

## Case study

# AI-powered CDI workflows help Randolph Health drive efficiency and financial outcomes

Randolph Health



## Randolph Health



Eastern United States



Nonprofit community health system



1 community hospital and 24 practice locations



145 staffed beds



200+ physicians and advanced practice clinicians

## Health system profile

Randolph Health, anchored by a 145-bed community hospital, is the leading health services provider in Asheboro and Randolph County in North Carolina. The health system offers high quality inpatient and outpatient services, including maternity, emergency, home health, intensive care, medical/surgical, rehabilitation and wellness. Randolph Health is the proud recipient of multiple quality and safety awards and accreditations, including Top Performer on Key Quality Measures® by The Joint Commission.

## 3M technologies

- 3M™ M\*Modal CDI Collaborate
- 3M™ Coding and Reimbursement System (CRS)

*“The 3M CDI Collaborate technology ended up really paying for itself with some of the dollars that we were able to secure with DRG reimbursement from the tool and the work CDI has done.”*

– Pamela Thompson, RHIT/CMT, director of health information management at Randolph Health

## The challenge

When Randolph Health kicked off its clinical documentation integrity (CDI) improvement initiative, the organization was at a crossroads. Its CDI program was generating results – but with only one CDI specialist and manual processes, it was struggling to move to concurrent reviews and extend results to a larger volume of cases.

Pamela Thompson, RHIT/CMT, director of health information management at Randolph Health, had a new requisition for a second CDI specialist to help address workload challenges – but first, she wanted to explore CDI technology and evaluate current workflows.

“I needed to determine if I actually needed another position, or if we could absorb that functionality of the CDI workflow with software,” Thompson said. “The manual process was not working effectively and efficiently, so I knew that technology would enhance and improve our ability to review more charts. I also wanted to begin to transition to concurrent reviews. At that point in time, we were doing some concurrent, but mostly post-discharge reviews.”

According to Thompson, reporting was also a problem. “We were spending lots of hours pulling together spreadsheets for administrators, so I needed software that made it easier to report on CDI outcomes.”

## The solution

Thompson gathered key stakeholders and began the process of evaluating CDI technology.

“When I saw the **3M™ M\*Modal CDI Collaborate** software, on the very first day right out of the gate I was truly impressed,” Thompson said. “With the natural language processing (NLU) functionality, it just was something different than I had seen from the other vendors. It really drilled down to the workflow in a way I knew our CDI specialist could benefit from.”

After Thompson and her colleagues chose 3M CDI Collaborate, they were joined by the 3M adoption team to chart the strategy. It was important to keep it simple – while 3M CDI Collaborate’s NLU engine includes hundreds of conditions and diagnoses, the strategy was to start with the low hanging fruit and then build on that success.

## Real results

Randolph Health uses **3M CDI Collaborate** to enhance chart review and query workflow, using advanced artificial intelligence (AI) and NLU to identify missing specificity and query opportunities and improve documentation accuracy. The results to date:



### Financial:

- Average **1.49%** medical case mix index (CMI) increase per year due to CDI
- Associated revenue improvement of **\$567,716** per year on average



### Clinical:

- Additional **2.13%** MCC/CC capture on average per year due to CDI
- Additional **\$325,833** in protected billing from clinical validation queries



### Operational:

- Productivity increase equal to **1 CDI FTE**, avoiding additional staff

## Out of the box capabilities

According to Thompson, the implementation went very smoothly. “We did not need much tweaking or configuration,” she said. “We’re a community hospital, so once I got my list of our top 10-12 diagnosis related groups (DRG), we said, ‘let’s start with our out of the box options and just add those things to NLU so that it will pop up for that specific missing documentation.’”

Once the organization was up and running, the team quickly identified additional query documentation opportunities, and worked with their 3M adoption specialist to turn on additional diagnoses. “We just continue to add and capture what we need in that query document,” Thompson said. “We want our CDI specialist to always have what she needs for the physicians to be able to really review and drill down to specificity.”

## Concurrent reviews and quality initiatives

Two months after going live with 3M CDI Collaborate, Thompson and her team had successfully transitioned Randolph Health’s CDI program to fully concurrent reviews – achieving a long-standing goal. “Once I made that decision,” she said, “I reached out to my hospitalist group, saying, ‘Effective the first of the month, we’re going live with concurrent documentation reviews. You will begin to receive queries on your chart and incomplete chart lists of patients you see in house. So, please respond to these items promptly.’”

The move to 3M CDI Collaborate also opened up new opportunities to partner with the organization’s physician advisor and quality department on important initiatives such as patient safety indicators (PSIs) and value-based purchasing.

“Our CDI specialist works closely with our physician advisor. There have been opportunities where our physician would say, ‘Can CDI turn on this NLU rule or that one?’” Thompson said. “I know our physician was extremely happy with the outcome of some of the things that she reviewed, and it’s simply because of the CDI partnership and what we were able to do with 3M CDI Collaborate.”

## Results so far

Thompson credits her team’s work with 3M CDI Collaborate for significant financial outcomes and improved efficiency. “It’s helped us maximize and enhance physician documentation – that’s at the forefront,” she said. “It’s really helped us streamline the whole throughput process, from documentation through to payment of claims. And, we were able to completely transition to concurrent CDI functionality and workflow, which was really helpful.”

Reporting – once a highly manual, time consuming task – has dramatically improved. “With 3M CDI Collaborate, we have just wonderful reporting,” Thompson said. “We can see CDI productivity without my CDI specialist having to try to keep up with that manually. I can see the number of queries that are submitted, and the number of physician query responses and their percentage, which I had never seen before.”

As a result of the CDI initiative, Randolph Health has seen an average 1.49 percent increase in case mix index (CMI), with additional revenue of \$567,716 per year on average – a substantial increase for a standalone community hospital.

*“I can’t say enough about the 3M team and the collaboration that we have with them.”*

—Pamela Thompson, RHIT/  
CMT, director of health  
information management at  
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The organization also captured an additional 2.13 percent average per year of complications and comorbidities (CC) and major complications and comorbidities (MCC) due to CDI efforts, with a savings of \$325,833 in protected billing from clinical validation queries.

Finally, according to Thompson, 3M CDI Collaborate maximized her team's workflow, so she and her CDI specialist were able to accomplish their documentation integrity objectives without having to hire additional staff. "It ended up really paying for itself with some of the dollars that we were able to secure with the tool and the work CDI has done," Thompson said.

## The future

As for the future, Thompson said she will continue to shoot for the moon. "Our goal is to just continue to have the best documentation we can have on our charts," she said. "For those opportunities we feel like we are missing, we'll continue to bring those opportunities to the forefront and see what we can do to improve. And, we'll tweak our reporting as we go in response to our administration's requests."

As part of Randolph Health's 3M CDI Collaborate adoption, a 3M adoption specialist will continue to support Thompson and her team in driving continuous improvement. "I can't say enough about the 3M team and the collaboration that we have with them," she said. "Having that collaboration in real time with a person that you can pick up the phone and call or email, and not have to go through a switchboard process – that to me has just been amazing for us."

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—Pamela Thompson, RHIT/  
CMT, director of health  
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