



**Leveraging  
Technology to  
Advance  
CDI Efforts**

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# Leveraging Technology to Advance CDI Efforts

**S**ome clinical documentation improvement (CDI) programs have been around for more than a decade. Many even predate government electronic health record (EHR) implementation incentives.

Early on, CDI programs served as an easy way to safeguard hospitals' case-mix index and overall reimbursement levels. They did so (and still do) by concurrently clarifying physician documentation, which enables coders to capture the highest levels of complexity for the care doctors provide. Today, improved productivity associated with EHRs and electronic query systems (e-queries) provide CDI programs the flexibility and supportive data to meet the ever-changing needs of the healthcare systems they serve.

In the days of handwritten medical records, coders and nurses often kept scrapbooks of the worst of physician documentation. In addition to translating handwriting hieroglyphics, CDI professionals dug through masses of paperwork—from the patient's history and physical to the review of systems to the discharge summary—looking for evidence of missing or vague diagnoses.

Today, 72% of CDI professionals use an electronic tool to query physicians for clarification of medical records, according to data from the 2017 Physician Query Benchmarking Survey by the

Association of Clinical Documentation Improvement Specialists (ACDIS). (See the related chart for a breakdown of electronic system benefits.) These tools automatically target common documentation improvement opportunities and set them in a CDI specialist's queue to review.

Prior to EHRs and e-queries, CDI staff chose records nearly at random to review, printed queries on brightly colored paper to catch physicians' attention, and tracked physician responses on homemade spreadsheets. Today, technology enables CDI specialists to craft queries from their workstations and embed them within the patient's medical record for easy physician response. Data collected from electronic record and query systems provides administrators actionable information from which to set priorities and identify education needs.

Simply put, the advent of EHRs and e-queries changed how CDI specialists work—and the days of misplaced paper queries and incoherent penmanship are all but gone.

"The merging of EHRs with other software, such as CAC [computer-assisted coding], has allowed us to use a variety of tools in our CDI practice never before available," says Laurie Prescott, MSN, RN, CCDS, CDIP, CRC, CDI education director for ACDIS.

## Physician engagement

Physicians list changing documentation technology as a leading cause of burnout, according

to a HealthLeaders Media report published in February 2017. Facilities with long-standing CDI programs in place, however, can leverage relationships with physicians to make technological transitions easier and ensure appropriate use of EHRs, suggested Colleen Stukenberg, RN, MSN, CMSRN, CCDS, director of resource management at FHN in Freeport, Illinois, in a 2016 CDI Week Q&A for ACDIS.

"There will be little things that physicians forget," she says. Yet armed with intimate knowledge of the programs chosen, CDI staff can help physicians navigate the EHR and provide real-time assistance once the programs are in use, says Stukenberg. Involving CDI staff members in EHR and e-query steering committees throughout the development and implementation stages secures the usability of such systems and keeps communication lines open, she says.

"With any new system, issues are going to have to be addressed," Kathy McDiarmid, RN, CDI specialist at Beverly Hospital, a member of the Lahey Health system in Massachusetts, told ACDIS' CDI Journal in December.

Lahey updated its EHR and coding systems at the same time, in August 2015—just a few months before the ICD-10-CM/PCS go-live date. The process was fairly seamless, McDiarmid says, with ongoing education throughout. Nevertheless, CDI professionals need to work with vendors and in-house information technology staff as a cohesive team, she says, in

order to “customize the features to suit both physician and CDI needs.”

Similarly, when Cape Cod Health System in Massachusetts began researching its EHR and electronic query options, communicating queries to providers represented a key concern for Patricia Barry, RN, BSN, M.Ed, manager of clinical documentation integrity and education.

“CDI teams need to use their software to its fullest capacity,” Barry told ACDIS. CDI program managers need to “figure out how to get the most out of the system and use all features that benefit the query and communication processes.”

Before going electronic, the CDI team at Beverly Hospital struggled with query process efficiencies, McDiarmid says. Different providers wanted different ways to interact with CDI staff members—some wanted queries in the chart, but others wanted an email so they didn’t have to use the chart. The EHR streamlined that process, she says.

Now, CDI specialists file queries via the EHR. Providers receive an email notification and are expected to check queries regularly. The CDI team worked with the vendor to create a separate query folder for each provider, so the queries don’t get mixed in with providers’ other emails, says McDiarmid.

Additionally, EHR implementation shifted CDI staff from the hospital units to the computer, which means fewer on-the-floor interactions with providers. While that may represent the biggest transition for the team at Beverly Hospital, it also provided some proficiencies, says McDiarmid, including in the team’s query physician response rate—which rose by nearly 10%.

Nevertheless, CDI programs need to maintain face time with the medical staff, Prescott warns. “In my travels, I have encountered programs in which the query response rate has dropped once they changed to an electronic system,” she says.

“The loss of face-to-face communication between CDI and physicians also presents a potential pitfall with regard to establishing professional trust and invoking behavior modification with regard to documentation practices within the physician culture,” agrees Allen Frady, RN, BSN, CCDS, CCS, CDI education specialist for ACDIS in Middleton, Massachusetts.

Those used to the old days of rounding with the physician or catching doctors as they sat down to document or dictate notes “need to be creative in finding ways to engage providers and establish face-to-face time,” Prescott says.

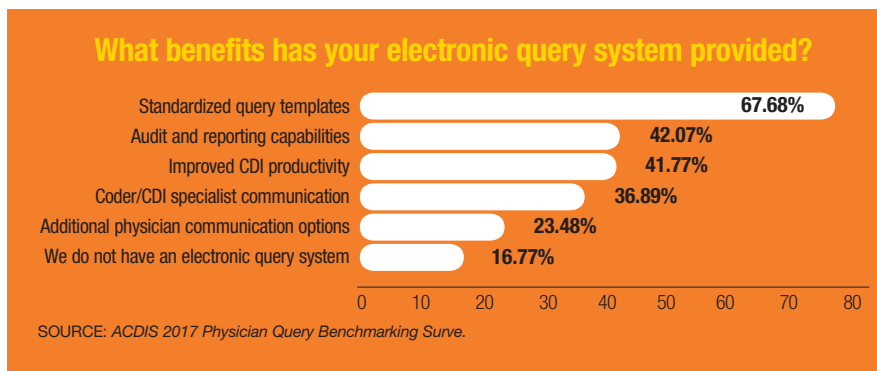
### Ongoing challenges

Despite the benefits of EHRs, they also present some persistent challenges. Note bloat, copy-and-paste errors, inappropriate drop-down menus, cloned progress notes, tech troubleshooting, and effective communication

One of the biggest challenges stems from integrating different vendor products within the hospital’s existing systems, says Frady. “While most of these systems are highly customizable, the quality of the actual implementation varies wildly from one instance to another,” he notes.

Frady says it’s helpful to leverage CDI staff’s knowledge of documentation workflow in the early days of technology research and implementation. However, no single solution will completely tame the complexity of today’s clinical documentation needs.

Overall, though, EHRs and electronic queries seem to represent forward steps for the CDI profession. “We no longer have to search the entire hospital for a single paper record within which individual pages often went missing. CDI specialists no longer employ a single paper query that can be ripped off and lost. Now, multiple team



members can access these records simultaneously, and when the medical record is edited or updated, it is simultaneously updated for everyone involved,” says Frady. “All this enables rapid communication, with easily definable data fields and criteria, [which has] greatly helped give CDI specialists direction in their daily workflow.” ■

“Copy-and-paste concerns really go back to how well your system was built, how much input the various users had, and what the regulations are. For example, do the lab results get pulled into the medical record automatically? If not, physicians will need to pull it into their note if they want to use the results in their documentation,” Stukenberg says.

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By Melissa Varnavas, ACDIS Associate  
Editorial Director





# Q&A: Technology Shifts CDI Programs' Promise

**Kelly Gates, RN, CCDS, strategic product manager for Optum CDI-3D technology, has more than 25 years of healthcare experience spanning nursing, administration, and consulting; she specializes in hospital revenue cycle management.**



**Kelly Gates, RN, CCDS**  
Strategic Product Manager  
Optum CDI-3D technology

Within the realm of clinical documentation improvement (CDI), Gates has worked with hospitals both small and large. Her experience includes leading CDI software implementations, electronic health record (EHR) integration projects, and CDI product development. She has a special interest in change management related to identifying and reducing inefficiencies in process and workflow. As a former Recovery Audit Contractor auditor, she developed a passion for the integrity

of the medical record, which set her on her professional journey to support best-practice documentation.

## How have new technologies associated with EHR and electronic query systems (e-queries) changed CDI practices?

With the advent of the EHR in healthcare organizations, there have been several impacts both to new and mature CDI programs. There are obvious productivity wins, such as minimizing waste of valuable CDI time. Recall that not too long ago the standard workflow was to print the admit list, travel to the nursing unit, and systematically pull each paper chart for review. Present day, EHRs can reduce those inefficiencies with access to clinical content from multiple areas in one centrally stored location. Even further, EHRs can support hospital organizational initiatives as they break down the silos of differing departments. Specific to CDI workflow, one example would be the use of the working DRG to support length-of-stay initiatives and assist case managers in facilitating discharge planning.

There are some advanced EHR and software applications which are able to perform a first level of screening, which in turn prioritize reviews onto a CDI worklist. Some CDI software applications which interface with the EHR, identify gaps in documentation and automatically query a physician without CDI intervention. While promising, it still remains CDI's responsibility to ensure that queries are non-leading, well formatted, and fully supported by clinical indicators. In consideration, the fact remains undisputed: these technological gains are not meant as a CDI staff member replacement. These applications are meant to augment

prioritization efforts and to allow the span and expertise of the CDI to impact more records for clarity in vague medical record documentation is required.

Regarding e-queries, ideal technology will facilitate a physician query straight into the physician's workflow within the EHR, resulting in an increase in physician responses and a more ideal solution for tracking and reporting response rates. Even better is the interface that exists in some technologies which provides real-time alerts to the CDI upon sign-on as to when the physician answered and/or sent a response. Again, a positive gain in productivity by replacing current processes of logging onto a patient account multiple times to verify physician responses.

## After streamlining productivity, where can technology take CDI programs?

Technology has supported a CDI program metamorphosis of sorts--the scope of CDI reviews have changed with the use of EHR and changing healthcare dynamics. Historically, CDI programs evolved around MS-DRG reimbursement methodology. Technology is producing data allowing an unprecedented level of transparency around the reporting of outcomes. Government and public interest now push organizations to whole new levels of accountability. Resultantly, CDI programs are garnering a whole new level of organizational appreciation and awareness. The value of the concurrent review process in translating the patient's complete medical picture into a series of ICD-10 or CPT codes allows for partnerships with more hospital departments. Burgeoning relationships result with outcomes including the better capture of chronic conditions, the facilitation of care coordination in disease management and risk adjustment. These drive improvements in proactively planning the financial resources to provide quality care, as well as potentially decreasing the risk of future readmissions.

Whether bridging the gap from a hybrid to a full EHR or continuing integration efforts among separate applications into a centralized EHR, take this opportunity to carefully reflect upon preexisting workflows and question if they are now being supported or replaced by technology. Question and challenge others to explore the need to redefine old-school productivity metrics. Finally, one final thought: Often the savviest of software or EHR implementations fail to produce substantial impacts to CDI workflow and productivity. Sadly, too often, this is because the users refuse to embrace new workflows to effectively capitalize on the gains in efficiency. Some just find comfort in continuing to work the process that they have followed from the beginning.

