. However, recent information has demonstrated that the consequences of errors in test selection and results interpretation can produce outcomes with significant morbidity and mortality. This presentation will present the challenge facing the treating physician in correct test selection and result interpretation and illustrate the not infrequently encountered severity of the clinical consequences.

**2:30 - 2:45**

Break

**2:45 - 3:30**

### The Impact of Anatomical Pathology on Diagnostic Error

**Stephen S. Raab**, MD, University of Washington, Seattle, WA and Memorial University of Newfoundland/Eastern Health Authority, St. John's, NL

Errors in anatomic pathology diagnostic interpretation generally are related to system problems and impact the quality domains of safety, efficiency, patient centeredness, and timeliness. For diagnostic anatomic pathology services, errors more frequently are false negative diagnoses that may result in delays in treatment and additional testing. For anatomic pathology diagnostic screening services, errors more frequently are false positive diagnoses that lead to unnecessary treatment and/or testing. Most anatomic pathology diagnostic testing errors are associated with no, minimal, or minor harm and increased inefficiencies manifested in terms of higher costs and the development of technologies to mitigate risk.

*continued on next page*



# Pre-Conference Short Course

SUNDAY, OCTOBER 23, 2011 *continued*

**DEM AFTERNOON HALF-DAY SHORT COURSE**

*Separate registration required for short course*

**1:00 - 5:00 PM**

## The Role of Testing in Diagnostic Error *continued*

*Moderator:* Philip E. Castle, PhD, MPH, Executive Director, American Society for Clinical Pathology Institute and Center for Health Services Research, Washington, DC

### *Faculty:*

Leonard Berlin, MD, FACR, NorthShore University HealthSystem, Skokie Hospital, Skokie, IL

Mark L. Graber, MD, DEM Executive Committee, RTI International, St James, NY

Michael Laposata, MD, PhD, Vanderbilt University Hospital, Nashville, TN

Stephen S. Raab, MD, University of Washington, Seattle, WA and Memorial University of Newfoundland/Eastern Health Authority, St. John's, NL

**3:30 - 4:15**

## The Impact of Imaging Studies on Diagnostic Error

Leonard Berlin, MD, FACR, Radiology Department, Skokie Hospital, Skokie, Illinois; Professor of Radiology, Rush University and University of Illinois, Chicago, Illinois

More than a half-century ago California radiologist Henry Garland introduced the subject of the accuracy of diagnostic tests and procedures. First commenting on significant error rates relating to clinical diagnoses of such conditions as myocardial infarction, emphysema, malnutrition in children, and others, Garland then turned to radiologic diagnoses. He reported a 30% error rate in radiologists' interpretations of tuberculosis in chest radiographs. In the decades that followed, numerous researchers have documented similar error rates in radiological interpretations of plain radiographs, CTs, MRIs, sonograms, radionuclide studies, and mammograms. Radiologic errors are of two types: cognitive, in which an abnormality is seen but its nature is misinterpreted, and perceptual or the "miss," in which a radiologic abnormality is simply not seen by the radiologist. The perceptual variety accounts for approximately 75% of all radiologic diagnostic errors. None of these studies reflects the degree (if any) to which patient care is jeopardized because of reviewer misinterpretation. "Extrapolation of reviewer error to medical care is complex," stated one researcher. Although some radiologic errors may indeed result in serious injury or mismanagement of a patient, many others are either corrected quickly or, fortunately, not clinically important and thus exert no adverse effect on the management of the patient. While "excuses" for radiologic errors are not acceptable, "reasons" for making them are recognized. These will be discussed, along with measures that can be taken to minimize if not eliminate such radiologic errors.

**4:15 - 5:00**

## Panel Discussion: How Can Testing Services Reduce Diagnostic Error in the Future?



# Pre-Conference Short Course

MONDAY, OCTOBER 24, 2011

DEM MORNING HALF-DAY SHORT COURSE

*Separate registration required for short course*

- 8:30 - 9:00 AM** DEM Short Course Attendee Only Continental Breakfast
- 9:00 AM - 12:00 PM** **Diagnostic Error: A State of the Science Overview**  
*Moderator:* **Hardeep Singh**, MD, MPH, Michael E. DeBakey Veterans Affairs Medical Center and Baylor College of Medicine, Houston, TX  
*Faculty:*  
**Karen S. Cosby**, MD, FACEP, Cook County Emergency Medicine Residency, Rush Medical College, Chicago, IL  
**Patrick Croskerry**, MD, PhD, Dalhousie University, Halifax  
**Mark L. Graber**, MD, DEM Executive Committee, RTI International, St James, NY  
**Gordon D. Schiff**, MD, DEM Executive Committee, Brigham and Women's Hospital, Boston, MA  
**Geeta Singhal**, MD, Chief, Pediatric Hospital Medicine, Baylor College of Medicine and Texas Children's Hospital  
*Audience:* Anyone with interest in understanding and reducing diagnostic errors in health care
- 9:00 - 9:10** Introduction and Objectives, **Hardeep Singh**, MD, MPH
- 9:10 - 9:40** **Epidemiology**  
Discuss several landmark papers and other related literature that helped define the field empirically in terms of magnitude of the problem (frequency/prevalence, harm, cost), **Mark L. Graber**, MD  
Discuss some special populations and disease conditions where problem identification or understanding has been advanced recently (Pediatrics); this will be a chance to present some updated literature on the topic., **Geeta Singhal**, MD
- 9:40 - 10:25** **Interactive Diagnostic Error M&M: How to Do Them and What Do We Learn**  
**Karen S. Cosby**, MD, FACEP and **Geeta Singhal**, MD
- 10:25 - 10:35** Break
- 10:35 - 11:35** **Contributory Factors and Interventions**  
*Cognitive:* Overview of concepts from clinical reasoning including the use of heuristics & biases and discuss some conceptual models of cognition in this area (e.g. System I/II thinking). *Cognitive Interventions:* Discuss both tested and suggested interventions to improve physician knowledge and experience (simulation training, improved feedback); improve clinical reasoning and decision-making skills (metacognition training); and to "assist" physicians in their diagnosis (such as access to experts, use of decision support interventions), **Patrick Croskerry**, MD, PhD  
*Systems:* Overview of concepts from the systems literature; organization factors, policies, procedures, handoffs, communication and other factors that affect diagnostic error. The unique interaction between the cognition, the system and patients. *Systems Interventions:* Discuss both tested and suggested interventions related to health IT and electronic health records, communication and coordination strategies, patient-focused interventions, feedback systems, incident flags, improving processes of care, etc. Discuss challenges for the field., **Gordon D. Schiff**, MD
- 11:35 - 12:00** **Wrap Up, Putting it all Together**  
**Hardeep Singh**, MD, MPH and **Mark L. Graber**, MD
- 12:00 - 12:30 PM** Lunch on your own





# Registration Information

**Friday, September 30, 2011      Early Bird Registration Deadline**

**Friday, September 30, 2011      Cancellation Deadline**

## SHORT COURSE REGISTRATION FEES

	ONE HALF DAY COURSE	TWO HALF DAY COURSES
<b>Attendee: Early Bird Fee</b> , on / prior to Friday, September 30, 2011	\$145 USD	\$290 USD
<b>Attendee: Regular Fee</b> , after Friday, September 30, 2011	\$180 USD	\$360 USD
<b>Trainee: Early Bird Fee</b> , on / prior to Friday, September 30, 2011	\$120 USD	\$240 USD
<b>Trainee: Regular Fee</b> , after Friday, September 30, 2011	\$155 USD	\$310 USD

## REGISTRATION FEES

	THREE DAY FULL REGISTRATION	ONE DAY REGISTRATION
<b>Attendee: Early Bird Fee</b> , on / prior to Friday, September 30, 2011	\$470 USD	\$265 USD
<b>Attendee: Regular Fee</b> , after Friday, September 30, 2011	\$550 USD	\$330 USD
<b>Trainee: Early Bird Fee</b> , on / prior to Friday, September 30, 2011	\$235 USD	\$265 USD
<b>Trainee: Regular Fee</b> , after Friday, September 30, 2011	\$275 USD	\$330 USD

**Trainees are considered:** Undergraduate, graduate and doctoral students in clinical or non-clinical settings, and post-doctoral students, residents and fellows who are in academic settings qualify as trainees. Faculty and full time research employees do not qualify as trainees.

## PAYMENT INFORMATION

All registration fees listed are in US Dollars.

Credit Cards accepted: VISA, MasterCard or AMEX

If you are paying by check, make the check payable (in U.S. funds) to "SMDM." Please write registrant's name on check.

## CANCELLATION / SUBSTITUTION POLICY

We all have unforeseen emergencies that may occur. Whenever possible we encourage you to send a colleague as a substitution. If you are having a colleague attend in your place please notify the office so we can make the proper adjustments. Please send your colleague's name and contact information to the office at fax (908) 359-7619 OR email to dem@smdm.org. Note, if the substitute colleague is not a member, the non-member fee will apply.

We will accept notification of cancellations up until Friday, September 30, 2011. All requests must be in writing, faxed to (908) 359-7619 OR email to dem@smdm.org. Cancellations received on or prior to Friday, September 30, 2011 will receive a full refund, less a \$50 administrative fee, after the conclusion of the conference. No refunds will be given after Friday, September 30, 2011, but again you may send a colleague as a substitution.

Reimbursement will be issued in the form that payment was received. Please allow 3-4 weeks for reimbursements to be processed.





# General Conference Information

## CME CREDIT

### CME for US Attendees:

An accredited application for US attendees has been submitted to University of Alabama School of Medicine. This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint sponsorship of the University of Alabama School of Medicine and The Society of Medical Decision Making (SMDM).

The University of Alabama School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. The University of Alabama School of Medicine designates this educational activity for a maximum of 24 AMA PRA Category 1 credit(s)<sup>™</sup>. Physicians should only claim credit commensurate with the extent of their participation in the activity. The University of Alabama School of Medicine is an equal opportunity/affirmative action institution.

There is a \$25.00 CME processing fee which covers the entire conference including the short courses, oral and poster presentations. Attendees who register for CME will need to complete a conference evaluation on-line and then complete a CME request on-line for the number of hours attended. Information on completing the CME request will be provided to registrants prior to and following the conference.

## INTERNATIONAL ATTENDEES

**Temporary Visa to Attend:** DEM is not able to provide financial support to conference participants. Airfare, ground transportation, hotel, meals, travel insurance, and any other meeting related expenses are the responsibility of each participant. If you need to apply for a temporary non-immigrant visa to attend an event in the United States, you are advised to apply for your visa as soon as possible. DEM cannot intervene with, or call or send personal letters to, the State Departments, Embassies or Consulates of the United States or other government on behalf of any meeting participant. However, once you have registered for the DEM conference, DEM will provide you with a registration confirmation that you can use for your visa application or interview. U.S. visa information, including required documentation and fees, can be found on the U.S. Department of State's website at [http://travel.state.gov/visa/temp/types/types\\_1262.html](http://travel.state.gov/visa/temp/types/types_1262.html).

## CONSENT TO USE OF PHOTOGRAPHIC IMAGES

Registration and attendance at, or participation in, DEM's Conference, and other activities constitutes an agreement by the registrant to DEM's use and distribution (both now and in the future) of the registrant or attendee's image or voice in photographs, videotapes, electronic reproductions and audiotapes of such events and activities.

*While these programs are designed to provide accurate information regarding the subject matter covered, the views, opinions and recommendations expressed are those of the authors and speakers, not DEM. By producing publications and sponsorship of this event, DEM does not guarantee the accuracy of the information disseminated and is not engaged in rendering professional advice; if such advice is desired, you should seek the services of a competent professional.*

*Antitrust Compliance: It is the undeviating policy of DEM to comply strictly with the letter and spirit of all Federal, State, and applicable international trade regulations and antitrust laws. Any activities of DEM or DEM-related actions of its officers, Executive Committee Members, or members that violate these regulations and laws are detrimental to the interests of DEM and are unequivocally contrary to DEM policy.*

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# Hotel Information & Reservations

The Conference will be held at the **Hyatt Regency Chicago**  
151 East Wacker Drive,  
Chicago, Illinois, USA 60601  
Tel: +1 312 565 1234 Fax: +1 312 239 4414

Set within the epicenter of the city, our AAA Four Diamond Hyatt Regency is conveniently connected to Illinois Center and within minutes of the Magnificent Mile. Sway to the electrified beat of Chicago blues and jazz greats, take in a show at Navy Pier, shop on Michigan Avenue or just enjoy a day in the park or on the water; our cosmopolitan downtown Chicago, Illinois hotel is central to it all.

## SLEEPING ROOM RATES

ROOM TYPE	US DOLLAR
Single/Double Occupancy	\$265 per night
Triple Occupancy	\$290 per night
Regency Club	\$265+ \$75 per night

The SMDM Group Rate is available for DEM Attendees through **Tuesday, September 20, 2011**, *based on availability*. The guest room rates established for Group's meeting will be offered three (3) days prior and three (3) days after the meeting dates, *subject to availability of guest rooms at the time of reservation*.

## ROOM RESERVATIONS

- On-Line Reservations, visit the DEM web site for a web link to the hotel.
- Call 888-421-1442

When calling please refer to this group code in ensure you receive the discounted rate, Group Code: "SMDM 2011" OR "Society for Medical Decision Making 2011"

Check-in Time: 3pm  
Check-out Time: 12pm

### WHY YOU SHOULD BOOK EARLY:

It has been brought to our attention that the DEM Conference dates, October 24-26, 2011 will overlap with two other city-wide conferences being held in Chicago. During this time Chicago is expecting over 10,000+ conference attendees. SMDM has contracted with the Hyatt for a limited number of sleeping rooms and once our block is filled the hotel most likely will not have additional rooms to offer. The same is true for surrounding hotels as they are being used by these two other city-wide conferences.

**Hotel Cancellation Policy:** Cancel your reservation at least 72 hours prior to arrival to avoid one night's room and tax penalty

**Internet Access:** Internet Access is included in your guest room rate for attendees staying in the SMDM block.

**GTD/Deposit Policy:** A major credit card will be required by the hotel to hold your room reservation.

**Fitness Center:** The Hyatt has a complimentary state of the art **Stay Fit at Hyatt fitness center**. This facility is available exclusively to hotel guests 24 hours a day. The facility features the latest in Life Fitness® Cardio equipment complete with your own personal integrated LCD television. Headsets are available from the Stay Fit Concierge.





# Diagnostic Error in Medicine 2011 4TH INTERNATIONAL CONFERENCE OCTOBER 23-26, 2011 | HYATT REGENCY, CHICAGO, IL [www.smdm.org/diagnostic\\_errors.shtml](http://www.smdm.org/diagnostic_errors.shtml)

## DEM Gratefully Acknowledges the Following Organizations for Their Support of the 2011 Conference.



### **Agency for Healthcare Research & Quality (AHRQ)**

*Funding for this conference was made possible [in part] by grant number R13HS019252 from the Agency for Healthcare Research and Quality (AHRQ). The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Department of Health and Human Services; nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.*



### **Society for Medical Decision Making (SMDM)**

*Support for this conference was made possible (in part) by the Society for Medical Decision Making. The views expressed in written conference materials or publications and by speakers and moderators do not necessarily reflect the official policies of the Society for Medical Decision Making.*

### **ENDORISING ORGANIZATIONS**

**Center for Patient Safety Research and Practice, Brigham and Women's Hospital**  
**Institute for Healthcare Improvement**  
**National Patient Safety Foundation**  
**National Center for Patient Safety, Veterans Affairs Administration**

### **SPONSORS AND EXHIBITORS**



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# REGISTRATION FORM



## Diagnostic Error in Medicine 2011

OCTOBER 23-26, 2011 | HYATT REGENCY  
CHICAGO, IL

[www.smdm.org/diagnostic\\_errors.shtml](http://www.smdm.org/diagnostic_errors.shtml)

First Name \_\_\_\_\_ Last Name \_\_\_\_\_ Degree \_\_\_\_\_

Title \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City/State/Province \_\_\_\_\_

Postal Code \_\_\_\_\_ Country \_\_\_\_\_

Telephone \_\_\_\_\_ Email \_\_\_\_\_

Emergency Contact \_\_\_\_\_  
NAME PHONE

This is my first time attending a DEM Conference ADA Accommodations Needed: \_\_\_\_\_

### REGISTRATION FEES

**EARLY BIRD REGISTRATION:**  
ON OR BEFORE FRIDAY, SEPT. 30, 2011

**REGULAR REGISTRATION:**  
AFTER FRIDAY, SEPT. 30, 2011

#### Short Course Fees

Fees listed below are for one half day course. If you wish to attend both half day courses the fees are doubled.

<input type="checkbox"/> <b>Regular</b> Attendee (half day)	\$145 USD	\$180 USD	_____
<input type="checkbox"/> <b>Trainee</b> Attendee (half day)	\$120 USD	\$155 USD	_____

Please indicate the short course(s) you will attend:  Sunday  Monday  Both

#### Conference Fees

<input type="checkbox"/> <b>Attendee</b> Three Day Full Registration	\$470 USD	\$550 USD	_____
<input type="checkbox"/> <b>Attendee</b> One Day Registration	\$265 USD	\$330 USD	_____

Please indicate the day you will attend:  Monday  Tuesday  Wednesday

<input type="checkbox"/> <b>Trainee</b> Three Day Full Registration	\$235 USD	\$275 USD	_____
<input type="checkbox"/> <b>Trainee</b> One Day Registration	\$265 USD	\$330 USD	_____

Please indicate the day you will attend:  Monday  Tuesday  Wednesday

#### Total Registration Fees

\_\_\_\_\_

### PAYMENT METHOD

**Electronic Funds Transfers (EFTs) are not accepted.**

Visa  MasterCard  AmEx  Check Enclosed (made payable to SMDM in US funds)

Card Number \_\_\_\_\_ Exp. Date \_\_\_\_\_

Card Holders Name \_\_\_\_\_

Card Holders Signature \_\_\_\_\_

### TO REGISTER

**By Mail:** Diagnostic Error in Medicine  
390 Amwell Road, Suite 402, Hillsborough, NJ 08844, USA

**By Fax:** +1 908.359.7619

**By Email:** [dem@smdm.org](mailto:dem@smdm.org)

**Questions?** +1 908.359.1184