



NaviNet

Where healthcare comes together.

**Managing Radiology Utilization in the Provider Office:  
Leveraging Web-based Solutions to Maximize  
Benefits and Control Costs**

## **Contents**

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<b>Introduction</b>	<b>2</b>
<b>Market Challenge</b>	<b>3</b>
<b>Today's Approach</b>	<b>4</b>
<b>A Better Solution</b>	<b>4</b>
<b>Conclusion</b>	<b>5</b>

## **Introduction**

Advanced diagnostic imaging techniques have made significant contributions to improved patient care, reducing the burden of invasive procedures while speeding diagnosis and treatment. Unfortunately, these procedures are now the primary driver of escalating health insurance premiums and an emerging consensus finds that a significant number are unnecessary or inappropriate. The challenge is how best to manage utilization to maximize benefits while controlling unnecessary cost.

Prescription medications have posed a similar challenge that has benefited from the application of a variety of managed care techniques. These techniques are finding applications in the effort to stem the financial impact and the health risks associated with unnecessary or inappropriate advanced diagnostic imaging procedures.

Nevertheless, just as with prescription medications, the benefits have come at a price – the significant administrative burden for both health plans and physician practices. Even when health plans or the radiology management firms with whom they contract have a Web site to administer their programs, physician practices must navigate multiple sites and business rules in order to comply.

NaviNet® has significant practical experience with making a variety of utilization management programs, including radiology management, more efficient and effective for health plans, their partners and physician practices.

Our multi-sponsor, HIPAA compliant Web portal offers a common approach to proprietary utilization management programs that insure adoption, utilization and successful achievement of program goals.

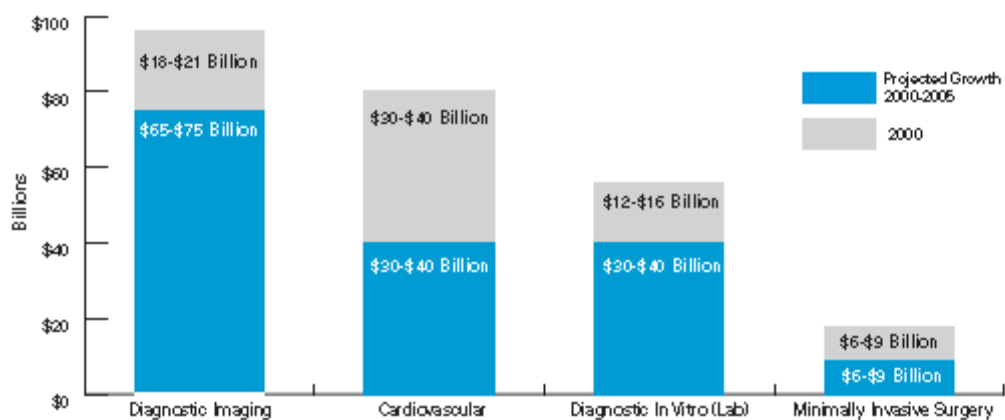
## Market Challenge

While it is difficult to argue that new diagnostic imaging techniques have contributed to improved diagnosis, avoidance of invasive procedures and improved care and patient convenience, diagnostic imaging has become one of the largest contributors to healthcare costs.

Under Medicare's physician fee schedule, these costs grew more rapidly than any other type of physician service between 1999 and 2003 – 45 percent vs. 22 percent.<sup>1</sup> Advanced imaging services such as MRI (other than of the brain) grew by 99 percent and CT (other than head) grew by 82 percent.

Booz Allen Hamilton estimates an increase in diagnostic imaging expenditures of 28 percent between 2000 and 2005, more than twice that of other categories largely driven by advanced imaging techniques.<sup>2</sup>

**Chart 1. Expenditures for Technology in 2000 and Projected Growth 2000-2005**



A report by the Blue Cross Blue Shield Association<sup>3</sup> estimates that outpatient-imaging costs will reach \$100 billion in 2006, accounting for 10 percent of healthcare spending with an estimated growth rate of 18 to 20 percent a year. This contrasts with prescription drug costs with an estimated growth rate of 10 percent or less.

A variety of factors may contribute to the surging cost of diagnostic imaging. These include the proliferation and wide availability of advanced diagnostic imaging technology – both inpatient and outpatient – the “worried well” which may account for up to one-third of the nation’s health care expenditures,<sup>4</sup> physician uncertainty about imaging tests already performed, defensive medicine and lack of knowledge regarding the appropriate choice of imaging studies. Unfortunately, it is also the case that office-based diagnostic imaging creates an additional source of physician revenue raising concerns over conflict of interest.

“For many health plans, radiology is now driving premium increases,” said Jane DuBose, HealthLeaders-InterStudy Associate Director of Health Plan Analysis. “Health plans have worked hard to control drug costs, only to have this new source of costs emerge. Plans are putting new controls on such imaging in place, but we’re expecting to see resistance from physicians.”<sup>5</sup>

Indeed, with the Medicare Payment Advisory Committee (MedPAC) recommending new rules limiting the performance of certain advanced diagnostic imaging procedures, restricting both where they occur and who may interpret them<sup>6</sup>, a broad coalition of medical organizations, the Coalition for Patient-Centered Imaging (CPCI) has raised the alarm. CPCI sees the MedPAC recommendations as a threat to office-based imaging that, if enacted for Medicare, would provide cover for commercial plans to impose similar requirements. They argue that office-based

imaging services speed diagnosis and treatment, are more convenient for patients and reduce the number of office visits and other physician encounters.<sup>7</sup>

In spite of these arguments, there is a growing consensus that too many advanced imaging procedures are performed (National Imaging Associates data suggest one-third of advanced imaging procedures are inappropriate or do not contribute to the physician's diagnosis or ultimate health outcomes<sup>8</sup>). Unnecessary diagnostic imaging is also raising concerns about cumulative patient radiation exposure, especially with the higher doses associated with CT and other advanced imaging techniques and the population risk of cancer.<sup>9</sup>

## **Today's Approach**

Health plan controls (whether self-managed or outsourced to a radiology management company) include negotiated network charges and network management (certification or privileging of imaging locations) prior authorization / pre-certification, co-payments and physician guidelines. Both plans and physician offices must deal with the increased administrative burden of enforcing and complying with these new requirements.

However, these programs do have an impact. An article appearing in *Managed Healthcare Executive*<sup>10</sup> discusses the differing approaches and results. Highmark Blue Cross Blue Shield implemented a program with National Imaging Associates focusing on repriviling radiologists and other physicians who perform imaging procedures and participate in Highmark's managed care network. Only privileged providers can receive reimbursement. In addition, these physicians are asked to provide notification when they order certain MRI, CT and PET studies that are high cost or at high risk for inappropriate use.

Health Alliance Plan (HAP) in Detroit contracted with American Imaging Management, which began prior authorization for high-tech imaging services and guidelines to physicians. HAP saw a 20 percent decrease in the monthly utilization of MRIs for headache and back pain.

Fallon Community Health Plan in Massachusetts contracted with MedSolutions to develop a voluntary program that helps physicians find protocols to decide on the right imaging procedure for particular conditions. The program has been so successful that Fallon no longer requires pre-authorizations for high-tech imaging studies other than PET.

MedSolutions engaged Milliman to conduct an actuarial analysis of their radiology management program for an unnamed commercial HMO customer in the Eastern United States.<sup>11</sup> The program applied classic managed care techniques including negotiated network charges and directing care to in-network providers and utilization management. The focus was on non-emergent, outpatient CT, MRI, PET and nuclear cardiology procedures. Milliman concluded that there were significant savings, much of which was attributable to the impact of utilization management.

## **A Better Solution**

Although there are a variety of tactics available to health plans it seems likely that, in the near-term, utilization management will play an important role in checking the growth of advanced diagnostic imaging. Whether a health plan chooses to manage this program itself or outsource to a radiology management firm, the common element in today's approach to diagnostic imaging authorizations requires physician practices to manage multiple, often disparate, solutions in order to serve their entire patient panel. This inevitably creates inefficiencies that generate more paperwork, faxes, phone calls and frustration that can limit the impact of these programs.

NaviNet has extensive experience with implementing a wide range of utilization management programs including drug, homecare, infusion services and rehabilitation. Typically, these involve

some type of pre-authorization based on complex benefit structures with differing business rules across the several health plans with which a typical physician practice must do business. The successful deployment of these programs is the result of offering practices a common solution, NaviNet, for initiating and managing these disparate workflows. NaviNet, a Web-based healthcare communications network, offers HIPAA compliant, secure, single sign-on access to multiple health plans and their service partners. This approach reduces the hassle factor for physician offices and the number of inbound calls, faxes and other paperwork to plans or their partners. Indeed, two of the major national radiology management firms have already integrated their authorization processes with NaviNet.

The keys to successful management of advanced radiology imaging or other high cost services are adoption and compliance with program objectives. The NaviNet approach begins with providing a common means of accessing comprehensive, patient-specific workflows, but the NaviNet portal also creates other opportunities that can enhance utilization management programs.

NaviNet delivers best-practice information to influence how physicians select diagnostic imaging procedures. This information can take the form of an attachment to a pended or denied authorization request, be part of a report pushed to the physician's office comparing their use of selected procedures vs. their peers in comparable circumstances, or as a knowledgebase available for inquiry. NaviNet further enhances an authorization workflow by creating the means for physician practices to send additional relevant information to expedite the process.

NaviNet works with health plans and their radiology management firms to enable the portal to inform offices of completed diagnostic imaging procedures for a specific patient, reducing the likelihood of unnecessary duplication. NaviNet can also support online privileging of individual physicians as well as ongoing monitoring and certification.

## Conclusion

The burden of unnecessary or inappropriate diagnostic imaging poses a serious challenge to health plans, employers, physicians and patients. Escalating costs lead to spiraling health insurance premiums that have an impact on all parties. In addition, the cumulative impact of unnecessary radiation exposure poses a potentially significant population health risk.

By offering physicians and their offices a common channel for communicating with health plans and/or their radiology management firms, NaviNet can create administrative efficiency for both and further the objective of controlling the escalating cost of diagnostic imaging while improving patient care.

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<sup>1</sup> Medical Payment Advisory Commission (2005) MedPAC Recommendations on Imaging Services

<sup>2</sup> Booz Allen and Hamilton (2003) Medical Technology Cost Management Strategy. Report prepared for the Blue Cross and Blue Shield Association, Chicago, IL

<sup>3</sup> Blue Cross Blue Shield Association (2006) Medical Technology as a Driver of Healthcare Costs: Diagnostic Imaging

<sup>4</sup> Pennsylvania Healthcare Cost Containment Council (2005), "The Growth in Diagnostic Imaging Utilization"

<sup>5</sup> HealthLeaders-InterStudy (April 11, 2006) "Radiology Seen as Next Cost Battleground Between Health Plans and Physicians". Press Release. Retrieved 2007-02-11

<sup>6</sup> Medical Payment Advisory Commission (2005) op. cit.

<sup>7</sup> Statement of the Coalition for Patient-Centered Imaging to the Ways and Means Subcommittee on Health, (2005), <http://www.acc.org/advocacy/pdfs/CPCIPrinciplesofAgreementModified71305.pdf>

<sup>8</sup> National Imaging Associates (2008), [http://www.radmd.com/imaging\\_problem/imaging\\_problem.htm](http://www.radmd.com/imaging_problem/imaging_problem.htm)

<sup>9</sup> Brenner, DJ, Hall, EJ, Computed Tomography – An Increasing Source of Radiation Exposure, *N Engl J Med* 2007; 357:2277-84; November 29, 2007

<sup>10</sup> Krizner, K; One Eye on the image and the other on the wallet, *Managed Healthcare Executive*, June 2006

<sup>11</sup> Milliman (2007) An Actuarial Analysis of MedSolutions' Radiology Management Program