

CASE STUDY Showing
Leadership
in the Industry
Computer-assisted coding
delivers a **broad range** of benefits

BY MICHAEL GONZALES

CALIFORNIA'S LARGEST PRIVATE RADIOLOGY PRACTICE, Radiological Associates of Sacramento (RAS) Medical Group Inc., established diagnostic and therapeutic techniques in 1917. Its founder, Harold Zimmerman, MD, introduced X-rays to Northern California even before photographic film became available.

Today, RAS is the most accomplished and experienced diagnostic imaging, nuclear medicine and radiation oncology provider in the region. As an early adopter of medical and business technology, it maintains a pioneering spirit by offering state-of-the-art services, such as PET/CT and image-guided radiotherapy, and outpatient interventional radiology procedures, including venous access, uterine artery embolization and vertebroplasty.

RAS' 71 physician partners and more than 900 employees serve 23 facilities – 16 freestanding diagnostic imaging centers, seven radiation oncology centers and six hospitals in the Sutter Health System. The group codes and bills about 1.1 million procedure reports each year with a 75-employee accounts receivable department.

IMPROVED PRODUCTIVITY

When Bethesda, Md.-based CodeRyte implemented its software for RAS, the practice had 6.5 budgeted coding full-time equivalents (FTEs) on the books. Two of those positions were vacant at that time, creating a challenge to keep up with demand. Improved efficiency allowed RAS to leave those positions permanently unfilled.

RAS also eliminated coding overtime costs and made coding backlogs a thing of the past. In March 2006, RAS was even able to take on an additional billing-and-coding outsource client that increased the volume of notes the coding team worked on by more than 10 percent. This increase was accomplished without adding any FTEs.

Since reports now go straight from the Misys Healthcare Systems' radiology information system at Sutter into CodeRyte, RAS was able to reassign most of the three FTEs who did the manual



sorting, reconciliation and hand-entering of codes back into the billing system. Not only did this reduce costs, but data entry errors were eliminated, as well. Sending reports directly to CodeRyte also reduced the time from date-of-signing to date-of-posting from two days to just one.

Further product enhancements identified by RAS and in development at CodeRyte are expected to lead to even greater savings in this area.

By working with CodeRyte, the RAS coding team boosted productivity from about 40 to more than 100 notes an hour, depending on the types of reports coded.

CodeRyte's built-in management and tracking capabilities provide RAS' coding supervisor with the ability to see the entire coding process at once. This allows the staff to be monitored and work reassigned on the fly, which keeps the operation running efficiently. This level of management was impossible with the old paper-based system. In those days, the only data available for tracking productivity came from self-recorded time sheets.

CodeRyte's system also makes it very simple to run a proper quality assurance program with statistical sampling. The work required for quality assurance from the RAS coding supervisor is one-quarter of what it used to be.

ADDITIONAL SAVINGS

Coding productivity isn't the only area where adopting CodeRyte has proven beneficial for RAS. The reduced RAS coding team still has extra time available to do pre-claim review on the most complicated multiprocedure encounters, such as Medicare records with positive results and stereotactic breast biopsies.

Coders also use their extra time to catch problems stemming from final impressions and diagnoses that don't match the reason for the ordered procedure, problems which otherwise could have led to denials. In fact, denials from medical necessity and non-covered procedures are down by more than 25 percent since starting with CodeRyte.

CodeRyte's workflow system sorts reports that have been processed through the NLP engine into three queues based on its statistical confidence of the codes generated for each specific report:

- The reports with the highest scores are classified as "confident."
- Reports that are classified as "review" require a quick scan by the coders (who are now really auditors) to ensure they are accurate.
- The remaining records (fewer than 10 percent) either lack sufficient information for the software or people to code, or contain language that the software has not seen frequently enough to select a code.

When RAS first implemented CodeRyte, the coding staff reviewed all the reports, even those CodeRyte's engine labeled as "confident." Once the RAS team became comfortable that their change rate on these confident codes was negligible, they redirected the notes in this queue to go directly into the billing system without any human intervention. As a quality control measure, RAS still reviews 10 percent of these notes to ensure that change rates remain negligible.

THE SOLUTION

In early 2004, RAS implemented its own document management system that reduced days in accounts receivable from about 60 to fewer than 50. Having successfully tackled that issue, RAS turned its attention to hospital coding.

RAS' coding of hospital-based services was inundated with paper. RAS radiologists would electronically sign their reports at the hospitals and then print them at the RAS administration building. A staff of three people would print the log of reports for the day and manually sort them by site and modality to prep them for coding. The reports would then go to the coders who would write the appropriate codes on the printed paper and manually enter them into RAS' custom-built billing system.

Management knew improvements in coding could make a big difference in the bottom line, and new technologies had become available to help achieve these goals.

RAS has traditionally been an early adopter of new technology, and the team recognized the potential improvements computer-assisted coding could deliver.

However, RAS encountered a problem with its first attempt at installing computer-assisted coding because Sutter Health System used a nonstandard data interface. Although this proved to be challenging for other vendors, the CodeRyte team found a creative solution that allowed the implementation of computer-assisted coding to proceed at RAS.

Using natural language processing, CodeRyte's software applies evidence-based criteria to identify correct billing codes from clinical

information in radiologists' reports with statistical precision.

RAS ran its first procedure notes through CodeRyte's engine in November 2005. Direct, electronic communication with the hospitals allowed RAS to eliminate paper and scanners for this process. The money saved on equipment and supplies, however, is just a drop in the bucket.

At this point, RAS sends a substantial portion of its hospital reports directly to billing. The introduction of direct-to-bill is a recent change and should allow RAS to achieve even greater results by reallocating some of the remaining 4.5 coding FTEs to other processes, like pre-claim review and denial management, or to take on additional outsourced coding and billing work without increased staff. CodeRyte's supervised learning model drives continuous improvements in direct-to-bill while maintaining the highest level of compliance.

RAS at a Glance

- Founded in 1917 by Dr. Harold Zimmerman
- Today RAS has more than 900 employees and 71 physician partners
- 1.1 million procedures coded and billed each year
- 75-employee accounts receivable department

COMPLIANCE

The team at RAS has always felt its coding and compliance processes were advanced, but CodeRyte further improved coding accuracy and strengthened the compliance program. Coding accuracy is improved because CodeRyte approaches coding systematically and doesn't rely on human coders to always remember a large number of coding rules that change over time. Notes that do go direct-to-bill without human intervention do so with a statistical foundation for their high accuracy. CodeRyte also catches LCD and CCI issues before they leave the coder's desk, avoiding rework/denials further down the line.

RAS has enhanced its compliance program to a new level through CodeRyte. With a few mouse clicks, the team at RAS can see a full audit trail highlighting who changed what at every point in the process.

Developing and running random, statistically significant audits used to be a time sink for RAS. Fortunately, that process is now handled automatically within CodeRyte, and RAS managers can easily adjust the parameters as they see fit.

PHYSICIAN QUALITY REPORTING INITIATIVE

Medicare's new Physician Quality Reporting Initiative has special meaning for RAS, as one of their physicians helped develop the new measures relating to radiology.

As the implementation date for the initiative drew near, RAS was pleased to learn that CodeRyte was already enabled to track the information required for identifying the quality of care it provides, and they now use CodeRyte's PQRI queue for their hospitals.

Computer-assisted coding is just one area where RAS has demonstrated its leadership in the industry. By partnering with CodeRyte, RAS has seen documented improvements in productivity, efficiency and denials. RAS is confident that by working with CodeRyte, its hospital coding accuracy has improved, and it is more compliant than ever.

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