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CONTINUING EDUCATION CREDITS

BONUS: Obtain one (1) CEU for reading this Journal
ACDIS members are entitled to one continuing education credit for reading the CDI Journal and taking the 20-question quiz. Visit the May/June Journal page on the ACDIS website to take the quiz.
Growing pains: Resources for CDI evolution

by Linnea Archibald

The whole world is living in a time of transition right now as the COVID-19 situation develops day-by-day. CDI teams have had to adapt to remote work, changing patient census numbers, taking on additional duties, and occasionally even taking furloughs. While these changes have happened at a breakneck pace, CDI programs go through evolutions even under normal circumstances. For this edition of the CDI Journal, we want to help you through those evolutionary stages—from program launch to advanced program levels.

To help you identify which articles would apply to your specific program stage, we’ve marked each feature-length article in the table of contents on p. 3 with a “B” for beginner, an “I” for intermediate, or an “A” for advanced. We know everyone’s definition of these stages varies slightly, but we hope it’ll at the very least provide you some initial guidance.

For those who are just getting their CDI program up and running, ACDIS Associate Editor Carolyn Riel put together a helpful article on the ins and outs of CDI steering committees and program launches. This article, included on p. 6 of this edition, covers committee formation, meeting and agenda planning, prep and follow-up, and the committee’s role after the program formally launches.

Those in an intermediate stage are likely to expand their CDI chart reviews beyond CC/MCC capture for DRG and reimbursement accuracy, so Riel spoke to several CDI professionals about how they implemented quality-focused reviews. Her takeaways can be found on p. 17.

With an expanded review focus comes the need for greater interdepartmental collaboration, so we’ve also included an in-depth case study on p. 22 focused on how one organization cross-trained their CDI, coding, and quality departments to improve collaboration and understanding. For a great companion piece to this case study, turn to p. 20 and read how the CDI team at ProHealth Care collaborated with the case management department on observation reviews.

As your program matures and changes over time, you may find it difficult to define what having an “advanced” program entails. While one organization may define its CDI program’s level based on the projects...
the CDI team has taken on, another down the street may measure it based on the years the program has existed. To help clear some of the fog, our advanced article on p. 29 focuses on all the possible definitions of “advanced” and what leaders need to know and do to bring their programs to maturation.

No matter the stage your CDI program finds itself at, this is a time of change and flux for all healthcare organizations. To address the concerns of our present moment, we’ve included an article geared toward CDI leaders on managing and engaging CDI staff who have gone remote due to the COVID-19 pandemic. In this article on p. 11, I had the privilege of talking to several of our ACDIS CDI Leadership Council members and getting their take on the situation and their best-practice advice for continuing to manage teams effectively.

We also asked our expert ACDIS CDI Boot Camp instructors to lend their expertise to the edition and have included a detailed Q&A about COVID-19 and cytokine storms (see p. 15) and a recap of the First Quarter 2020 Coding Clinic release (see p. 32). There’s also a great guest column about how CDI professionals can assist with clinical validation, denials prevention, and appeals on p. 27 and the return of our regular Meet a Member feature on p. 34.

We hope you find help within this edition’s pages, no matter where you are on your CDI journey. Remember, too, that this publication is just one of the places you can go for assistance. The ACDIS Resource Library, CDI Strategies, the ACDIS Podcast, the ACDIS Blog, and the Forum are great ways to get your questions answered, discuss this edition’s contents, and find up-to-date information. And, as always, please reach out and let us know how we can help you.

Linnea Archibald

The whole world is living in a time of transition right now as the COVID-19 situation develops day-by-day. […] While these changes have happened at a breakneck pace, CDI programs go through evolutions even under normal circumstances.

Linnea Archibald
Before launching a CDI program, it’s helpful to gather all the stakeholders and form a steering committee. This group will provide strategic oversight for both the program’s initial launch and ongoing growth. Figuring out how to form such a group and whom to involve, however, can be a challenge.

For some, the committee’s formation will come after doing initial research and securing leadership support at the organizational level. “Initially, the advisory board came in and looked at the opportunity for a CDI program,” says Julie Fenton, RN, BSN, CCDS, manager of CDI at St. Mary’s Healthcare in Amsterdam, New York. “At this point it was the full administration rallying and looking at CDI opportunity, so it was initially driven by the administration.”

For others, leaning into existing departmental efforts will be the key. Jennifer Boles, CPC, CRC, a system manager of ambulatory CDI at Baptist Health System in Louisville, Kentucky, suggests looking into whether other departments are already working on similar projects and could align their efforts to become the CDI department’s steering committee.

“We called it an HCC [Hierarchical Condition Category] collaboration meeting that we did monthly,” she says. The collaboration started when the chief health information officer noticed that departments were working on similar projects.

No matter what method or name you choose, the first step to forming a steering committee is identifying the people who will be involved.

Committee formation

Before the steering committee is implemented, the organization needs to choose the best leader to spearhead the program, says Barbara Anderson, RN, MSM, CCDS, healthcare manager with Huron Consulting in Chicago. Whoever is at the helm needs to “possess strong leadership skills, be knowledgeable, have good communication skills, and be a collaborator.” Once that person is in place, Anderson recommends he or she reach out to potential committee members individually.

“For a steering committee, start having one-on-one meetings with each potential member to introduce them and educate everyone.
on the reason for the program,” she says. “Include potential benefits to the organization such as financial, quality, and patient care continuity.”

CDI leaders should explain what the program will look like and how the CDI team will interact across departments. “If possible, provide data to show projected benefits, making a business case to each potential member,” she says.

Anderson says that while a steering committee for outpatient and inpatient CDI might have members from slightly different departments, the core group of stakeholders should include:

- CDI manager/director and physician advisor as co-leaders
- Coding manager/director
- Hospitalist lead
- Chief medical officer
- Chief financial officer (CFO)
- Revenue cycle manager/director
- Compliance department representative

She also says that the committee could include ad hoc members, such as specialty chairs, the nursing director, case management, utilization review personnel, quality staff members, denials and appeals, and folks from the respiratory therapy, dietary, wound care, rehabilitation, and psychiatry departments.

“You want to develop CDI program advocates early on and make sure they understand the value of the program and how each of them has to play a role in the program’s success,” Anderson says. She recommends keeping members informed, and to call on them when needed to educate, assist with a regulation change, or weigh in on a departmental documentation issue.

Some of the most valuable advocates you can attain during the early stage of program development are those are on the upper organizational leadership team.

“We were lucky that upper leadership said we had their buy-in already,” says Boles. “It was important for us to make sure we had all hospital CDI staff managers and directors on board, being that we were starting an ambulatory CDI program.”

Keep in mind that different steering committees will need to meet for varying lengths and amounts of time before the CDI program is implemented. “It was about a six-month planning process, then implementation transition took another six months,” says Fenton.

The committee’s work doesn’t end when the program officially begins, Anderson adds. The fledgling program will need their support.

“It’s important to put the committee in place for at least monthly meetings to guide the CDI program development and begin to garner the needed support,” she says.

Meeting, agenda planning

“Initially, the committee met once a week and the advisory board led this,” says Fenton. “When the program first went live, we still had these weekly meetings for roughly six months, but now we’ve switched to biweekly meetings.” The consistency of the weekly meetings, she says, helped to heighten engagement while things were beginning.

The first few meetings should include the core stakeholders as well as all of the ad hoc members to provide a strong foundation for discussion going forward, Anderson adds. At first, it’s most important to create a consistent meeting time frame with the key players. What to discuss in each meeting is the next piece of the puzzle.

“Personally, I think it works well to go into the meetings with having created an agenda and talking,” says Boles. “You can report on what everyone is working on or issues in the EHR and ask people if they are working on the same things.”

At times, it may be difficult to encourage participation in the meetings and retain stakeholder buy-in, Boles says. Participants may claim they are too busy to meet or even question the committee’s continued importance.

“But it is important,” she says. “You can even start with simple contact lists, sharing who needs contact between teams,” ensuring that everyone knows whom to contact with their questions or requests on any given topic. Boles recommends having members shadow other departments to see how they work because “it creates education but also bonds between people.”

Once you’ve set the schedule for the meetings and instilled their importance, it’s helpful to set a
standard agenda for each meeting that can be adjusted as needed. The agenda may include:

- CDI program status and plan, such as data that supports the determination to proceed with the program
- Current, projected staffing
- Team member introductions
- CDI consultant team introductions
- The CDI department’s physical location in the facility
- Planned provider education
- Review and approval of group mission statement, policies, and procedures
- Interdepartmental communication plans
- Relevant member updates

While a set agenda is helpful, Boles also says that leaders should be adaptable and adjust the agenda to reflect immediate needs. One meeting may focus on staffing concerns, but physician engagement may take center stage at the next. This gives meeting participants the chance to see the workings of the new department, offer support where they’re able, and join existing educational efforts.

Meeting prep and follow-up

Anderson recommends bringing any initial program data to the meeting and giving it its own agenda item. This will ensure committee members understand the effect they have and will help to create long-lasting buy-in.

For example, when Brittany Gillen, RN’s program was getting off the ground, it had to prove the need for a CDI software solution, and each committee member had to perform independent research to present in the committee meeting. “We are a small hospital and had to track everything manually to first prove that a software program at all was necessary,” she says.

“We worked diligently in tracking success rates with query capture, then showed the financial impact to the committee,” adds Fenton. “We showed our numbers and determined our competitors’ numbers with their software system and showed how something similar would help grow our program.”

While it was difficult to gather that data and present it, the hard work was worth it, ultimately proving their need as well as earning buy-in from other stakeholders.

“The committee members are charged in the beginning with bringing relevant information back from the meetings to their teams and also bringing related issues to the committee for discussion and resolution,” says Anderson. “We’ve seen members get excited about the program and educate themselves further. That’s when you know you have an engaged membership!”

Post-launch structure

After the program launch, the committee likely won’t need to meet as frequently. “Now, we don’t meet specifically for CDI, but we still have biweekly meetings,” says Fenton. “In [each meeting] we address issues with denials management as well as meet with the CFO. We also send out a quarterly report.”

While the meetings don’t look the same as before the launch, Fenton’s organization has an open-door policy so that communication continues to be fluid. Even without formal meetings, the core group can still lend a hand in the program’s maturation, Anderson says.

“CDI steering committees have often disbanded after a CDI program was in place for a few years,” she says. “But more successful CDI programs keep at least the core group meeting quarterly to continue guidance of the program.”

The real strength of a steering committee, according to Fenton, is that it provides a space for networking and connections.

“Networking to make relationships with other CDI professionals—and, I can’t stress enough, having a relationship with the coding department—will help so much,” she says.

As the program builds a strong foundation and matures, remember to keep doing your homework and adapting with the needs of the program and organization. “Be patient with yourself,” says Gillen. “It takes time to learn. Be flexible.”

Remember, developing a program and committee structure that works won’t happen overnight. Stakeholders need to view both the committee and the CDI program as a multiyear investment.

“Support your people and be patient,” Boles says.
NOTE FROM THE ASSOCIATE EDITORIAL DIRECTOR

Bringing the ACDIS conference to you virtually

by Melissa Varnavas

As you read this, maybe you’re thinking about what you might have been doing at this moment in an alternate reality where the global pandemic never hit.

It bears repeating that our hearts go out to those who have lost their jobs, been put on furlough, lost loved ones, or taken ill themselves. This illness will leave no soul untouched.

Among the many sorrows COVID-19 has brought is our inability to physically be there for one another. And for the ACDIS community, if you’re reading this any time during the first week of May, your mind might be wandering to the halls of the Mirage Hotel and Casino in Vegas. I know that mine certainly is.

In that alternate, imaginative existence, we’d be gathering more than 1,500 CDI professionals strong for our annual conference. For CDI specialists everywhere, the national event represents a celebration of the profession and a premier networking and education opportunity.

We certainly had an amazing lineup of speakers and sessions for our “Lucky 13th” annual program, too, including more than 60 sessions, with new session formats such as lightning rounds, split sessions, and panel discussions. We had six tracks planned, each with their own focus, and a new track with sessions on denials management and physician engagement.

We were even going to have a balloon arch. The balloons were going to have the ACDIS logo on them. (Insert frowny-face emoji.)

While I’m sad about the balloons and I’m sad about not being able to see all your beautiful faces, I’m so proud and grateful that we may yet have an opportunity to gather again later this year. Plus, I’m excited to announce that we’re moving forward with “Staying Engaged: ACDIS Presents Virtual Education & Community,” a three-day networking and educational offering featuring a select number of sessions from the previously scheduled main conference with additional information pertaining to the unprecedented educational needs of the CDI profession at this time.

The virtual event will take place June 17–19. ACDIS Director Brian Murphy will kick off each day with a live edition of the ACDIS Podcast: Talking CDI. From there, attendees will log into our traditional ACDIS conference app where they’ll have access to the educational sessions and be able to participate in moderated networking via the app’s discussion feed. Our ACDIS sponsors will be getting in on the act with lightning round sessions, and we’re even planning a “virtual gala” to close out the first day of the event.

Some of the sessions include:

- Keynote speaker Joan Peterson, a Bluepoint Master Facilitator and Leadership Coach, will present “Getting Your Voice Heard,” where she’ll share lessons on adopting a proven communication model that gets others’ attention and makes your message memorable.
James Kennedy, MD, CCS, CDIP, CCDS, and Kathryn DeVault, MSL, RHIA, CCS, CCS-P, FAHIMA, will present “CDI-Pertinent Coding Clinic Updates,” where session attendees will learn the latest must-have advice to leverage the American Hospital Association’s Coding Clinic for ICD-10-CM/PCS and coding fundamentals, including those related to the COVID-19 pandemic.

The ACDIS Regulatory Committee will hold a panel discussion where session attendees can learn about the 2021 IPPS proposed rule that may affect CDI practices, and learn how to make a difference through commenting to CMS.

Sharon Cole, MSN, RN, CCDS, and Amanda Suttles, BSN, RN, CCDS, will present “Let’s Work From Home! Transitioning Your CDI Team From On-Site to Remote,” where participants will be able to explore how to transition from an on-site CDI program to a hybrid or fully remote CDI program and review important policy and procedure developments as well as tips for establishing a home office, communication, accountability, and program oversight.

Those are just a few of the sessions that we’re looking forward to offering, but I’m really excited about the facilitated networking discussions, too. I know what a strong community we have, and I can’t wait for everyone to be able to have real-time discussions with each other about how they are handling several common concerns in these trying times.

While we hope you’ll be able to join us for this virtual event, it’s not the only way to stay engaged. Around the world, as you well know, people are stepping forward to meet this challenge. Healthcare workers, even some of you, have returned to the bedside to help treat patients in overfilled hospitals. People are doing their part by posting their art, leveraging technology for quasi-social interactions, and leaving chalk messages on loved ones’ driveways to show they care.

The ACDIS community, too, is leaning into this challenge and sharing their knowledge and talents with one another. As mentioned elsewhere in this edition of the Journal, Murphy has hosted several COVID-focused editions of the ACDIS Podcast: Talking CDI featuring members of the ACDIS community sharing their processes.

And although many of our local chapter in-person events have had to be canceled or postponed, chapter leadership volunteers have been working with their teams and with us to provide online events or telephone conference calls. In April, the Wisconsin, Michigan, and Washington chapters each teamed up with ACDIS and opened up their online events to any local chapter member who wanted to attend. In some cases, these events gathered more than 300 participants. We are looking forward to holding open meetings with other local chapters throughout the month of May as well. Be sure to check the listings in our weekly email newsletter CDI Strategies.

Additionally, I worked with ACDIS Editor Linnea Archibald to conduct a series of Facebook Live videos running throughout May to check in with our community and share updates about information available to ACDIS members on our website.

Finally, of course, we continue to seek out options to hold the full ACDIS conference later this fall and will be looking forward to meeting you in person there.

These are unprecedented times. Although we cannot be physically together for the immediate future, I know we’ll continue to support one another in any way we can.

Melissa Varnavas

Editor’s note: Varnavas is the associate editorial director for ACDIS responsible for events. Contact her at mvarnavas@acdis.org.
Since the United States reported its first case of the novel coronavirus (COVID-19) in early January 2020, things have changed at a daily pace. At the time of this edition’s publishing, there have been more than three million COVID-19 cases worldwide and more than 200,000 deaths. To deal with the rising rate of infection and increased hospital admissions for extraordinarily sick patients, CDI teams have had to adapt quickly—most began working remotely from home in March, some were asked to adjust query expectations, and others were called to provide support for overworked physicians. And things remain in flux.

“Any day, our program’s daily process could change,” says Robin Jones, RN, BSN, MHA/Ed, CCDS, division director of CDI at AdventHealth in Tampa, Florida.

CDI leaders have had to learn to manage and engage remote staff (in many cases for the first time in their department’s history), bolster physician engagement from afar, and be willing to adapt at a breakneck pace to best serve their organizations and their broader communities.

Adapting to remote work

At the time of the 2019 CDI Week Industry Survey’s publishing, 31.78% of respondents said their organization did not offer remote (work from home) options to the CDI team; only 11.49% worked completely remote. Due to the COVID-19 pandemic, however, CDI leaders’ hands were forced and the majority of CDI teams moved to remote work rapidly. According to ACDIS’ poll on the topic, 79% of respondents are now 100% remote and another 8% are rotating on-site duties on a week-to-week basis. This massive landscape change has forced leaders to adapt quickly in order to best serve their team members’ needs and the needs of the organization.

For teams new to working remotely, the biggest component for success is open and frequent communication. Not only will this keep staff accountable, but it will keep a sense of teamwork alive even with staff self-isolated at home.

“We were a 100% on-site team that moved to 100% remote. We communicate via email and instant messaging as well as a weekly...
huddle. So far, so good. [...] Daily quality and production monitoring are vital to communicate daily,” says Deanne Wilk, BSN, RN, CCDS, CDIP, CCDS-O, CCS, manager of CDI at Penn State Health in Hershey, Pennsylvania. “We started a daily email a few months ago stemming from the needs of the department that goes out each morning. It has been a great communication and workflow tool for my team.”

Having a fully remote team may require some major adjustments for staff and managers, but it also allows staff members to balance family responsibilities with their caseload and adjust their schedules as needed to get the work done.

Starting in mid-March, the majority of United States schools closed to prevent the spread of COVID-19. Parents suddenly had to not only adjust to working at home (possibly for the first time ever), but also adapt to having children around their new home offices. This requires some quick thinking and adjustment on the part of CDI staff and leaders, says Tracy Boldt, BSN, RN, CCDS, CDIP, CCDS-O, manager of CDI at Essentia Health in Duluth, Minnesota.

“I allow for flexibility with schedules and kids. Essentia has allowed parents to have kids at home, turned off video conferencing, and only uses audio due to the number of employees using the bandwidth,” she says.

“These are not ideal times, and giving staff flexibility in their schedule will not only keep them engaged but also appreciative,” agrees Wilk.

When offering flexible remote options—whether in times of calm or during a global pandemic—it’s important to keep the lines of communication open through instant messaging (such as Slack®, Microsoft Teams®, Skype®, etc.) and set expectations early.

**Modifying CDI practices**

While healthcare environment workers are busy dealing with the influx of COVID-19 patients, some CDI teams have been asked to modify their review and physician engagement practices to take any additional administrative burden off clinicians’ backs.

“I received a joint directive from our chief quality medical officer and associate chief quality medical officer, who is also our chief CDI physician advisor, to temporarily suspend query activity. This includes sending queries to providers, sending escalation communication on pending queries, and cancelling scheduled education meetings with providers in order to free up their time to focus on critical preparation and current patient care,” says Michelle Knuckles, RHIT, manager of inpatient coding and CDI at Utah Health in Salt Lake City. “In addition, as this crisis evolves, I’m told we may need to switch to short-form notes, which are part of crisis standards of care. This will change documentation as we know it now.” (See the sidebar to this article for more on Utah Health’s changes to its query practices.)

While some organizations like OhioHealth in Columbus have altered some of their provider escalation practices during COVID-19 preparation and response to allow physicians to focus on patient care, others have requested their CDI teams lean into their record reviews and querying practices to shore up the organization’s bottom line. As non-emergency services were cancelled, high-weighted DRG cases also began evaporating, and some organizations have leaned on CDI to help ensure the hospital doors stay open during the crisis.

According to research published by Strata Decision Technology in late March, many hospitals face closure or extensive layoffs because of the decreased revenue associated with primarily caring for COVID-19 patients. While CDI professionals can’t change the patient mix coming into their organizations, they can ensure that those patient records are complete and accurate to receive the correct reimbursement, says Carrie Willmer, RN, CCDS, CDIP, CDI director at SCL Health in Denver, Colorado.

“We’ve actually been asked to ‘lean in’ on our query efforts from...
both a financial and acuity perspective,” she says. “Our care sites are looking for help to support the COVID response, but also to sustain support of resources to protect and care for our non-COVID patients. We have been encouraged to work remotely but encouraged to maintain our productivity to ensure we are set up to support coding to get accurate documentation to support accurate billing.”

The important thing, according to Jones, is to listen to the needs of your organization and adapt as they evolve. As with any sort of emergency scenario, things change quickly; communicate with your other department leaders—even if you’re remote—and offer help where you can.

“Our CDI program is business as usual. Our organization considers CDI essential staffing and part of the healthcare team. We have daily calls updating all department leaders about the virus,” she says.

“We have not been asked to suspend any specific CDI activities; however, as leaders, we are adjusting expectations of review/non-review activities,” agrees Mary Stroble, MSN, RN, director of CDI at BJC HealthCare in St. Louis, Missouri. “We will also continue to monitor capacity and evaluate daily, and even more frequently, as information evolves.”

### UTAH HEALTH’S CDI ACTION PLAN

Utah Health’s initial plan for how CDI will operate during the COVID-19 crisis is as follows. The plan will be evaluated as the crisis evolves:

- **Discharged accounts with pending queries**
  - Continue holding in work queue with route checks to see if provider has been able to address—will discontinue all query escalation activity (no new phone calls, emails, etc.) to providers UNLESS provider has already reached out or reaches out, in which case it’s okay to respond.

- **New, subsequent, and discharged with no CDI review accounts**
  - CDI coders: Code encounters per normal workflow, sending query requests to nurses, who will proceed with creating query in Epic but don’t assign Epic deficiency, as noted above.
  - CDI nurses: Review encounters per normal workflow; if you identify a query opportunity, proceed with creating query in Epic but don’t assign Epic deficiency, as noted above.
  - Questions for physician advisors: Log and hold off on emails or phone calls.
  - Critical/high-risk issues: Escalate to leadership for triage.

- **Patient Safety Indicator (PSI), hospital-acquired condition (HAC) related reviews**
  - CDI quality liaisons: Perform routine reviews. If you identify a query opportunity, proceed with creating the query in Epic but don’t assign Epic deficiency, as noted above.

- **Other physician advisor–related questions**
  - Critical or high-risk issues identified will be escalated to the respective leadership group.

- **Evaluate impact of short-form notes to CDI initiatives and identify risks.**

- **Monitor CMS, DNV, and Vizient websites for specific guidance on such matters.**

- **Leadership will provide daily updates to staff.**
Dealing with census changes, helping where needed

Because organizations have halted most non-urgent procedures and patient visits (in compliance with guidelines from the Centers for Disease Control and Prevention [CDC]), many facilities are seeing a decrease in the number of records available to review.

“Our clinics have moved many annual wellness visits out two to four weeks, only allowing essential appointments, and rescheduled all non-essential surgeries. Across the system, we have seen an additional drop/cancellation of 25% of appointments. As you may expect, we are seeing a huge uptick in e-visits, which has been very helpful for the high-risk patients to see their providers without leaving their homes,” says Boldt.

That decrease, however, hasn’t left CDI programs with nothing to do. In fact, when record reviews dry up to a certain extent, CDI teams can shift their focus and help with other organizational initiatives during the crisis.

“We are working on a plan to send the majority of our staff home to work remote for two to four weeks. We will discuss clinical redeployment because they are all nursing staff—potentially there may be more critical support that we could be called upon to perform related to patients—but this is not the current expectation since most of us no longer have correct EHR or direct patient care access competencies completed,” says Tonya Motsinger, MBA, BSN, RN, system director of CDI at OhioHealth.

Even outside of clinical responsibilities, CDI teams can still help their organizations meet the pandemic head on.

“We are a hybrid CDI operation (half on-site, half remote), but we are migrating most to full-time remote for a period of time,” says Stroble. “We also are being asked to offer support in other ways, i.e., assisting with the call center, etc.”

“The hospitals have stopped volunteers from coming in, so other employees who are impacted by the cancellation of elective surgeries and outpatient procedures are being reassigned into some of the volunteers’ responsibilities,” adds Lee Anne Landon, BSN, CCDS, network manager of CDI at HonorHealth in Scottsdale, Arizona. However, sometimes more drastic approaches are warranted, she says, and CDI professionals at her organizations were required to step back and use some vacation time based on the organization’s patient census.

“We are looking for people to take time off, if possible. We are allowing people to take time off with pay and without pay. We may get reassigned if the census suddenly spikes up and there is not enough staff,” she says. Additionally, the CDI team has been asked to increase their auditing and denials management activities during this time to help the hospital’s bottom line.

While CDI staff may need to take leave while things are slow, they need to prepare for quick changes to their caseloads and adjust accordingly during the COVID-19 crisis, warns Alison Bowlick, BSN, RN, CCDS, CRCR, AVP of CDI at Ensemble Health Partners in Blue Ash, Ohio.

“It is very important to note, electives [have] been decreased or eliminated [not only] to protect our communities, but also in anticipation of an influx of volume on the inpatient side. […] While census may be decreasing now, we should all be prepared for an influx in volumes and how we are going to manage those,” she says. “Be prepared.”

“The scenario is so fluid; the circumstances could change tomorrow,” says Motsinger. “We are just managing one day at a time as we care for both our associates and our community.” 🙏
I just listened to the April 1 ACDIS Podcast: Talking CDI episode on “Sepsis, cytokine release syndrome, and COVID-19.” This was very timely for me as I am putting together a COVID-19 tip sheet for our providers. Currently, I’ve seen ICU providers just say cytokine storm, and we had one individual transferred due to possible cytokine storm with plans for IL-6 inhibitor.

I’m unclear as to what we should be asking the providers to document. Do we add hemophagocytic lymphohistiocytosis (HLH)? If so, do we specify secondary? Or is this an entirely separate condition from the cytokine release syndrome (CRS)? I appreciate any help you might have.

In addition to the ACDIS Podcast as mentioned, ACDIS recently published an article “Unraveling Cytokine Storms with Secondary Hemophagocytic Lymphohistiocytosis (sHLH)” as part of its CDI COVID-19 Survival Toolkit. The article highlights information included in the podcast and provides some criteria for sHLH.

Cytokine storm syndrome (CSS) and Cytokine Release Syndrome (CRS) are used synonymously in literature. Historically, CRS has been the more usual terminology and has been used in the Coding Manual and Coding Clinics. In “Here’s a playbook for stopping deadly cytokine storm syndrome” in the UAB Reporter, columnist Matt Windsor writes, “A cytokine storm—aka cytokine release syndrome, macrophage activation syndrome, hemophagocytic lymphohistiocytosis—is the result of an immune system gone wild.”

Cytokine storm (aka CSS or CRS) is the pathophysiology behind the immune system going berserk. It is not a separate condition. Cytokine storm explains the process where a specific agitator (e.g., sHLH caused by COVID-19) brings about self-inflicted damage to the body. The immune system usually releases cytokines to help direct immune cells to the site of injury, inflammation, or infection to mitigate it. At times, it goes into hyperdrive and the ensuing over-release of cytokines (i.e., cytokine storm) becomes self-destructive. In short, cytokine storm codes to the specific type. If cytokine storm is documented, ask whether it’s due to:

- Sepsis
- Non-infections SIRS
- Macrophage activation syndrome
- HLH/sHLH
- Autoimmune diseases
- Graft versus host disease
- Tumor lysis syndrome

Hemophagocytic Lymphohistiocytosis (code D76.1) is caused by an inherited problem of the immune system, and usually called “primary” or “familial.” Secondary Hemophagocytic Lymphohistiocytosis (sHLH) (code D76.2) is the cytokine storm usually caused by a viral agent like SARS-CoV-2 in COVID-19. COVID-19 pneumonia causing sHLH manifesting as ARDS is commonly seen in severely ill COVID-19 patients. The patient’s course rapidly deteriorates into multi-organ failure involving the kidneys, heart, brain and ultimately, sHLH shock (which may be documented as septic shock because it’s the more familiar term). Bacterial superinfection causing bacterial pneumonia leading to sepsis can happen as a secondary infection, too, so if clinical indicators exist, a query may be needed to capture the secondary infection(s) as well.

AHA Coding Clinic for ICD-10-CM/PCS, First Quarter 2020, p. 37, included a clarification for CRS. This guideline is specific to CRS due to Tumor Lysis Syndrome. If you read in between the lines, you will realize
it was an attempt to explain that it may not always be due to Tumor Lysis Syndrome. It states:

There has been some confusion regarding advice published in Coding Clinic, Second Quarter 2019, p. 24, for cytokine release syndrome (CRS). The advice states to assign code E88.3, Tumor lysis syndrome, for CRS. However, code assignment for CRS may not be the same in every case, as some patients may not present with tumor lysis syndrome.

Therefore, code assignment for CRS would be based on the specific manifestations documented by the provider. As previously stated, this advice is supported by the guideline stating in the absence of Alphabetical Index guidance, assign codes for the documented manifestations of the syndrome. Additional codes for manifestations that are not an integral part of the disease process may also be reported when the condition does not have a unique code.

Any tip sheet or query should include all of the associated manifestations so the coders have all the information they need to code in this scenario (and, of course, present on admission status should be clear in the documentation).

We also posted a sample tip sheet on this topic as part of the CDI COVID-19 survival toolkit: Common clinical indicators. Note that the tip sheet does not include macrophage activation syndrome because it mainly affects children; however, it does include bacterial pneumonia as some patients develop bacterial pneumonia superimposed on viral pneumonia after admission.

Editor's Note: This question was answered by Cesar M. Limjoco, MD, Chief Medical Officer of T-Medicus, contact him at dr_cesar_limjoco@me.com and Dawn Valdez, RN, LNC, CCDS, ACDIS CDI educational instructor, contact her at dvaldez@hcpro.com.
When I started here, it was all CC/MCCs we were looking at,” says Peggy Rice, RN, BSN, MBA, CCDS, CDI specialist at Dixie Regional Medical Center in St. George, Utah. As the CDI program matured over time, however, its focus shifted to quality concerns.

For Rice’s department, the focus change was due mainly to a new CEO who reorganized and redesigned the way things were done. When he came into his position, the CEO cherry-picked some people he knew from the industry who would do well and brought them in with him. “In my opinion, he was really the beginning of all this,” says Rice.

While some CDI departments may shift focus to quality because of a directive “from the top,” others are called to the quality front lines because of non-ideal performance on quality indicators.

“We started with accidental puncture and laceration Patient Safety Indicators (PSI) because our rates were high,” says Erica Braun, MS, BSN, RN, CCDS, manager of inpatient coding and CDI at Nebraska Methodist Health System in Omaha. “We learned we were incorrectly coding them based on certain verbiage in operative reports, but upon further review we found it was incidental to the procedures or misinterpreted by coders.”

Meanwhile, at Froedtert & Medical College of Wisconsin in Milwaukee, the CDI department has started performing quality reviews to make sure their organization gets credit for the work they do.

“We want to ensure we are reflecting the severity of illness in our patients and capturing those additional diagnoses other than just CC/MCCs,” says Anne Espinoza, RN, CCDS, CDIP, CDI manager of enterprise quality at Froedtert & Medical College of Wisconsin.

Whether a facility is performing quality reviews because of new leadership, because of abnormally high PSI incidences, or simply to...
give more credit to the organization or its physicians and better document patient information, many organizations are branching out into quality reviews for their CDI program’s next step.

**Starting points**

While some teams like Braun’s may focus on a specific type of quality reviews (PSIs), others may focus on a specific subset of patients. At Rice’s organization, they chose to focus their quality reviews on mortality cases to improve their severity of illness (SOI)/risk of mortality (ROM) scores.

“They weren’t that good, so because of this we now have five individuals who only do mortality reviews throughout the corporation,” Rice says. “We implemented Vizient a year ago. [...] That’s how we learned how poorly we were doing with mortality.”

Services like Vizient can be helpful for benchmarking your organization’s quality performance because they collect metrics from similar hospital divisions and then share the data with users, like Rice’s organization does. Espinoza says that her CDI team also began quality reviews with their Vizient top 10 variables across all service lines.

Once they’ve chosen a focus area for quality reviews, CDI leaders need to decide how the reviews will be conducted and who in the department will handle them.

At Dixie Regional Medical Center, “everyone reviews for quality measures,” says Rice. “We are all formally educated in doing those reviews, and it’s expected to be part of our basic CDI training and previous experience.”

When they started the quality measure reviews, Rice’s team had the goal of working toward zero missed opportunities, and they are getting close to that number. “We’re running about 99.8% of quality opportunities reviewed,” she says.

**Quality is able to track PSI rates, but the CDI department doesn’t necessarily get credit for helping with those things. Even though CDI doesn’t get ‘credit’ for this work, it is the right thing to do for the organization.**

*Erica Braun, MS, BSN, RN, CCDS*

To give the CDI team time to get to all these reviews, Rice says they’ve instituted a standard time period for holding the bill. “For all quality measures, the bill is held a maximum of 10 days to figure out any mismatched DRGs or quality measures,” she says.

Similarly, Espinoza’s entire CDI team does quality reviews. “We conduct them concurrently and retrospectively, but primarily daily concurrent, then targeted populations retrospectively,” she says. “We’ve noted a significant improvement in our VAD [ventricular assist device] population when we dedicate a content expert specialist and do retrospective review prior to completing a case.”

In Braun’s facility, however, only the lead CDI specialist performs quality reviews. “Generally, the frontline staff will identify these cases and refer them on for further review by the lead CDI specialist,” she says. The quality reviewer looks at cases both concurrently and in pre-bill, as it “works best for their workflow to identify these as real time as possible to alert quality for review.”

**Tracking and productivity**

Proving a return on investment (ROI) for quality reviews can be tricky. Not only is there a delay between reporting quality concerns and seeing the outcomes on quality measures, but it’s difficult to pin any improvement specifically on the CDI department’s efforts.

One of the easiest and best ways to track this information is by leveraging your existing EHR tools, Rice says. Take a look at the systems your organization already has in place and see what sort of data is available. This may require a bit of work up front with either your IT department or the software vendor, but it’ll put the reports at your fingertips in the future.

Proving an ROI also opens another opportunity for interdepartmental collaboration because your quality counterparts may already be generating reports and trending quality performance.

“Quality is able to track PSI rates, but the CDI department doesn’t necessarily get credit for helping with those things,” Braun says. “Even though CDI doesn’t get
‘credit’ for this work, it is the right thing to do for the organization.”

While CDI quality reviews have many benefits, adding additional responsibilities to the CDI team’s already full plate can have a negative effect on chart review productivity. In Braun’s experience, however, dedicating one team member to these reviews limits the productivity impact. In fact, her team did not see any productivity decline—“because the lead CDI specialist is performing the extensive reviews,” she says.

In both Rice’s and Espinoza’s facilities, however, productivity was affected. “It was impacted very dramatically,” says Rice. Since implementing quality reviews on all charts, Rice’s CDI team is now expected to complete 10 new chart reviews per day and 10–12 follow-up reviews, down from the 16 new reviews and 16 re-reviews previously required before implementing quality reviews.

That lower productivity, though, doesn’t have to impact the department or the organization as a whole, says Espinoza.

“We are actively doing projects and partnering with providers, which improves CDI morale,” she says.

Reviewing for quality concerns also represents a shift toward improving overall documentation accuracy rather than purely engaging in CC/MCC capture for financial purposes, Rice says, which is a positive change for the CDI world. And it’s actually increased the CDI department’s overall query rate, another popular measure of productivity.

**Physician engagement**

Physicians’ acceptance of receiving more queries for quality measures has been mixed. “It very much depended on how prepared they were for the change,” says Rice.

At first, the physicians were given very little preparation for the upcoming shift to quality reviews, including a change to their EHR system. “They had no idea what an electronic query was or how to access it,” Rice says. The CDI team had to work with physicians on this during the initial transition, but now they include information about quality reviews in physicians’ initial education on CDI.

Physicians’ length of practice can also influence their acceptance level, Rice adds, so be prepared to provide more focused education for the older physicians at your organization.

“If they went through school in the last 10 years, they’re going to be aware of CDI and what’s going on,” she says. “If not, this is all foreign territory to them and we have to work with them on learning this.”

While some level of education will be necessary, CDI teams may find that it improves their overall physician engagement level, Espinoza says.

“The CDI team morale and physician morale has increased,” she says. “Providers have expressed satisfaction with a more targeted approach that has helped decreasing queries.”

Even if physicians react positively, implementing a quality review process and educating providers will take time, so CDI teams need to be patient and focus on taking things step by step, Braun says.

“Be patient, and remember it’s really a process,” adds Rice. If you can focus on physician engagement and education, she says, “you will find success sooner rather than later.”

“Start with one thing you have the potential to impact and go from there,” Braun says. “Remember that it’s not a sprint, it’s a marathon.”
There has been an enormous growth in observation stays in recent years. According to a 2019 article in Forbes, Medicare spending for observation increased from $690 million in 2011 to $3.1 billion in 2016. Observation status allows a provider to admit a patient to a hospital for a short time while evaluating whether the patient is sick enough to be an inpatient. Now, patients can be kept in the hospital for several days on observation status.

The financial consequences of staying in observation status can affect a patient’s out-of-pocket expenses. At this time, patients admitted as inpatients in Medicare are only responsible for their deductible as indicated in Medicare Part A. For Medicare Part B services (which includes observation care), patients must pay 20% of services after the Part B deductible, which may result in a financial burden. Proper admission status is thus very important to the patient as well as the organization. In addition, observation care is increasing and can sometimes contribute to workflow impediments and frustrations in hospitalists, according to a recent article in The Hospitalist.

CDI observation reviews at ProHealth Care

While working with the inpatient CDI team at ProHealth Care (PHC), the organizational leadership brought to light this increase in observation cases. Traditionally, patient admission status has been housed in the utilization review and case management departments. At PHC, however, the CDI team was asked to assist with this endeavor, adding additional work to their already busy days.

A key component to the success of the program was buy-in from the CDI team—who were likely extremely anxious about accepting this increase in workload. To start, we asked for two volunteers to take on these reviews daily. We created and put review parameters into place. This provided the CDI team with a focus as well as a manageable process.

We wanted to give the case managers enough time to fully review the cases and apply their MCG criteria before the CDI team began to review the cases, so we started with any observation case with a length of stay (LOS) of two days. This kept the daily reviews to a reasonable number but still allowed the CDI professionals to apply their advanced clinical knowledge to cases that could be potentially flipped to inpatient status.

The CDI team created a report each afternoon to identify the cases to review. Doing this in the afternoon gave the case management team time to review the cases each morning. The CDI team was to look at each case only on a clinical basis, not paying attention to payer or MCG criteria—those would be left to the specific expertise of the case management staff.

We met with the case management supervisor and put together a pilot process with all referrals for possible inpatient conversion going from the CDI team to the case management supervisor for final review. We developed a subject line for an email that would let the supervisor knew these cases needed immediate attention. Along with the process, we developed a “tip sheet” for the CDI team to use that had common things to examine for possible conversion: for example, IV antibiotics, continued IV fluids, and pain control.

The CDI team began reviewing cases, handling anywhere from one to six cases a day and making email referrals whenever necessary. Slowly, the team began to get responses back that they were catching clinical criteria and assisting in getting these cases into the proper
The status of inpatient. We were making a difference—we couldn’t believe it! After a few months of successful conversions, we decided we had to keep the review process going. However, we needed to revise, refine, and improve to assist the case management team in converting the patients that belonged in inpatient status.

We met again with our physician advisor and decided the entire CDI team needed to be trained in this process and that we needed to bring in our point-of-entry case manager to review the referred cases, as she was the expert in the area and could work directly with the case management staff on the floor to get the status changed if needed.

Within two weeks, the whole CDI team was assisting with observation reviews, referring cases to the point-of-entry case manager, and successfully converting cases to inpatient. Along with this came the satisfaction that the process was working, and that by bringing the expertise of these two teams together, we were helping the patients, physicians, and PHC.

Our process at PHC is continually reviewed and refined. In these nine months, we have converted more than 50 cases from observation to inpatient that may have otherwise not been in the correct status. (See the table below.)

**Next steps**

Of course, the success of the observation case review brings up questions on what else can be done to improve and/or expand the process. Collaborating with the case management team has increased staff satisfaction on both teams. So, as we move forward, we’ll discuss whether we need to look at every observation case with an LOS of one day or more and what sort of education the CDI staff needs to further improve their review skills.

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Departmental silos are prevalent in the healthcare world and can lead to unvoiced frustrations and counterproductive work. Different organizations have different approaches to breaking down these walls, often through regular interdepartmental meetings or newsletters.

Upon taking on the role of CDI physician champion, Samir Akach, MD, MHCM, director of documentation coding and quality coordination at Geisinger in Pennsylvania, made interdepartmental collaboration his main focus.

“There was some sort of frustration; we wanted to bring the three departments [CDI, coding, and quality] together so they could understand not only each other’s job but also barriers to success,” he says. “Breaking down these barriers and improving communication was the first thing I worked on.”

To determine where to start, Akach dedicated some of his workdays to spend time with the CDI, quality, and coding departments to see how they worked on a day-to-day basis. For each department, he sat down and acted as an observer to see firsthand how they operated and find areas for possible interdepartmental collaboration.
“I wanted to put myself in their shoes and understand how they look at things. I really wanted to gain an understanding of their frustrations,” Akach says. He began taking notes of everything that bothered and frustrated members of each department.

“Communication was the biggest flaw,” he says. “They didn’t know what each team faced.”

Akach found that staff in the quality department were most frustrated when it came to communication. So, he focused on bringing their concerns to coding and CDI first.

Since the goal was to have each department fully understand the needs of the others, Akach decided to provide cross-training for all three departments. First, he campaigned for the quality department to receive a coding boot camp so they could better understand the coding guidelines and reporting requirements.

That initial step ultimately led to a full-scale integration of the quality, coding, and CDI departments through cross-training.

Education, job shadowing

Since the main issue Akach heard from each department was a lack of communication, he first had each team shadow the others. Then, to reinforce what they observed, he asked each team to do a presentation on what they learned.

“I also wanted them to meet each other and talk about what they do—really understand the concepts but also the challenges,” he says.

After sending the quality department through a coding boot camp, Akach secured the budget to get training for all three departments—coding education for the quality and CDI departments, quality education for the coding and CDI departments.

The budget and training tools, however, were not just for singular use; they were investments. “The intention with securing a budget is to make this sort of training an ongoing effort, not just one time only,” he says. “It was important for me to make sure the budget was secured for refresher courses as well.”

Now, the departments’ training consists of an intense initial exposure, then refresher training every three to six months.

This ongoing education not only helps break down silos, but also eases a culture of blame, Akach says.

“Because everything was disjointed, any time there was a problem people liked to point the finger,” he says. Conversely, “whenever a good job is done, everyone jumps on it.”

It’s much easier to blame other departments for mistakes when you’re not fully aware of the ins and outs of their work and responsibilities, Akach says. Building a cross-training program and getting the departments to meet face-to-face breaks down that propensity and opens the lines of communication.

Huddles

While formal education and cross-training still play a major role in keeping the silos from building up again, Akach also worked with department leaders to implement biweekly huddles for the frontline staff in all three departments.

Rather than setting a rigid agenda for each huddle, team members are encouraged to bring forth their personal struggles and bounce ideas as well as questions off other members.

“The department leaders and I really sit in the background and moderate,” Akach says. Ideally, the team members participating in the huddle will “do all the talking, bring forward any challenging cases or concerns.”

Since the huddle would be quite large if each department attended in its entirety, each meeting sees selected participants attend (on a rotation schedule), bringing their challenging cases for the group to review.

“It gives the opportunity for every front liner to participate at least once a month,” he says.
Don’t expect your first huddle to be perfect, Akach warns. It may take time for everyone to feel comfortable, figure out the best rhythm for the group discussion, and fully grasp its value.

How members contribute can play a major role in the success and value of the group, he adds. “It’s time for listening. That’s what’s important. Spending more time listening and less time telling people what to do.

Not only do these huddles help the departments understand each other’s perspectives, but Akach says they also illuminate action items to improve collaboration. The huddle structure isn’t a “set it and forget it” project; it requires tweaking to help individuals trust each other and get everyone on the same page.

“We share with the teams the challenges on hand and empower them to come up with solutions rather than imposing changes on them without explaining the reason why,” says Akach.

Remember that these huddles advance collaboration slowly in some cases and it may be difficult to show immediate and concrete results. From his experience, however, Akach says that there has been an obvious shift in attitude, and they’ve been able to identify many next steps from these huddles, making them well worth the effort.

“All of those fixes are improvements in my book,” he says.

**Provider collaboration**

Departmental cross-training through job shadowing, formal education, and huddles has been in effect for less than six months at Geisinger. Because of this, Akach says it’s too early for hard data on its efficacy, and there’s still substantial work to be done.

“Breaking down walls and bringing departments together is just one part of the solution,” he says.

Now that the coding, quality, and CDI departments have open lines of communication, the next step will be working with providers.

In order to make an effective change in the providers’ documentation, Akach says the first step is building a dashboard to bring feedback linked to quality metrics to the providers. To accomplish this build, he’s working closely with the data analytics team.

Geisinger’s dashboard has three main components:

- Coding: To provide education related to CC/MCC capture and risk adjustment
- CDI: To provide information about query response rates, agree rates, etc.
- Quality: provide information on observed to expected mortality, readmission rate, length of stay, cost of care, etc.

These metrics can be broken down to each hospital, specialty group, or even individual provider.

“We are in the finishing stages of the dashboard,” says Akach.

They plan to start an educational campaign, provide teaching, hand out tip cards, and other educational materials to providers when it comes time to launch. The dashboard will be helpful to individual providers, but it will also provide the service line leadership with information on how their team is performing. Giving providers access to their own data in relation to their peers can also ignite a bit of friendly competition, Akach says.

“Doctors are competitive by nature, and don’t want to be at the bottom of the list when it comes to performance. By promoting this friendly competition, providers can learn from good performers and improve their documentation practices,” he says.

Ultimately, though, the goal of this project is focused on feedback and education for how provider documentation relates to quality metrics, thereby combatting the “CDI is all about the money” argument.

Just like the other silo-breaking initiatives, the provider dashboard and education are aimed at bringing the departments’ respective goals together and helping everyone see a different perspective.

“It took everyone a while,” says Akach. “But now folks have really adopted the new culture of knowing we are all in this for the common goal, the well-being of our organization, so we continue to provide good-quality care to our patients.”

MAY 2020

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Clinical validation, denials prevention, and appeals

by Alba Kuqi, MD, CICA, CCS, CDIP, CCDS, CRCR, CSMC

The Official Guidelines for Coding and Reporting Section I.A.19 titled “Code assignment and Clinical Criteria” says the following:

The assignment of a diagnosis code is based on the provider’s diagnostic statement that the condition exists. The provider’s statement that the patient has a condition is enough. Code assignment is not based on clinical criteria used by the provider to establish the diagnosis.

Some people have incorrectly interpreted this statement to mean that clinical validation of documented conditions is no longer required for code assignment on claims. However, CMS requires that claims submitted for payment must not include diagnoses that cannot be clinically validated. An effective clinical validation process requires the coding, CDI, and auditing team to work cohesively.

At the time of coding, if the final DRG assignment does not match the CDI professional’s working DRG, the coder/auditor and the CDI specialist should discuss the case before billing. Some mismatches such as a complication of surgery take place after CDI staff is removed from the case, and these do not have to be discussed other than for learning opportunities.

The CDI team should generate all necessary queries for a case that involved a CDI review because they have already established a relationship with the provider, and this should allow for a timelier response. Engaging a physician advisor or medical director for peer-to-peer conversations in instances where the clinical criteria do not appear to support the diagnostic statement in the record is essential because it decreases the number of unwarranted queries and avoids seeming to question the provider’s clinical judgment.

The validation process can be especially challenging when providers and payers use different clinical information or interpret the data differently. A 2015 ACDIS white paper says that “DRG validation is the process of reviewing physician documentation and determining whether the correct codes and sequencing were applied to the billing of a claim on prospective payment services (PPS), and as appropriate, reviewing the record’s DRG accuracy.”

The format of clinical validation can vary significantly between issuing queries, engaging in discussion with the physician, elevating concerns to a physician advisor, and ultimately removing an invalidated diagnosis. It is recommended to perform clinical validation of all diagnoses that lack support, regardless of whether they impact the principal diagnosis. Anecdotally, CDI professionals are noticing that payers deny high-risk diagnoses even if the indicators are present in the record. If CDI professionals fight back, they might win.

The lack of physician buy-in is a common obstacle in obtaining documentation to support clinical validation. Turning the physician’s focus back to patient care is essential in the clinical validation query process. Furthermore, including the right clinical indicators to justify that it was appropriate for the physician to report a particular diagnosis is a good rule of thumb. Physicians need to know that their documentation affects their profile and their risk-adjusted payments. Asking physicians to attend CMS’ Targeted Probe and Educate sessions is a potent educational tool.

Denials prevention

CDI specialists are doing more to prevent denials than just issuing concurrent clinical validation queries. They also review for additional CCs and MCCs to “protect” cases against denials, focusing on high-risk DRGs and diagnoses, and work with payers and stakeholders in their organization to establish criteria for diagnoses.

One aim of CDI is to ensure the complete and accurate reporting of diagnoses and procedures, especially to meet revenue cycle goals such as submitting clean
claims and reducing days in accounts receivable. User-friendly improvements to the EHR, including better workflows and documentation templates, can also help prevent denials.

Denials are increasing as health plans tighten their requirements for medical necessity and conduct more reviews for this purpose. Denials may include both denial of a current claim as well as a take-back from claims already paid where a review reveals issues. This is particularly true for the CMS Recovery Audit Contractor (RAC) reviews wherein RACs are increasingly targeting providers with high claims denial rates.

Steps to manage denials include tracking their financial impact, benchmarking performance using Claim Adjustment Reason Codes, targeting the root causes of denials to determine solutions, and eliminating inconsistencies in denial processing. Once a provider has a good understanding of their denials and can apply solutions, the denials management and CDI team need to provide feedback to the health plan during contract negotiation to prevent similar problems in the future.

**Clinical appeals**

Appeals are an expensive undertaking not only in their processing but also in their impact on the availability of capital resources. Most CDI professionals are involved in some form of denials prevention and protection (even if just tangentially through the review process), but fewer are engaged in the appeals process post-denial. Incorporating rationale into appeal letters is essential because it’s a learning opportunity for what the payers are looking for, so CDI professionals can become more proactive in the future.

CDI professionals need to allow the physicians to participate in the process of writing appeal letters because this step helps physicians see how their documentation is being interpreted. As we’ve said, high-risk diagnoses (e.g., sepsis, acute respiratory failure, acute kidney injury, malnutrition) are a significant source of denials.

**Sepsis validation**

Documenting the presence of sepsis is critical to best determine each patient’s needs for care. Clinicians, however, often vary in their definitions of sepsis or fail to note the presence of sepsis in the medical record when the clinical indicators support such assessment.

These variances have led to difficulties for CDI specialists, especially when third-party payers adhere to different definition sets. To demonstrate consistency in reporting, coding, and clinical care, healthcare facilities must develop a standardized approach to the definitions of sepsis as a reference for teaching, quality measurement, clinical care, and coding purposes.

A 2017 ACDIS white paper says that the goal for medical staff is to develop a clinical policy that includes the new definitions as well as documentation expectations. The medical staff should review and discuss the new definitions and clinical criteria for sepsis and septic shock; physicians providing critical care to sepsis patients—such as emergency medicine, infectious disease, pulmonary, and hospitalist physicians—should be included in that discussion. If the medical staff is unfamiliar with these new definitions, then education must be provided. The medical staff may adopt the new criteria or define facility-specific criteria applicable to diagnosing and managing patients with suspected sepsis.

As of January 2017, sepsis is defined as a life-threatening organ dysfunction caused by a dysregulated host response. The Sequential Organ Function Assessment (SOFA) has high predictive validity for sepsis but is heavily dependent on the laboratory analysis of multiple systems. The SOFA criteria are aimed at quantifying organ dysfunction. A new measure called quick SOFA (qSOFA) provides a bedside analysis not dependent on laboratory analysis with the same predictive validity as SOFA. The clinical criteria for SOFA include:

- Respiratory rate ≥ 22/minute
- Altered mentation
- Systolic blood pressure ≤ 100 mm Hg

The SOFA/qSOFA scores are not meant to replace the physician’s clinical judgment. We need to teach providers to paint a picture of accurate acuity and severity that is also internally consistent.

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by Linnea Archibald

Your program has been going strong for several years, your staff has grown, and you’ve taken on new responsibilities. However, it can still be difficult to know whether your program is truly “advanced.” Additionally, a program may be advanced in some respects (e.g., involved with denials management), but a beginner in other respects (e.g., lacks a working relationship with the coding/HIM department).

Despite its slippery definition, knowing what “advanced” means can help leaders set a path for their departments. In order to get to the bottom of this conundrum, ACDIS spoke to three members of the ACDIS Leadership Council to get their take on what it means to be an advanced CDI program.

Advanced programs have solid processes, staff

One way to measure the maturity of your CDI program, according to Patty King-Musser, DNP, RN, CCDS, senior director for Geisinger Danville, Pennsylvania, is to look at the stability and functionality of your processes and scope.

“A mature program that’s been in place for a long time and has solid processes that meet established goals, is advanced,” she says. “The other way a program can be ‘advanced’ is by being expansive and looking at the staff and things outside the acute inpatient care setting. […] We’re pretty mature in that we have good processes in place and a good solid staff that sets us up to move into that expansive advanced space.”

If you’re looking to advance, she says, put in the groundwork to build a solid program with vetted processes and education behind it. Then, when it comes time to expand to new review areas or help with new organizational initiatives, you’ll be set up to take that next step with confidence.

One thought process that King-Musser says needs to change for a program to advance is the idea that CDI is “all about the money.”

“Revenue is an important aspect of what CDI does, but it’s more about the integrity and accuracy of the documentation,” she says. “I see us as a support service. We don’t produce something ourselves, but we support every aspect of the hospital to get that...
documentation as accurate as possible.”

In her experience, King-Musser recommends giving plenty of attention to your CDI staff members as well; while processes are helpful, they won’t get you far if your staff doesn’t willingly advance with you. Start with education and help staff to shift their mindset toward more than just CC/MCC capture, she suggests. Remember, they need your support to succeed.

“The biggest challenge is the mindset shift for the CDI staff that have the most longevity,” she says. “[My staff has] been through a couple major mindset shifts, and I don’t know that they always had the right support and enough of a connection to understand the reason for the shift. They were being told rather than educated. [...] I believe in educating. If people understand the ‘why,’ it’s easier to shift focus. There’s a tremendous learning curve.”

The process of staff education alone may help set the advanced CDI professionals apart from the beginner or intermediate staff members as well, King-Musser says. On top of their actual knowledge base, mature staff members exhibit a willingness to change and adapt to new situations.

“An advanced CDI specialist is somebody who has the knowledge, willingness to learn, openness to receive feedback, has a variety of experience in different service lines so we can shift them around, understands more than just getting a query for CC/MCCs, and knows what to look for from a quality, risk, and observed-to-expected perspective,” she says. “It’s a lot of moving parts to coordinate when you’re looking at a single record.”

Educating staff and putting helpful policies into place can be daunting, so King-Musser recommends leaning on your peers who’ve ventured into advanced program endeavors before. Reach out to colleagues at area facilities, through ACDIS’ local chapters, and on the Forum. They will be the best resources to help you advance your program smoothly and manage the change effectively for both the staff and for the organization.

“Utilize the resources that are out there. Researching what’s out there is a great way for leaders to stay relevant and keep programs on the cutting edge, she says. “Find a good networking group that’s in the same area and start asking questions”

**Advanced programs seek help**

If your program has monetary resources at its disposal (or can ask for approval), sometimes outside help is the best option for advancing your program, says Donella Lubelczyk, RN, BSN, ACM, CRC, CRCR, executive director of revenue cycle at Catholic Medical Center in Manchester, New Hampshire. In the summer of 2019, her organization contracted with an outside consulting company (Claro Healthcare) to help revamp their program and take it to the next level.

“When we hired them, I felt like we had a multimillion-dollar opportunity for the organization in the CDI program,” Lubelczyk says. “They interviewed our providers, people all along the revenue cycle. They did assessments of workflows, chart audits, and then came back with our assessment. They talk about doing CDI 101, then 201, and then 301.”

Having an outside contractor, while incurring a cost, gave Lubelczyk the resources and direction she needed to set the program up on a course for advancement. Without the contractor’s expertise, advancing the program would have taken longer and involved more trial and error. With Claro’s help, she’s been able to set up a direction for the growth of the program and benchmarks to ensure they’re working to achieve that growth.

“We decided on the metrics we would measure, and we set goals for them,” she says. “Claro still does a chart audit each month. They get on the phone with the CDI specialists and review them to make sure they’re all applying the education.”

Prior to making a big investment and getting help for your program’s advancement, however, Lubelczyk suggests asking around at other organizations about their experience with any consulting company you plan to engage. When Catholic Medical Center was planning to contract with Claro, Lubelczyk reached out to another organization in New Hampshire to get their opinion. Once they gave her the
feedback and glowing reviews, she was able to go ahead with the investment with confidence.

Once you’ve engaged help, take time to prepare your team and your larger organization for the coming changes and expansion, she recommends. Getting everyone on board can be the difference between an advanced CDI program and one that’s stuck in an earlier developmental stage.

“Myself, the manager, and the physician advisor went to every physician group in the organization to tell them we’re revamping the CDI program and that we’re going to monitor their response times,” Lubelczyk says. “We’re going to go back to each group quarterly to present their data. This will not work if we don’t have physician buy-in.”

Regardless of whether your CDI program has the means to contract with an outside vendor or if it leans on the knowledge and help of peers in an ACDIS local chapter or nearby organization, the ultimate sign that a program has reached advancement is how its staff view their role, Lubelczyk says.

“When you hear ‘advanced,’ you think years of training, but that doesn’t mean you’re actually advanced,” she says. True advancement means “you’re thinking of things differently. You’re not just focused on the DRG, CC/MCC capture, and the money; you’re thinking about the overall picture. You’re taking a step back and looking at things for a deeper dive.”

**Advanced programs focus on organizational priorities**

Another way to advance, according to Sandy Pearson, MHA, RHIA, CHDA, vice president of HIM at SCL Health in Broomfield, Colorado, is to align your focus with the organization’s priorities.

“CDI is a process and an evolution. Whether your program is advanced or not is determined by what makes sense for the individual organization,” she says. “It also depends where you start.”

For SCL Health, the best way to tackle that objective was to centralize the CDI program across the system rather than having disparate programs at each facility. Until roughly four years ago, Pearson says the CDI program was managed differently from facility to facility, making it both difficult to choose a direction in which to expand.

“As a leader, the biggest challenge was the time we had before centralization. It was a big win for the program,” she says. “We have really good working relationships with other departments, but if we’re going to accommodate something at one care site, we talk about it from a system level and see if we can implement it across the system.”

The centralization enables the CDI team to expand as a unit, but it also ensures that their resources don’t get stretched too thin at any one facility. Having a system in place where requests and expansion ideas filter through the program leadership before a plan is put in place makes expanding smoother for all involved.

The other piece that helps set a course for successful advancement, according to Pearson, is having accurate data about your program’s existing efforts and about the potential impact the department can make if they expand. Getting that data, however, can be a challenge, and CDI leaders need to work with organizational leadership to ensure they have the tools at to access the data easily.

“The last three and a half years, my biggest challenge has been lack of access to actionable data. We have not had access to what we really wanted, and what we do have is very manual. [...] If you can’t measure it, you can’t manage it,” says Pearson. “We’re doing all the things we’re seeing in the industry, but with the right data, I know we could move mountains. We’ve been extremely successful in exceeding expectations, but we were trying to boil the ocean.”

Even if the process is manual, getting that data in order will help you remain focused on the task at hand and ultimately advance in the most meaningful way.

“Be focused. Identify where you can make the impact and then go for it with leadership support. Once you can show your wins, you’ll be allowed to keep expanding,” Pearson says. “The first way to get overwhelmed or get stuck in analysis paralysis is to look at too much information. Just pick one area and focus on it.” 🌟
CODING CLINIC FOR CDI
First quarter release packed with direction

by Laurie L. Prescott, RN, MSN, CCDS, CCDS-O, CDIP, CRC

It’s springtime! Daffodils are sprouting, birds are nesting, and our first quarterly Coding Clinic has arrived. Generally, the first release of the year is packed full of direction, and this issue did not disappoint. We can’t cover it all, but I’ll highlight the items with significant impact on CDI review functions.

Vaping-related disorders

Code U07.0, vaping-related disorder, was implemented on April 1 in response to the recent occurrences of vaping-related disorders. Inclusion terms for this condition are:

■ Dabbing-related lung damage
■ Dabbing-related lung injury
■ E-cigarette, or vaping, product use associated lung injury (EVALI)
■ Electronic cigarette-related lung damage
■ Electronic cigarette-related lung injury

Clinical indicators would include a recent history of vaping with pneumonia-like symptoms to include cough, chest pain and shortness of breath. Although the presentation mirrors pneumonia, patients do not typically respond to antibiotic therapy. Other symptoms include abdominal pain, nausea, vomiting, and diarrhea, accompanied by fever, chills, and weight loss. Hospitalization usually is related to hypoxia and the presence of systemic inflammatory response syndrome (SIRS) and acute respiratory distress syndrome. Severe cases may require ventilatory support.

Malnutrition

This edition included a number of questions related to the reporting of malnutrition, likely born out of frustration with the number of denials related to this diagnosis. I believe most of you will applaud Coding Clinic’s answers.

The direction in this issue clearly stated that malnutrition is not considered an integral condition of chronic disease. We are to assign the appropriate malnutrition code in addition to the code for the precipitating condition such as cancer.

The answer to a second question directed us to assign one code to capture the highest level of malnutrition severity when documentation in the medical record indicates that malnutrition has progressed during an inpatient stay from mild to moderate, from mild to severe, or from moderate to severe.

Coding Clinic reinforced this statement by referring to Section 1.C.12.b.3 of the Official Guidelines for Coding and Reporting, which describes code assignment related to increasing severity of pressure ulcers. Coding Clinic stated that this advice specifically applies to pressure ulcers in order to track the change in stage during an inpatient admission and is not intended to be applied to other conditions. This direction in no way applies to the condition of malnutrition.

Recognizing that there are various clinical criteria for malnutrition and payers may require different criteria for reporting it, this latest issue reinforced the message historically offered by Coding Clinic (see p. 5):

It is outside the scope of Coding Clinic to determine, endorse or approve diagnostic criteria for any condition. While providers may use a particular clinical definition or set of clinical criteria to establish a diagnosis, code assignment is based on the provider’s documentation, not on a particular clinical definition or criterion.

Further reinforcing the fact that the provider is responsible for establishing a malnutrition diagnosis, the direction also said that it would be inappropriate to assign codes based solely on the American Society for Parenteral and Enteral Nutrition (ASPEN) clinical indicators for preterm and neonate malnutrition. The provider must explicitly document malnutrition as being present.
According to Coding Clinic, documentation of malnourishment or malnourished should be considered synonymous to the diagnosis of malnutrition. Such wording would allow assignment of the appropriate code classifying malnutrition.

The last question opened a new door in obtaining provider documentation. This question described a situation in which a provider signs his or her agreement to a dietary assessment that contains a diagnosis such as malnutrition. The answer on p. 7 said, “It is beyond the scope of the Editorial Advisory Board for Coding Clinic for ICD-10-CM/PCS to address this type of documentation issue. Your hospital may develop a facility-based policy to address whether documentation that is signed-off by the patient’s provider is allowed to be used for coding purposes.”

I would encourage you that if you go this route please require more than just the physician’s signature. The physician should include a statement of significance and agreement. The dietician should offer a complete assessment in support of the determination.

Bariatric procedures

There were also a few questions related to patients who have undergone bariatric surgical procedures. One question described a patient who no longer requires medication for diabetes secondary to significant weight loss. The physician documented that the diabetes has resolved. The patient is being treated for a foot ulceration and acute osteomyelitis secondary to diabetic polyneuropathy.

The answer directed that although the glucose levels have normalized, the patient is experiencing complications related to the diabetes, so the appropriate codes should be assigned to capture the diabetic manifestations. If a patient is not experiencing any complications, a history code can be assigned such as Z86.39, personal history of other endocrine, nutritional, and metabolic disease.

Pseudohyponatremia

Pseudohyponatremia describes a condition in which hyponatremia is caused by a displacement of serum water due to elevated concentrations of serum lipids or proteins. Hyperglycemia causes osmotic shifts of water from the intracellular to the extracellular space, causing a relative dilutional hyponatremia. The measured sodium concentration is low, but the true physiological plasma sodium concentration is normal.

In this issue, Coding Clinic stated that pseudohyponatremia is an abnormal lab finding that is always inherent to an underlying condition and a code for the underlying condition should be assigned instead.

Appendicitis

Direction related to appendicitis with gangrene reinforced that clinically, appendicitis with perforation indicates gangrene. Coding Clinic also stated that a patient may have appendicitis and gangrene without perforation but cannot have perforation without necrosis/gangrene. Gangrene is not coded separately.

Fecal transplants

There were two questions related to fecal transplants. The answers reinforced that a fecal transplant is not the equivalent of an organ or tissue transplant. It is not appropriate to assign a code for a transplant failure for a fecal transplant that did not prevent a recurrence of Clostridium difficile enteritis. A fecal transplant is a medical treatment rather than an “organ/tissue” transplant. Nor should we assign a Z-code indicating a history of a fecal transplant.

Respiratory infections

Lastly, Coding Clinic reinforced Tabular List instruction that when both upper and lower respiratory infections are documented, we are to assign only a code for the lower respiratory infection. The Tabular List states that “When a respiratory condition is described as occurring in more than one site and is not specifically indexed, it should be classified to the lower anatomic site (e.g. tracheobronchitis to bronchitis in J40).”

Since I’ve only touched on a few of the significant advisements in this column, I’d suggest you review this edition of Coding Clinic for yourself as well. 🤓

Editor’s note: Prescott is the CDI education director at HCPro in Middleton, Massachusetts. Contact her at lprescott@hcpro.com. For information regarding CDI Boot Camps, click here.
MEET A MEMBER

“Keep an open mind, be flexible, and don’t be discouraged”

Lori Dellinger, BSN, RN, CCRN-K, CCDS, is a CDI specialist at WellSpan Chambersburg in Chambersburg, Pennsylvania, and a member of the central Pennsylvania ACDIS local chapter. She has been in the CDI field since 2012.

ACDIS: What did you do before entering CDI? Why did you get into this line of work?

Dellinger: I was most recently the nurse manager of critical care at Chambersburg Hospital. I have been a nurse for more than 44 years with experience working in large university settings to small rural hospitals. I have been a nurse manager in critical care, the progressive care unit, open heart recovery, and the medical/surgical pediatric unit, and a night shift administrative resource coordinator for the hospital.

I have worked as a bedside nurse in critical care, critical care patient transport (land and air), open heart recovery, the post-anesthesia care unit, and the OR.

The longer I was in nursing, it became evident that precise documentation in order to prove quality of care and medical necessity was becoming increasingly important to support what we were doing for our patients—not only for the various payers, but for the bedside nurse, other members of the team, as well as the patient and their family. The more accurate and precise the documentation, the more informed each team member would be regarding what was actually being treated, the treatment plan, and the success of that plan.

I was interested in collaborating with providers to help them understand the impact their documentation had, not just for reimbursement but for identifying the risk of mortality and severity of illness of their patients. I wanted to help them understand that the more specific they are when documenting on a diagnosis or disease process, including comorbid conditions that may affect a treatment plan or outcome, the more successful they will be in improving the overall quality of care for our patients.

ACDIS: What has been your biggest challenge?

Dellinger: I would say provider buy-in, and I think this is due to the “perceived” time constraints of reading/answering queries with integrity and specificity. They have been taught to document enough to support the monitoring, evaluation, assessment, and treatment of their patient, and identifying the specificity of a diagnosis when a general category will do or fixing inconsistent documentation is just icing on the cake which takes additional time from their day. In actuality, the more specific and consistent the documentation early in the encounter, the more time they will save in the long run or at discharge.

ACDIS: What has been your biggest reward?

Dellinger: My role as a CDI specialist has been rewarding in general, but one reward would be just the reverse of my previous answer. It is very rewarding when a provider documents the specificity of something I have requested in my clarifications and adopts this specificity into their practice.

Also, seeing the light go on when I have a one-on-one conversation about documentation integrity and they get it. Another reward is the opportunity to learn and expand my own knowledge on various diseases afforded by chart review, as well as gain knowledge of another aspect of healthcare (professional coding) and to see how my role in improving documentation integrity makes a difference.

ACDIS: How has the field changed since you began working in CDI?

Dellinger: Initially, it seemed to be all about the reimbursement, looking for the CCs/MCCs. I experienced the change from an all-paper chart to an EHR, the shift from ICD-9 to ICD-10, and now we have expanded
into severity of illness, Patient Safety Indicator reviews, bundled payments, the outpatient arena, Hierarchical Condition Category capture, etc. The CDI professional’s role in supporting and improving documentation integrity is expanding every day.

**ACDIS: Can you mention a few of the “gold nuggets” of information you’ve received from colleagues on The Forum or through ACDIS?**

**Dellinger:** This is difficult to quantify. The resources on the website, the information sharing on the Blog, the Forum, ACDIS Podcast episodes, and the CDI Journal are “gold nuggets” of their own. The opportunity to have this source of information available from the experts in the field is priceless.

**ACDIS: If you have attended, how many ACDIS conferences have you been to? What are your favorite memories?**

**Dellinger:** Unfortunately, I have not attended any national ACDIS conferences. I am hoping to attend this year and look forward to the opportunity. I have attended the local chapter meetings and educational offerings and found them to be very beneficial, though. The ability to network and learn from each other as well as share issues helps to reinforce the importance of our work.

**ACDIS: What piece of advice would you offer to a new CDI specialist?**

**Dellinger:** Keep an open mind, be flexible, and don’t be discouraged as you learn this new role. You are competing with the providers’ time constraints, learned behaviors that need to be unlearned, and a very different aspect of healthcare.

Coding and documentation integrity go hand in hand, and learning this is like learning a new language. Establish a relationship with the coding experts, learn from them, and share your clinical knowledge with them as well.

Don’t be afraid to ask the more senior members of your team for assistance. Tap into the resources available through ACDIS, join the association early on, and use the website to guide your practice.
ACDIS: If you could have any other job, what would it be?
Dellinger: I would love to be able to make a living with my hobbies—woodworking, handicrafts, ceramics, painting, photography, gardening, etc.

ACDIS: What was your first job?
Dellinger: I had two first jobs; I worked at a sewing factory during the day and at a movie theater at night selling popcorn and candy. That was a fun summer.

ACDIS: Can you tell us about a few of your favorite things?

■ Vacation spots: I enjoy going to New York City in the spring and around Christmas. My daughter took me to San Francisco for one of my “major” birthdays. We also like to hit some of the local and regional casinos on occasion. If we can throw in a trip to the beach at the same time, we are good to go. I am always up for traveling anywhere.

■ Hobbies: I do woodworking on a scroll saw. I like to crochet, work with ceramics, and make wreaths. I enjoy photography and was the “official” photographer for my daughter’s wedding. I also like to work in my flower garden.

■ Non-alcoholic beverage: Nothing special; I like coffee, water, non-fat milk, and every now and then a diet Pepsi.

■ Foods: Chinese and Mexican.

■ Activities: I like to walk with my dogs, swim, and ride bikes. But I don’t do as much as I should.

ACDIS: Tell us about your family and how you like to spend your time away from CDI.
Dellinger: My husband and I have been married for 38 years. We have two fur babies, Neave and Bailey; one is a Woodle and the other is a miniature Golden Doodle.

We have a daughter who is a critical care nurse with her master’s degree in nursing education. We are very proud of her accomplishments. She is married, has two fur babies, and lives close by. We enjoy getting together for cookouts, late nights by the firepit, and family travels.

My husband and I spend time working in his shop. He introduced me to the scroll saw, and I work on that while he works on his wood lathe. I find it very relaxing and can get lost in the creative process. 🌆
Getting clinical conditions appropriately documented is not a new problem in medicine, especially in pediatrics. This is particularly true for conditions where a universally accepted clinical definition does not exist, such as heart failure for pediatric patients. This has led individual institutions to develop their own clinical criteria, and although this practice may suffice for individual hospitals, it does not address the issue on a national and international level. As a result, clinicians use different terms to describe the same clinical situation due to individual training and experience. For instance, one doctor’s “heart failure” might be another’s “pulmonary over-circulation,” and one doctor’s “decreased ventricular function” might be another’s “decreased ventricular shortening due to increased afterload.”

In addition, the word “failure” has its own inherent problem. Many physicians, including pediatric cardiologists, find it difficult to adopt the use of such a significant term, especially when the underlying anatomic abnormality is amenable to surgical repair. Furthermore, it can be alarming for parents to hear the word “failure” associated with their child.

Another difficulty is the elimination of the words “insufficiency” and “dysfunction” to describe abnormal cardiac function in ICD-10, leaving “failure” as the only option to describe a broad spectrum of heart disease in both adult and pediatric patients.

On one end of the spectrum is a 6-month-old child with a ventricular septal defect (VSD) on a diuretic, who presumably will be cured of heart failure after repair of the VSD.

On the other end of the spectrum is a 6-year-old with hypoplastic left heart syndrome, who will require multiple
cardiac procedures and will never achieve normal cardiac function. These issues compound the problem of accurately and appropriately documenting a patient’s diagnosis, which could lead to an inaccurate representation of the patient’s severity of illness and inadequate hospital reimbursement. Insufficient reimbursement, in turn, may decrease available resources to care for patients with heart failure.

Given the lack of a specific definition and the reluctance of physicians to use the term “heart failure,” the accurate documentation and appropriate reimbursement of pediatric heart failure is challenging. The aim of this pediatric working group is to address the issue of documentation of heart failure in the pediatric patient.

Heart failure in pediatrics is a complex clinical and pathophysiologic syndrome in which the heart fails to meet the metabolic needs of the body due to structural or functional impairment of ventricular filling or ejection of blood from the heart. This condition is often ascribed to failure of the heart as a pump. However, especially in pediatrics, the pumping function of the heart is often not only normal but sometimes supra-physiologic. In these states, there is usually an anatomic explanation, such as a mechanical obstruction to cardiac output.

Given the lack of a specific definition and the reluctance of physicians to use the term ‘heart failure,’ the accurate documentation and appropriate reimbursement of pediatric heart failure is challenging.

Pediatric heart failure consensus statement

One example is critical aortic valve stenosis in an infant. The aortic valve does not open adequately, so the left ventricle (LV) cannot empty properly, leading to LV hypertrophy. The LV then develops increased diastolic pressure due to its lack of emptying and decreased compliance due to hypertrophy, and this increased diastolic pressure gets transmitted back to the left atrium and the pulmonary veins. Resultant pulmonary venous hypertension then leads to pulmonary edema and dyspnea.

Normal infant feeding requires the child to hold its breath briefly, but infants with heart failure cannot hold their breath due to dyspnea and, thus, will spend more time catching their breath than actually feeding. The decreased caloric intake, coupled with the increased caloric expenditure from the increased work of breathing, leads to the classic picture of heart failure in a baby—tachypnea and malnutrition.

Starting with the heart, simple and complex forms of congenital heart diseases that alter any structure (valves, vessels, and/or myocardium) of the cardiac pump can have devastating effect on its function (Hsu & Pearson, 2009; Rossano & Shaddy, 2014). (See Table 1 on p. 42.) Simple defects are conducive to repair with return to normal heart function, whereas complex defects can have lifelong effects on morbidity and mortality.

Then there are acquired conditions that may also target various cardiac structures. Common pediatric-acquired cardiac diseases include mitral valve damage in rheumatic fever, coronary artery aneurysm in Kawasaki disease, and myocardium damage in myocarditis, resulting in arrhythmias or disruption in pump effectiveness. Either congenital or acquired cardiac abnormalities may lead to heart failure by causing volume overload (large VSD), pressure overload (aortic stenosis), or a combination of both as seen in complex congenital heart diseases. Processes that damage the myocardium itself through toxic, infiltrative, or infectious means may lead to heart failure by disrupting the cardiac rhythm or effectiveness of contractility.

Furthermore, there are many conditions with origins outside of the cardiac system that may result in cardiac failure, such as congenital or acquired diseases,
hypocalcemia, hypoglycemia, and severe anemia. If we also consider that laboratory studies, pharmacologic interventions, and treatment plans need to be tailored to the many causes of cardiac failure, we can start to appreciate the complexity involved in creating a unifying definition for pediatric heart failure.

The diagnosis of heart failure is made through a series of investigations that include history, physical examination, and diagnostic studies. No single test establishes the diagnosis of heart failure; rather, heart failure remains a clinical diagnosis with characteristic signs and symptoms, physical exam findings, electro- and echocardiographic abnormalities, abnormal biochemical markers, and need for pharmacologic treatment (Kantor et al., 2013; Stout et al., 2016).

The Ross classification, by Dr. Robert Ross, has been used for decades in identifying children with heart failure. The initial classification, published in 1992, was based on the symptoms of diaphoresis and/or tachypnea with feedings in infants and with exercise or exertion in older children (Ross, Bollinger, & Pinsky, 1992). Heart failure was graded from stages I to IV; stage I included asymptomatic patients, and stage IV represented patients who were symptomatic at rest. The Ross classification system was adopted in 1994 by the Canadian Cardiovascular Consensus Conference as their official scoring system for pediatric heart failure (Johnstone et al., 1994). The Ross criteria were felt to be an improvement over the New York Heart Association classification, which was developed in 1902 and provided a way of classifying the extent of heart failure in an era where no measurements of cardiac function were possible (Connolly et al., 2001).

In 2012, Ross published an update to his original article in which he proposed stratification of his initial criteria by age and included criteria for infants such as hepatomegaly, the presence of an S3 murmur or a diastolic rumble, the status of peripheral perfusion, volume of feedings consumed, and more specific criteria for children’s respiratory and heart rates (Ross, 2012). These modified criteria can be helpful to identify children with heart failure.

In addition to clinical criteria, other modalities can help determine if a pediatric patient has heart failure. Although a chest X-ray may indicate the presence of a cardiac abnormality, there is no specific finding that would reliably diagnose the presence of heart failure (Romer, Rajagopal, & Kameny, 2018). Patients with suspected cardiac disease commonly undergo a more extensive cardiac evaluation that includes an echocardiogram for both cardiac anatomy and function. Left ventricular systolic dysfunction in children is characterized by a shortening fraction less than 25% and/or an ejection fraction less than 55% (Lang et al., 2005). Cardiac MRI is an additional technique to assess ventricular function, but it is not the first-line option due to limitations such as lack of accessibility, possibility of needing general anesthesia, cost, and incompatibility with hardware such as pacemakers (Kirk et al., 2014).

There are several laboratory studies that may indicate cardiac dysfunction. These studies are commonly used in patients with cardiac ischemia and/or cardiac failure. One of these studies is brain natriuretic peptide (BNP) (Rossano & Shaddy, 2014; Sezgin et al., 2010). Pro-BNP is continuously made by cardiac cells and is split into an active protein, BNP, and an inactive free fragment, NT-proBNP. The serum concentrations of both these proteins increase when heart muscle is stretched and/or has to work harder. BNP and NT-proBNP can be helpful in differentiating

In this age of increased specificity, the precise documentation of diagnoses is important for communication, research, and reimbursement purposes, and a universally accepted definition for pediatric heart failure is imperative.

Pediatric heart failure consensus statement
cardiac from pulmonary disease, monitoring the effects of heart failure treatment, and predicting unfavorable outcomes, but they should not be used as the sole basis for the diagnosis of heart failure in pediatric patients (Rossano & Shaddy, 2014; Kirk et al., 2014; Sezgin et al., 2010; Auerbach et al., 2010).

Patients with cardiac ischemia frequently have elevated biomarkers such as creatinine-kinase (CK, CPK, CPK-MB) and troponin (troponins I & T) (Rossano & Shaddy, 2014). Although these enzymes are fairly specific for adult patients with an acute cardiac event with associated myocyte injury, they are not useful for patients with cardiac failure when ischemia is not present.

Other potentially helpful laboratory studies include hemoglobin/hematocrit, serum electrolytes, serum lactate, and liver function (Kirk et al., 2014). Although one may see anemia, acidosis, or renal and hepatic dysfunction associated with cardiac failure, none of these laboratory studies, on their own, are specific enough to identify a patient with cardiac failure. Therefore, abnormal laboratory values should be viewed in the context of the patient’s presentation, as they can be supportive but not diagnostic of cardiac failure.

Medications and devices are commonly utilized to help augment cardiac dysfunction in patients with heart failure (Rossano & Shaddy, 2014; Stout et al., 2016; Kirk et al., 2014). Just as the underlying causes of pediatric heart failure are diverse, the available medications are correspondingly expansive. As illustrated in Table 2 on p. 42, these classes of medication include:

- Diuretics (loop and thiazide)
- Cardiac glycosides
- Angiotensin-converting enzyme inhibitors
- Angiotensin II receptor blockers
- Aldosterone antagonists
- Beta-blockers
- Inotropes and other agents

Certain devices (pacemaker, implantable cardioverter defibrillator) or therapies (cardiac resynchronization therapy, extracorporeal membrane oxygenation, and ventricular assist device) may also indicate heart failure. However, the use of specific medications, classes of medication, devices, or therapies should be interpreted in the context of other clinical information for the patient, as their use may not necessarily indicate heart failure.

Children’s hearts fail. They fail because of congenital anatomical defects and acquired conditions uncommon in adult cardiac patients. They fail and do not allow these affected children to grow, run, and play like other children. Children with heart failure can require significant medical resources, including extensive evaluation, medications, and surgery. Despite the substantial differences between adult and pediatric heart failure, the ICD-10 codes do not differentiate between these two patient populations, leading to inadequate capture of pediatric heart failure, including specificity.

Furthermore, compliance with ICD-10 requires documentation of the term “heart failure,” but “cardiac insufficiency” and “cardiac dysfunction” are not recognized in this classification scheme. In this age of increased specificity, the precise documentation of diagnoses is important for communication, research, and reimbursement purposes, and a universally accepted definition for pediatric heart failure is imperative. Until specific clinical definitions for pediatric heart failure are developed, this paper provides useful information to clinical documentation specialists to help identify children treated for heart failure.

CONTRIBUTORS
ACDIS thanks the following contributors who worked diligently over the course of several months to create this paper.

- Valerie Bica, BSN, RN, CPN
- J. Douglas Campbell, MD, FAAP, MHA
- Robert F. English, MD
- Lucinda Lo, MD
- Amy Sanderson, MD
- Sheilah Snyder, MD
### Table 1. Etiologies of heart failure

<table>
<thead>
<tr>
<th>Volume overload lesions</th>
<th>Pressure overload lesions</th>
<th>Both volume and pressure overload lesions</th>
<th>Structurally normal heart</th>
<th>Extra-cardiac</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ventricular septal defect</td>
<td>Severe aortic stenosis</td>
<td>Hypoplastic left heart syndrome</td>
<td>Cardiomyopathy (dilated hypertrophic, restrictive)</td>
<td>Large arteriovenous malformation</td>
</tr>
<tr>
<td>Patent ductus arteriosus</td>
<td>Coarctation of the aorta</td>
<td>Unbalanced atrioventricular canal</td>
<td>Arrhythmias</td>
<td>Anemia</td>
</tr>
<tr>
<td>Valve regurgitation</td>
<td>Severe pulmonary stenosis</td>
<td>L-transposition of the great vessels</td>
<td>Ischemic (early coronary artery disease, coronary artery anomaly, post-operative)</td>
<td>Electrolyte abnormalities (hypocalcemia)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Toxic (iron overload, chemotherapy)</td>
<td>Thyrotoxicosis</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Infiltrative (metabolic)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Myocarditis</td>
<td></td>
</tr>
</tbody>
</table>

### Table 2. Medications for cardiac dysfunction

<table>
<thead>
<tr>
<th>Diuretics</th>
<th>Cardiac glycosides</th>
<th>Angiotensin-converting enzyme</th>
<th>Inotropes</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loop diuretics</td>
<td>Digoxin</td>
<td>Captopril</td>
<td>Dopamine</td>
<td>Ivabradine</td>
</tr>
<tr>
<td>furosemide</td>
<td></td>
<td>Enalapril</td>
<td>Dobutamine</td>
<td></td>
</tr>
<tr>
<td>bumetanide</td>
<td></td>
<td></td>
<td>Milrinone</td>
<td></td>
</tr>
<tr>
<td>torsemide</td>
<td></td>
<td>Pendopril</td>
<td>Epinephrine</td>
<td></td>
</tr>
<tr>
<td>Thiazide diuretics</td>
<td>chlorothiazide</td>
<td></td>
<td>Norepinephrine</td>
<td></td>
</tr>
<tr>
<td>hydrochlorothiazide</td>
<td></td>
<td></td>
<td>Levosimendan</td>
<td></td>
</tr>
<tr>
<td>metolazone</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Nesiritide</td>
</tr>
</tbody>
</table>
REFERENCES


We're here for you.

Stay with ACDIS during this global COVID-19 crisis.

Since its inception ACDIS has brought together like-minded professionals to share tips, tools, and best practices. Our mission hasn't changed. Even as the world changes around us, ACDIS members are responding and we're bringing these best practices from our CDI community forward to help you and your team adapt and respond.

At right is a list of some of the items in our COVID-19 toolkit available to you.

We're here for you. We're stronger together. Always.

- The CDI COVID-19 survival toolkit
- Sample COVID-19 facility coding guidelines
- Sample COVID-19 assessment tool
- Three COVID-19 episodes of the ACDIS Podcast
- Sample tip sheets: Cytokine release syndrome
- COVID-19 complications and co-morbid conditions
- Sample COVID-19 query template
- COVID-19 news and advice from CDI Strategies