


FACTFILE

Niche Technologies

The healthcare industry has long served as a leading sector for the development and utilization of advanced technologies. While the latest technology often is expensive, sometimes prompting discussion about appropriate utilization, there is medical value in such modern marvels. 

HIGH-IMPACT DEVELOPMENTS

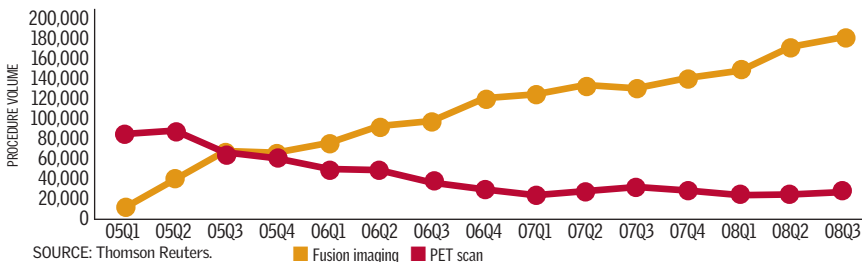
Here is a look at key technologies that will have the greatest short-run positive impact on outpatient services demand:

- **Pharmacogenomics:** Examines how an individual metabolizes drugs in order to determine appropriate drug dosages that may be utilized in heart disease, malignancies, or neurodegenerative diseases
- **"Paired" Imaging Modalities:** CT capabilities combined with SPECT, MRI, or PET functions in one machine
- **CT Enhancements (64, 256 slice):** Improved image resolution and decreased scan times for brain and heart
- **CyberKnife:** Painless, noninvasive treatment delivering high doses of precisely targeted radiation to destroy tumors within the body
- **CT Angiography:** Noninvasive procedure using CT scanning to locate stenosis in coronary and noncoronary arteries
- **High-Resolution 3-D Ultrasound:** Real-time ultrasound technology that produces multiplanar rendered images
- **Predictive Testing, Asymptomatic:** Testing to determine the susceptibility to certain genetic disorders; typically done for patients who may have a family history of a disease
- **Cell therapy:** A treatment in which cells are administered to patients and used for repairing damaged tissue
- **CT Colonography or Virtual Colonoscopy:** Noninvasive procedure using CT scanning to visualize the colon
- **Proton Beam Therapy:** A type of radiation therapy that uses accelerated protons

SOURCE: Health Tech Center, a Thomson Reuters partner.

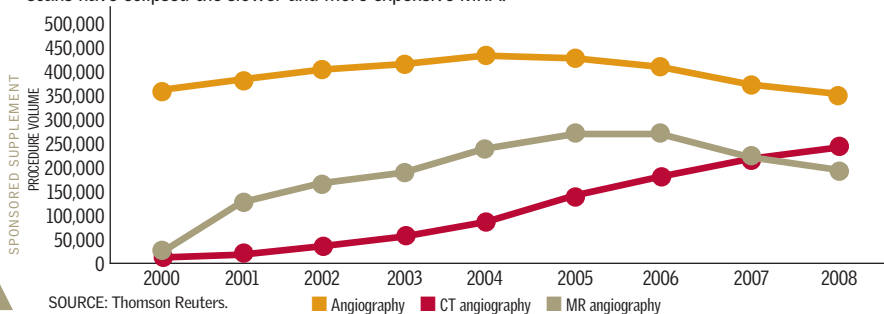
FUSION IMAGING

Some of these technologies can diffuse very rapidly. For example, fusion imaging (PET/CT) was virtually unknown at the beginning of 2005, and conventional PET scans were the dominant technology. Within four years, PET scans had decreased from 80,000 to 20,000 procedures per quarter, while fusion procedures had increased to nearly 180,000 procedures per quarter.



TOTAL VOLUME BY TECHNOLOGY

Overall, traditional angiographies are now decreasing. The fastest growth has come in the CT angiographies. MR angiographies are a more complex picture, showing growth up to a point, then a decline. Thomson Reuters researchers suspect that the speed, economy, and accuracy of the CT scans have eclipsed the slower and more expensive MRA.



MARCH 2010

Genetic Screening

As genetics becomes more common in the area of perinatal services, many states now provide genetic screening as part of their Medicaid coverage. Here is a rundown based on this 2009 report.

United States	36+DC Yes
Alabama	Yes
Alaska	Yes
Arizona	Yes
Arkansas	Yes
California	Yes
Colorado	Yes
Connecticut	Yes
Delaware	NA
District of Columbia	Yes
Florida	Yes
Georgia	NA
Hawaii	NA
Idaho	Yes ¹
Illinois	No
Indiana	Yes
Iowa	Yes
Kansas	Yes
Kentucky	Yes
Louisiana	Yes
Maine	No
Maryland	Yes
Massachusetts	Yes
Michigan	Yes
Minnesota	Yes
Mississippi	Yes
Missouri	Yes
Montana	Yes
Nebraska	Yes
Nevada	Yes
New Hampshire	Yes
New Jersey	NA
New Mexico	No
New York	Yes
North Carolina	Yes
North Dakota	No
Ohio	Yes
Oklahoma	Yes
Oregon	No
Pennsylvania	Yes
Rhode Island	NA
South Carolina	Yes
South Dakota	NA
Tennessee	NA
Texas	Yes
Utah	No
Vermont	Yes
Virginia	Yes
Washington	Yes
West Virginia	No
Wisconsin	Yes
Wyoming	Yes

1. Genetic screening is not available for preconception care.

SOURCE: *State Medicaid Coverage of Perinatal Services: Summary of State Findings*, Kaiser Family Foundation and The George Washington University Medical Center School of Public Health and Health Services, November 2009; www.statehealthfacts.org/comparemaptable.jsp?ind=800&cat=10

Upcoming Topic:
 > Consumer Confidence

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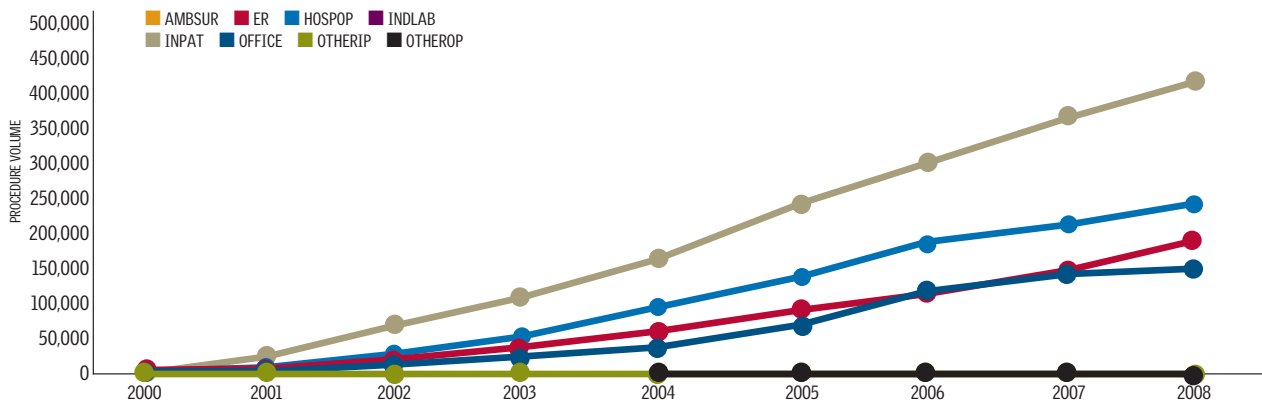
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TREND BY SITE FOR MRA AND CTA

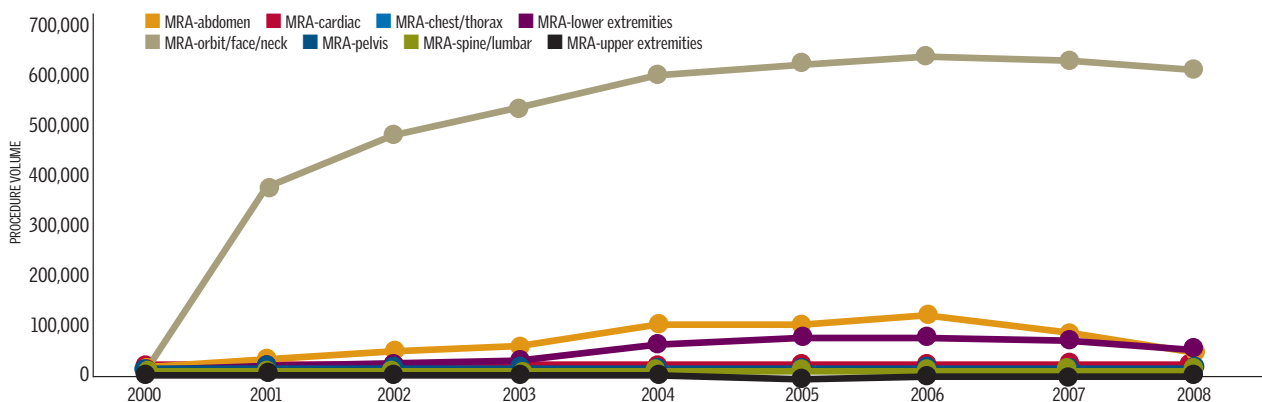
The inpatient setting continues to dominate in terms of where MRAs and CTAs are performed, reaching about 400,000 procedures in 2008. Hospital outpatients represent the next-highest setting, with about 250,000, followed by the ER with about 175,000, and the physician office at 150,000.



SOURCE: Thomson Reuters.

MR ANGIOGRAPHY PROCEDURE TRENDS

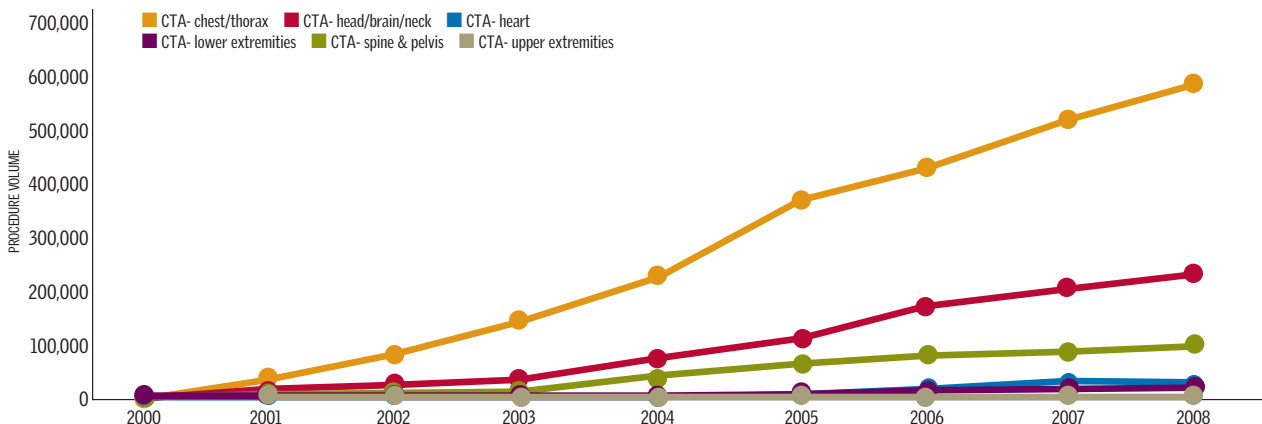
The growth rate of MRA of the orbit, neck, and face has slowed, even dropping somewhat between 2006 and 2008. But the procedure maintains dominance, with more than 600,000 such procedures in 2008. Procedures for the abdomen and the lower extremities accounted for about 50,000 each.



SOURCE: Thomson Reuters.

CT ANGIOGRAPHY PROCEDURE TRENDS

At nearly 600,000 procedures in 2008, the chest/thorax easily outstrips other areas for CT angiography. Head, neck, and brain accounted for fewer than 250,000, and spine and pelvis numbered about 100,000.



SOURCE: Thomson Reuters.

