

For U.S. Adults, Medical Imaging Awareness Brings Clarity to Critical Healthcare Decision-Making

Siemens-sponsored survey reveals Americans' concerns, influences and levels of basic understanding regarding imaging tests

Malvern, Pa., November 28, 2011 – Amid increased scrutiny over medical imaging scans and the use of radiation, a new survey reveals that awareness and familiarity with medical imaging tests lead to clearer decisions for U.S. adults about their healthcare. The survey, released by the Siemens Radiation Reduction Alliance (SIERRA) – an expert panel established to advance the cause of dose reduction in medical imaging – evaluated the decision-making process of participants in response to situations where a medical scan is recommended by a physician.

In the survey of more than 1,000 U.S. adults conducted by Braun Research, Inc., several questions were asked regarding the use of medical imaging tests, followed by five real-life scenarios of varying severity where each respondent was asked to decide whether to move forward with a specific medical imaging test for themselves or a loved one. The results show a direct correlation between the familiarity U.S. consumers have with a medical imaging test and the likelihood that they will move forward with that test at the recommendation of a physician.

“We undertook this survey to address patient concerns that doctors deal with at the practice level every day when it comes to medical imaging,” said Marilyn Siegel, MD, professor of radiology and pediatrics at Washington University School of Medicine, Mallinckrodt Institute of Radiology in St. Louis, and a SIERRA panel physician. “Patients are daunted by the choices they need to make for themselves or someone else, including whether the examination is needed, whether it is the best option, and what are the risks and advantages. It is no longer the physician who dictates care. Medicine now involves decision-making by both the patient and the doctor. This survey shows how patients think and make decisions regarding imaging.”

Correlation between knowledge of medical technology, acceptance of test

The technologies most familiar to consumers – classified as those who have either heard of or had the test – correspond to the percentage of consumers who would move forward with the test in the survey scenarios. Of the technologies highlighted in the survey, consumers were most aware of medical X-rays (96 percent) and would move forward with the physician’s recommendation for a medical X-ray in the survey scenario (88 percent). Consumers were least familiar with nuclear heart scan technology, with just over one-third (39 percent) of surveyed consumers having received or heard of the test, and only 28 percent of respondents indicating they would follow a physician’s recommendation for a nuclear heart scan in that particular scenario:

Medical Imaging Test	Consumer Test Awareness	Would Move Forward with Test in Survey Scenarios
Medical X-ray	96%	88%
CT scan	94%	80%
PET scan	63%	68%
Cardiac cath	61%	60%
Nuclear heart scan	39%	28%

Consumers identify main use of imaging tests, but don’t know specific technologies

The survey found that 90 percent of U.S. adults could correctly identify, in response to an open-ended question, the primary use of medical imaging tests, citing either use as a diagnostic tool to find out what’s wrong, to see internally what can’t be seen otherwise, or as a noninvasive procedure instead of exploratory surgery as the top reasons.

Further, roughly two in five respondents (41 percent) volunteered radiation exposure as a risk associated with medical imaging tests (also in response to an open-ended question). Yet U.S. adults are unsure which technologies use radiation to produce images and which do not, according to the survey. Twenty-three percent of respondents cited ultrasound technology and 60 percent cited MRI when asked “which of the following technologies use radiation to produce images?” although these imaging tools do not use ionizing radiation.

Medical Imaging Test	Percentage of Consumers who Identified the Test as Using Radiation
Medical X-ray	89%
Nuclear heart scan	69%
CT scan	68%
MRI	60%
PET scan	58%
Cardiac cath	31%
Ultrasound	23%

Despite the perceived risk of radiation exposure, when respondents reviewed all the options in the five survey scenarios, they indicated nearly 80 percent of the time that they would proceed with a medical imaging test that the physician recommended. These results suggest that many Americans recognize that the benefits of medical imaging outweigh potential concerns about radiation.

“There is a big opportunity here to provide more education to our patients about the differences between various imaging tests,” said Cynthia McCollough, PhD, a medical physicist from Mayo Clinic in Rochester, Minn., and a SIERRA panel scientist. “While some tests are similar with regard to the information they provide, their cost and potential risks, there are many situations where one type of imaging exam is more accurate, faster, safer or less expensive. Knowing about these differences can help patients understand why their physician has recommended one test versus another.”

Information, options key when consumers decide whether to have an imaging test

While a majority of survey respondents would proceed with each of the five different types of medical imaging scans suggested by a medical professional for themselves or a loved one, some would not move forward with these tests. The results illustrate that, for many consumers who opt not to have the test in a potentially critical medical scenario, information and available options are the deciding factors when making an informed decision about their, or a loved one’s, care. The top reasons cited for not selecting a medical imaging test presented specifically in the survey scenarios include:

Medical Imaging Test	Top/Number One Reason Cited for Not Selecting Test
Medical X-ray	It may not be necessary
Cardiac cath	I’d want to know other options
CT scan	It’s not critically necessary/there’s another option
Nuclear heart scan	I’m not familiar/don’t know enough about it
PET scan	I would want to know other options available

Further, for a majority of respondents (more than 80 percent), a physician or medical professional would be the source they would trust the most and seek advice from regarding a medical imaging test.

Every year, millions of Americans can benefit from medical imaging technology that increases the ability of caregivers to safely diagnose and treat a variety of medical conditions. This survey shows that information and knowledge are critical for patients when assessing the benefits and perceived risks of these tests. The survey was conducted in part to learn more about how to further improve Siemens innovations – a dedicated task that is also part of Siemens Healthcare’s global initiative Agenda 2013, which fosters innovation and competitiveness. As a longtime pioneer in radiation dose reduction, Siemens Healthcare is committed to working with clinical staff to ensure they have the necessary resources to help patients make informed decisions about their care.

Launched by **Siemens Healthcare Sector** in November 2011, Agenda 2013 is a two-year global initiative to further strengthen the Healthcare Sector's innovative power and competitiveness. Specific measures will be implemented in four fields of action: Innovation, Competitiveness, Regional Footprint, and People Development.

The **Siemens Healthcare Sector** is one of the world’s largest suppliers to the healthcare industry and a trendsetter in medical imaging, laboratory diagnostics, medical information technology and hearing aids. Siemens offers its customers products and solutions for the entire range of patient care from a single source – from prevention and early detection to diagnosis, and on to treatment and aftercare. By optimizing clinical workflows for the most common diseases, Siemens also makes healthcare faster, better and more cost-effective. Siemens Healthcare employs some 51,000 employees worldwide and operates around the world. In fiscal year 2011 (to September 30), the Sector posted revenue of 12.5 billion euros and profit of around 1.3 billion euros. For further information please visit: www.siemens.com/healthcare.

About the Survey:

This survey was commissioned by Siemens Healthcare to provide information on consumer knowledge and understanding of medical imaging. Braun Research, Princeton, N.J., conducted the research on behalf of Siemens. Interviews were conducted via telephone during the period of October 3 – 23, 2011, with 1,015 adults in a random sample of households (one interview per household), including 331 cell phone households. Results were weighted by demographic characteristics – age, sex, geographic region and race – to follow U.S. Census data to ensure reliable and accurate representation of the total U.S. population 18 years of age or older. This report is based on a weighted total sample of 1,015 respondents. The sampling error associated with a sample size of 1,015 is no more than plus/minus 3.1 percentage points at a 95 percent confidence level. Respondents answered questions based upon their current level of knowledge and understanding of medical imaging today. The survey is part of SIERRA’s campaign to evaluate the decision-making process of patients in response to situations where a medical imaging test is recommended by a physician.

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