Success measurements in CDI: Find common ground

by Steven Robinson, MS, PA-C, RN, CPUR

From one healthcare facility to another, the integral points of CDI implementation—staffing ratios, staffing credentials, formats of documentation tools, programs for entering documentation evidence, and CDI organization/reporting structure—differ. Variability is commonplace.

Although methodologies vary, CDI programs can demonstrate their best outcome potential if they follow these steps:

1. Provide solid CDI training and education geared toward data and identified needs
2. Initiate effective communication between CDI specialists and physicians
3. Develop a written policy for CDI process and use it to direct all aspects of the program
4. Ensure support of administration and departmental leadership
5. Establish a method to monitor facility-specific data associated with CDI
6. Initiate a facility CDI council or governance committee to review CDI outcomes to identify opportunities for improvement at least monthly

All these objectives are essential to create a successful and sustainable CDI solution. However, items five and six will be the focus of this article, which will review the influences a CDI team can have on facility- and regulatory-mandated metrics as well as two methods to achieve outcomes from concurrent review efforts.

Understand key metrics for success

What are the most important factors that measure success and demonstrate a successful CDI solution? Just as there are differences in applying CDI processes, there will also be differing opinions on what is most important for monitoring CDI success. There are two key types of metrics that all programs should measure:

1. Physician communication effectiveness
2. CDI process progression

Physician communication reports depend on the queries provided to the physician. These data are generated from the following:

» The volume of records with queries (e.g., the number of records with physician positive responses)
» Information from the medical record generating a question or query (e.g., clarity of information)
» The severity of illness (SOI) score difference (e.g., between the pre-query and the post-query information)

CDI process progression reports come from data aggregatedly collected from DRG assignment. These primarily include case-mix index (CMI), CC/MCC, and SOI/risk of mortality (ROM).

Physician metrics

These metrics help us understand the effectiveness of collective and individual CDI efforts. Effective physician communication is based on quality of communication and the responsiveness of the physician. To be effective, however, the questions must be clear, concise, and within CMS and AHA guidelines.

The physician communication information below assumes the query questions are pertinent and follow regulatory guidelines. The AHA cites numerous references in its Coding Clinic for ICD-9-CM encouraging the CDI professional to query the physician if the information in the medical record provided by the physician is unclear or conflicting (Coding Clinic, second quarter 2000, pp. 17–18, and third quarter 2006, p. 16).

Given the emphasis of what CMS has published on the quality of queries, CDI departments should conduct internal query audits randomly with rereview of query guidelines as warranted from the results of those reviews. If a physician is reading and/or responding to CDI questions about the

continued on p. 20
documentation clarity, this is a major step toward overall CDI program success. Physicians may be approached with queries verbally, by direct question on a query form, or via e-mail.

Some debate continues as to the most effective means of physician queries/clarification. ACDIS’ 2010 CDI Program Benchmarking Survey notes that the difference in the volume of verbal vs. written queries among various facility types is minimal. Hospital queries vary by only 3%–4%, with at least 93% of hospital queries being written and about 50% of hospital queries being communicated electronically.

 Regardless of the mode or method of communication, use the following report types to track physician query success:

» Volume of queries provided to physicians
» Average patient length of stay (LOS)
» Average number of reviews performed by CDI specialist per patient
» Percentage of queries vs. total patients reviewed
» Number of positive query responses from the physician
» Number of negative query responses from the physician
» Number of queries with no response from the physician
» Percentage of records differing from last CDI specialist-reviewed DRG vs. final coded DRG
» ROM scores pre– and post–CDI specialist review
» SOI scores pre– and post–CDI specialist review
» Percentage of records with MCC change
» Percentage of records with CC/MCC change
» Percentage of records with principal diagnosis change
» Percentage of DRGs with recovery audit contractors targeted as a medical necessity issue any DRG with POA/HAC issue
» Average relative weight (RW) difference between last CDI specialist-reviewed DRG vs. final coded DRG

All physician education report types listed above should have the capability to be quantified by:

» Physician
» Physician specialty

Some facilities choose to measure the reimbursement differences between pre-query and post-query. Many facilities have also determined that CC/MCC capture, SOI, and ROM metrics work best for their medical staff and also meet the facility’s needs. Either type of metric will equally demonstrate physician querying methods and results.

You can see an example of an electronic entry screen on p. 21. This electronic entry enables many configurations of physician communication reports.

A second aspect to measure is process tracking of your CDI deliverables (e.g., metrics used to determine progress). Choose and measure these deliverables consistently. To measure the progress of CDI, first determine a baseline from which to measure your deliverables.

Use the baseline as a comparative point of data. You can find a good baseline by examining data from the 12 months prior to the start of your CDI program. Compare all metrics (again, identified by your facility) after CDI application to that baseline to demonstrate data movement (positive or negative).

Metrics that can be measured include:

» CMI: CMI is the average of all DRG RW. Note that many factors influence CMI, such as patient type, patient LOS, demographics, patient severity, and types of services offered by the facility. Regardless of contributing factors, CMI is a metric almost all acute care facilities use to judge the total severity of the patient population. In some healthcare arenas, hospitals even compare CMI to competitors or other facilities within their system.

CMI is best appreciated if broken into categories (e.g., medical, surgical, by specialty). These subcomponents provide a better understanding of how each subcategory affects the total CMI and promote a more accurate comparison of like populations. It’s important to measure these subcomponents, but remember that even subcomponent comparisons only reflect the populations of potentially (likely) differing DRGs and therefore different RWs (no matter which DRG system you use).

» CC/MCC capture percentages: CCs and MCCs are measured to identify DRG modifiers or contributors to a
higher RW within the DRG. CMS, through cost report algorithms, has determined which secondary diagnoses will significantly increase the cost of the care for a patient. These highly impacting secondary diagnoses are designated as CCs or MCCs and increase the reimbursement/severity picture of the patient’s designated DRG (if the definition of the DRG includes that option).

Generally, very specific qualifiers need to be associated with or describe a secondary diagnosis to meet the requirements of a CC or MCC. Many times, qualifying clinical indicators/descriptors are not clearly stated by the physician.

» SOI/ROM: These two metrics influence each other but are measured independently. Both require an electronic computerized grouping program. Using the APR-DRG methodology, the SOI is calculated using a 19-step algorithm. SOI is determined first by the assigned principal diagnosis and then by the list of all secondary diagnoses, principal procedure, and secondary procedures. The influence each secondary diagnosis has as well as the principal diagnosis and all procedures establishes the DRG category assigned, which in turn determines the final RW. In addition to a SOI having an assigned RW, a level of severity is also assigned ranging from one to four.

ROM metrics are also determined by an algorithm. The algorithm determines the likelihood of a particular patient’s death based on a composite of the principal diagnosis, corresponding secondary diagnoses, principal procedure, and secondary procedures. ROM represents a level of risk only (no RW scale is associated with ROM) ranging from one to four.

SOI/ROM measures are used to profile the patient’s severity in a comparative medium. Many facilities, physician practices, and healthcare payers use these two metrics as major data elements of operational and practice decision-making.

CDI programs should consistently disseminate metrics for CC percentages, MCC percentages, and SOI/ROM weights/levels. When compared back to a solid baseline, such data can determine the progression of your facility’s CDI effort.

There are many environmental and operational influences that can affect data volume, data relative weights, and so on (e.g., new surgical procedures are added to the operating room schedule, an orthopedist moves her caseload to a different facility, the coding staff loses a key professional to a different facility, a CDI specialist goes on an extended vacation). To mitigate these influencing factors, you may be required to drill down into the data. Measurement of each of the process metrics by specific physicians, physician groups, specialties, CDI specialists, etc., can help diagnose the concern.

CMI, CC/MCC, and SOI/ROM can be divided, dissected, and measured in many different categories. A dashboard effect is a useful method to display each segregated sector of measure.

Use of reports

Generally, the CDI manager is the primary point of contact and the owner of all CDI reporting management. These metrics can help your CDI program improve in the following areas:

» Internal CDI specialist education: Use reports with all and/or individual CDI specialists to understand physicians’ documentation patterns/trends. All of these various report types can be used to help improve CDI specialists’ job responsibilities.

» Physician reports by individual, specialty, or in aggregate: Use individual physician reports/depictions to

continued on p. 22
illustrate overall SOI/ROM reporting as well as volume of queries generated to each level of physician population.

**Overall/specialty progression:** Identifying CMI, CC, MCC, SOI, and ROM comparisons from one month or quarter to the next (by any report type) helps prioritize education.

**HIM impact on CDI metrics**

Thus far, we have discussed the two types of metrics that monitor physician outcomes and CDI specialists’ influence on those outcomes.

Involving the HIM/coding department is critical to the operations and success of CDI. Coding professionals use all the same tools as CDI specialists to assign the working DRG. Measuring the progress and building the DRG assignment is valuable to demonstrate the level of CDI specialist focus and physician acceptance. In turn, the coding professional will also appreciate their ability to learn, focus, and accept from these same tools.

Coders play two major roles influencing CDI metrics. The first role involves the use and application of their coding knowledge. CDI specialists, typically not having access to a coding resource on the nursing units, need knowledgeable coding professionals to confer with during their concurrent review process. Discussions with and advice from coding professionals influence the day-to-day DRG assignments and query accuracy. An effective CDI program will affect HIM metrics, such as by decreasing the discharged not final billed statistics. Some estimate that retrospective query rates could be cut by 50%–70% with a well-run concurrent query process. A decrease in denials is another positive outcome of a successful CDI program.

The ultimate goal is a strong, educated CDI staff and coding support team willing to effectively and confidently embrace the challenge of day-to-day physician documentation shortcomings. Measuring the successes and correcting any deficiencies will better prepare and educate the physician to be regularly compliant through the query process.

**Editor’s note:** Alice Zentner, RHIA, CDI, senior consultant for Maxim Health Information Services, contributed to this article.

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**About the author**

Steven Robinson, MS, PA-O, RN, CPUR, has successfully managed CDI services for more than 200 acute healthcare hospitals, medical centers, and health systems over the past 19 years. An RN and physician assistant with a master’s degree in health management, Robinson currently serves as the senior director of CDI at Maxim Health Information Services (MHIS) in Cleveland.

Prior to working at MHIS, Robinson served as vice president of clinical consulting services at a CPA healthcare firm acquired by 3M, senior vice president of clinical consulting at HP3, and director of forensic healthcare consulting at KPMG, LLP. He is committed to providing clients across the country with quality CDI services.

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