Best Practices in the Art and Science of Clinical Documentation Improvement

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Clinical documentation improvement (CDI) is an entire discipline focused on improving the clinical clarity of the health record. Practiced by health information management (HIM) professionals, registered nurses, and a host of other clinically oriented professions, CDI has emerged as one of the most important vehicles for bridging the gap between the clinical documentation contained in the health record and the resulting clinical and claims data utilized for reimbursement, research, and outcomes management.

The impact of CDI programs is as vast as the types of professionals that perform the function. This impact includes a more accurate depiction of patient severity and acuity as measured by case mix index, severity of illness (SOI) and risk of mortality (ROM) scores, reductions in clinical denials for medical necessity, and improved clinical outcomes and overall optimal continuity of care for patients as a result of capturing all diagnoses and procedures supported by clinical documentation—and ultimately reflected through final code assignment.

While financial benefits are often key to demonstrating a measureable value proposition for a CDI program, chief quality officers, patient safety officers, chief information officers, and chief medical officers are counted among the stakeholders realizing tangible benefits from CDI programs. Mature CDI programs have been able to synchronize clinical workflow with clinical documentation, as well as enhance physician productivity and satisfaction with electronic health record (EHR) systems. CDI programs can also assist in reducing clinical ambiguity and clarifying conflicting documentation between all care providers. The astute and well trained eye of a clinical documentation improvement specialist (CDS) can often tie together multiple disparate pieces of clinical information into a cohesive fact pattern, which can be the catalyst for a clinician to provide more specific and descriptive diagnoses and/or procedures.

The discipline of CDI, whether practiced by clinicians or coding professionals, has the potential to deliver great value to the healthcare system—including to the patient, who deserves a clear, concise, consistent, and accurate health record to support continuity of care.

Essential Characteristics of the CDS Professional Skill Set

Recruiting ideal individuals to launch and nurture a CDI program is critical to the success of the program. The ideal candidate should have a combination of coding competence and clinical expertise. Additional skills can assist in moving the program forward and establishing the foundation for a results-driven program. Aptitude for critical/analytical thinking, along with effective communication and interpersonal skills, are essential traits for a CDS. Individuals who are able to correlate coding knowledge with clinical practice and expertise are vital to a CDI program's success. There are important attributes to keep in mind when recruiting new staff or evaluating current staff. A CDS professional must possess advanced skills to perform their job, including but not limited to:

- Strong clinical skills, ability to interpret clinical indicators found among test results, recognize/understand disease processes, and identify therapeutic and diagnostic orders that demonstrate attention to undocumented conditions
- Understanding the structure and format of ICD-9-CM, ICD-10-CM, ICD-10-PCS, and/or CPT/HCPCS
- Applicable knowledge of code assignment requirements, the Official Conventions and Guidelines from the Centers for Medicare and Medicaid Services (CMS), *Coding Clinic* from the American Hospital Association, *CPT Assistant* from the American Medical Association, etc.

Success in CDI is achieved by taking the fundamental knowledge and advancing it through critical thinking and formulating the big picture. The following attributes foster growth within the CDI program and prepares an institution for maintaining data integrity, compliance, and quality revenue management:

- Ability to interpret regulatory initiatives and promote development of practices that support compliance of these initiatives
- Analytical and critical thinking skills
- Detail-oriented mentality
- Ability to understand the uses and significance of complete and accurate coded data
- Ability to perform data analysis and reporting

CDS professionals must possess effective communication skills as they interact with leaders, physicians, clinicians, coders, auditors, etc. The CDS of the future is a facilitator of communication between multiple caregivers, ancillary staff, and the revenue cycle team. Appendix A provides some examples of the CDS career ladder, from entry level to CDI manager/director.

Essential Job Duties of the CDS

The CDS is responsible for having documentation clarified in the health record so that the facility can report accurate, complete, and timely data. Health record data should represent the resources utilized for patient care, aid in improving the quality of care, and ensure data is both clinically supported and clinically significant—which will in turn support appropriate reimbursement. Patient outcomes data will be more accurately reflected through reporting when clinical documentation practices are performed in a manner that facilitates coding to capture information describing patients' acuity, severity of illness, and risk of mortality. The CDI professional can bring about these changes by consistently performing the essential duties of reviewer, educator, analyst, and collaborator. The CDS must also be congenial, engaging, and assertive to deliver in these roles.

CDS Duties: Reviewer

The CDS reviews health records daily to identify opportunities to clarify insufficient, contradictory, and/or inconsistent documentation. The CDS must be cognizant of changing guidelines, regulations, and advice for querying, coding, and documentation practices in order to perform these tasks compliantly. Review of data for trends in coding and diagnosis-related groups (DRGs) assignments is needed as well as the annual coding and DRG updates to identify new query opportunities or to fine tune existing queries. The CDS may also be charged with the review of retrospective DRG validation from third parties.

CDS Duties: Educator

The CDS uses multiple mediums and avenues to deliver training and information to the provider and others within the institution. A major contribution to a successful CDI program is the ability to demonstrate the impact of the CDI program to a large percentage of the facility's staff. At a minimum, the CDS will provide education to:

- Clinicians through the querying process so they understand the impact of their documentation practices on quality reporting, accurate reporting of a patient's clinical information, and reimbursement
- Provide ongoing education throughout the facility through presentations of data, examples of best practice documentation, and demonstration of the impact that documentation has on data reporting
- Identification and reporting of documentation practices on negative trends
- Collaborative development and reporting of quality measures including practitioner-specific data
- Education on clinical topics such as disease impact, drugs, and current medical practice and the correlation to code assignment

CDS Duties: Analyst

The CDS needs to understand data and be able to collate it into meaningful information. Data collected on a daily basis as part of their job tasks will promote understanding of program efficacy, the impact of documentation changes, and trends on the reporting of patient outcomes as well as how these trends impact organizational efforts. The CDS must be able to review the data, looking for trends or patterns over time as well as any variances that require further investigation. DRG shifts are reflected in the documentation of comorbid conditions and complications that could move a diagnosis into a higher paying DRG. CDI programs must be constantly vigilant in tracking and trending program data to be aware of these payment patterns.

CDS Duties: Collaborator

The CDS must be able to collaborate with clinicians and ancillary staff across the institution including medical staff and leadership, executives, administrators, coding, and other support departments. A CDI program can only provide meaningful and sustained change when the CDS is able to work cooperatively to identify and solve difficult documentation issues. Clinicians who are working on reducing hospital-acquired conditions (HACs), patient safety indicators (PSIs), and other quality measures will be more effective in creating change when they understand the dynamics of documentation and how it impacts code selection and, ultimately, the facility's performance measures. Collaboration with the coding staff is critical as the exchange of clinical and coding knowledge and information will result in the most appropriate documentation that presents a true clinical picture of the patient's conditions and treatments during the hospitalization.

CDI Reporting Structure

CDI departments tend to have a wide range of upward reporting requirements. The 2014 AHIMA Foundation's "Clinical Documentation Improvement Job Description Summative Report" identified that most CDS professionals report to the HIM department, while others may report to the nursing, revenue/finance, or quality management department.

CDI can be successful under most organizational structures if the following fundamental elements are met:

- Executive oversight (CMO, CFO, COO)
- CDI steering committee (monthly/quarterly reporting)

- Physician advisor
- Physician engagement
- Key performance indicator (KPI) tracking
- Quarterly or annual CDI audits/opportunity revitalization
- CDI program analytics
- HIM coder communication/interaction (formal and informal)
- Compliance and denial management team player

An essential component of a CDI program is to have focused and collaborative leadership that understands how the activities of the various departments impact the overall initiatives of the institution.

Measuring CDI's Financial Impact

A solid CDI program can yield improved quality scores, expedient coding, increased accuracy in case mix indices, the capture of appropriate revenue, indicators of potential DRG problem areas, and, most important of all, improved patient care. CDI has the potential to enhance a hospital's compliance efforts, as better documentation reduces future exposure to external audits and reduces risk.

A recent Healthcare Financial Management Association (HFMA) executive study identified improved clinical documentation accuracy as the greatest opportunity for financial improvement. Healthcare organizations are moving aggressively to implement CDI programs and technology solutions. The need for clinical documentation accuracy is driving these CDI initiatives toward their goals of widespread clinician adoption, improved quality of care, enhanced financial results, optimizing an organization's EHR investment, and improvement and accuracy in case mix index (CMI).

One of the initial motivators for adopting CDI solutions is the proven, demonstrable, and sustainable improvement in CMI, resulting in increased revenues and the best possible utilization of high-value specialists. CDI solutions are instrumental in ensuring full and timely reimbursement from payers, while avoiding the costly penalties of non-compliance. The appropriate capture of severity of illness and risk of mortality indicators contributes to the development of risk-adjusted outcome profiles, improved performance in provider and facility quality profiles, and appropriate payments for hospitals and physicians.

The CDI manager must regularly review and utilize data from internal (i.e., discharge data) and external sources (i.e., Medicare Provider Analysis and Review (MEDPAR), and Program for Evaluating Payment Patterns Electronic Report (PEPPER)). By applying this data, the following metrics should be tracked on a monthly basis and measured at least quarterly to understand the financial impact of the CDI program:

1. **Case Mix Index (CMI).** A measure of the relative complexity and severity of patients treated in a hospital. CMI serves as the basis for payment methodologies administered by CMS as well as other third-party payers. A number of factors can affect a hospital's CMI, including volume changes in certain DRGs and documentation/coding improvements. CDI leadership should understand CMI fluctuations and declines in CMI. Through proper measurement and analysis, providers can identify ways to improve a stagnant or declining CMI. To understand a hospital's total CMI, the following five metrics are calculated as follows:
    - **Overall CMI.** Add the relative weights of all DRGs and divide by the total inpatient population, excluding psychiatric and rehabilitation patients.
    - **Medical CMI.** Add the relative weights of all medical DRGs and divide by the total medical inpatient population, excluding psychiatric and rehabilitation patients.
    - **Surgical CMI.** Add the relative weights of all surgical DRGs and divide by the total surgical inpatient population, excluding psychiatric and rehabilitation patients.
    - **Adjusted CMI.** Remove all high-weighted DRGs that are not typically influenced by coding and/or clinical documentation improvements from the inpatient population, such as tracheotomies and transplants (MS-DRGs 1-17 and 652), excluding psychiatric and rehabilitation patients. Remove this volume from the overall population before repeating the calculation for total CMI outlined above. Some facilities may also eliminate low-weighted, high-volume DRGs (i.e., normal newborns).
    - **Medical/surgical mix and volume-adjusted CMI.** This calculation can help you determine the percentage by which CMI has changed over two equal quarterly periods (i.e., the first quarter of 2014 to the first quarter of 2015) and the resulting change in reimbursement for the designated time period.
        - Calculate medical/surgical mix and compare volumes from the two equal time periods
        - Adjust the CMI to equalize these two components by freezing one period and adjusting the mix distribution and volume of the other period to match the frozen period
        - Compare medical/surgical mix of the periods
2. **Overall CMI, Medical CMI, and Surgical CMI.** Separately determining the medical CMI and the surgical CMI will identify underlying problems masked in the overall CMI. Average medical CMI weights range from 1.0 to 1.15. A low end overall medical CMI may indicate symptom DRGs and the need for a more specific principal diagnosis or missing complications and comorbidities (CCs) that

should have been captured. Low medical CMIs may be heavily influenced by incorrectly documented and/or sequenced principal diagnoses.

3. **Adjusted CMI.** Remove all tracheotomies/transplants (MS-DRGs 1-17 and 652), which are very high-weighted DRGs and have geometric mean length of stay (GMLOS) and average length of stay (ALOS) impact, without documentation improvement potential. This allows focus on DRGs that will most likely be influenced by CDI efforts. Analysis of the adjusted CMI enables you to target underlying coding or documentation issues that need to be addressed.
4. **Comparative Medical and Surgical Case Mix.** Compare the volume of all inpatient cases in two comparable time periods, as well as the percentage of cases that are medical versus surgical, by calculating the medical/surgical mix and volume-adjusted CMI. Be sure to note losses and gains that may indicate the need for further investigation:

    - Look at volume loss or medical/surgical mix change to determine if you are losing market share to competitors.
    - Review the case types to see if they are moving to a different level of service (inpatient to ambulatory surgery or to observation).
    - Review the CMI by service line to identify focus areas and break it down further by DRGs to see if CC capture rates or key DRG pairs are in the optimal DRG assignments.

5. **Track and trend the following calculations:**

    - **Percentage of one- to two-day length of stays in both periods.** An increase in short-stay cases may be causing a decline in CMI. Consider benchmarking your length of stay against other hospitals to uncover any major differences. Understand the impact of CMS' Final Rule 1599, known as the Two Midnight Rule, which affects patient level of care while in the hospital.
    - **CMI by each service line or by major diagnostic category.** Perform this calculation for comparable time periods, such as six-month periods in different years, to determine if CMI has increased or decreased. This will help narrow down the root cause(s) of a declining overall CMI to a particular set of DRGs or service lines. Further investigation may indicate less complex cases than anticipated or possible documentation/coding deficiencies or inaccuracies, such as lower CC capture rates.
    - **Overall CC capture rate, and then by individual DRG level.** Compare the CC capture rate between two periods to determine focus areas. Providers with access to industry benchmarks for CC capture rates should use these as points of comparison in addition to their organizations' past performance. A CC capture rate may be measured against a previous year, but it still may be significantly behind industry performance if a provider compares it to others outside its facility.
    - **Present on Admission (POA).** Track and trend POA indicator assignments of No (N). Conditions with a POA indicator of N indicate that the condition was not present on admission and occurred during the hospital stay. This may affect facility reimbursement and data reporting.

6. **Compare the volume of distribution in key DRG pairs.** For example, calculate the volume of complex versus simple pneumonia, chronic obstructive pulmonary disease (COPD) versus respiratory failure, and gastroenteritis versus dehydration. Review the distribution of cases in the higher-weighted DRGs compared to peers or industry benchmarks.
7. **CDI coding DRG reconciliation.** Review and monitor final coded DRG and assigned codes to concurrently assigned codes and DRGs. Identify CDI impacts and opportunities for CDI, coding, and physician education.

Case mix index is a constant concern for healthcare financial leaders because of its impact on the revenue stream and should be consistently monitored and distributed to appropriate stakeholders.

Measuring the Quality Impact

The impact of complete and precise clinical documentation for quality and outcomes reporting is an essential focus for CDI programs. Clinical documentation improvement efforts that include a focus on the "holistic aspects" of care are crucial in the current state of reliance on healthcare data and outcomes reporting.

Metrics for measuring the quality impact of the CDI program include, but are not limited to, the following:

- Severity of illness (SOI)
- Risk of mortality (ROM)
- Hospital-acquired conditions (HACs)
- Core measure conditions
- Patient safety indicators (PSIs)
- Hierarchical condition categories (HCCs)

For these elements, it is important to capture and report the impact that is achieved through CDI review and clarification of physician documentation. Based on chart review, specific questions include:

- Were there any conditions or procedures added that impact the complexity or severity of the case (SOI and ROM levels)?
- Were any conditions clarified or averted based on lack of supporting or clarifying documentation (HACs, Core Measure conditions, PSIs, HCCs)?

A critical focus of a CDI program is to identify deficiencies in clinical documentation and develop processes to ensure the complete and accurate picture of a patient's clinical encounter. Outcomes reporting should be monitored to measure the overall impact of the CDI program and track areas of opportunity and success. A CDI program goal is to develop specific case examples as education for physicians, clinicians, and administrators, highlighting impacts as applicable.

Obtaining Physician Engagement

CDI is a quality initiative and this message should be clearly relayed to providers during both initial and ongoing engagement. The key is to engage providers to appreciate how clinical documentation is an opportunity for them to demonstrate the quality of care they are providing by way of exhibiting complete and accurate documentation in a consistent and prescribed manner, which results in appropriate and accurate outcomes reporting.

Documentation must be complete, accurate, timely, and in a prescribed syntax (with nothing left to interpretation) that conveys the story of what transpired between the patient and provider. Without this "story" other providers may not have a complete health picture of what is going on with the patient. Providers see many patients, so good documentation easily recalls the events of the previous visits. Documentation plays a vital role in continuity of care.

Incomplete documentation makes it difficult for patients to receive appropriate follow up care as the current provider may not have a clear-cut picture of the patient's illness or what steps have been previously taken to address the patient's healthcare concerns. How can quality care be delivered if the provider does not have all the information necessary to make a sound medical decision? Remember, if it wasn't documented, then it wasn't done.

Clinical documentation improvement specialists remind providers that their documentation is the evidence that demonstrates the care provided to the patient. Clinical documentation substantiates patient treatment and also patient responses to that treatment.

Providers have certainly heard of "quality measures," but they may not realize those quality measures are derived from their documentation. It is essential for providers to recognize their documentation impacts data. Using data to measure performance is a crucial component in improving the quality of healthcare. Data aids in determining where improvements can be made, such as inpatient outcomes or improving care processes.

CDI of the Future

Accurately reflected patient care and severity of illness capture true resource consumption, and complete and correct quality reporting are the overarching aspects that CDI programs impact. As the understanding of improved documentation and the direct impact it has on quality metrics is realized, the CDI concept continues to expand.

The benefit of CDI is being discovered in the outpatient setting. Implementing an outpatient CDI program may be challenging, but that doesn't mean it cannot be done. Prior to implementation, a facility should define what is to be accomplished so that a starting point can be identified. Understanding the facility baseline performance regarding quality metrics and denials management will provide valuable information that can be utilized to prioritize focus areas for documentation improvement.

Many providers assign codes in the outpatient setting. Within the outpatient clinic and physician practice, unless there is an edit that stops the claim, in most cases the account will bill based on the physician code selection. CDI has a tremendous opportunity within this venue to educate physicians on outpatient coding guidelines and documentation requirements. One area of this is hierarchical condition categories (HCC) coding, which adjusts Medicare capitation payments to Medicare Advantage healthcare plans for the health expenditure risk of their enrollees. Population health management and pay for performance is predicated on how practices are measured from a quality and risk adjustment standpoint. This is important to payer contract structures for negotiation and implementation of plan coverage, such as health insurance exchanges and accountable care organizations.

Clinical documentation specialists will be instrumental to a successful ICD-10-CM/PCS transition. ICD-10-PCS is much more detailed than the current ICD-9-CM procedure coding system, requiring very thorough documentation from the surgeon. The CDS should be knowledgeable of both ICD-10-CM and ICD-10-PCS. An outpatient CDS must understand how coding guidelines differ between the inpatient and outpatient setting. Continuing education is paramount for the CDS.

Appendix A

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Relevant CDI programs provide their CDS' an opportunity for career advancement. The ideal CDS candidate may come from various backgrounds, particularly HIM, nursing, and physicians. A candidate should have a current license and/or credential. Below are sample career

pathways for the CDS.

CDS – Level 1 Associate Responsibilities include:

- Data entry
    - CDI Tracking - (paper record environment/utilizing CDI tracking application not accessible on the nursing unit)
    - UR Management System - Patient safety indicators
- Case review identification from ADT Report (no ADT interface between patient registration and CDI Tracking applications)
- Run reports for CDI Follow-up and analytics
- Physician follow-up for un-answered queries

CDS – Level 2 Specialist Responsibilities include:

- Initial case review on non-critical care units and/or in accordance with individual experience*
- Follow-up case review

CDS – Level 3 Specialist/Supervisor Responsibilities include:

- Initial case review on intensive care and specialty care units*
- Follow-up case review
- Physician education
- CDI data analysis and presentation

CDS – Manager/Director Responsibilities include

- CDI staff supervision and scheduling
- Program communication with Executive leadership (Physician Advisor/CMO/CMIO/CFO)
- CDI Steering Committee Coordination and metrics reporting
- CDI program and education coordination with HIM Coders
- CDI system administrator/IT coordinator

* Note: The number of cases reviewed daily will differ based on the facility's patient population and the varied duties of the CDS.

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