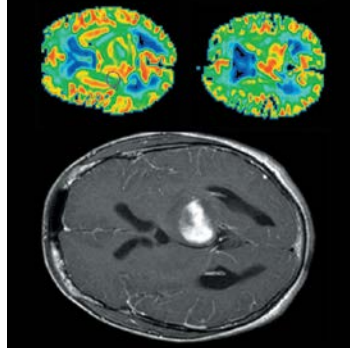
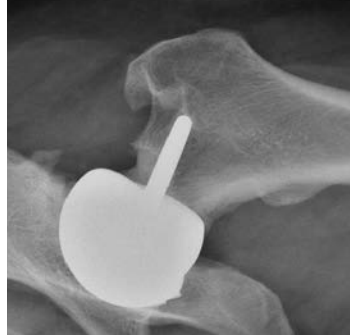
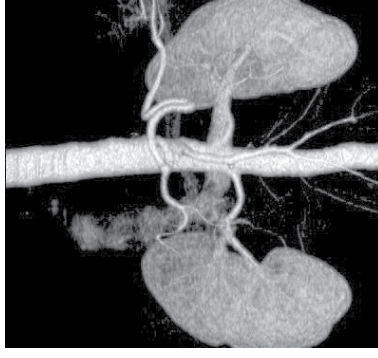
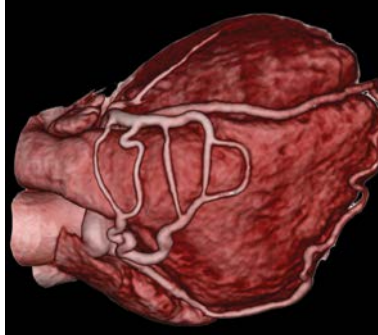


HARVARD
MEDICAL SCHOOL

The comprehensive radiology update
from Harvard Medical School



RADIOLOGY UPDATE 2014

April 7-11, 2014 Boston, MA

New guidelines, best practices, and updates for:

- Improving the accuracy of image interpretation
- Utilization of new and traditional imaging modalities
- Interpreting CT dose metrics and implementing methods of dose reduction
- Recognizing and reducing MRI artifacts
- Responding to contrast reactions

Earn up to 44 AMA PRA Category 1 Credits™

Register at www.HMSCME.com/Radiology2014

Course Directors



HARVARD
MEDICAL SCHOOL

Barbara N. Weissman, MD

Professor of Radiology,
Harvard Medical School;
Vice Chair of Radiology,
Director, Radiology
Residency Program,
Brigham and Women's Hospital



BRIGHAM AND
WOMEN'S HOSPITAL

Theresa C. McLoud, MD

Professor of Radiology,
Harvard Medical School;
Vice Chair for Education,
Department of Radiology,
Division of Thoracic
Imaging and Intervention,
Massachusetts General Hospital



MASSACHUSETTS
GENERAL HOSPITAL

Course Administrator

Danielle Pokorski-Klette

Who attends

- Radiologists
- Radiology residents
- Radiology fellows
- Radiologic technologists
- Radiology assistants

Dear Colleague,

Harvard Medical School is pleased to invite you to **Radiology Update 2014**, a practical and comprehensive course examining imaging methods and image interpretation for diagnostic radiology today.

We hope you can join us in Boston, April 7-11, 2014 for this unique educational opportunity.

As an attendee, you will participate in sessions that:

- Help hone your interpretation skills in each of the basic anatomical and imaging areas.
- Become familiar with the utilization and interpretation of newer imaging techniques such as MRI of prostheses and cardiac imaging.
- Examine appropriate contrast utilization and the scientific basis of adverse reactions.
- Provide an opportunity to practice responses to contrast reactions and other patient emergencies (enrollment limited).

We hope you will join us.

Sincerely,

Barbara N. Weissman, MD

Professor of Radiology

Harvard Medical School

Theresa C. McLoud, MD

Professor of Radiology

Harvard Medical School

Accreditation

The Harvard Medical School is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Harvard Medical School designates this live activity for a maximum of 44 *AMA PRA Category 1 Credits*[™]. Physicians should claim only credit commensurate with the extent of their participation in the activity.

The Royal College of Physicians and Surgeons of Canada recognizes conferences and workshops held outside of Canada that are developed by a university, academy, hospital, specialty society or college as accredited group learning activities.

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RADIOLOGY UPDATE 2014

Course Description

This course is designed to provide a comprehensive and practical review of contemporary diagnostic imaging. Optimal imaging and image interpretation of usually encountered conditions are reviewed. Pitfalls in image interpretation, including MRI artifacts, are explained and methods to avoid them are presented. In addition to lectures, multiple case presentation sessions are provided that show examples of “must-know” and “advanced” cases. An audience response system will be utilized to facilitate participation. Self-assessment modules (SAMs) will be provided and tailored to the course material.

Awareness of procedure costs in terms of radiation dose, safety, and contrast utilization is essential to choose and tailor examinations appropriately. These aspects of imaging are addressed in sessions, including lectures on dose reduction in CT, MRI safety, and appropriate contrast utilization. Newer imaging modalities (such as dual energy CT) and newer therapies are discussed.

A physician’s ability to respond effectively to contrast and crisis situations will be addressed by providing didactic information followed by an optional simulation workshop. This specialized workshop gives participants the opportunity to perform and practice critical life saving procedures in response to contrast reactions and other patient emergencies.

Learning Objectives

Upon completion of this activity, participants will be able to:

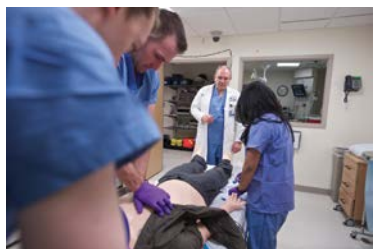
- Interpret imaging findings in normal and various abnormal conditions
- Select the appropriate imaging modalities for evaluation of patients with a variety of disorders
- Select appropriate studies and interpret newer imaging studies (modalities) for various conditions
- Determine the appropriateness of several newer interventional procedures
- Recognize and be prepared to treat common types of contrast reactions
- Identify methods for reducing radiation dose from CT scanning
- Identify and implement strategies to reduce artifacts associated with MRI imaging

Featuring:

- SAMs sessions
- Must-know and advanced case sessions
- A hands-on simulation workshop for contrast reaction and crisis management
- An interactive learning format facilitated by an audience response system
- The opportunity to pose your questions to Harvard Medical School faculty and clinicians

Important updates in the following areas of imaging:

- Abdominal
- Breast
- Cardiac
- Emergency
- Interventional
- Musculoskeletal
- Neuroradiology
- Nuclear medicine
- Pediatric
- Reproductive/Endocrine
- Thoracic
- Ultrasound



Optional Hands-on Evening Workshop

► Thursday, April 10

Contrast and Crisis Simulation Workshop

(Limited availability. Early registration is strongly advised.)



HARVARD MEDICAL SCHOOL

Harvard Medical School Faculty

Gerald F. Abbott, MD
 Laura L. Avery, MD
 Carol B. Benson, MD
 Sarah D. Bixby, MD
 Miriam A. Bredella, MD
 Mary E. Cunnane, MD
 Stephanie DiPerna, MD
 Peter M. Doubilet, MD, PhD
 Sara M. Durfee, MD
 Kirsten Ecklund, MD
 Mary C. Frates, MD, FACP
 Phoebe E. Freer, MD
 Glenn C. Gaviola, MD
 Michael S. Gee, MD, PhD
 Varand Ghazikhanian, MD, MS
 Catherine S. Giess, MD
 Robin P. Goldenson, MD
 Frederick D. Grant, MD
 Alexander S. R. Guimaraes, MD, PhD
 Leena M. Hamberg, PhD
 Howard T. Heller, MD
 Andetta R. Hunsaker, MD
 Heather A. Jacene, MD
 Chun K. Kim, MD
 Daniel B. Kopans, MD
 Edward Y. Lee, MD, MPH
 Thomas C. Lee, MD
 Rachna Madan, MD
 Theresa C. McLoud, MD
 Dimitris Mitsouras, PhD
 Stephen C. Moore, PhD
 Srinivasan Mukundan, Jr, MD, PhD
 Bethany L. Niell, MD, PhD
 Violeta Nikac, MD
 Robert A. Novelline, MD, FACP
 Hope E. Peters, MD
 Thomas Ptak, MD, PhD
 Dmitry J. Rabkin, MD, PhD
 Sughra Raza, MD
 Sandra P. Rincon, MD
 Javier M. Romero, MD
 Frank J. Rybicki, MD, PhD, FAHA
 Cheryl A. Sadow, MD
 V. Anik Sahni, MD
 Nisha I. Sainani, MD
 Christopher G. Sakellis, MD
 Anthony E. Samir, MD
 Pamela W. Schaefer, MD
 Francis J. Scholz, MD
 Nehal Shah, MD
 Amita Sharma, MD
 Michael J. Shortleeve, MD, FACP
 Stuart G. Silverman, MD, FACP
 Kirstin M. Small, MD
 Stacy E. Smith, MD
 Aaron D. Sodickson, MD, PhD
 Michael L. Steigner, MD
 Ashraf Thabet, MD
 Beatrice Trotman-Dickenson, MD
 Kemal Tuncali, MD
 Geoffrey S. Young, MD
 Michele M. Walters, MD
 Mary A. Warner, MD
 Barbara N. Weissman, MD
 Tina Young Poussaint, MD, FACP

Monday, April 7, 2014

7:00 – 7:50 *Registration/Continental Breakfast*

7:50 – 8:00 **Welcome**

THORACIC

Moderator: Theresa C. McLoud, MD

8:00 – 8:40 **Must-Know Chest Cases**
Amita Sharma, MD

SAM 1

8:40 – 9:10 **Interstitial Lung Disease**
Theresa C. McLoud, MD

9:10 – 9:40 **Airways**
Rachna Madan, MD

9:40 – 10:00 Question and Answers / Break

10:00 – 10:30 **Pleural Disease**
Gerald F. Abbott, MD

10:30 – 11:00 **Lung Cancer, Nodules**
Beatrice Trotman-Dickinson, MD

11:00 – 11:40 **Pulmonary Infections**
Gerald F. Abbott, MD

11:40 – 12:00 Question and Answers

12:00 – 1:15 *Lunch Recess*

CARDIAC/BREAST

Moderator: Catherine S. Giess, MD

1:15 – 1:45 **Cardiac CT and MRI Principles**
Michael L. Steigner, MD

1:45 – 2:20 **Acquired Heart Disease**
Frank J. Rybicki, MD, PhD

2:20 – 3:00 **Must-Know Cardiac Cases**
Michael L. Steigner, MD

3:00 – 3:20 Question and Answers / Break

3:20 – 3:50 **Breast Ultrasound**
Catherine S. Giess, MD

3:50 – 4:20 **Breast Masses**
Daniel B. Kopans, MD

4:20 – 4:50 **Breast Calcifications**
Bethany L. Niell, MD, PhD

4:50 – 5:20 **Must-Know Breast Cases**
Sughra Raza, MD

5:20 *Adjourn*

Program changes/substitutions may be made without notice.

Tuesday, April 8, 2014

7:00 *Continental Breakfast*

MUSCULOSKELETAL

Moderator: Barbara N. Weissman, MD

7:30 – 8:00	Must-Know Musculoskeletal Cases Varand Ghazikhanian, MD, MS
8:00 – 8:30	Marrow Imaging Miriam A. Bredella, MD
8:30 – 9:00	Knee Menisci and Ligaments: MRI Challenges Nehal Shah, MD
9:00 – 9:30	Making Shoulder MR Imaging Relevant Kirstin M. Small, MD
9:30 – 10:00	Question and Answers / Break

SAM 2

10:00 – 10:30	Ankle and Foot Imaging Stacy E. Smith, MD
10:30 – 11:00	Postoperative Hip and Knee Barbara N. Weissman, MD
11:00 – 11:30	MSK Ultrasound Stacy E. Smith, MD

11:30 – 12:00	Diagnosis and Treatment of Common Bone Tumors of the Spine Glenn C. Gaviola, MD
12:00 – 12:15	Question and Answers
12:15 – 1:30	<i>Lunch Recess</i>

PEDIATRICS

Moderator: Michele M. Walters, MD

1:30 – 2:00	Must-Know Pediatric Cases Michele M. Walters, MD
2:00 – 2:30	Pediatric Hip and Knee Sarah D. Bixby, MD
2:30 – 3:00	Pediatric Sports Related Injuries Kirsten Ecklund, MD
3:00 – 3:30	Question and Answers / Break
3:30 – 4:00	Pediatric GU Michael S. Gee, MD, PhD
4:00 – 4:30	Pediatric GI Stephanie DiPerna, MD
4:30 – 5:00	Practical Pediatric Neuro Imaging Tina Young Poussaint, MD
5:00 – 5:30	Pediatric Chest Edward Y. Lee, MD, PhD
5:30	<i>Adjourn until Evening Session</i>

EVENING (ADVANCED) CASE SESSIONS

6:30 – 7:00	Ultrasound Cases Robyn P. Goldenson, MD
7:00 – 7:30	Breast Cases Phoebe E. Freer, MD
7:30 – 8:00	Nuclear Medicine Cases Christopher G. Sakellis, MD
8:00	<i>Adjourn</i>

Wednesday, April 9, 2014

7:00 *Continental Breakfast*

ABDOMEN GI/GU

Moderator: Michael J. Shortleeve, MD, FACR

7:30 – 8:00	Upper GI Disorders – Must-Know Cases Michael J. Shortleeve, MD, FACR
8:00 – 8:30	Disorders of the Colon: Must-Know Fluoroscopy Cases Francis J. Scholz, MD
8:30 – 9:00	Abdominal Ultrasound Sara M. Durfee, MD
9:00 – 9:30	Imaging the Liver Nisha Sainani, MD
9:30 – 10:00	Question and Answers / Break

SAM 3

10:00 – 10:30	Imaging the Bile Ducts V. Anik Sahni, MD
10:30 – 11:00	Imaging the Pancreas Alexander S. R. Guimaraes, MD, PhD
11:00 – 11:30	Kidneys Stuart G. Silverman, MD, FACR

11:30 – 12:00	Adrenal Imaging Stuart G. Silverman, MD
12:00 – 12:15	Question and Answers
12:15 – 1:30	<i>Lunch Recess</i>

REPRODUCTIVE/ENDOCRINE

Moderator: Cheryl A. Sadow, MD

1:30 – 2:00	Uterine Ultrasound Mary A. Warner, MD
2:00 – 2:30	Uterus CT/MRI Hysterosalpingography Cheryl A. Sadow, MD
2:30 – 3:00	Ultrasound of the Ovaries Hope E. Peters, MD
3:00 – 3:30	Question and Answers / Break
3:30 – 4:00	Imaging the Bladder, Ureters, Urethra Cheryl A. Sadow, MD
4:00 – 4:30	Testicular Ultrasound Howard T. Heller, MD
4:30 – 5:00	Thyroid Ultrasound Carol B. Benson, MD
5:00 – 5:15	Question and Answers
5:15	<i>Adjourn Until Evening Session</i>

EVENING (ADVANCED) CASE SESSIONS

6:15 – 6:45	Musculoskeletal Violeta Nikac, MD
6:45 – 7:15	Chest Andetta R. Hunsaker, MD
7:15 – 7:45	Neuro Thomas C. Lee, MD
7:45	<i>Adjourn</i>

Thursday, April 10, 2014

7:00 *Continental Breakfast*

ULTRASOUND/SAFETY

Moderator: Aaron D. Sodickson, MD, PhD

7:30 – 8:00 **Must-Know Ultrasound Cases**
Anthony E. Samir, MD

8:00 – 8:30 **First Trimester Ultrasound**
Peter M. Doubilet, MD, PhD

8:30 – 9:00 **Second and Third Trimester Ultrasound**
Mary C. Frates, MD, FACR

9:00 – 9:30 **Vascular Ultrasound**
Javier M. Romero, MD

9:30 – 9:50 Question and Answers / Break

SAM 4

9:50 – 10:15 **Understanding CT Dose Measures**
Leena M. Hamberg, PhD

10:15 – 10:45 **Reducing CT Dose**
Aaron D. Sodickson, MD, PhD

10:45 – 11:15 **MRI Safety**
Geoffrey S. Young, MD

11:15 – 11:45 **MRI Artifacts**
Dimitris Mitsouras, PhD

11:45 – 12:00 Question and Answers

12:00 – 1:15 *Lunch Recess*

NEURORADIOLOGY/SAFETY

Moderator: Sandra P. Rincon, MD

1:15 – 2:00 **Eyes, Ears, Nose and Throat**
Mary E. Cunnane, MD

2:00 – 2:30 **Vascular Diseases**
Sandra P. Rincon, MD

2:30 – 3:10 **The Spine**
Pamela W. Schaefer, MD

3:10 – 4:00 **Contrast & Crisis Management**
Srinivasan Mukundan, MD, PhD

4:00 *Adjourn*

5:00 **Evening Session:**
**CONTRAST AND CRISIS
SIMULATION WORKSHOP**

*To be held at the Simulation Center at
Brigham and Women's Hospital*

*Advanced Sign-up Required and Limited
Enrollment (28 participants)*

**Must be registered and paid by March 10th*

8:00 *Adjourn*

Friday, April 11, 2014

7:00 *Continental Breakfast*

EMERGENCY/ INTERVENTIONAL RADIOLOGY

Moderator: Barbara N. Weissman, MD

7:30 – 8:00 **Must-Know Emergency
Department Cases**
Laura L. Avery, MD

SAM 5

8:00 – 8:30 **CNS Trauma**
Thomas Ptak, MD, PhD

8:30 – 9:00 **Spine Trauma**
Varand Ghazikhanian, MD, MS

9:00 – 9:30 **Imaging Abdominal Trauma**
Laura L. Avery, MD

9:30 – 9:50 Question and Answers / Break

9:50 – 10:20 **Common Fractures:
What the Orthopedist
Wants to Know**
Barbara N. Weissman, MD

10:20 – 10:50 **Imaging Chest Trauma**
Robert A. Novelline, MD, FACR

10:50 – 11:20 **Vascular and Interventional Cases**
Dmitry J. Rabkin, MD, PhD

11:20 – 11:50 **Nonvascular Interventions**
Ashraf Thabet, MD

11:50 – 12:15 **Tumor Ablation**
Kemal Tuncali, MD

12:15 – 1:15 *Lunch Recess*

1:15 – 1:45 **CT and MRI of the Lower
Extremities**
Frank J. Rybicki, MD, PhD

NUCLEAR MEDICINE

1:45 – 2:15 **Nuclear Medicine Quality
Assurance**
Stephen Moore, PhD

2:15 – 2:55 **PET and PET CT Scanning**
Heather A. Jacene, MD

2:55 – 3:25 **Bone Scanning**
Frederick D. Grant, MD

3:25 – 3:55 **Thyroid and Parathyroid Scanning**
Chun K. Kim, MD

3:55 – 4:00 Question and Answers

4:00 *Adjourn*

RADIOLOGY UPDATE 2014

Boston, MA • April 7-11, 2014

TUITION*

Radiology Update 2014

(Course #342358)

	Course Tuition	Course + Contrast and Crisis Simulation Workshop
Early Registration/Physicians**	\$1,075	\$1,225
Physicians	\$1,175	\$1,375
Residents, Fellows, Allied Health Professionals	\$800	\$950

* Tuition shown in USD

** Must be registered and paid by February 7, 2014

Each participant will receive an electronic syllabus. We will no longer be providing paper versions.

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296 State Street, Boston, MA

(617) 227-0800



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Call 617-384-8600 Mon-Fri 10am – 4pm EST.

Send e-mail to HMS-CME@hms.harvard.edu

ACCOMMODATIONS and TRAVEL

A limited number of discount rooms have been reserved at the **Boston Marriott Long Wharf Hotel** until March 14, 2014. You can call the hotel directly at 800-228-9290 or 617-227-0800 through March 14, 2014 to reserve a room at the rate of \$269 per night single/double. When contacting the hotel, be sure to specify that you are enrolled in this activity to receive a reduced room rate.

You may also reserve your hotel reservation online at www.marriott.com/boslw. When prompted, enter code **bwhbwha** under the group code box in the special rate section.

Please do not purchase non-refundable airline ticket(s) until you have received an email from the Harvard Medical School Department of Continuing Education confirming your paid registration. For airline reservations, contact the HMS Travel Desk toll free at 1-877-4-HARVARD Monday-Friday 9am-8pm EST. From outside the U.S., Canada, and the Virgin Islands, please call (617) 559-3764.

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