

STAYING COMPETITIVE IN THE FUTURE OF RADIOLOGY

The Case for Voice-Enabled Radiology Reporting

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We all know change is coming. With gaining momentum, the future of healthcare is bearing down on radiology, bringing challenge—and opportunity—with every step.

We all know the litany: declining reimbursements, decreasing referrals, Meaningful Use, accountable care, increased scrutiny and the myriad other factors exerting pressure on radiologists to prove their value and remain viable in an ever more competitive environment.

Who will succeed? As in most endeavors, success will go to the best prepared. In this case, that means having the tools in place to deliver the highest quality results in the least amount of time. For radiologists, the fastest route between test and treatment is found in voice-enabled radiology reporting.

Voice-enabled radiology reporting with clinical language understanding enables the efficient delivery of diagnostic reports whose quality, accuracy and comprehensiveness enhance patient care while helping contain costs.

This advanced technology not only yields more timely reports and enhances radiologist productivity; it also leads to heightened physician satisfaction and, consequently, increased referrals. Significantly, voice-enabled radiology reporting puts radiologists clearly in the thick of healthcare delivery, highlighting their direct impact in the cycle of patient care.

The fact is that the template-driven reports generated by voice-enabled solutions are more consistent, complete and data-rich than traditionally dictated results, which also plays a vital role in assuring appropriate reimbursement and compliance with regulations and guidelines.

TIMELINESS THAT CREATES LOYAL REFERRING PHYSICIANS

Perhaps the most compelling argument for voice-enabled radiology reporting as a competitive differentiator is the fact that it allows radiologists to deliver reports much more quickly than traditional methods. With voice-enabled technology, radiologists can dictate and self-edit in real time for fast turnaround and expedited diagnoses and treatment. Even if radiologists opt not to self-edit, voice-enabled reporting significantly hastens the medical transcription process.

In many cases, the reports can be in the hands of the referring physician before the patient returns to the medical office. That's a powerful service to both the doctor and the person needing care.

Texas Radiology Associates (TRA), a hospital-based medical imaging group headquartered in Plano, Texas, ranks among industry leaders in leveraging voice-enabled technology for dramatic positive change. Prior to the integration of a voice-enabled solution, the hospital's report turnaround time averaged 12 hours. Today, the practice is using advanced technology to generate 60,000 reports annually, with 90 percent completed within two hours and 80 percent within 30 minutes. A marked increase in physician satisfaction—stemming from the personalized nature of TRA's reports, as well as from far more timely delivery—also has been noted.

TEMPLATES: THE STRUCTURE OF MODERN RADIOLOGY

The ability to automate workflow by providing structured content within template-driven reports is another factor motivating the move to voice-enabled radiology reporting. Structured content assures referring physicians access to accurate, consistently configured and easily readable reports, even when completed by a large and/or diverse cadre of radiologists. The ability to produce template-driven reports is especially helpful in ensuring consistency where studies are being read by sub-specialists, radiology residents or teleradiology providers.

As a result—and not surprisingly—studies demonstrate a strong preference among referring physicians for reports that are built from templates and contain structured content.

A case in point: In “How Do Referring Physicians Want Radiologists to Report? Suggestions From the COVER Survey”, a study published in the October, 2011, issue of *Insights into Imaging* (Vol. 2:5, pp. 577-584), Jan M.L. Bosmans, Lieve Peremans, Arthur M. DeSchepper, Philippe O. Duyck and Paul M. Parizel note that 85 percent of referring clinicians and 65.7 percent of radiologists queried favor the use of template-based reports.

EMPOWERING PRODUCTIVITY

Best-in-class voice-enabled radiology reporting yields structured content through predefined, advanced selected templates. Specifically, each template incorporates sections of text and fields typically included by radiologists in their reports, thereby creating a reporting framework. With the framework in place, radiologists have less to dictate because they need not repeat the same phrases for each dictation—an especially significant plus for practitioners completing normal and routine dictations. This means radiologists can keep their eyes on images, rather than concentrating on repetitive, routine tasks.

In addition, each template is automatically selected by the system to correlate with the exam’s order description. Thus, when the radiologist chooses a study, the template is already set to apply custom fields that can be matched via accession number, as well as patient age, gender and the like.

Results seen at the **Mankato Clinic** in Mankato, Minnesota, underscore the degree of achievable time savings with templates, as the facility reports an estimated 35,000 reports generated successfully during the first nine months, with 97 percent completed in an hour or less.

MAXIMIZING REIMBURSEMENT

Templates also guard against loss of reimbursement by reminding radiologists of the components necessary to address in a given report and ensuring that all information needed for accurate coding is present. Moreover, an order can trigger selection of the appropriate template, ensuring that the unique information needed for a particular type of report is included automatically.

Radiologists who question the impact of incomplete documentation should consider the results of “Physician Documentation Deficiencies in Abdominal Ultrasound Reports: Frequency, Characteristics, and Financial Impact”, a recent study published in the June, 2012 issue of the *Journal of the American College of Radiology* (Volume 9, Issue 6, Pages 403-408). In the study, authors Richard Duszak, Jr., MD; Michael Nossal, MA; Lyle Schofield, BS and Daniel Picus, MD note that incomplete documentation for abdominal ultrasound reports alone resulted in professional income loss of approximately 5 percent.

PROMOTING SAFER, HEALTHIER PATIENTS

Further, the mission of diagnostic imaging—i.e., providing the most thorough, accurate diagnosis for every patient—is best fulfilled with structured templates and template-driven reports.

Templates harnessed for the purpose of dictation guide radiologists through different body parts or components that must be referenced in a study, as well as help reorient them and direct them to as-yet-incomplete portions of a report following any interruptions.

And with advanced template capabilities, radiologists can automatically incorporate a wealth of other information that leads to more complete, accurate reports—including seamless data integrations with other third-party vendors. Critical data, such as radiation dose management, contrast dose data and ultrasound measurements, can be auto-populated to the radiology report via custom fields, saving significant time and greatly reducing the risk for error.

This is important on a number of critical levels, including the regulatory environment. Heightened awareness of the side effects of radiation exposure from computed tomography (CT) scans has spawned new requirements for the radiology community with more almost certainly in the offing. Notably, a new law enacted in the state of California (SB 1237) mandates that as of July 1, 2012, radiation doses administered during CT scans be recorded as part of patients' radiology reports or as part of an attached protocol page.

While California is the first state to implement a law of this type, others are expected to follow suit. U.S. agencies and alliances, among them the U.S. Food and Drug Administration, the Joint Commission and Image Wisely Image Gently, also have taken steps to address and find means of ameliorating patient radiation overexposure in imaging centers and hospitals throughout the United States. In contributing to the data-richness of reports, an integrated voice-enabled radiology and radiation dose reporting platform enables facilities to effortlessly adhere to the regulation and serves as a platform for meeting future requirements.

Just as significantly, facilities with tightly integrated, rather than disparate, reporting solutions in place are more ideally positioned than their competitors to aid referring physicians in satisfying the ever-increasing demand among patients to review their radiology reports. In addition, the presence within report templates of information that can be leveraged to educate patients can play a role in alleviating their concerns about radiation dose exposure.

BEST PRACTICE ADHERENCE FOR GOOD BUSINESS RESULTS

Adhering to or exceeding industry best practices is a key imperative for radiologists in a healthcare environment fraught with pressure to demonstrate Meaningful Use, reduce costs and enhance the caliber of patient care. The adoption of voice-enabled radiology reporting facilitates adherence with these best practices.

The Advisory Board Company, in its recent report entitled “The Radiologist Role: Adapting to New Economic Models,” lays out three key forces for radiologists going forward, contending that their success hinges upon “meeting distinct priorities” on the clinical service, strategic alignment and progressive practice fronts. Clinical service priorities, the report stipulates, include timely report turnaround—a goal that is more easily attainable when voice-enabled radiology reporting is part of the technology toolset.

Even more importantly, according to the Advisory Board's "Radiologist Professional Services Performance Dashboard," simply harnessing voice recognition is considered to be an attribute of "new status quo" imaging groups—practices characteristic of solid, well-managed programs. Further, using template-based voice recognition for tracking of critical findings and/or quality concerns is one of a series of elements of "progressive" radiology groups.

The New Service Standard			
Radiologist Professional Services Performance Dashboard			
	Traditional	New Status Quo	Progressive
Turnaround Time			
Emergency Department	2-4 hours	30 minutes - 2 hours	Under 30 minutes
Inpatient	Same day results (8 hours)	4-8 hours	Under 4 hours
Outpatient	24 hours	4-8 hours	Under 4 hours
Critical Report Delivery			
Time to Deliver Findings	Greater than 60 minutes	60 minutes	Under 30 minutes
Percentage of Compliance	Under 90%	90%-95%	95%-100%
Call Coverage			
Use of Teleradiology	Yes	Yes	No
Hours of Service	Standard (e.g. 8 am - 6 pm)	Extended (e.g. 8 am - 10 pm)	24/7 coverage
Payment for Nighthawk	Hospital, or hospital and practice share cost	Radiology practice bears sole cost	No cost; coverage spread internally
Voice Recognition			
Use of Voice Recognition	No	Yes	Yes, and voice recognition system used for tracking of critical findings or quality concerns

Source: Imaging Performance Partnership interviews and analysis
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VOICE-ENABLED SOLUTION CRITERIA

While the advantages afforded by voice-enabled radiology reporting are many, facilities should evaluate available solutions against stringent criteria if they are to truly reap the benefits of their investment.

To start, facilities should ensure that the solution is built on a voice-recognition engine with a high degree of “off-the-shelf” accuracy and one that seamlessly integrates with leading RIS/PACS platforms. It also should accommodate a range of individual dictation preferences and dialects and permit radiologists to switch between dictation styles on a report-by-report basis as cases and circumstances warrant. In addition, a platform with a dynamic workflow will “remember” where the radiologist was in his dictation, for even more time savings.

CONCLUSION

Diagnostic reports are the primary work products by which radiologists are evaluated by referring physicians and health care providers. Assuming and maintaining a strong competitive stance necessitates richer, impeccably accurate diagnostic reports, customized to meet referring physicians’ unique needs and delivered at optimum speed. The structure and content of such reports also must support the reduction of costs associated with imaging and ensure compliance.

Significantly, as noted previously, quality reports delivered quickly means faster diagnoses and treatment, promoting safer, healthier patients.

Thus, top-tier voice-enabled radiology reporting technology is, and will continue to be, the preferred vehicle for meeting these requirements and goals as radiology changes to meet the demands of healthcare delivery today—and tomorrow.

ABOUT NUANCE HEALTHCARE

Nuance Healthcare, a division of Nuance Communications, is the market leader in providing clinical understanding solutions that accurately capture and transform the patient story into meaningful, actionable information. These solutions are proven to increase clinician satisfaction and HIT adoption, supporting thousands of hospitals and providers to achieve Meaningful Use of EHR systems and transform to the accountable care model. ■

