News Release

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FOR IMMEDIATE RELEASE

AFTER A DRAMATIC RISE, THE AVERAGE U.S. MEDICAL RADIATION DOSES NOW ARE DECREASING

New NCRP Report shows a 15 to 20 % reduction in dose to the U.S. population from 2006 to 2016

WASHINGTON, D.C. (November 18, 2019) — The National Council on Radiation Protection and Measurements (NCRP) today issued a new Report showing a 15 to 20 % reduction in diagnostic and interventional medical radiation doses to the U.S. population from 2006 to 2016. Except for computed tomography (CT) scans, most medical imaging doses are stable or decreasing. This finding is a contrast to the dramatic rise documented in a 2009 NCRP report, which showed a six-fold increase from the early 1980s to 2006.

NCRP Report No. 184, entitled "Medical Radiation Exposure of Patients in the United States," is a 10-year update to an NCRP report published in 2009. The current Report updates medical radiation exposure information with data collected between 2006 and 2016.

"Our Report demonstrates that medical radiation doses in the United States are on the decline, which is a positive shift from a decade ago when doses were increasing significantly," said Dr. Fred Mettler, chair of the NCRP Report and Professor Emeritus and Clinical Professor at the Department of Radiology and Nuclear Medicine at the University of New Mexico School of Medicine. "In the Report, we pay particular attention to medical procedures that contribute the largest share of dose and provide information on average doses that patients may experience from a specific examination."

NCRP Report No. 184 shows that CT scans made up 63 % of collective dose from medical imaging procedures in 2016, compared to 50 % in 2006. While the number of CT scans increased by 20 % over that decade, the overall dose per person for CT procedures was essentially unchanged.

For a number of other modalities, the Report shows the average radiation dose per person has decreased. The Report discusses technological advances that have yielded hardware improvements and protocols, leading to higher quality images at lower doses. In addition, radiography has moved away from standard film and increased use of digital receptors, leading to lower radiation doses for some procedures. Further, efforts by organizations such as the American College of Radiology (ACR), the U.S. Food and Drug Administration (FDA), and the Image Gently®/Image Wisely® Programs have increased awareness and understanding of medical radiation doses and dose optimization and reduction.

"Changes in technology as well as campaigns to increase dose awareness and reduce dose among the medical community and the public seem to be having the desired effect," said Dr. Mahadevappa Mahesh, co-chair of the NCRP Report and Professor of Radiology and

Radiological Science at the Johns Hopkins University School of Medicine. “These data show the medical community can continue to leverage the benefits of radiological procedures for patients while reducing dose.”

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About NCRP
The National Council on Radiation Protection and Measurements (NCRP) seeks to formulate and widely disseminate information, guidance and recommendations on radiation protection and measurements which represent the consensus of leading scientific thinking. The Council is always on the alert for areas in which the development and publication of NCRP materials can make an important contribution to the public interest. The Council’s mission also encompasses the responsibility to facilitate and stimulate cooperation among organizations concerned with the scientific and related aspects of radiation protection and measurements.