Background

The Medicare Imaging Demonstration was authorized by Section 135(b) of the Medicare Improvements for Patients and Providers Act of 2008 to collect data regarding physician use of advanced diagnostic imaging services to determine the appropriateness of services in relation to medical specialty guidelines. The demonstration examined the appropriateness of services across a range of geographic areas, physician specialties, and practice settings in the Medicare fee-for-service (FFS) program. The demonstration tested whether the use of a decision support system (DSS) can improve quality of care and reduce unnecessary radiation exposure by promoting appropriate ordering of advanced imaging services. The law specifically excluded any approaches that would require prior authorization. The demonstration began on October 1, 2011, and ended on September 30, 2013.

Advanced Diagnostic Imaging Services

The demonstration involved 12 advanced diagnostic imaging procedures within the three designated modalities (MRI, CT, nuclear medicine). They were selected based on high expenditures and utilization in the Medicare FFS population, along with the availability of relevant medical specialty appropriateness guidelines: MRI lumbar spine, CT lumbar spine, MRI brain, CT brain, CT sinus, CT thorax, CT abdomen, CT pelvis, CT abdomen and pelvis, MRI Knee, MRI shoulder, and spect myocardial perfusion imaging (known as SPECT MPI). X-ray, ultrasound, and fluoroscopy are excluded from the demonstration.

Demonstration Design

The Medicare Imaging Demonstration utilized a pre-post design to assess the impact of DSSs on the ordering of advanced imaging tests. During the six-month pre-intervention phase, clinicians in practices used the DSS but the DSS did not provide feedback at the time of order regarding appropriateness or access to guidelines. During the 18-month post-intervention phase, the DSSs were used for real-time feedback regarding appropriateness and access to guidelines.

Additionally, physician practices received feedback reports on the degree of appropriateness relative to the medical specialty guidelines provided by the DSS. Participating physicians were also provided with periodic feedback reports that compared their ordering patterns against their peers to assess the effect of feedback reports on physicians’ ordering behavior.

Waivers

The Secretary may waive provisions of Title XI and XVIII of the Social Security Act as may be necessary to implement the demonstration.

Participating Conveners and Physician Practices

Five conveners were selected to participate in the Medicare Imaging Demonstration. The conveners provided a DSS and a panel of participating physician practices. The following were the participating conveners and physician practices:
Brigham and Women’s Hospital Convener

Henry Ford Health System Convener
Participating Practices: Henry Ford Medical Center (Detroit, Michigan)

Maine Medical Center Physician-Hospital Organization Convener
Participating Practices: Andrew Candelore DO (Scarborough, Maine), Cardiovascular Consultants of Maine, PA (Scarborough, Maine), Casco Bay Surgery (Portland, Maine), Chest Medicine Associates (South Portland, Maine), Lifespan Family Healthcare (Newcastle, Maine), Lincoln County Healthcare (Damariscotta, Maine), Maine Medical Center (Portland, Maine), Maine Orthopedic Center, PA (Portland, Maine), Maine Surgical Care Group (Portland, Maine), Mid Coast Medical Group (Brunswick, Maine), Plastic and Hand Surgical Associates (South Portland, Maine), Portland Gastroenterology Associates (Portland, Maine), Waldo County (Belfast, Maine)

National Imaging Associates, Inc Convener
Participating Practices: Associated Cardiologists PC, Pinnacle Health Cardiovascular Institute (Harrisburg, Pennsylvania), Bergen Cardiology Associates (Teaneck, New Jersey), Buffalo Heart Group LLP (Buffalo, New York), Northtowns Medical Group (Buffalo, New York), Orchard Park Family Practice (Orchard Park, New York), Health Texas Physician Network (Dallas/Fort Worth, Texas)

University of Wisconsin Medical Fund Convener
Participating Practices: University of Wisconsin Medical Fund (Madison, Wisconsin), Group Health Cooperative of South Central Wisconsin (Madison, Wisconsin), Meriter Medical Group (Madison, Wisconsin)

For Further Information

Visit the CMS project websites at http://www.cms.gov/Medicare/Demonstration-Projects/DemoProjectsEvalRpts/Medicare-Demonstrations-Items/CMS1222075.html

http://innovation.cms.gov/initiatives/Medicare-Imaging/

or email ImagingDemo135b@cms.hhs.gov