



# Physician Work Hours, Health, and Patient Safety

Offered by:

**HARVARD MEDICAL SCHOOL**

DEPARTMENT OF CONTINUING EDUCATION & DIVISION OF SLEEP MEDICINE



**BRIGHAM AND WOMEN'S HOSPITAL**

DIVISION OF SLEEP MEDICINE, DEPARTMENT OF MEDICINE



**February 20–24, 2012**

Westin Casuarina Grand Cayman,  
Grand Cayman, Cayman Islands, B.W.I.

**Under the Co-direction of:**

Charles A. Czeisler, Ph.D., M.D., F.R.C.P.  
COURSE DIRECTOR

Laura K. Barger, Ph.D.  
COURSE CO-DIRECTOR

# 2012

**Early Registration Deadline *before* November 15, 2011**

## COURSE DESCRIPTION

Physicians must provide patient care services around the clock. Yet both patient safety and physician safety concerns have resulted in mandates to limit physician work hours, requiring restructuring of physician work schedules. This course is designed to provide guidance to practicing physicians and surgeons, postgraduate medical education program directors, department chairs, academic medical center administrators, and risk management personnel on how to provide round-the-clock patient coverage while adhering to best scheduling practices. Topics include recent advances in sleep medicine, occupational medicine, and patient safety related to physician work hours, handovers of patient care, and fatigue risk management programs designed to reduce the risk of medical errors, improve patient outcomes, and reduce occupational injuries to physicians.

## COURSE OBJECTIVES

At the end of this course, participants will be able to:

- Describe the physiological, environmental, and medical factors that affect a physician's ability to maintain alertness and sustain performance during round-the-clock operations
- Identify work hour policies and patient care handover practices likely to compromise patient safety or increase occupational health and safety risks for physicians
- Translate and apply recent research findings into practice to promote patient safety and physician well-being
- Implement practical work schedules, alertness management programs, and fatigue mitigation policies for physicians, academic medical centers, and other health care institutions that enable round-the-clock coverage, while maximizing performance and minimizing risks to health and safety

## COURSE HIGHLIGHTS

- Internationally recognized faculty of the Harvard Work Hours, Health, and Safety Group
- Break-out sessions on applying human performance modeling software, developed for NASA to schedule astronauts, to the work schedule for your program/hospital
- Keynote lecture on the Harvard Medical School Sleep and Health Education Program by Stuart F. Quan, M.D., Professor of Medicine, Department of Medicine, Harvard Medical School and Brigham and Women's Hospital
- Small group, faculty-led discussions on participants' scheduling challenges

## 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 28 *AMA PRA Category 1 Credits™*. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Massachusetts and Pennsylvania Course Attendees Only: This activity meets the criteria for 9 hours of Risk Management credit(s) in Massachusetts. Risk management credit(s) were determined based on criteria outlined by the Massachusetts Board of Registration in Medicine. Please check with your individual state licensing board requirements before claiming risk management credit(s). Physicians should only claim credit commensurate with the extent of their participation in the activity. This course would meet the requirements of the State of Pennsylvania Board of Medicine for specific CME credits in the area of patient safety and/or risk management.

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.

Endorsed by the Association of Program Directors in Internal Medicine and the National Sleep Foundation



## GENERAL INFORMATION

### REGISTRATION INFORMATION

Early Registration — Full course tuition fee (before November 15, 2011) \$1,295 (USD)

Early Registration — Reduced\* tuition fee (before November 15, 2011) \$1,150 (USD)

Full course tuition fee (after November 15, 2011) \$1,450 (USD)

Reduced\* tuition fee (after November 15, 2011) \$1,295 (USD)

\* Reduced Tuition Fee available for Residents and Fellows in Training, Allied Health Professionals, Nurses, Administrative Staff, Risk Managers, Harvard faculty, and members of the Association of Program Directors in Internal Medicine, National Sleep Foundation, and American Academy of Sleep Medicine.

Guest Registration Fee \$375 (USD) per person

Early Registration Cut-off Date, November 15, 2011. All course tuition and Guest Registration fees include Welcome Reception (February 19, 2012), Banquet Dinner (February 21, 2012), daily breakfast, and daily morning coffee breaks/snacks and complimentary Internet access in meeting room.

Registration for attendees by credit card (VISA or MasterCard) can be made at: [www.cme.hms.harvard.edu/courses/workhours](http://www.cme.hms.harvard.edu/courses/workhours). Guest registration by mail only. Registration by check (draft on a United States bank), please make payable to Harvard Medical School and mail with registration form to **Harvard Medical School—Department of Continuing Education, PO Box 825, Boston, MA 02117-0825**. To register guests, please indicate the number and name(s) of guest(s), and mail a copy of your receipt for online course registration together with payment that covers the cost of your guests to the above address. Telephone or fax registration is not accepted. Registration with cash payment is not permitted. Upon receipt of your paid attendee or guest registration an email confirmation from the HMS-DCE office will be sent to you. Be sure to include an email address that you check frequently. Your email address is used for critical information, including registration confirmation, evaluation, and certificate.

### INQUIRIES

By phone 617-384-8600, Monday–Friday, 10 AM to 4 PM (EST) or by email at: [hms-cme@hms.harvard.edu](mailto:hms-cme@hms.harvard.edu).

### ONLINE INFORMATION

To register or view activity information online, visit: [www.cme.hms.harvard.edu/courses/workhours](http://www.cme.hms.harvard.edu/courses/workhours). To ensure proper registration, please add the first three characters of the source code found at the bottom of this registration form.

### DISCLOSURE POLICY

Harvard Medical School (HMS) adheres to all ACCME Essential Areas, Standards, and Policies. It is HMS's policy that those who have influenced the content of a CME activity (e.g., planners, faculty, authors, reviewers, and others) disclose all relevant financial relationships with commercial entities so that HMS may identify and resolve any conflicts of interest prior to the activity. These disclosures will be provided in the activity materials along with disclosure of any commercial support received for the activity. Additionally, faculty members have been instructed to disclose any limitations of data and unlabeled or investigational uses of products during their presentations.

### REFUND POLICY

All requests for substitutions or cancellations must be made in writing. Substitutions may be made without additional charge. Cancellations received on or before November 15, 2011, will be issued a refund minus a \$60 administrative fee per person. Cancellations received between November 15, 2011, and January 1, 2012, will be issued a 75% refund. For cancellations received after January 1, 2012, a 50% refund will be issued. Refund requests must be received by mail two weeks prior to the course. No refunds will be made thereafter.

### COURSE LOCATION

All sessions for this activity will be held at Westin Casuarina Grand Cayman, Seven Mile Beach, Grand Cayman, Cayman Islands, B.W.I. (Telephone: 345-945-3800, Ext: 6012/6013; Email: [reservations@westin-cayman.com](mailto:reservations@westin-cayman.com)).

### ACCOMMODATIONS/TRAVEL

A limited number of rooms have been reserved at Westin Casuarina Grand Cayman (Telephone: 345-945-3800, Ext: 6012/6013) until **January 6, 2012** and are available for February 15–28, 2012. Reserve your room online at: <http://www.starwoodmeeting.com/Book/harvardcayman> or by email [reservations@westin-cayman.com](mailto:reservations@westin-cayman.com) (reference Harvard Medical School). Please specify that you are enrolled in this activity to receive a reduced room rate of \$329 (USD) (Island View), \$349 (USD) (Ocean View), or \$369 (USD) (Ocean Front) per night Single/Double. Hotel rooms are subject to 10% government tax and 10% hotel service charge. Hotel service charge includes portage and maid gratuities. A \$20 (USD) per room per day charge added to the above rates includes the following: in-room coffee, in-room safe, unlimited local calls, use of the beach chairs and beach towels, unlimited use of the health club and sauna, jacuzzi, and steam facilities in the Hibiscus Spa. Registrants are responsible for making their own room reservations. Hotel cancellation policies: 45 days or more prior to arrival: full refund; 44 days or less prior to arrival: no refund, guest will be charged for entire stay; early departures: charged for entire stay. Payments accepted by VISA, MASTERCARD & AMERICAN EXPRESS ONLY. Extra adults after 2 persons at \$25 (USD) per extra person per day; rollaway beds \$15 (USD) per day. Space is limited, so please do not purchase non-refundable airline ticket(s) until you have received an email from our office confirming your paid registration. For airline reservations contact the HMS Travel Desk toll free 1-877-4-HARVMD (1-877-442-7863), Monday–Friday, 9 AM–8 PM (EST). From outside the U.S., Canada, and Virgin Islands, please call 617-559-3764.

# COURSE SCHEDULE

## SUNDAY, FEBRUARY 19, 2012

6:00–8:00p Welcome Reception and Course Registration

## MONDAY, FEBRUARY 20, 2012

- 7:15–7:30a **Continental Breakfast and Registration**
- 7:30–8:00a Small Group Faculty-led Discussion of Individual Scheduling Challenges  
Faculty
- 8:00–8:15a Welcome and Course Overview  
Charles A. Czeisler, Ph.D., M.D., F.R.C.P.
- 8:15–8:45a Work Hours, Performance, and Safety in Round-the-Clock Operations  
Laura K. Barger, Ph.D.
- 8:45–9:45a Impact of Sleep Deficiency, Circadian Misalignment, and Sleep Inertia on Alertness and Performance  
Charles A. Czeisler, Ph.D., M.D., F.R.C.P.
- 9:45–10:05a Q & A
- 10:05–10:15a **Morning Coffee Break/Snack**
- 10:15–11:15a Review of IOM Recommendations on Resident Physician Work Schedules: Rationale and Barriers to Implementation  
Shanthakumar W. Rajaratnam, Ph.D., LL.B. (Hons.)
- 11:15–11:45a Comparison of ACGME Common Program Requirements with IOM Recommendations  
Stuart F. Quan, M.D.
- 11:45–12:30p Modeling Work Schedules with Circadian Performance Simulation Software  
Dennis A. Dean III, Ph.D.
- 12:30 **Adjourn for the Day**

### COMPUTER LAB: SECTION 1

Assignment to one of these afternoon study sessions will be made in order of registration. Registrants can attend one.

- 2:00–3:30p **Computer Lab 1: Interactive Work Schedule Simulation**  
Dennis A. Dean III, Ph.D.
- 3:30–4:00p **Computer Lab Work Time**  
Dennis A. Dean III, Ph.D.
- 4:00–5:00p **Computer Lab 2: Review/Evaluation of Schedule Simulation Results**  
Dennis A. Dean III, Ph.D.

## TUESDAY, FEBRUARY 21, 2012

- 7:15–7:30a **Continental Breakfast**
- 7:30–8:00a Small Group Faculty-led Discussion of Individual Scheduling Challenges  
Faculty
- 8:00–8:30a Effect of Sleep Restriction on Health  
Stuart F. Quan, M.D.
- 8:30–9:00a Effect of Shift Work on Health  
Steven W. Lockley, Ph.D.
- 9:00–9:45a Work Hours and Patient Safety in Resident Physicians Nationwide  
Laura K. Barger, Ph.D.
- 9:45–10:05a Q & A
- 10:05–10:15a **Morning Coffee Break/Snack**
- 10:15–10:45a Case Study: Impact of Eliminating Extended Duration Work Shifts on Sleep and Attentional Failures  
Steven W. Lockley, Ph.D.
- 10:45–11:25a Case Study: Impact of Eliminating Extended Duration Work Shifts on Medical Errors  
Charles A. Czeisler, Ph.D., M.D., F.R.C.P.
- 11:25–12:00p Case Study: Impact of Eliminating Extended Duration Work Shifts on Length of Stay and Hospital Costs  
Glenn Rosenbluth, M.D.
- 12:00–12:30p U.S. Public Opinion Regarding Physician Work Hours  
Charles A. Czeisler, Ph.D., M.D., F.R.C.P.
- 12:30 **Adjourn for the Day**

### COMPUTER LAB: SECTION 2

Assignment to one of these afternoon study sessions will be made in order of registration. Registrants can attend one.

- 2:00–3:30p **Computer Lab 1: Interactive Work Schedule Simulation**  
Dennis A. Dean III, Ph.D.
- 3:30–4:00p **Computer Lab Work Time**  
Dennis A. Dean III, Ph.D.
- 4:00–5:00p **Computer Lab 2: Review/Evaluation of Schedule Simulation Results**  
Dennis A. Dean III, Ph.D.

- 7:00–9:00p **Banquet Dinner: Sleep and Health Education Program**  
Stuart F. Quan, M.D.

**WEDNESDAY, FEBRUARY 22, 2012**

- 7:15–7:30a **Continental Breakfast**  
7:30–8:00a *Small Group Faculty-led Discussion of Individual Scheduling Challenges*  
Faculty
- 8:00–8:30a *Work Hours and Performance of Physicians in Patient Simulators*  
Steven W. Lockley, Ph.D.
- 8:30–9:00a *Sleep Deficiency and Motor Vehicle Crash Risk in Resident Physicians*  
Laura K. Barger, Ph.D.
- 9:00–9:45a *Overview of Drowsy Driving: Ethical, Legal, and Liability Issues*  
Shanthakumar W. Rajaratnam, Ph.D., LL.B. (Hons.)
- 9:45–10:05a **Q & A**
- 10:05–10:15a **Morning Coffee Break/Snack**
- 10:15–10:45a *Work Hours and Occupational Safety in Physicians*  
Laura K. Barger, Ph.D.
- 10:45–11:45a *Optimizing Handovers of Patient Care*  
Glenn Rosenbluth, M.D.
- 11:45–12:30p *Interactive Discussion: Common and Unique Problems in Implementing Safer Work Hour Policies*  
Paul B. Aronowitz, M.D., F.A.C.P., President-Elect, Association of Program Directors in Internal Medicine, and Course Faculty
- 12:30 **Adjourn for the Day**

**COMPUTER LAB: SECTION 3**

Assignment to one of these afternoon study sessions will be made in order of registration. Registrants can attend one.

- 2:00–3:30p **Computer Lab 1: Interactive Work Schedule Simulation**  
Dennis A. Dean III, Ph.D.
- 3:30–4:00p **Computer Lab Work Time**  
Dennis A. Dean III, Ph.D.
- 4:00–5:00p **Computer Lab 2: Review/Evaluation of Schedule Simulation Results**  
Dennis A. Dean III, Ph.D.



Recommended by American Academy of Sleep Medicine

**THURSDAY, FEBRUARY 23, 2012**

- 7:15–7:30a **Continental Breakfast**  
7:30–8:00 *Small Group Faculty-led Discussion of Individual Scheduling Challenges*  
Faculty
- 8:00–8:45a *European Working Time Directive and Physician Work Hours Worldwide*  
Shanthakumar W. Rajaratnam, Ph.D., LL.B. (Hons.)
- 8:45–9:15a *Case Study: Implementation of European Working Time Directive and Medical Errors*  
Steven W. Lockley, Ph.D.
- 9:15–9:45a *Sleep Deprivation, Elective Surgical Procedures, and Informed Consent*  
Charles A. Czeisler, Ph.D., M.D., F.R.C.P.
- 9:45–10:05a **Q & A**
- 10:05–10:15a **Morning Coffee Break/Snack**
- 10:15–10:45a *Night Floats/Hospital at Night Paradigm vs. Night Medicine Teams/Nocturnalists*  
Glenn Rosenbluth, M.D.
- 10:45–11:30a *Overview of Sleep Disorders and Their Impact on Health*  
Stuart F. Quan, M.D.
- 11:30–12:00p *Sleep Disorders, Alertness, Performance, and Safety*  
Steven W. Lockley, Ph.D.
- 12:00–12:30p *Efficacy of Countermeasures: Light, Caffeine, Naps, Drugs*  
Charles A. Czeisler, Ph.D., M.D., F.R.C.P.
- 12:30–2:00p **Adjourn for the Day**

**COMPUTER LAB: SECTION 4**

Assignment to one of these afternoon study sessions will be made in order of registration. Registrants can attend one.

- 2:00–3:30p **Computer Lab 1: Interactive Work Schedule Simulation**  
Dennis A. Dean III, Ph.D.
- 3:30–4:00p **Computer Lab Work Time**  
Dennis A. Dean III, Ph.D.
- 4:00–5:00p **Computer Lab 2: Review/Evaluation of Schedule Simulation Results**  
Dennis A. Dean III, Ph.D.

- 7:15–7:30a **Continental Breakfast**  
7:30–8:00a **Small Group Faculty-led Discussion of Individual Scheduling Challenges**  
Faculty
- 8:00–8:30a **Differential Vulnerability to Sleep Deficiency and Circadian Disruption**  
Charles A. Czeisler, Ph.D., M.D., F.R.C.P.
- 8:30–9:15a **Prevalence of Sleep Apnea, Insomnia, RLS, Shift Work Disorder, and Narcolepsy in American Shift Workers**  
Laura K. Barger, Ph.D.
- 9:15–9:45a **Physicians Work Schedules and the Americans with Disabilities Act**  
Shanthakumar W. Rajaratnam, Ph.D., LL.B. (Hons.)
- 9:45–10:05a Q & A
- 10:05–10:15a **Morning Coffee Break/Snack**
- 10:15–10:45a **Physician Work Hours and Institutional Risk Management**  
Shanthakumar W. Rajaratnam, Ph.D., LL.B. (Hons.)
- 10:45–11:15a **Implementing Fatigue Risk Management Systems in Operational Environments: Feasibility, Acceptability, and Efficacy**  
Laura K. Barger, Ph.D.
- 11:15–12:15p **Summary of Interactive Discussion: Approaches to Common Challenges**  
Glenn Rosenbluth, M.D. and Paul B. Aronowitz, M.D., F.A.C.P.
- 12:15–12:30p **Future Challenges**  
Charles A. Czeisler, Ph.D., M.D., F.R.C.P.
- 12:30 **Adjourn**

**Program changes/substitutions may be made without notice.**

This course is designed to meet the new Accreditation Council of Graduate Medical Education (ACGME) Common Program Requirements (effective July 1, 2011) that obligate all ACGME-accredited residency training programs to educate all faculty members and resident physicians concerning the professional responsibilities of physicians to appear for duty appropriately rested and fit to provide the services required by their patients; to educate all faculty members and resident physicians to recognize the signs of fatigue and sleep deprivation; and to educate all faculty members and resident physicians in alertness management and fatigue mitigation processes. Moreover, this course is designed to provide the training and tools necessary for training program faculty to: adopt fatigue mitigation processes to manage the potential negative effects of fatigue on patient care and learning and thereby promote patient safety and resident physician well-being, and implement structured hand-over processes that facilitate both continuity of care and patient safety, as now required by the ACGME.

**FACULTY DISCUSSANT:****Paul B. Aronowitz, M.D., F.A.C.P.**

President-Elect, Association of Program Directors in Internal Medicine; Program Director, Internal Medicine Residency Program, California Pacific Medical Center; Adjunct Associate Professor of Medicine, Dartmouth Medical School; Associate Clinical Professor of Medicine, University of California at San Francisco, San Francisco, CA USA

**DIRECTOR:****Charles A. Czeisler, Ph.D., M.D., F.R.C.P.**

Baldino Professor of Sleep Medicine and Director, Division of Sleep Medicine, Harvard Medical School; Senior Physician and Chief, Division of Sleep Medicine, Department of Medicine, Brigham and Women's Hospital, Boston, MA USA

**CO-DIRECTOR:****Laura K. Barger, Ph.D.**

Instructor of Medicine, Division of Sleep Medicine, Harvard Medical School; Associate Physiologist, Division of Sleep Medicine, Department of Medicine, Brigham and Women's Hospital, Boston, MA USA

**FACULTY:****Dennis A. Dean III, Ph.D.**

Research Associate, Division of Sleep Medicine, Department of Medicine, Brigham and Women's Hospital, Boston, MA USA

**Steven W. Lockley, Ph.D.**

Assistant Professor of Medicine, Division of Sleep Medicine, Harvard Medical School; Associate Neuroscientist, Division of Sleep Medicine, Department of Medicine, Brigham and Women's Hospital, Boston, MA USA

**Stuart F. Quan, M.D.**

Professor of Medicine, Director, Sleep and Health Education Program, Division of Sleep Medicine, Harvard Medical School; Senior Physician, Division of Sleep Medicine, Department of Medicine, Brigham and Women's Hospital, Boston, MA USA

**Shanthakumar W. Rajaratnam, Ph.D., LL.B. (Hons.)**

Lecturer in Medicine, Division of Sleep Medicine, Harvard Medical School; Associate Neuroscientist, Division of Sleep Medicine, Department of Medicine, Brigham and Women's Hospital, Boston, MA USA; Associate Professor of Psychology, Monash University, Melbourne, Australia

**Glenn Rosenbluth, M.D.**

Director, Quality and Safety Programs, GME; Associate Director, Pediatric Residency Program Assistant Clinical Professor, Division of Pediatric Hospital Medicine, Department of Pediatrics, University of California at San Francisco, San Francisco, CA USA



# PHYSICIAN WORK HOURS, HEALTH, AND PATIENT SAFETY

February 20–24, 2012

COURSE # 3224473

## Early Registration Fee

(before November 15, 2011):

\$1,295 (USD)

## Tuition Fee

(after November 15, 2011):

\$1,450 (USD)

**Early Registration Fee for Residents and Fellows in Training, administrative staff, Risk Managers, Harvard faculty, and members of APDIM, NSF, and AASM:**

(before November 15, 2011):

\$1,150 (USD)

**Reduced Fee for Residents and Fellows in Training, administrative staff, Risk Managers, Harvard faculty, and members of APDIM, NSF, and AASM:**

(after November 15, 2011):

\$1,295 (USD)

**Guest Registration:** Number of guest(s): \_\_\_\_\_

\$375 (USD) per person

**NOTE:** All course tuition and Guest Registration fees include Welcome Reception (February 19, 2012), Banquet Dinner (February 21, 2012), daily breakfast, and daily morning coffee breaks/snacks and complimentary Internet access in meeting room.

## COMPUTER LAB SECTION

## Pre-registration Is Required – Attendance Is Limited!

A maximum of **ONE** session, with an afternoon coffee break/snack, may be attended. Assignment to one of these sections will be made as registrations are received.

Rank 1 through 4: \_\_\_\_\_ SECTION 1: Monday, February 20

\_\_\_\_\_ SECTION 3: Wednesday, February 22

\_\_\_\_\_ SECTION 2: Tuesday, February 21

\_\_\_\_\_ SECTION 4: Thursday, February 23

## WELCOME RECEPTION on Sunday, February 19, 2012, and BANQUET DINNER on Tuesday, February 21, 2012

There will be a complimentary Welcome Reception on February 19, 2012, and Banquet Dinner on February 21, 2012, for all course participants, their registered guests, and faculty. The favor of a reply is requested. Please indicate any food allergies.

\_\_\_\_\_ Number Attending Welcome Reception

\_\_\_\_\_ Number Attending Banquet Dinner

**Print Name Clearly—All Fields Required. (Please indicate names of guests on a separate sheet)**

Full Name \_\_\_\_\_  
First Middle Initial Last Name

Mailing Address \_\_\_\_\_  
Street City State Zip Code

Daytime Phone (\_\_\_\_\_) \_\_\_\_\_ Fax Number (\_\_\_\_\_) \_\_\_\_\_

**Please note:** Your email address is used for critical information about the course, including registration confirmation, evaluation, and certificate. Please be sure to include an email address you check frequently.


Email Address \_\_\_\_\_

Please check if you wish to be **excluded** from receiving email notices of future Harvard Medical School – Department of Continuing Education programs.

Profession \_\_\_\_\_ Degree \_\_\_\_\_

Primary Specialty (*Physicians Only*) \_\_\_\_\_ Board Certified?  Yes  No

Professional School Attended (*Physicians Only*)  Harvard Medical School  U.S. Medical School  
 International Year of Graduation \_\_\_\_\_

 **Online registrants – add the first three characters of source code found here. →**

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