2011 GILBERT W. BEEBE SYMPOSIUM

TRACKING RADIATION EXPOSURE FROM MEDICAL DIAGNOSTIC PROCEDURES

December 8-9, 2011

The National Academies
Keck Center
Room 100
500 Fifth Street, NW
Washington, DC 20001

The symposium is open to the public

Concern over potential health risks from the dramatic increase of radiation exposure due to medical diagnostic procedures in the population has been expressed by a number of stakeholders. Join us as we discuss the “why”, “what” and “how” to track exposures. A National Academies report will be prepared that summarizes the symposium presentations and discussions.

For questions or to RSVP for the event, please call us at 202-334-3066 or by email at NRSB@nas.edu. Seating is limited.

Staff involved in this year’s symposium:

Ourania Kosti, Staff Officer
Toni Greenleaf, Administrative Associate
James Yates, Office Assistant

Sponsored by
Centers for Disease Control and Prevention &
U.S. Food and Drug Administration
U.S. Department of Health and Human Services
WORKSHOP AGENDA DRAFT

Chair: Barbara McNeil, Harvard Medical School
Vice-Chair: Hedvig Hricak, Memorial Sloan-Kettering Cancer Center

Thursday, December 8, 2011

8:30 am  Welcome and Introduction
           Hedvig Hricak - Memorial Sloan-Kettering Cancer Center

8:40 am  Why and how to track radiation exposure
           Donald Miller - U.S. Food and Drug Administration, and Charles Miller - Centers for Disease Control & Prevention

Session 1: National and international efforts in volume and dose tracking
Moderator: Fred Mettler - Veterans Health Administration

9:05 am  Introduction to Session 1
           Fred Mettler - Veterans Health Administration

9:15 am  1.1: Overview of global activities
           Madan Rehani - International Atomic Energy Agency

9:35 am  1.2: Radiation exposures in medical imaging: FDA’s past and present efforts
           David Spelic - U.S. Food and Drug Administration

10:00 am 1.3: Strategies to Minimize Patient Radiation Exposure in the Veterans Health Administration
           Charles Anderson - Veterans Health Administration

10:25 am  BREAK

10:45 am 1.4: American College of Radiology (ACR) dose index registry
           Richard Morin - Mayo Clinic Jacksonville

11:10 am Discussion Session 1

Session 2: Appropriate Radiation Dose Metrics and Estimation Techniques
Moderator: Richard Morin - Mayo Clinic Jacksonville

11:30 am Introduction to Session 2
           Richard Morin - Mayo Clinic Jacksonville

11:35 am 2.1: Overview of dose terminology, what can be reported, measuring and conversion to dose
           Walter Huda - Medical University South Carolina
### Agenda:

<table>
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<tr>
<th>Time</th>
<th>Session</th>
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| 11:50 pm | 2.2: Organ doses, collection and simulation  
*Michael McNitt-Gray - University of California, Los Angeles* |
| 12:10 pm | 2.3: Protocol optimization and dose variability  
*Ray Thornton - Memorial Sloan-Kettering Cancer Center* |
| 12:30 pm | Lunch Break                                                                                           |
| 1:30 pm  | Panel: Manufacturers’ perspective on what to report  
*Richard Mather - Toshiba Medical Research Institute, Kenneth Denison - GE Healthcare,  
Bernhard Schmidt - Siemens Healthcare, and Dominic Siewko - Philips Healthcare* |
| 2:10 pm  | Discussion Session 2                                                                                   |
| 2:40 pm  | Introduction to Session 3  
*Walter Huda - Medical University South Carolina* |
| 2:45 pm  | 3.1: Measuring population utilization of medical diagnostic procedures: data sources and challenges  
*Mythreyi Bhargavan Chatfield - American College of Radiology* |
| 3:05 pm  | 3.2: Automated electronic medical record (EMR) dose history extraction and monitoring  
*Aaron Sodickson - Brigham and Women's Hospital* |
| 3:30 pm  | Break                                                                                                 |
| 3:50 pm  | 3.3: Imaging examination surveys  
*Ashok Shah - IMV Medical Information Division* |
| 4:15 pm  | Panel: Perspective on what to report  
*James Brink - Yale University School of Medicine, and Manuel Cerqueira - Cleveland Clinic* |
| 4:55 pm  | Discussion Session 3                                                                                   |
| 5:20 pm  | Closing Remarks and Adjournment  
*Hedvig Hricak - Memorial Sloan-Kettering Cancer Center* |

**Friday, December 9, 2011**

- **8:15 am** Welcome, opening remarks  
  *Barbara McNeil, Harvard Medical School*  
  **Session 4: Risk - What we know and what we need to know**  
  *Moderator: Amy Berrington de González - National Cancer Institute*
8:25 am  Introduction to Session 4  
Amy Berrington de González - National Cancer Institute

8:30 am  4.1: Understanding radiation-induced cancer risks at radiological doses  
David Brenner - Columbia University Medical Center

8:50 am  4.2: Non-cancer effects at radiological doses  
Kiyohico Mabuchi - National Cancer Institute

9:10 am  4.3: Patient’s perspective  
TBD

9:25 am  Discussion Session 4

9:45 am  Lessons learned from pediatrics  
Donald Frush - Duke University Medical Center

10:10 am  Panel: Next Steps  
Fred Mettler - Veterans Health Administration, Hedvig Hricak - Memorial Sloan-Kettering Cancer Center, Barbara McNeil - Harvard Medical School, David Brenner - Columbia University Medical Center, and Donald Frush - Duke University Medical Center

10:25 am  Discussion

11:25 pm  Closing Remarks and Adjournment  
Barbara McNeil - Harvard Medical School