

## A Strategic Approach for Using Speech Recognition to Improve Clinical Documentation

*Combination of Internal Process Improvements and Technology Leads to Savings, Improved TATs, "Win-Win" for All Involved*



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## Situation/Challenge

Healthcare facilities today are finding themselves in a “Catch-22” between high volumes and increasing demand for clinical documentation on the one hand, and pressure to reduce the costs of Medical Transcriptionist staffing and outsourced overflow transcription work on the other.

The KLAS 2009 Transcription Services: Steady Demand in a Volatile Market report states that 44 percent of healthcare provider organizations have experienced an increase in dictation volumes in the past year. Under current healthcare reform legislation, approximately 32 million new patients are expected to enter the healthcare system, creating an even greater need for dictation and transcription.

In addition, other factors in the current healthcare environment, including requirements for Meaningful Use of electronic records under the HITECH Act, Pay-for-Performance initiatives, expansion of recovery audits, conversion to ICD-10, and national quality reporting initiatives such as the Joint Commission Core Measures, continue to fuel the demand for clinical documentation.

Meanwhile, transcription is typically viewed as a cost center in healthcare systems, and is more and more frequently the target of budget cuts, reductions in head count, and purely tactical technology “fixes.” However, a strategic approach incorporating both technology and internal process improvements can yield greater financial and turn-around time (TAT) results, meeting demands for productivity and cost efficiency while maintaining employee morale and contributing to greater physician satisfaction and quality patient care.

## Real-life Situation

In the case of Riverside Health System, Newport News, Virginia, a 570-bed facility on the nation’s “Most Wired” list for four years in a row, a change in their transcription model in conjunction with the introduction of MedQuist’s DocQment Enterprise Platform® (DEP) with integrated speech recognition helped to reduce costs, maximize efficiency, and keep everyone happy.

In 2007, Riverside was facing high volume (2.7 million lines annually) and increasing demand for clinical documentation. The transcription department was continually challenged to meet report turnaround time goals. Riverside’s 17 in-house Medical Transcriptionists (MTs) worked from home and were paid an hourly rate. Their remote status made it difficult to monitor and measure MT productivity.

Riverside was seeing increased costs from outsourced overflow transcription work. Administrators believed technology could benefit the MTs and the facility by increasing efficiency and providing more control.

## First Step: Pay-by-Production

Riverside’s first step was to move to a more cost-effective, pay-by-production compensation model for the medical transcriptionists. Although this model is consistent with industry best practices, it was a radical change from the previous hourly rate model. It was critical to get the MTs’ engagement/buy-in. In order to do this, Riverside communicated the new compensation plan by holding department team meetings and meeting with the V.P.s, H.R. Director, and V.P. of Revenue Cycle.

## Challenges

- High volume
- High costs

## Goals

- Increasing MT productivity to meet demand;
- Improving physician satisfaction by meeting TAT requirements;
- Achieving better control and management of the clinical documentation process;
- And above all, reducing costs by handling all work with the existing transcription work force and reducing the amount of outsourced transcription.

## MedQuist Document Enterprise Platform (DEP) with ASR

When Riverside went live with DocQment Enterprise Platform®, they had a four week training period during which they continued to pay the MTs their previous hourly rate. Each week, the transcription manager showed them the difference between what they would be earning based on hourly versus productivity-based rates; toward the end, the MTs even started to request the latter, because pay-by-production:

- Rewards high work performance;
- Encourages win-share participation; and
- Reduces work stress by decreasing required line count.

Riverside was able to decrease the hourly rate it was paying its MTs, but the pay-by-production model made up for the difference in the hourly rate through increased efficiency/productivity.

According to Riverside Transcription Supervisor Donna Grubbs, “Management tools are a critical part of the DEP system, for monitoring and measuring productivity.” Together with the pay-by-production model, DEP gave Riverside administrators more control, and the ability to monitor and measure productivity more exactly; e.g., identifying periods of inactivity for their remote workers.

In addition, the system also provides for Joint Commission checking of legibility, dating and timing of documents. “It’s great to have all of this built into the system; DEP is a big part of our success,” notes Grubbs, adding, “We feel MedQuist has our back regarding meeting regulations, getting reimbursed, maintaining quality of care, and being prepared for RAC audits.”

[The MTs also saw DEP was working for them and would be a win-win, which relieved tension regarding the transition from the previous system they had been using.](#)

Automated speech recognition (ASR) within DEP reduced the percentage of time the MTs needed to touch each report, increasing line counts and efficiency. The MTs were responsible for correcting any misrecognized text during the initial adaptation process, while the software was “learning” each dictator’s speech patterns. According to Grubbs, “Building pride and ownership of the process enabled us to rapidly build the best possible physician and speech database for our facilities.”

[Riverside then saw a huge financial impact based on volume of lines/rate per line for transcribing and editing, with a decrease of up to 48 percent in manual transcribing in the first year.](#) Grubbs observes the MTs are pleased with the accuracy of the text presented to them and the option to edit reports instead of typing the entire report.

There were also fewer physical complaints (of carpal tunnel, etc.) from the MTs, and fewer resulting workers’ compensation claims. In addition, the technology proved very helpful for Riverside’s ESL dictators, as speech recognition acts as a “translator” with tremendous accuracy improvements.

### Results

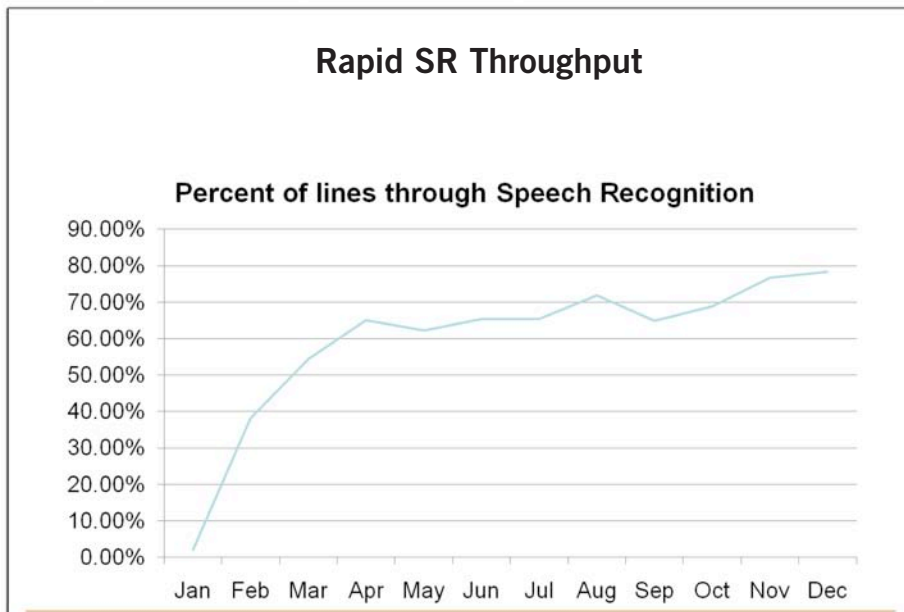
Among the other measurable results Riverside has documented to date:

- 77 percent of reports created with ASR;
- 37 percent reduction in transcription expense; and
- 37 percent increase in volume with fewer MTs.

### Speech Recognition Gains For Riverside

- **Positive impact on financial reimbursement, regulatory requirements, quality of care.**
- **Positive impact on recruiting and physician satisfaction.**
- **Now taking on work from other facilities to further reduce costs.**
- **Reduced new hire training time for MTs by 50%.**
- **Created additional capacity.**
- **Better results for ESL physicians.**
- **Speech Recognition acts as a “translator” with tremendous accuracy results.**
- **Technology is a recruiting draw for physicians.**

SR Utilization over 60% after only 3 months...up to nearly 80% after 10 months.

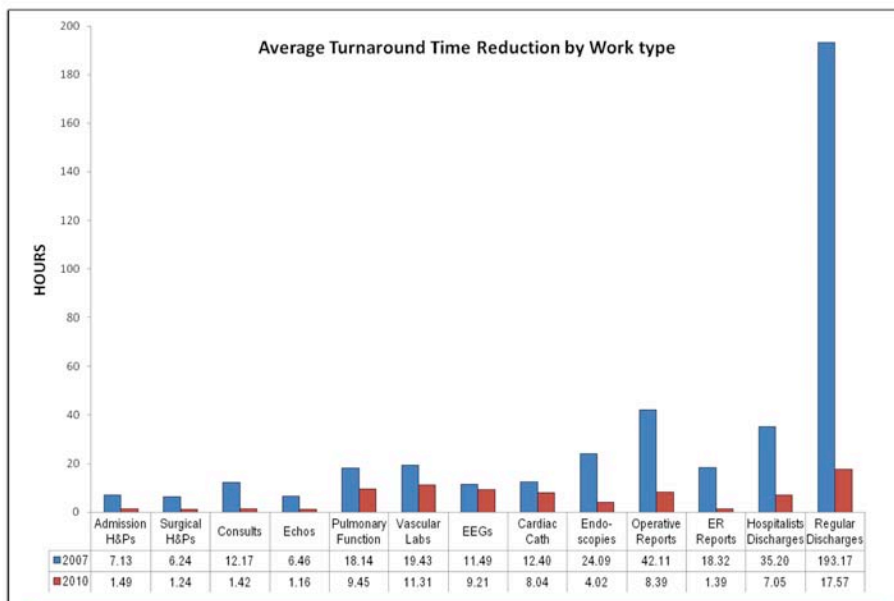


Riverside has not lost any transcriptionists due to layoffs, even in the current difficult economic climate. Explains Grubbs, “Our priority is to retain high quality MTs; MedQuist’s technology enables this, and provides savings in avoiding turnover by promoting high MT satisfaction. For example, we can offer flexibility in work location. We don’t have to worry if MTs need to relocate; they can still work for us on the DEP platform if they’re in other states. We want to maintain our great amount (270+ years) of collective team experience; there’s a lot of trust there.”

Riverside has also reduced training times for new hires by 50 percent, another cost savings. New employees now want to move to productivity-based pay as soon as possible, assessing the compensation as “more than fair.”

As for TAT improvements, Riverside has seen an overall improvement of 89 percent, with reduced TATs by every worktype; e.g., TATs on Regular Discharges decreased by over 90 percent.

### Average TAT reduction



### Results

- 77 percent of reports created with ASR;
- 37 percent reduction in transcription expense; and
- 37 percent increase in volume with fewer MTs.

This has resulted in increased physician satisfaction, both anecdotally (via surgeon compliments for outstanding TAT and teamwork) and measurably: Riverside Transcription achieved the highest Business Practices Assessment (BPA) score increase of any department in the entire hospital, as well as the highest increase in employee satisfaction scores.

### Summary/Conclusion

Riverside's example demonstrates how a facility can centralize transcription and decrease outsourcing while adding volume to further reduce costs. The in-house MTs can now transcribe or edit reports from any of Riverside's 21 facilities, including skilled, rehab and long-term care facilities. [MT productivity and pay significantly increased, while overall facility costs decreased.](#) Secondary benefits include the positive impact on financial reimbursement, regulatory requirements, and quality of care.

Riverside will continue to reap the rewards as the technology helps managers to ensure the work flows smoothly and to manage expenses. Meanwhile, certain lessons can be gleaned by other facilities hoping to achieve similar results. First, monitoring and measuring productivity is critical; e.g., reviewing DEP keyboard inactivity and related reports can show gaps that affect MT pay and productivity, while monitoring speech recognition efficiency gains can help avoid overcompensating the MTs. The use of reports can also help MTs understand how they can benefit from speech recognition--even at a lower editing rate. (Educated users contribute to improved efficiency, as they come to realize that higher line counts = higher efficiency = higher take-home pay.) Last but not least, it is important to ensure work availability as productivity continues to increase.

### Pick a System That Fits Your Workflow

Speech recognition technology itself comes in two "flavors," pertaining mainly to how the speech-recognized text is managed on the back-end.

**--Transcriptionist-assisted (or "background" speech recognition)** requires the least amount of change for physicians. Physicians who are currently comfortable with dictation can continue their normal patterns, with speech recognition working in the background. Recognized text is sent to transcriptionists, who can now quickly edit documents rather than type them from scratch.

Although the editing approach will not fully eliminate transcription costs, overall gains in transcription productivity of 30 to 60 percent have been achieved, which can translate into similar cost savings through reduction in internal staff or in decreased use of external transcription outsourcing.

**--Physician self-edit** offers the greatest opportunity for immediate productivity gains and cost savings. As an additional benefit, many physicians find that this "once and done" approach gives them the ability to dictate, review, edit and complete a report in one session, which means they have the ultimate control over their documents.

One of the most attractive benefits of this mode is dramatic reduction in TAT. Reports created by physicians can be dictated, reviewed, and electronically signed in minutes--all by the physician in one productive step.

### Speech Recognition Gains For Riverside

#### HIM Department kudos

- **Highest increased score: Business Practices Assessment (BPA) for entire hospital.**
- **Award: Highest increased employee satisfaction score for a department.**

#### Physicians say

- **Medical Records does "outstanding job" with turnaround time.**
- **Most improved: Op note was on physician's desk for signature before he returned to the office.**

## Traditional Transcription and Speech Recognition Happily Coexist

MedQuist solutions are perfectly suited to real-world healthcare applications, recognizing the need for speech recognition, traditional dictation/transcription, and outsourced transcription/report editing to all coexist as part of one integrated workflow management solution. As a result, dictation input remains consistent across the physician population—with back-end report processing being defined within the MedQuist system.

Speech recognition and traditional transcription are managed side-by-side, with full visibility for administrators. Voice files designated for recognition are routed through the speech recognition engine. Likewise, at any time, work can be routed to an outside transcription resource—all part of the system's workflow, and with complete visibility to the HIM Administrator.

## EHR Integration

Converting narrative into structured data that powers Electronic Health Records will help healthcare facilities demonstrate “meaningful use” of their EHR solutions. MedQuist is deeply involved in partnering with its customers and other members of the HIM community to facilitate the long-term move to EHRs.

The core integration that MedQuist has developed within its dictation and transcription solutions fits naturally into the technical workflow that will support an EHR. Healthcare organizations will be able to maintain the efficiency of their current processes from a physician perspective, but still derive the benefits of Electronic Health Records, using MedQuist's technology- and service-based solutions.

## Integrated Report Coding

User-friendly, comprehensive and adaptable, MedQuist CodeRunner™ Computer-Assisted Coding (CAC) pulls costs and time out of the coding process, while functioning as an integral part of an organization's overall documentation workflow. Coders can work remotely using built-in scheduling, coding and messaging tools, and clinicians can review records and respond to inquiries immediately over a secure Internet connection. MedQuist Coding solutions' simplicity and flexibility allow authorized users to learn quickly and streamline workflow.

## Flexible Physician Interface

One key to success in speech recognition adoption is its ability to offer physicians easy access to dictation input options that match personal preferences as well as the needs of the healthcare facility.

- **Telephone Dictation**—although Internet based, speech recognition software offers flexible input from any telephone, letting you easily bring the benefits of speech recognition/digital dictation to any physician in your facility.
- **PC-based Dictation**— physicians have the ability to dictate from any web-based workstation and view reports for electronic signature. Physicians can dictate and review speech recognized text in real-time, or can view reports transcribed in the traditional manner. Once reports are reviewed, physicians can electronically sign them, and they are then available for electronic distribution.

## Speech Recognition Benefits

- **Significantly increase MT productivity and reduce turn-around time**--MT becomes an editor – significantly faster than straight transcription.
- **Increase capacity of in-house staff**--Existing staff can accommodate growing volume needs.
- **Compatible with EHR templates.**
- **Built in Quality Management tools offer savings over and above Speech Recognition.**
- **Improve management of labor resources with robust Workflow Tools.**

## Flexible Options

### Input Devices



PC DICTATION



TELEPHONE



SMART PHONES



MOBILE DEVICES



DICTATE STATIONS



FRONT-END SR



### Platform

DocQment Enterprise Platform® (DEP) integrates document workflow and speech recognition into a unified platform



### Data Options



**TRANSCRIPTION**  
Domestic, Global  
Or MTSO Partner



**BACK-END  
SR EDITING**  
Domestic, Global  
Or MTSO Partner



**CODING & DATA  
ABSTRACTING**  
Products & Services  
(CAA & CAC)



**BUSINESS  
ANALYTICS**  
Performance  
Monitoring



**EHR  
INTEGRATION**



**REPORT  
DISTRIBUTION**  
Print, Fax, eSign

Find out how MedQuist can lower operational costs, improve revenue cycle management, and promote EHR adoption with:

- Speech Recognition Solutions
- Transcription & Editing Services
- Workflow & Analytics Systems
- Computer-Assisted Coding and Data Services



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