



RadPort™

Integrated Decision Support for Appropriate High-Tech Diagnostic Imaging Utilization and Pre-Certification

RadPort™ – High-Tech Imaging Utilization Management

CHALLENGE:

How can I ensure that the most diagnostically appropriate high-tech imaging orders are placed while satisfying pre-certification requirements? How can I monitor utilization trends and physician ordering patterns?

SOLUTION:

RadPort™ is the premier choice for managing appropriate high-tech diagnostic imaging and streamlining the ordering process through a payer-sanctioned pre-certification system. Utilization review and ordering patterns are available through RadCube™, a complementary solution that provides back-end analysis of RadPort™ decision support data.

RadPort enables providers to order the most appropriate imaging procedure the first time around by combining clinical indications and known diagnoses with prior exam details and patient demographic information to produce appropriateness scores for the examination requested.

Derived from American College of Radiology (ACR) Appropriateness Criteria®, and licensed through an exclusive agreement with Massachusetts General Hospital, RadPort's scoring methodology is continually reviewed and updated with input from a committee of clinicians and subspecialists using the most up to date peer-reviewed literature and user feedback.

Key Benefits

- Reduces ordering time by up to 80%
- Reduces unnecessary ordering
- Satisfies pre-certification requirements
- Improves referring ordering practices
- Educates referring physicians
- Eliminates RBM phone calls
- Manages high-tech utilization
- Improves patient care

Key Features

- Based on ACR Appropriateness Criteria®
- Integrates with existing CPOE systems
- Proven “utility scores” guide ordering
- Decision support rules continually updated
- Scores accepted by many healthcare payers
- Easy-to-use ordering screens
- Secure, web-based access
- Flexible implementation options
- Customizable process settings
- Indication data (ICD-9) efficiently captured
- Integrates with RadCube™ for data analysis

Controlling Costs and Unnecessary Ordering

With over 1 billion radiology exams performed each year in North America, diagnostic imaging is now the fastest growing component of medical costs. Aside from the immediate need to control the over \$100 billion in annual expenditures on high-tech diagnostic imaging costs, the medical community should also focus on minimizing the impact of unnecessary radiation exposure. A significant percentage of diagnostic imaging spending may be unwarranted due to:

- Physicians worrying about malpractice lawsuits
- Physicians being unaware of the most diagnostically appropriate use of rapidly-developing technologies
- Physicians facing increasing patient demands for testing
- Self-referrals to office-owned imaging equipment

An Alternative to RBMs

The use of CT, MRI, PET and nuclear cardiology imaging procedures has steadily increased, fueling an unsustainable upward trend in healthcare costs and potentially exposing patients to unnecessary radiation. Health plans have launched pre-certification processes to help ensure appropriateness of these high-technology diagnostic imaging (HTDI) scans, which has added expense and clinic inefficiencies to the provider ordering process.

RadPort offers an alternative to radiology benefits management (RBM) companies and satisfies healthcare payer pre-certification requirements. What's more, RadPort assists with billing by accurately capturing structured ICD-9 indications. This alleviates wait times, speeds patient diagnosis and offers significant cost savings while improving patient outcomes and satisfaction.

Decision Support Rules Engine and Utility Score

RadPort is powered by over 14,000 peer-reviewed clinical criteria that are continually evaluated and revised by a clinical committee. The clinical guidelines are based on ACR Appropriateness Criteria® and have been expanded and licensed through an exclusive agreement with Massachusetts General Hospital. The rules engine includes decision support for high-tech diagnostic imaging such as MRI, MRA, Breast MR, CT, CTA, PET/CT and Cardiac Image Stress Testing.

An evidence-based utility score system evaluates the appropriateness of each exam as it's ordered, eliminating the need for physicians to spend excessive amounts of time with utilization reviewers. This penalty-free approach to ordering and an easy-to-use scoring methodology ensures consistency in ordering practice patterns.

Benefits: Payer, Provider, Patient

The benefits of decision support are far reaching. Payers benefit from the cost-effective management of appropriate high-tech imaging utilization with an affordable PMPM. Providers benefit from improved ordering patterns and pre-certification without the need for costly RBMs. Patients reap the added security that the appropriate order is placed the first time around – thus lessening unnecessary exposure to excessive radiation, reducing additional healthcare bills and limiting the loss of work and family time.

Clinical Decision Support at the Point of Service

RadPort offers a secure web-based application for standalone implementations as well as an option to integrate the rules engine into existing CPOEs for decision support at the point of care.

Chest CT has marginal utility for the clinical indications provided:



Alternate procedures to consider:

MR	CTA	MRA
9	2	2

The “utility score”, which ranges from 1-9, is the heart of the RadPort application. This scoring methodology is the delivery mechanism for the decision support appropriateness criteria. The scores translate to:

Indicated (7-9): indicates the desired exam is likely to be appropriate given the indications.

Marginal (4-6): while the desired exam may yield results, a more appropriate exam may exist.

Low (1-3): indicates the exam is less than optimal and more appropriate imaging techniques should be considered.

Using RadPort, providers can log in and process high-tech imaging cases in seconds; the system presents a concise list of signs, symptoms, known diagnoses, abnormal priors and evaluates a specific case for medical appropriateness; RadPort then recommends a higher utility exam, should one exist; and physicians can then change the order to select the most diagnostically appropriate procedure, thus, providing accuracy, convenience and an electronic record that the appropriate action was taken. By automating these RBM functions, significant cost and time savings can be realized.

In the event of a low score, RadPort provides clinical reference material designed to educate the referring physician and ensure appropriate ordering in the future. Data collected at this stage in the process can be used for rule updates and ordering pattern analysis. Once an order is placed, RadPort generates a decision support number (DSN) which acts as a digital receipt indicating that clinical decision support was used in placing the high-tech diagnostic imaging order. These unique DSNs serve as pre-certification numbers when scheduling and filing claims for high-tech diagnostic imaging.

Improving Patient Outcomes and Monitoring Results

Decision support is only part of the equation. While RadPort guides high-tech imaging ordering and offers safety

precautions, such as duplicate exam warnings, back-end data analysis is required to complete the utilization management chain. With RadCube, the outcomes analysis and utilization management software that complements RadPort, administrators can monitor the utilization of modalities at any given site or location and track ordering patterns of physicians and practice groups to provide continuous feedback on appropriateness ratings and ordering mix. Your organization can analyze the use of decision support, using variables such as:

- Structured (ICD-9) indications
- Ordering clinician and practice groups
- Insurance company data
- Order exam and exam group
- Number of change iterations
- Decision support group (red, yellow, green)
- Decision support score (1-9)
- Decision support number (DSN)

For each patient encounter, diagnostic imaging report data is merged with RadPort decision support data allowing you to evaluate the entire episode of care. Through the combined use of RadPort and RadCube, you will understand your facility's ordering and reporting data better and make more informed business decisions.

Real-World Results with RadPort™: Massachusetts General Hospital

Since 1811, Massachusetts General Hospital has been committed to delivering standard-setting medical care. Throughout the decades, the hospital has had a consistent commitment to advancing that care through pioneering research and educating future health care professionals. In 2004, this 900-bed academic medical facility began using decision support for all high-tech outpatient image orders. In 2009, researchers at the facility evaluated the effect that certain appropriateness criteria measures, particularly a computerized order entry (CPOE) and decision support (DS) system, have on the growth rates of outpatient CT, MRI, and Ultrasound procedures over time.

Based on a statistical analysis of data accumulated between October 2000 and December 2007, the group found that the implementation of a CPOE and DS system led to a drastic decrease in high-tech imaging growth. Although outpatient visits increased at a compound annual rate of nearly 5 percent

during the course of the study...

- Outpatient CT growth rate decreased by 11 percent, from 12 percent to 1 percent.
- Outpatient MRI annual growth rate decreased by 5 percent, from 12 percent to 7 percent.
- Outpatient Ultrasound annual growth rate decreased by 5 percent, from 9 percent to 4 percent.

The study demonstrates substantial decreases in the growth rate of outpatient CT, MR, and Ultrasound exam volume, despite continued steady growth in outpatient visit activity.

SOURCE: Christopher L. Siström, Pragya A. Dang, Jeffrey B. Weilburg, Keith J. Dreyer, Daniel I. Rosenthal, and James H. Thrall. Effect of Computerized Order Entry with Integrated Decision Support on the Growth of Outpatient Procedure Volumes: Seven-year Time Series Analysis. *Radiology* 2009 251: 147-155; published online before print as 10.1148/radiol.2511081174

Nuance Healthcare Solutions

Dragon® Medical—A real-time speech recognition program that works with virtually any Windows®-based or Citrix® EHR system for efficient report completion, and easy navigation and adoption of the EHR.

Dictaphone® Enterprise Speech System—On-premise dictation/transcription platform with back-end and front-end speech recognition with full controls and advanced workflow flexibility.

eScription—On-demand platform for computer aided medical transcription, using background speech recognition to turn clinician dictation into formatted draft documents that medical transcriptionists—whether in-house or outsourced—can quickly review and edit, typically doubling productivity.

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RadCube™—A comprehensive, yet flexible, data warehouse for multidimensional business analysis and visualization.

RadPort™—A secure, web-based decision support application for appropriate diagnostic image order entry that satisfies pre-certification requirements.

RadWhere™—A data-driven, front-end speech recognition reporting application designed for multi-site workflow orchestration.

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Radiology Solutions Leadership

RadPort represents the next step in the expansion of the Nuance Healthcare family of closed-loop radiology solutions. The addition of RadPort and RadCube to the market-leading PowerScribe® solution provides end-to-end intelligent ordering and speech-driven clinical documentation, while offering a powerful set of tools for retrospective analysis of utilization review and appropriate ordering patterns.

“Nuance is now in an excellent position to offer a comprehensive layer of front end ordering interface enhancements and urgent communication within a unified interface. The integrated strength of the product is greatly improved by Nuance’s commitment to enhancing the user experience and supporting good patient outcomes with better IT support. Well done.”

— Edward J. Zaragoza, MD
 Radiology Clinical Director
 Santa Monica UCLA Medical Center
 Santa Monica, CA

About Nuance Healthcare

Nuance Healthcare is a division of Nuance Communications, the world’s leading provider of speech and imaging solutions. Today, Nuance Healthcare provides the most comprehensive family of speech-driven clinical documentation solutions available anywhere. Our vision is to accelerate the adoption of EHR systems, helping providers maximize the return on their technology investments.

To learn more about Nuance Healthcare solutions, please contact us at **800-350-4836** or visit www.nuance.com/healthcare.

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