

Ensuring the Right Medical Imaging Procedure

When you are sick or hurt, you want the best tools to help determine what is wrong with you. Tests such as MRIs and CT scans fall into a category called high-tech diagnostic imaging (HTDI) tests. Over the last decade, the use of HTDI tests was increasing at more than 10% a year. However, there is no proof that this increased usage of HTDI tests improves patient care.

Using HTDI tests if they are not needed raises several concerns. First, the use of CT scans, especially for children, is estimated to cause 1-2% of cancers in the U.S (1) Also, rapid growth in HTDI tests is the second largest contributor to rising health care costs.

To ensure that patients receive only appropriate HTDI tests, some health plans require doctors to call a radiology benefits management (RBM) company to make sure that the planned HTDI test is covered by insurance. This sometimes could delay diagnosis and care for the patient. Also, if the RBM denied the HTDI test, the doctor had to contact the patient and tell them they had to pay for the HTDI test themselves, or schedule a different type of imaging test.

ICSI was asked to develop a better, patient-centered way to make sure the right HTDI test was ordered the first time. Working with doctors, radiologists, health plans, patients and the Minnesota Department of Human Services, ICSI developed an electronic “decision-support” approach to order imaging test. It made criteria from the American College of Radiology (ACR) available through the doctor’s computer. The doctor can insert the patient’s condition and what he or she believes is the right imaging test into the computer, and the program software (based on ACR criteria) tells the doctor if the selected test is of high, medium or low value for diagnosis. This approach allows the doctor and patient to see what type of test is the best, discuss what they both feel is the best plan of care and the test can be ordered immediately.

Using this electronic decision support helped clinics improve the health of patients, the patient care experience, and the affordability of care. More than 5,000 doctors in Minnesota have been using decision-support for five years. It is estimated using these tools prevented 75 Minnesotans from getting cancer. Patients report they like this approach as it can involve them and their doctor in deciding what is the right test for them. The approach also turned an annual 8% increase in HTDI tests in Minnesota from 2003-2006, to a 1% total increase from 2007-2012. This saved an estimated \$155 million dollars, helping to keep health care costs from rising as much as in past years.

1. Brenner DJ, Hall EJ. Computed Tomography—An Increasing Source of Radiation Exposure. *N Engl J Med*, Nov. 29, 2007; (22):357:2277-2284.