Experts Discuss Potassium Iodide Distribution in Case of Nuclear Incident

The importance of having potassium iodide (KI) on hand in case of a nuclear emergency – along with other related policy, legislative, logistical, and medical issues – was the focus of discussion at a symposium in Washington, D.C., on Feb. 28, 2003.

Thyroid experts from around the world gathered for the event, “Public Health Strategies for Protecting the Thyroid with Potassium Iodide in the Event of a Nuclear Incident,” to examine the impact of nuclear accidents on the incidence of thyroid cancer as well as distribution strategies for getting KI to people who live near nuclear facilities. The symposium – sponsored by the American Thyroid Association and the American Association of Clinical Endocrinologists – also brought together public health professionals, physicians, government officials, and allied health care professionals.

KI – a safe, inexpensive, and effective over-the-counter product – is FDA-approved for protecting the thyroid from radioactive iodine. Taken six to 12 hours before or within the first few hours after exposure to radioactive iodine, KI floods the thyroid with safe iodine and prevents it from absorbing the radioactive form. Babies, children up to 18, and pregnant women are the most important groups to receive KI after exposure.

The seminal event that opened the world’s eyes to the importance of KI distribution was the 1986 Chornobyl nuclear accident, releasing a fallout cloud that spread radioactive iodine and other radionuclides throughout eastern and central Europe. Starting a few years later, infants and children who had been exposed to the fallout were diagnosed with an unusual and aggressive form of thyroid cancer, except in Poland where the government had distributed KI pills.

International experts from Poland, France, and Ireland discussed their countries’ experiences from the Chornobyl accident and how those lessons learned influenced current policies and nuclear preparedness.

The center of much debate at the symposium was the length of time it has taken for the U.S. government to recognize that KI needs to be made available for communities at highest risk. After decades of inaction on this issue, in December 2001, the Nuclear Regulatory Commission offered free KI pills to the 34 states that either have nuclear reactors or are within 10 miles of another state’s plant. The
Public Health Security and Bioterrorism Preparedness and Response Act of 2002 calls for distribution of KI to people living within 20 miles of nuclear facilities, as of June 2003. The ATA supports this action but advocates much wider KI distribution. Based on the bioterrorism bill, individual states must determine their areas of risk and the distribution of the drugs.

Bringing in the state perspective on this issue, public health professionals from Maryland and Vermont outlined their current efforts in distributing KI to their communities living close to reactors. They also detailed important issues such as cost, barriers, and distribution and public education strategies.

Participants in the symposium included:

- **David V. Becker, MD**, The New York Presbyterian Hospital, New York City
- **André Bouville, PhD**, National Cancer Institute, Bethesda, Md.
- **Lewis E. Braverman, MD**, Boston Medical Center, Boston
- **Peter G. Crane**, Potassium Iodide Consumer Advocate, Seattle
- **John T. Dunn, MD**, University of Virginia Health System, Charlottesville
- **Yves Garcier, MD**, Electricité de France, Saint Denis Cedex, France
- **Hossein Gharib, MD**, Mayo Clinic and Medical School, Rochester, Minn.
- **Paul W. Ladenson, MD**, Johns Hopkins School of Medicine, Baltimore
- **Congressman Edward J. Markey**, U.S. House of Representatives
- **John C. Morris, III, MD**, Mayo Clinic and Medical School, Rochester, Minn.
- **David G. Orloff, MD**, U.S. Food and Drug Administration
- **David Rogers, MD, MPH**, Calvert County Health Department, Prince Frederick, Md.
- **Michael J. Sharon, MPA**, Maryland State Department of the Environment, Baltimore
- **Peter A. Singer, MD**, President, ATA, University of Southern California School of Medicine, Los Angeles
- **Peter A. Smyth, MSc, PhD**, University College Dublin, Ireland
- **Sir E. Dillwyn Williams, MD, FRCPH**, University of Cambridge, United Kingdom
- **Jan Wolff, MD, PhD**, National Institute of Diabetes and Digestive and Kidney Diseases, Bethesda, Md.

For additional information on KI - visit www.thyroid.org