



As part of the eighth annual Clinical Documentation Improvement Week, ACDIS has conducted a series of interviews with CDI professionals on a variety of emerging industry topics. **Karin Killenberger, RN, BSN, CCDS**, a CDI specialist for Baylor Scott and White (BSW) based in Howell, Michigan, and a member of the 2018 CDI Week Committee, answered these questions. Contact her at [karinkillenberger@gmail.com](mailto:karinkillenberger@gmail.com).

**Q According to the 2018 CDI Week Industry Survey, 73% of respondents now use a completely electronic health record (EHR). Last year, that group included 48% of respondents. How do you see the rapid adoption of EHRs changing the way CDI professionals conduct their jobs?**

**A** Implementation of the EHR is a huge time saver, as now the CDI specialist does not have to go from unit to unit, tracking down charts—including sometimes returning to the floor to place a paper query on the chart, and returning once again to see if it was answered.

Sending queries electronically also solves that “I think the query must have gotten lost” conundrum. There’s also the added benefit of being able to read what the physician wrote without standing on one’s head and squinting.

Everything is easily accessible, in the same place, in every chart. Everything—labs, operative notes, radiology results—is in one place, making it easy to look up needed information. Just flipping through that paper

chart to find what was needed took so much time, and no two floors filed paper information in the same place. The EHR has really made a CDI specialist’s job much more streamlined and efficient.

**Q Where does your facility/organization stand when it comes to EHR implementation?**

**A** We’re 100% EHR now.

**Q Were there any real sticking points with the transition to a fully electronic system?**

**A** BSW was already 100% electronic when I joined the team, but I was at several hospitals that went to a full EHR when I was a traveling CDI. Something I saw over and over was a problem with the older physicians who either did not want to use the computer, or thought they should be exempt. I actually knew of several who made the decision to retire based on EHR implementation.

Additionally, there were the initial hiccups of not being able to find information, knowing how to navigate the

EHR, etc. There was always training available, but not every doctor took advantage of it. In some hospitals, it became the job of the CDI specialists to learn the physician view and be available to assist the physician in the use of the newly implemented EHR. Occasionally there were other hiccups with certain documents “flowing” into the EHR. For a time, a hybrid system was in effect as these problems were worked out. Usually, the transition went much smoother than expected, but a LOT of prep work went into making the transition work.

**Q According to the Industry Survey, 53% of respondents use computer-assisted coding (CAC) or natural language processing (NLP). Does your organization use CAC or NLP to assist with record reviews? If yes, how has it affected your CDI workflow and productivity?**

**A** Yes, BSW, and many of the other hospitals I’ve worked at use CAC. At one, we used NLP, but the results were poor and it was abandoned. CAC can be wonderful if the CDI specialist is continually double-checking to make sure it is a current diagnosis. So many notes include old information that will make CAC recommend the code as a current one.

I do see lots of documentation from physicians using NLP that is scarily bad. I wish the doctors had time to go back and proofread what they dictated and signed.

We always need to remember that CAC is not foolproof and we still need to check that clinical indicators are there for what is suggested. It does save time on clicking around to find the right diagnosis, but we do need to make sure it is not taking us down the wrong coding path. Thankfully, CAC will not make CDI specialists obsolete any time soon.

**Q Do you work directly with your IT department? Does your IT representative regularly sit in on meetings with the CDI team, or does the administration regularly meet with the IT representative? Does your IT representative from your facility regularly meet with representatives from your CDI and EHR vendors?**

**A** In some hospitals, yes, IT does work directly with CDI. In others, not so much, that I’ve experienced.

They sure get calls when our CDI or EHR is not working properly, and usually they are able to fix whatever the problem is in a very timely fashion.

I do remember a time when the software was not upgrading by the date of new coding updates and we could not code certain diagnoses. Now that was a fiasco!

**Q Do you take provider feedback into account when changing, updating, or enhancing functionality in the EHR or CDI software?**

**A** I have never been involved on that end. I do know that certain physician requests were not able to be implemented, as the functionality they requested was not available (i.e., certain colors to mark their queries in the chart, etc.)

**Q Do you have staff who now work remotely as a result of the electronic system? If so, are they 100% remote, or do they work part-time on-site and part-time at home?**

**A** At BSW, it is about 50/50. At other hospitals I’ve worked for, all CDI specialists were required to be on-site due to physician request, the newness of the program requiring lots of physician education.

**Q How has remote staffing affected productivity and physician engagement?**

**A** At BSW, I believe the remote work has increased productivity, and physician engagement has been good.

But it’s important for readers to also know that the BSW CDI program was initiated and is overseen by physicians, which I find awesome and amazing.

**Q How do you handle team education with remote team members? What about physician education?**

**A** I personally am buddied with newer CDI specialists as a resource, which seems to work well. All physician education comes from the physician leaders of the CDI program.

**Q Is copy/paste an issue at your organization? If so, how is CDI working to combat it?**

**A** YES! It is a huge issue, as the notes are barely updated from admission to discharge by some physicians.

We write a lot of clinical validation queries, asking if a diagnosis is still current or needs to be deleted from the active problem list, or asking for acuity, due to copy/paste issues.

**Q How have you leveraged technology to improve CDI efforts (e.g., have you built query templates in the EHR or prompts for the physicians using dropdowns, etc.)? Can you provide an example or a specific outcome?**

**A** The physicians at BSW work nonstop, it seems, to update query templates. They also implemented new software (eMD) so that we no longer have to copy and paste queries into EPIC (our EHR software), which really saves us time.

The physicians now have the ability to answer queries with a check, and that note is now part of the permanent medical record.

**Q ACDIS: According to the Industry Survey results, 13% of respondents are planning to move to an electronic record by the end of the year or sooner. What would you recommend to them to ensure a smooth transition?**

**A** Get a good, easy-to-use program that works for both the physician side and the CDI side. Make sure it covers everything you need, and all disciplines have access to it, and the ability to see each other's work, lab results, radiology results, operative notes, everything. Make training a priority and a requirement.

Don't let doctors say they are too busy for training—make them come to training. Entice them with promises of food if you need to, but make them show up and go through the training. Have “super-users” roaming the places doctors usually do their ordering and notes to offer assistance the first few weeks, so that at-the-elbow demonstrations can be done. Have those super-users available on all shifts that first week or two.

Use email blasts to offer tips, helpful hints, how they can set up their favorite phrases, note templates, etc. Or have a computer “lab” for physicians to come to for the first couple of weeks, where they know they can find someone who can help them. It will pay off with better physician engagement and success of use.

**Mark Morsch** is the vice president of general management from Optum360 in the San Diego area of California. His focus is on developing products using natural language processing and artificial intelligence technologies to help transform healthcare. Morsch has more than 20 years of experience leading teams and creating solutions to support a flexible and learning healthcare system. Here, Morsch discusses technology's role in the future of CDI.

Implementation of EHRs and other technologies is well past the early adopter stage. Some facilities now even consider it mainstream to use NLP and artificial intelligence (AI) to identify cases that could be good candidates for CDI staff to review. That kind of AI technology drives electronic workflows, which in turn helps improve productivity, specificity, and opportunities for program advancement.

Technology is essential to help enable CDI to grow and extend their reach. However, supporting this growth depends upon the ability of these technologies to identify cases proactively that have the highest likelihood of documentation gaps. We call this case finding. Focus areas of case finding technology include both traditional CDI DRG-based reviews as well as newer focus areas, such as clinical validation, and quality concerns like Patient Safety Indicators, present on admission, and hospital-acquired conditions. CDI program leaders identify the focus areas, and work with the technology to categorize the potential type of problem, the financial class (payer), prioritize the data, and bring all this information forward into the CDI specialists' workflow. From there, the CDI team can apply their higher-level skills and make decisions regarding whether they need to wait for more information, submit a query, or move on to other records.

Of course, everyone has heard horror stories regarding electronic infrastructure not working properly or related to blackout periods as new EHR systems get put into place. And, fully integrating EHR with the wide variety of other electronic systems in use at any given facility or system represents a challenge—the least common denominator is always a piece of paper someone is using in some department. However, AI and NLP can leverage fully connected EHR systems to access all of the clinical documentation available, from the lab data to progress notes, and bring that forward in a way that's relevant from a CDI perspective.

Technology is an important tool to enable concurrent review for CDI programs. With it, workflows can be updated based on information continuously, and that infrastructure and level of integration opens up a number of possibilities to get the documentation right as quickly as possible.

Additionally, with this type of electronic infrastructure, programs can identify information gaps and all the actions/data points along the workflow in order to measure outcomes. This data can help quantify the impact of CDI and the results of the program. With it, CDI managers can operationally determine the volumes and the opportunities within the concurrent review system and staffing. From an analytics and reporting standpoint, the CDI team can then assess quality and measure outcomes in a detailed way. These systems provide tremendously rich data. Old ways of manually tracking are difficult to scale, and technology can take you to a different level of system-wide information, information that leaders need in a timelier way to move programs forward. and moving toward a real time view.

That's particularly true for programs moving to outpatient CDI due to the nature of the situation—more locations, quicker visits, more players. However, there is a wide variety of definitions of what people are looking for in outpatient. Some programs need systems based on Hierarchical Condition Categories, others want information related to observation status, some medical necessity.

Regardless, there's both the ability to apply technology such as case finding into the outpatient field while also considering how these different settings have their own special needs regarding the workflow and the diagnosis and coding requirements.

Over the years, the healthcare industry has definitely shifted toward a focus on providing better care in the

most appropriate setting, and that's played out in a variety of regulatory efforts as well. Now, we're seeing a sensitivity toward the administrative burden these efforts placed on providers, and that's something we all need to be aware of.

A global (healthcare) interoperability will help to break down the barriers of the exchange of information and help physicians get the right information they need to make appropriate clinical decisions for their patients.

If you step back and look at all the pieces that go into ensuring the information in the health record is accurate and supports clinical care, research, coding, and billing, there's no question it's a complex system.

Simplifying the system is an important goal, and technology can take some of that burden to streamline it and help CDI professionals in their roles to capture complete and effective documentation and support a more global approach to CDI.