

# Retrospective Reviews: The Last Line of Defense for Documentation Integrity

Leveraging a retrospective review process  
to mitigate mid-revenue cycle leakage

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# Executive summary:

Even before the COVID-19 pandemic, hospitals struggled with mid-revenue cycle leakage. In 2019 (pre-COVID), Medicare and Medicaid underpayments had reached \$75.8 billion<sup>1</sup> and 84% of healthcare leaders cited inaccurate clinical documentation and coding as the root cause of lost or decreased revenue.<sup>2</sup> The pandemic has only exacerbated the problem.

There isn't a single root cause for mid-cycle leakage—it remains difficult for healthcare leaders to manage due to competing priorities, a lack of clinical knowledge, and a scarcity of appropriate software solutions. But healthcare leaders have options for mitigating mid-cycle leakage, and one of the most compelling strategies is to implement a thorough retrospective review process.

## **This whitepaper will explore:**

- Why retrospective reviews are necessary
- Strategies for prioritizing what to review and how to implement a retrospective review process at your organization
- The impact of machine learning on retrospective reviews

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1. 2019 AHA Fact Sheet: Underpayment by Medicare and Medicaid January 2021

2. HIMSS and Besler Revenue Cycle Management Research Report - Insights into Revenue Cycle Management October 2016



# Why retrospective reviews are necessary

The goal of the documentation integrity process should universally be complete document integrity for every patient encounter. Through specific and complete documentation, accurate reporting of ICD-10 codes allows healthcare organizations to be appropriately reimbursed and represented in quality metrics.

Clinical Documentation Integrity Specialists (CDIS) help physicians and coders achieve this level of documentation integrity through a query process that provides physicians with the necessary information to better specify their documentation in the medical record. Done properly, this documentation supports complete reporting of ICD-10 codes for every patient encounter. This not only impacts a healthcare organization's bottom line—it's also imperative for public reporting of the quality of care provided.

In an ideal world, CDIS would review every case every day throughout the concurrent patient encounter, eliminating the need for retrospective reviews. This way, medical record documentation would be timely and accurately maintained throughout the entire mid-revenue cycle. But in the real world, with weekend admissions, discharges, mortalities, high intake days, and other issues, CDIS are often required to retrospectively review documentation to ensure the documentation matches the final coding and billing.

While CDI teams work diligently to isolate the cases with the greatest opportunity for documentation improvement, the retrospective review process is far from perfect. Oftentimes, there is confusion as to what constitutes final documentation and whether there are addendums or a single source document that should be considered in the final code set. This lack of consistency leads to cases being denied—even those that were concurrently reviewed.

Clearly there needs to be a balance between concurrent and retrospective reviews. But, with so many steps in the mid-revenue cycle, it can be difficult to find the "right" cases to target for retrospective review to minimize leakage and risk of denial.



# CDI inefficiencies must be resolved

Right now, the situation is critical: **Our data suggests that 84 percent of documentation improvement opportunities are missed.**<sup>3</sup> This means that healthcare organizations miss numerous opportunities to more accurately identify conditions that would result in additional reimbursement or improved quality reporting. The end result is potentially millions in lost earned revenue and poor quality reporting across the board.

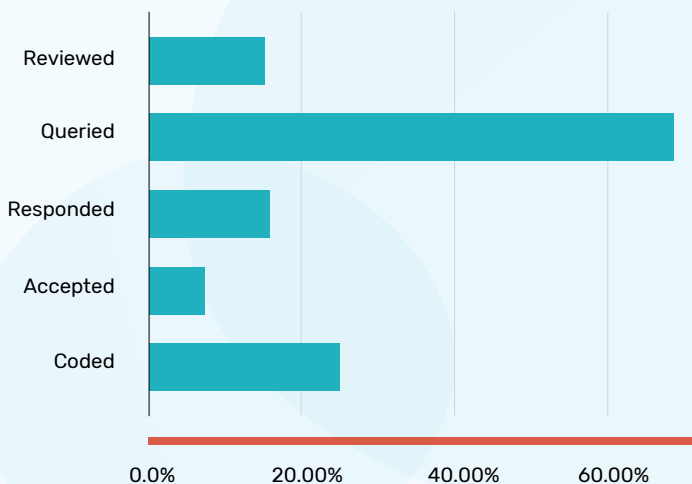
## THE EARNED REVENUE OPPORTUNITY

To understand the full scope of leakage, Iodine conducted a comprehensive audit of hospital CDI queries from July 2019 to December 2019.<sup>4</sup> Across nearly 500 U.S. hospitals, Iodine found that each hospital was still missing an average of **84% of documentation improvement opportunities** -- meaning that the hospitals missed numerous opportunities to bill for additional reimbursement.

### CDI QUERIES FROM JULY 2019 TO DECEMBER 2019

This chart shows the percentage of conditions that are missed or coded incorrectly at each stage of the process. As you can see, the most significant leakage occurs at the query stage.

While some of these cases might not have yielded an increase in revenue, the results of the audit certainly go a long way towards explaining how a 250-bed hospital **can lose \$5-\$11 million in annual revenue.**<sup>5</sup>



3. Iodine internal analysis of CDI queries from July 2019 to December 2019
4. Iodine internal analysis, 2020
5. 2016 ACDIS Advisory Board Study



Furthermore, we have seen up to **25 percent<sup>6</sup> of post-discharge reviews result in meaningful opportunity for code changes.** These code changes can lead to significant improvement in documentation integrity that results in more accurate revenue and quality reporting. It goes without saying that a final inspection of the record can be critical for accuracy and compliance.

Much of this leakage has gone through multiple steps in the mid-revenue cycle, so it's crucial to target the right cases for retrospective review while still optimizing workflow. Holding records unnecessarily from the final billing process that have no opportunity for documentation improvement increases time to reimbursement, which can be devastating to a healthcare organization. Not every record has a retrospective opportunity, making the record selection process difficult and riddled with inaccuracies. **Therefore it's vital to identify the right cases to review retrospectively and create processes that efficiently resolve the documentation concern.**

Two major opportunities for retrospective review occur at the post-discharge and post-coding stages:

- **Post-discharge:** Adherence to organizational policies related to the submission of discharge summaries often result in lack of integrity of the documentation. Discharge summaries are often incomplete, lacking essential clinical evidence or necessary documentation altogether. This leads to miscommunication of care provided and leakage of documentation integrity.
- **Post-coding:** Often, “final” coding happens before coders have all essential documents. That can result in missing information, such as answered concurrent queries, discharge summaries, pathology reports, and addendums to concurrent documents. Human error is also possible when coders do not use the most accurate codes or miss coding well-documented conditions.

The solution isn't to hire more or “better” staff; most hospitals can't afford to anyway. Not to mention coders, physicians, and CDIS are often working at above capacity. The goal is to work *smarter*, not harder. But how can healthcare organizations accomplish that?

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6. Iodine Retrospect product



# Implementing a smarter retrospective review process

Documentation integrity programs were designed to solve mid-cycle leakage, but more often than not CDI programs face challenges with increased complexity of reviews, inadequate staffing, and work outside the primary responsibilities of the role such as concurrently coding to identify a working DRG for case management. Inadequate technological solutions for concurrent record review also create barriers to better document integrity.

Knowing that significant leakage occurs, healthcare leaders can implement processes and technology solutions that identify these high-priority cases, compare conditions against documentation and final codes, quickly resolve documentation issues, and reduce the workload for overburdened staff.

First, organizations should focus on the retrospective reviews that truly matter. Most reconciliation processes are focused on measuring impact of the CDI process or targeted organizational concerns including:

- Code Mismatch
- Low Apparent Severity
- Quality concerns such as PSI's and HAC's
- Targeted service Lines
- Mortalities

These cases don't yield much in the way of improving documentation integrity and, far too often, the high-priority cases that require considerable review are overlooked. Proper identification and prioritization is mission-critical. But which cases have the highest potential for leakage? Who should review them? And who should create the query?



It's more important to focus on the cases that truly need review, such as:

- Code mismatch not caused by change in clinical picture
- Evidence of condition not coded
- Coded condition lacking clinical evidence
- Accuracy of PSI/Quality Indicators

But these require clinical judgment—so how do you prioritize them? It's best to begin by establishing policies and procedures to streamline your process. You can do so by following these four steps:

### **1. ENSURE EXPERTISE FOR EACH FUNCTION**

Consider the players: CDIS, physicians, and coders. Then consider their roles. Who has the knowledge necessary to perform each of these tasks? Think about how to maximize efficiency across each of these roles to establish a workflow that leverages key knowledge and experience in each role to resolve documentation issues.

### **2. OUTLINE THE WORKFLOW**

CDIS, physicians, and coders are already overworked. Make it a priority to minimize duplicative work by delineating responsibilities. Who handles concurrent queries that haven't been resolved by discharge? Who takes care of retrospective query creation and follow up? Who is responsible for escalating queries to resolution?

### **3. DEFINE QUERY CRITERIA**

It's important to make sure the query process is as simple and straightforward as possible. Provide templates and carefully outlined clinical criteria. Leave no room for ambiguity.

### **4. ESTABLISH TIMELINES**

Time is of the essence when handling retrospective reviews. Physician liaisons and champions need deadlines for escalating pending query responses to support timely filing. CDIS and coding leaders need deadlines for escalating cases where collaboration with the coder can resolve the issue. Management of final coding and billing processes is needed to avoid unnecessary delays.

Resolving coding issues before billing can be a balancing act. Retrospective reviews are best conducted after discharge and coding but before billing, so speed is paramount. Some organizations do retrospective reviews post-discharge and pre-coding, but (as mentioned before) this comes with its own set of missed opportunities and problems.

Managing timely billing means physicians, coders, and CDIS must participate in a highly efficient process. Because of their critical role in resolving open queries, physicians should be actively engaged in a way that's streamlined and doesn't lead to administrative burnout. Meanwhile, CDIS and coders should collaborate regularly, especially to address any knowledge gaps.



High-integrity documentation doesn't just happen. It requires teamwork and attention to detail. Accuracy at every step of the way is the ultimate goal and results in:

- Final codes that reflect conditions monitored and treated during the encounter
- Appropriate reimbursement
- Accurate quality reporting and metrics

Unfortunately, in the real world, identification of the right cases to review can be difficult and time consuming, forcing CDIS to review many cases without opportunity just to find each single case with opportunity. That's where machine learning makes a major difference.





# The impact of machine learning on retrospective reviews

Technology can be an invaluable asset for retrospective review, helping prioritize the cases that have the highest likelihood for leakage. However, the technology must be capable of identifying clinical evidence of conditions, cross-referencing the evidence with pertinent documentation and reviewing the appropriateness of the final codes for the case. Identification of these priority cases dramatically reduces the burden on the CDIS and minimizes documentation leakage.

Properly implemented machine learning solutions can help organizations determine which cases require a retrospective CDI review and which ones don't. Machine learning evaluates patient demographics, visit activity, vital signs, all physician orders, medication, administration records, lab and other diagnostic results, and it cross-references it against ED reports, consult notes, progress notes, discharge reports, and patient history. The third component that machine learning models evaluate are the final diagnosis & procedure codes assigned by the coding professionals.

Along with the clinical evidence and patient demographics, machine learning considers the entire scope of the clinical record, patient experience, and physician interventions to find discrepancies that can be leveraged for documentation, code accuracy and education. The technology can then automate a daily review process for every discharged record, filtering out cases that do not have discrepancies between clinical evidence, documentation and codes eliminating the need to unnecessarily review these cases.

If all documents are present and the documentation is clear and consistent, no further review is needed. However, when there are discrepancies, these cases are tagged for retrospective review and ranked, with the highest priority cases at the top of the list.



**Iodine’s Retrospect product** does just that. It prioritizes cases for retrospective review based on the quantitative likelihood of benefit from review and correction. This allows CDI teams to prioritize cases with likely problems worthy of retrospective review and provides a workflow for identifying, tracking and resolving those issues. **You can learn more about Retrospect at [iodinesoftware.com](https://iodinesoftware.com).**

**INTEGRIS HEALTH CAPTURES OPPORTUNITY LEAKAGE PRIOR TO BILLING**

INTEGRIS Health, the largest Oklahoma-owned not-for-profit health system in the state, recently implemented Retrospect to review the right discharged cases at the right time. Within the first month of adding Retrospect, **32% of the reviewed visits identified by Iodine experienced a DRG shift. On average, each case had a shift of \$6,479.83.**

**LOCATION**

18 hospitals  
throughout Oklahoma

**PROVIDERS**

604 employed physicians  
representing 71 specialties

**CDI TEAM**

21

**ANNUAL INPATIENT  
VOLUME**

>58,000 patient encounters

**EHR**

Epic



We were previously following a rules-based approach to try and catch opportunity leakage prior to billing. However, we were reviewing many accounts we didn’t need to, and missing accounts we needed to see. Having an AI technology like Retrospect to bubble up the right cases -- the ones we have an opportunity to impact -- was a game changer. It dramatically increased the opportunity realized through our retrospective process.

KATI BEISEL, DIRECTOR, HEALTH INFORMATION

