Medical imaging a growth industry, but some say unneeded scans increase expenses

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Medical imaging is such a growth industry that even the owner of the Dallas Cowboys has gone into the business. At Blue Star Imaging in Irving, Cowboys jerseys hang in the lobby, and miniature NFL helmets line a shelf. On a wall next to the MRI machine are the autographs of Cowboys players who have had scans.

Business is so good – about 1,000 scans a month – that a second Blue Star Imaging opened this year in Flower Mound. In fact, the medical imaging business is doing well in many places, generating $100 billion a year nationally. That's expected to double by 2012, according to America's Health Insurance Plans, an industry trade group.

"There's a lot of money to be made in owning imaging machines," said Dr. Richard Strax, president of the Texas Radiological Society. "You can buy a relatively inexpensive second- or third-hand MRI machine for a few hundred thousand dollars and make millions on it."

And that has led, as the nation debates health care overhaul, to concerns that doctors are driving up costs by ordering unneeded scans.

Much evidence points toward imaging as an example of one way in which the health care market is broken. More imaging machines has meant significant increases in use, and rising costs for American consumers and taxpayers.

The Dallas-Fort Worth area exceeded the national rate of CT and MRI scans for Medicare patients during 2005, the latest figures available.

"It's vastly more popular to point the finger at insurance companies and say they're all bad," said Melanie Nallicheri, a partner at Booz & Co. who examined medical technology's role in increasing medical costs. "But honestly, there's waste in the system that has nothing to do with the insurance company being bad."

Computed tomography, or CT, combines X-ray and computer technology to create a multidimensional picture of the body. Magnetic resonance imaging, or MRI, uses magnets.

Up to half of all high-tech scans for a number of conditions might not lead to improved patient diagnosis or treatment "and may be considered redundant or unnecessary," the America's Health Insurance Plans report said.
A McKinsey Global Institute study found that extra U.S. capacity results in about $26.4 billion in additional costs annually for CT and MRI scans.

"We are paying – you and I – for all the tests being done that do not convey any benefit to others throughout the country," said Susan Pisano, vice president of communications at America's Health Insurance Plans.

It's not just a pocketbook issue. Studies have shown that excessive CT imaging could give patients unhealthy doses of radiation, putting them at danger for cancer.

Doctors say most high-tech scans are done for the best of medical reasons – early detection of disease, more complete diagnoses of injuries and assessments of treatment. "It's huge," said Dr. Rick Snyder, president of the Texas Chapter of the American College of Cardiology. "For us to be able to actually see the organ that we're evaluating and treating – that's 90 percent of the value."

However, some doctors order scans of insubstantial medical value to protect themselves against potential malpractice claims, health care specialists say. Others may do it strictly for financial reasons, referring patients for scans to be done on machines they own.

A bill that would have required disclosure of doctors' financial interests in imaging providers failed in the last session of the Texas Legislature after strong opposition from the medical lobby.

The percentage of imaging Medicare reimbursements for scans performed in doctors' offices increased from 58 percent to 64 percent between 2000 and 2006, according to a recent report by the Government Accountability Office, a congressional watchdog.

"These trends raise concerns about whether Medicare's physician payment policies contain financial incentives for physicians to overuse imaging services," the GAO said in its report.

Nowhere is this more of an issue than Texas, said Jean Mitchell, an economist and professor at the Georgetown Public Policy Institute, who called the state the "self-referral capital of the world."

"Texas is unbelievable," said Mitchell, who has studied the effects of treatment when doctors have a financial interest at stake. "The doctors own everything. It's self-referral run amok."

Investment return

CTs are excellent at detecting appendicitis, helpful with cancer diagnoses and commonly used to look at the chest. MRIs are frequently employed to diagnose some fractures, tumors or degenerative joint disorders, such as arthritis.

"Imaging is providing us some fabulous insights in how to treat disease earlier and better, but it, like everything else, can be overutilized," said Paul Keckley, executive director of the Deloitte Center for Health Solutions.

Several factors have caused imaging use to skyrocket, industry observers say. An aging population means more people who are sicker and need more medical services. Also, new technologies aren't replacing old; they are used together. For example, MRI hasn't replaced traditional X-rays. Finally, Americans have an appetite for new medical technology, and imaging machines have become ubiquitous.
Such machines initially were found only in hospitals. That changed as they became smaller, faster and cheaper.

"Manufacturers have definitely been very smart," said Dr. Bruce Hillman, a radiology professor at the University of Virginia. "When they decided to go after that outpatient physician market, a lot of it was sold ... showing how few scans you'd have to do to break even."

A brochure from Siemens AG touts that physicians "are surprised at how little space is actually needed to site a CT in their office." On the same page is a box telling doctors that 1.8 scans per day on a machine means they break even in five years, and 10 scans per day means a nearly $2.2 million return on their investment in five years.

Medicare has rewarded physicians and independent imaging centers in the past with higher reimbursements per scan than hospital-based outpatient machines.

Also, the American health care system compensates doctors on a fee-for-service basis, which creates an environment that rewards volume instead of quality, Keckley of the Deloitte Center said.

"Our system is perfectly designed to want more gadgets. It's perfectly designed to get more specialists," he said. "And it's perfectly designed to see people make a good living, thank you very much, in an industry where doing more is how you get paid more."

Texas data

Nearly 85 percent of the growth in freestanding imaging centers, similar to Blue Star Imaging, occurred between 1997 and 2008, fueled by "intense physician and entrepreneur activity," according to market analysis published by Washington G-2 Reports.

"The growth was explosive," said 3d Health Inc. founder M. Shane Foreman, who contributed to the report.

Texas has followed this trend. "I joke sometimes that every strip shopping center I drive by has a nail salon and an imaging facility," said Darren Rodgers, president of BlueCross and BlueShield of Texas.

*The Dallas Morning News* asked BlueCross and Blue Shield of Texas to provide data for Dallas, Denton, Collin and Tarrant counties. Among the findings: Overall charges to BlueCross for imaging tests increased 100 percent to $1.6 billion during a five-year period ending in 2009.

Also, total imaging charges – which are usually more than what providers are actually paid by insurance companies or Medicare – increased 112 percent for scans in hospital outpatient settings, nearly 105 percent in doctors' offices and nearly 62 percent for imaging centers.

An analysis of Texas hospital discharge data by *The News* found that MRI charges for inpatient care at hospitals statewide doubled, from $409 million to $819 million, between 2002 and 2007.

"This is ridiculous," said state Rep. Lois Kolkhorst, a Brenham Republican who is chairwoman of the House Public Health Committee. "Why is it that everything comes down in price, except for medicine?"

The Temple region, home to Scott & White Healthcare, consistently ranked at the bottom for rates of Medicare patients who receive MRI and CT scans, according to data provided to *The News* by Laurence...
Baker, professor of health research and policy at Stanford University.

The Scott & White system's use of electronic records helps reduce redundant scans, said Dr. Glen Couchman, associate system chief medical officer. But there's another factor that's uncommon in most of Texas.

"Certainly, most of our docs are largely salaried, and so there is not an incentive just to do extra," he said. "They don't own any interest in imaging centers. Part of their income is not derived from ancillary services."

Little regulation

Only California built more imaging centers than Texas between 2000 and 2007, census data show. Despite the growth, Texas officials know very little about the imaging business, and scant regulation exists.

"Today we can't even tell you how many MRI machines are in Texas, who owns them, what condition they're in and what quality of scans they're turning out," Ron Luke, health policy chairman of the Texas Association of Business, told state lawmakers this year. "That doesn't sound like we're very bright, does it?"

For three sessions, radiologists and doctors have fought in the Texas Legislature over the issue of self-referral. This year's legislation, backed by radiologists and business lobbyists, would have required licensing and accreditation of imaging machines, along with a year-long state study of the extent of self-referral by physicians. But it failed.

Proponents of the legislation say opponents are driven by financial motives. Imaging has become a "lifeline" for many doctors, said Dr. Cynthia Sherry, past president of the Texas Radiological Society.

"It's all about the money, OK? Those very doctors opposed to this are the ones participating in it," Sherry said.

Opponents accused the radiologists of simply trying to protect their own financial interests.

Among those opposed to the bill was the Texas Chapter of the American College of Cardiology. On its Web site, the cardiologists' group said the legislation "would have severely limited access to high-quality imaging for Texas patients."

Snyder, president of the Texas chapter, said self-referral doesn't necessarily mean overuse, and is routine in other professions. "They make it sound like self-referral is a unique, foreign concept to medicine," he said.

Cardiologists obtained 36 percent of their total Medicare revenue in 2006 from in-office imaging, compared with 23 percent in 2000, according to the Government Accountability Office.

Critics of the legislation have said offering in-office imaging provides better access for patients and enables specialists who know the body part best to quickly examine the scan.

The bill didn't pass out of the House Public Health Committee, which came as no surprise to Mitchell, the Georgetown University professor. "If the physicians own the Legislature in Texas, which they do,
you wouldn't expect anything else to happen," she said.