



## William R. Hendee, PhD

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### **Talk title: Safety and Quality Assessment of Medical Technologies**

The practices of radiology and radiation oncology employ sophisticated technologies to yield medical imaging information and radiation therapy treatments that benefit millions of patients worldwide. These technologies are continuously evolving in both their complexity and their applications, resulting in frequent upgrades and replacements of existing technologies. Although these changes may yield improved patient care, they also increase the cost of health care and in some cases enhance the likelihood of machine and operator errors that can injure patients. Consequently, new and improved technologies must be assessed carefully in radiology and radiation oncology to ensure that they offer real advantages to patient care that are cost effective, and that do not lead to increased possibilities of machine malfunctions and operator mistakes. In medical imaging and radiation oncology, the assessment of technologies to ensure safe use and quality results is the responsibility of medical physicists. The American Association of Physicists in Medicine has recognized this responsibility through formation of the Technology Assessment Committee functioning under the Association's Science Council. The Committee has several assessment projects underway, including the development of routes of access to large patient databases supported by the National Cancer Institute and other agencies that will be very helpful in assessing medical technologies.

## Biography

William R. Hendee received the PhD degree in physics from the University of Texas. He joined the University of Colorado, ultimately serving as Professor and Chair of Radiology for several years. In 1985 he moved to Chicago as Vice President of Science and Technology for the American Medical Association. In 1991 Dr. Hendee joined the faculty of the Medical College of Wisconsin as Senior Associate Dean and Vice President with faculty appointments as professor and vice chair of radiology with additional professorships in biophysics, radiation oncology and bioethics. He is also Professor in Bioengineering at Marquette University, Adjunct Professor of Electrical Engineering at the University of Wisconsin-Milwaukee, Clinical Professor of Radiology at the University of New Mexico, and Adjunct Professor of Radiology at the University of Colorado. From September through December 1994, Dr. Hendee served as Acting Executive Vice President and Dean of the Medical College. In January 1995 he assumed additional responsibilities as Dean of the Graduate School of Biomedical Sciences. In 2005 he was appointed as President of the MCW Research Foundation. He currently holds the title of Distinguished Professor of Radiology, Radiation Oncology, Biophysics and Institute for Health & Society.

Dr. Hendee is certified in Radiologic Physics by the American Board of Radiology and in Health Physics by the American Board of Health Physics. He has been a Director of the American Board of Health Physics and the Health Physics Society, chairman of the Diagnostic Physics Examination Committee for the American Board of Radiology, and Past-President of the American Board of Radiology. He is past president of the American Association of Physicists in Medicine, the Society of Nuclear Medicine, the American Institute of Medical and Biological Engineering, the World Congress on Medical Physics and Biomedical Engineering and past vice president of the National Patient Safety Foundation. He is currently Chair of the American Board of Radiology Foundation and President and CEO of the Commission on the Accreditation of Medical Physics Graduate Programs. Dr. Hendee has authored or co-authored over 400 scientific articles and 24 books. He is the editor of *Medical Physics*, the most widely distributed and read journal in medical physics and engineering in medicine in the world. In 2010 he was awarded the American College of Radiology gold medal award. He received an honorary doctorate from Millsaps College in 1988 and from the University of Patras, Patras Greece in 2009. Other awards include the Radiological Society of North America's gold medal, the gold medal from the American Roentgen Ray Society, the Elda Anderson Award of the Health Physics Society, and the William D. Coolidge medal from the American Association of Physicists in Medicine.

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