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responsibility-based A/R reporting how one health system drove performance with analytics

Analytics can help organizations produce meaningful reports that engage management and staff alike and drive A/R performance.

AT A GLANCE

- > An automated accounts receivable (A/R) reporting package should provide managers with data-driven information to help them respond to emerging trends in the revenue cycle.
- > Responsibility for clearly defined account portfolios should be assigned to managers, and targets should be established.
- > This data-driven approach with its culture of responsibility can help healthcare organizations reach their A/R goals.

Reduce days in accounts receivable (A/R) from 66 to 57 over nine months. That daunting goal in January 2008 challenged revenue cycle leaders at Greenville Hospital System University Medical Center (GHS). Located in Greenville, S.C., GHS is a not-for-profit academic health organization with annual systemwide revenues exceeding \$2 billion. Meeting that goal would be no easy task. However, recent changes in leaders of key revenue cycle functions provided an opportunity for management to step back and reflect on what to do next.

After conducting an internal assessment, management concluded that two projects—a departmental redesign combining all business office functions into a revenue cycle division and a cash acceleration initiative—were critical to meeting the organization's goal. Yet the benefit from these two projects alone would not be sufficient to produce the desired outcome. An emphasis on analytics and the creation of responsibility-based A/R reporting were essential to the projects' success.

Homemade ... but Not Necessarily Better

The patient accounting system used at GHS is home-grown and has limited back-end reporting functionality. As a result, before the improvement effort, two revenue cycle analysts were needed to prepare and analyze reports—one dedicated exclusively to denied A/R and one dedicated to the entire A/R. The analysts started with raw files from the mainframe and through extensive formatting in spreadsheet software, were able to produce standard reports for revenue cycle meetings. Management realized this approach had several critical drawbacks.

Inconsistent data. Specific portfolios of accounts were not defined. The result was inconsistent figures among reports because the two analysts defined portfolios of A/R differently. Although neither definition was incorrect, the lack of collaboration resulted in approaches to reporting with similarities but also substantial differences. For example, the totals on the denial

inventory and denial aged trial balance (ATB) reports did not match because one analyst excluded outsourced denials and certain denial types, whereas the other analyst included all denied accounts.

Duplication of efforts. The two analysts reported to different department directors, and because these directors had different needs and priorities, the reporting information was inconsistent and generated with irregular timing.

Time-consuming process. Creating a standard set of A/R reports was a time-consuming manual process that inhibited the analysts' ability to analyze trends, interpret the data for the organization's leaders, and recommend corrective actions.

Undefined purpose. Standard reports were created without an overall defined scope and objective. As a result, many reports were not useful or were not used consistently.

Lack of industry benchmarks. The reports did not consistently benchmark A/R performance against leading practices or GHS target measures. Without a target, management had difficulty gauging the relative success of current efforts under way to improve revenue cycle performance.

Lack of contingency plan. The organization lacked a sufficient contingency plan to maintain A/R reporting in the analysts' absence. The reason was principally that the reports were highly complex and created manually. Simply put, only the analysts possessed the skills necessary to create the reports each week.

Information overload. The standard reports brought to revenue cycle meetings contained a significant amount of information. However, that information was not effectively summarized for management to make decisions. No hierarchy or structure existed to help management distinguish between underperforming areas needing attention and areas performing at acceptable levels. The sheer volume of information presented in the weekly reports was overwhelming and did not

provide an opportunity for focus on any one area. An effective summarization was missing.

Something Must Be Done: The Plan

A robust A/R reporting mechanism was needed quickly. Several marketplace vendors existed that provide outstanding products, but the need for quick action and the expensive price of some of these systems muted the potential benefits for GHS. Management discussed a long-term solution to include a new patient accounting system with enhanced reporting capabilities, or at least a bolt-on application that would serve the same purpose. However, to address current needs, management agreed the solution should be quick, effective, and inexpensive to install. The new reporting mechanism also needed to be scalable and user friendly, such that multiple users throughout the business office could access reports in real time.

After reviewing multiple options, a database management system-based A/R reporting mechanism was selected for the job. Now all pieces to the plan were in place for GHS to achieve the goal of 57 days in A/R. While departments were being redesigned, the cash acceleration initiative would squeeze A/R for opportunity. Concurrently, the analysts developed a simplified and automated A/R reporting package, with a defined structure, to provide management with data-driven information that would help them respond to emerging trends within the revenue cycle.

If We Build It, They Will Come: The Approach

Once the foundation was laid, an approach to achieving the organization's goal was laid out in several steps.

Assign responsibility. The first step in the process was to define various portfolios of A/R based on revenue cycle functions. Eight portfolios were created: "collections," "denials," "in-house worked self-pay," "in-house not discharged," "discharged not final billed (DNFB)," two "outsourced" portfolios, and "final billed (FB) <15 days." An "all other" portfolio was also defined to capture

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accounts that did not fit in any of the eight predefined portfolios. The "all other" portfolio consists of credit balance accounts and accounts not routed to an in-house collection area via the existing system's work list application. Identification of these accounts ensures that each account in A/R is assigned responsibility and oversight.

Definitions for each of the nine account portfolios were created, and a process was developed to classify each account in A/R to one of these portfolios. A few accounts meeting the definition for multiple portfolios were identified, and management found it necessary to develop a prioritization schedule. Responsibility for each portfolio was then assigned to specific department directors or managers providing a tangible goal for each of the nine responsible parties to achieve: manage their very own slice of the A/R.

Employ leading practice comparisons and opportunity calculation. Targets were selected after defining portfolios and assigning responsibility. These targets were derived, in most cases, from published leading practice comparisons and, in other instances, from internal business office goals. By establishing goals such as "% > 90 days from final bill" for the collections portfolio or "six days in revenue outstanding" for the DNFB portfolio, an ideal A/R balance could be derived on any given day. This ideal A/R balance by portfolio would meet management's need to focus attention on underperforming areas within the revenue cycle.

Develop a summary A/R report by account portfolio. At this point, there was enough information to create a report that summarized A/R by account portfolio. (See GHS A/R Days Receivable [by Account Location] at www.hfma.org/hfm.) From this one-page summary report, management can quickly gauge with precision the opportunity amount (in dollars) that exists in each portfolio. Totals from this report would be trended over time to help explain the movement in A/R. For example, increases in total A/R can now be explained by increased patient volume (if in-house, DNFB, or FB <15 days increased) or by

lackluster collection performance (if the denials, collections, or outsourced portfolios increased).

Develop a drill-down reporting package for each account portfolio. Next, an overall reporting infrastructure schematic was created to facilitate the planning and build process for the new reports. (See the Proposed GHS A/R Reporting Structure at www.hfma.org/hfm.) To begin, existing reports were scrutinized to ensure that they had a clearly defined purpose and audience, and were consistent with the goal of identifying opportunities within the A/R. Many of the existing reports that the analysts create weekly failed this first test. Revenue cycle managers were queried regarding the types of reports they would like to see for their assigned account portfolios. The responses were aggregated, and a schematic was created that related the reports to each other. Now the framework for the new reports was in place and the analysts set out to build the A/R reporting tool.

Build the A/R reporting tool. Working together, the analysts took the following key steps to build the new A/R reporting tool.

First they gathered the necessary input files. Working with the hospital IT department, they developed various source files for the job, including an ATB file, standard collector account note files, payments and adjustment transaction files, and reference files required to crosswalk hospital code sets into meaningful reporting elements.

Second, they built the database shell. Beginning with a new database, the analysts created the necessary import specifications that allow the database to import the data files by simply pushing a button each week. Next, various crosswalk tables were loaded into the database that facilitate meaningful report generation.

Third, to support the load process, they built queries that would format and aggregate the raw data to build a reportable table (or tables), from which reports could be developed. Depending on the types and formats of raw files available from the patient accounting system mainframe, for

many organizations, this step could take hours or weeks. For GHS, it was somewhere in between.

Fourth, the analysts built the reports. Using the report function within the database management system, the analysts first designed a report template from which all of the reports would be built. This template incorporated headers and footers, a common set of font styles and sizes, and a consistent color scheme. All of the reports were created using this template, which incorporated a color-coded numbering system to allow for quick reference in meetings.

Last, they finalized the database. User-friendly forms were developed that allow average users to operate the database and retrieve the reports. These forms included buttons found on common software applications such as close window, minimize, maximize, and print.

Enhance functionality. One of the weaknesses of the legacy system was the lack of information sharing; the analysts were the only ones with all of the data at any point in time. Revenue cycle managers were eager to access up-to-date A/R data from their own desktop and without requesting the information from the analysts. This issue was solved by strategically placing the new A/R reporting tool on a shared server, from which all users could “link” and access read-only data. Using this infrastructure, the analysts can provide access to the new reporting tool as an icon on a user’s desktop. Because the icon is linked to a copy of the reporting tool on the server, data are always current and require no database maintenance by the individual user.

The tool placed on user desktops is essentially a stripped-down version of the master A/R reporting tool that excludes the actual data. The data tables are housed on a shared server. The database management system program offers options to prevent tampering with its components; these options were used to remove many of the menu bars that automatically start up with the program. The tool was designed so that the database automatically opens to its report menu. From here,

users can select reports they want to view and then print or save a copy in PDF for electronic routing. (See GHS A/R Database: Report Menu at www.hfma.org/hfm.)

Assess cost and time. The analysts’ time was the only cost associated with building the new A/R reporting tool, because the people, process, and technology necessary for this project already existed within the revenue cycle division. Outside guidance was provided by a consultant with respect to the overall structure of the new tool and its place within the revenue cycle division, but the bulk of the build work was conducted by GHS employees.

A precursor to the exhibit GHS A/R Database: Report Menu (available at www.hfma.org/hfm), this is a high-level table of the reporting naming structure intended for the A/R tool.

A/R REPORTING TOOL SAMPLE REPORT SCHEMATIC

Report Name / Contents	Report Series
IN HOUSE NO DC	A
DNFB	B
DFB INSURANCE <15 FB	C
COLLECTIONS PORTFOLIO	D
Aged by Financial Class	D.1
Weekly Trended by Aetna	D.1.a
Weekly Trended by Cigna	D.1.b
Weekly Trended by Medicare	D.1.c
Weekly Trended by Patewood	D.1.c.1
Weekly Trended by Memorial	D.1.c.2
Weekly Trended by Allen Bennett	D.1.c.3
Aged by Collector	D.2
Aged by Collection Unit	D.3
Aged by Facility	D.4
Aged by Balance Label	D.5
Aged by Patient Type	D.6
Aged by Admit Source	D.7
Aged by Principle Dx	D.8
DENIALS PORTFOLIO	E
OUTSOURCED NON SELF-PAY	F
OUTSOURCED SELF-PAY	G
IN HOUSE SELF-PAY	H
IN HOUSE INSURANCE >15 FB	I

From conception to final product, the total time necessary to build this A/R reporting tool was approximately two months. At that time, approximately 30 canned reports had been created. The tool is continually expanding with input from various stakeholders at a rate of about two to four new reports per week. One of the benefits of creating a framework before beginning to create the reports is the expandability factor. Having reports at the first level of granularity aids in determining overall systemwide trends, whereas reports at the second level and beyond aid in determining root causes for those trends. The expandability factor for the A/R reporting tool is limited only by the number of fields available in the raw source files. (See exhibit on page 57.)

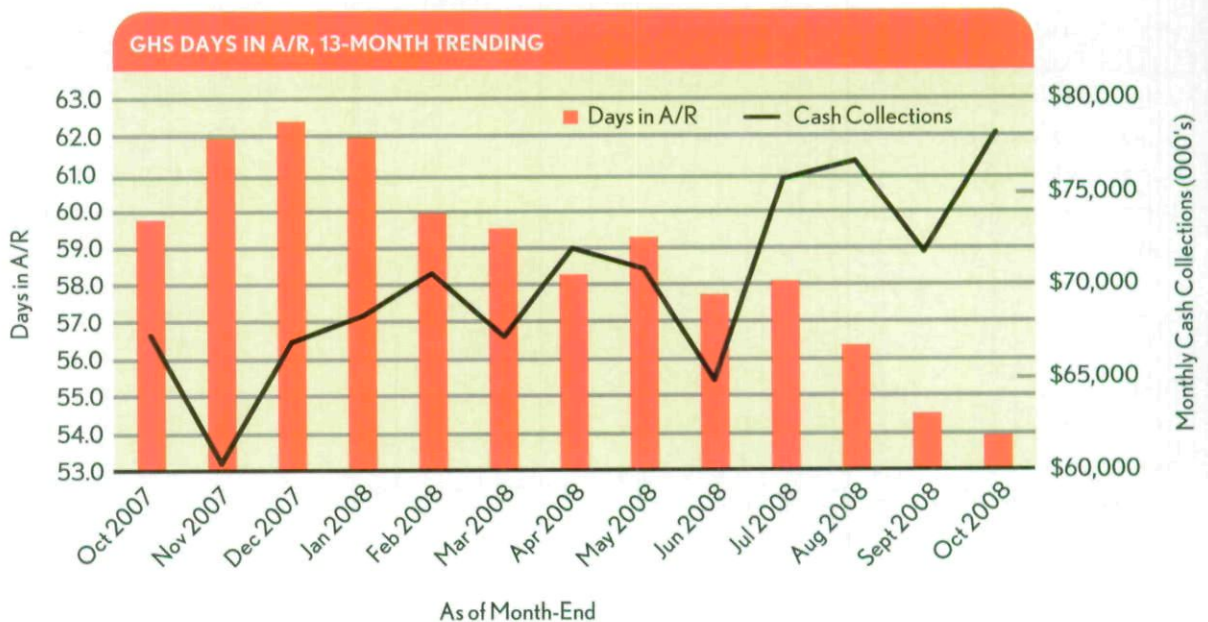
Responsibility = Success

The results are in: Days in A/R at FY08 end were below 57, cash hit record levels in the late summer months, and the overall A/R was at its lowest point all year. (See exhibit below.) By implementing a responsibility-based A/R reporting package, GHS was able to raise awareness of staff and management of the overall A/R trends. Each person in the revenue cycle division

understands his or her own responsibility with respect to collecting cash and managing a slice of A/R. Now individual and department progress is measured through weekly trending reports and against industry leading practice measures and GHS system goals.

The A/R reporting tool developed to support this new wave of analytics supports the system's goal of accelerating collections by automating the generation and delivery of A/R reports, and providing them to end users more quickly. All A/R reports reviewed regularly by management have a clear purpose, contain a comparison with "best of practice" levels, and are generated automatically—reducing the chances of human error to virtually zero.

Another benefit of developing this new reporting mechanism became immediately apparent: The level of analyses and depth of trend probing by the analysts was greatly enhanced. This achievement is simply because the analysts now can transform the time spent creating reports to time spent analyzing trends contained in the reports. This increased level of analysis has manifested



This exhibit shows 13-month results reflecting the upward trend of cash collections and decline in days in A/R as a result of the efforts described by this article at Greenville Hospital System University Medical Center.

CASE STUDY

into more in-depth discussions among management related to swings in individual buckets of the A/R. With additional data and analytics at their fingertips, managers come to meetings better equipped to discuss the reasons why their particular portfolios are either down or up compared with the previous week. Revenue cycle leaders are more confident than ever that they command an understanding of A/R.

GHS recently made the push to drive A/R performance with analytics. By assigning specific names to components and subcomponents of the A/R, a culture of responsibility is being cultivated. And by pushing data and reports out to all users, decisions are being based on data, rather than intuition. This data-driven approach to reporting helped GHS reach its A/R goals in 2008, and will serve as the foundation to the way it manages its A/R in the future. ●

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