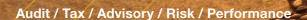


May 2016

ICD-10 conversion results in limited performance impact for most hospitals



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Benchmarking analysis

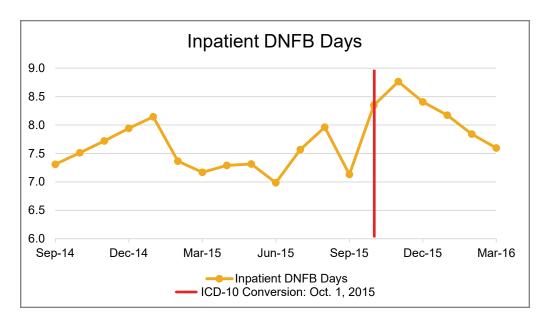
Conversion to the International Classification of Diseases, 10th Revision (ICD-10) had been anticipated for years and was postponed multiple times before final implementation on Oct. 1, 2015.

Market expectations for this conversion were far reaching and focused on anticipated impacts from delays in billing and coding as well as the potential for increased payer denials and accounts receivable (AR), and how both could result in decreased cash collections for healthcare providers.

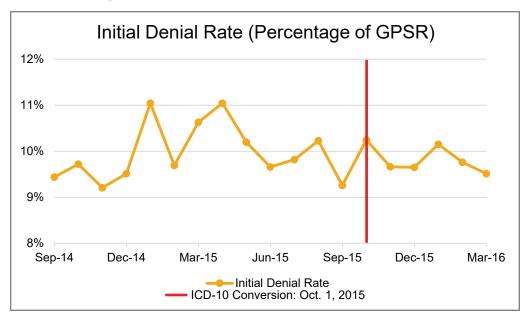
The Crowe Revenue Cycle Analytics™ (Crowe RCA™) benchmarking solution compiles and organizes a daily feed of transactional-level data from the patient accounting systems (PAS) of close to 600 hospitals. These reports outline findings based on an assessment of key performance indicators (KPIs) related to billing and coding, AR, and denials. For this report, Crowe professionals specifically assessed the impact of the October 2015 conversion to ICD-10.

The ICD-10 conversion resulted in minimal impact on cash collections, initial denial rates, and days in accounts receivable.

Based on PAS data from Crowe RCA benchmarking participants, specialists from Crowe observed that, on average, there was minimal impact on cash collections, initial denial rates, and days in accounts receivable, due to the ICD-10 conversion. There were, however, delays in inpatient billing and coding, resulting in an inpatient discharge and not final billed (DNFB) days increase of 10.1 percent based on average DNFB days from October through December 2015, in comparison with averages from October through December 2014. Although inpatient DNFB days in January 2016 were only slightly elevated from the January 2015 level, average DNFB days for February and March 2016 continued to deteriorate and were 6.2 percent higher than the average levels from February and March 2015. The ICD-10 impact to inpatient DNFB is shown below.



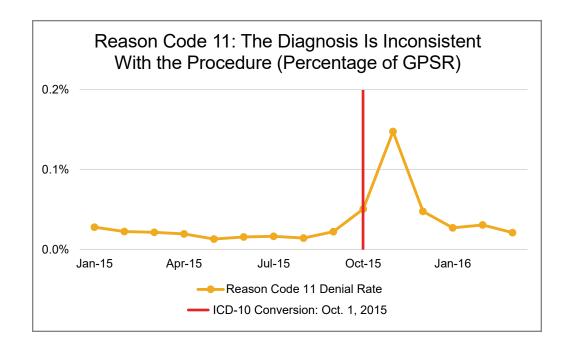
Denials impact



The Crowe RCA benchmarking participants did not appear to experience a negative overall effect on initial denial rates because of the ICD-10 conversion. Based on a review of electronic 835 payer remittance data from 144 hospitals, Crowe measured a slight decrease in the average initial denial rate as a percentage of gross patient services revenue (GPSR) - from 9.8 percent in October 2015 through March 2016 as compared to 10.0 percent in the same period from the year prior. Across these facilities, Crowe encountered large variances in billing- and claim-related denials when comparing the two periods, while denials associated with requests for information increased slightly from October 2015 through February 2016.

Contrary to market expectations for an increase in initial denials due to ICD-10, there was a slight decrease in the average initial denial rate – from 10.0 percent from October 2014 through March 2015, compared to 9.8 percent from October 2015 through March 2016.

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Crowe observed a temporary increase in denial claim adjustment reason code 11 (indicating the diagnosis is inconsistent with the procedure), for a material number of hospitals. As shown in the table above, as a percentage of total GPSR, this denial reason code spiked from October through December 2015. The Medicare payer class was responsible for the majority of this increase.

Although this temporary increase in reason code 11 denials encompassed a small percentage of the overall initial denial population, it is critical for organizations to closely monitor their denial performance to limit revenue cycle cash leakage. Beyond assessing high-level trending by payer and denial category, providers need the tools to perform root cause analysis and understand the true financial impact of denials to their organization. Prioritizing denial prevention

efforts depends on accurately calculating the financial impact, including the resource costs of resolving existing denials as well as preventing future denials.

Many organizations attempt to quantify lost cash collections associated with denials through final denial write-off transaction codes. Although this is useful in many cases, by nature it depends on the accurate application of pre-determined write-off transaction codes. The Crowe methodology supplements final denial write-off data with a metric calculating the payment or realization rate variance between historical denied and nondenied accounts. This KPI, called the "denials realization gap," determines overall cash leakage from denials with respect to initial denial rates. In its analysis, Crowe specialists have observed that most calculated hospital denials realization gaps range from 3.1 percent to 7.7 percent of GPSR, including some greater than 11 percent.

In most cases, the Crowe-calculated denials realization gap indicates more cash leakage is occurring from denied accounts than the final denial write-offs indicate. This is typically because of the use of contractual and administrative adjustment codes, instead of correctly using final denial write-off codes when collections departments are unable to successfully resolve denied accounts.

Through the account-level linking of patient accounting system 837 and 835 electronic remittance data, organizations can gain differential insights into root cause prevention mechanisms and AR resolution strategies. The exhibits on the next page show a sample analysis that can be performed to identify financial opportunity by payer category and to subsequently assess the opportunity within a payer class based on the types of denials received.

Our denials realization gap analysis indicates that in most cases, hospitals underestimate lost cash from denials by relying on the final denial write-off metric.

This analysis can then be used to target specific areas to improve denial prevention and/or resolution efforts. Crowe clients also are requesting this examination as part of a managed care review and incorporating denials analysis into various payer scorecards. In its next quarterly benchmarking report, Crowe will introduce its first market analysis on denials – analyzing industry trends by service line, denial type, and payer. The report will highlight the importance of tracking and analyzing denials from a variety of market lenses in order to assess the true financial impact from denials.

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Sample analysis for hospital denials

Realization Gap = variance in payment rates between denied and nondenied populations

2015 Denials By Payer Opportunity Summary

Crowe Payer	CY2015 Initial Denial Rate	CY2015 Initial Denial Dollars	CY2015 Nondenied Net to Gross	CY2015 Denied Net to Gross	Realization Gap	12-Month Opportunity
Medicaid – Managed Care	9.9%	\$103,974,080	16.0%	10.3%	5.7%	\$5,926,523
Commercial/Managed Care	19.2%	\$214,546,542	31.7%	27.8%	3.9%	\$5,740,215
Other	11.7%	\$40,952,061	19.7%	11.1%	8.6%	\$3,521,877
Medicare – Managed Care	10.5%	\$154,827,698	19.9%	17.9%	2.0%	\$3,096,554
Medicaid – Traditional	11.6%	\$53,422,867	15.2%	9.6%	5.6%	\$2,991,681
Medicare – Traditional	5.1%	\$149,428,042	19.3%	17.5%	1.8%	\$2,689,705
Total	9.9%	\$717,151,289				• \$23,966,554

Initial Denial Rate = gross initial denied dollars divided by gross patient services revenue

Opportunity = lost cash due to denials

2015 Denials By Category Opportunity Summary for Commercial/Managed Care

Denial Category	CY2015 Initial Denial Rate	CY2015 Initial Denial Dollars	CY2015 Nondenied Net to Gross	CY2015 Denied Net to Gross	Realization Gap	12-Month Opportunity
Authorization/Precertification	1.8%	\$19,664,876	31.7%	22.9%	8.8%	\$1,730,509
Coverage/Eligibility	2.5%	\$28,258,295	31.7%	26.3%	5.4%	\$1,525,948
Timely Filing	0.8%	\$9,280,140	31.7%	19.9%	11.8%	\$1,095,057
Medical Necessity	1.4%	\$15,377,292	31.7%	27.7%	4.0%	\$615,092
Request for Information	5.5%	\$61,122,553	31.7%	31.3%	0.4%	\$244,490
Noncovered Services	4.2%	\$46,558,104	31.7%	31.2%	0.5%	\$232,791
Billing/Claim Issues	0.7%	\$7,908,875	31.7%	29.5%	2.2%	\$173,995
Coordination of Benefits	0.8%	\$8,691,182	31.7%	30.5%	1.2%	\$104,294
Duplicate	1.6%	\$17,567,216	31.7%	31.6%	0.1%	\$17,567
Other	0.0%	\$118,008	31.7%	31.3%	0.4%	\$472
Commercial/Managed Care	19.2%	\$214,546,542	31.7%	27.8%	3.9%	\$5,740,215

Utilizing the Crowe denials realization gap allows providers to prioritize denial prevention and resolution efforts with the largest corresponding cash benefit to their organization.

Methodology overview

The Crowe RCA benchmarking initiative included 597 distinct hospitals in a database as of March 2016. Of those, 379 are classified as acute care facilities, 77 are classified as critical-access facilities, and the remaining 141 are classified as rehabilitation, psychiatric, or cardiovascular clinics. Regarding bed counts, 212 facilities have 25 or fewer beds, 187 have 26-150 beds, 105 have 151-300 beds, and 93 have more than 300 beds. For the market-level analysis presented in this report, we considered 223 facilities – 109 in expansion states and 114 in nonexpansion states. All had 125 or more beds. The hospitals with 124 or fewer beds included a significant number of highly specialized facilities that introduced an undesirable level of inconsistency to the data distribution.

As of March 2016, the database had information from hospitals in 42 states. The following states were represented by 20 or more facilities apiece: Colorado, Florida, Illinois, Indiana, Kansas, Kentucky, Ohio, South Dakota, Texas, and Wisconsin. The database has fields in which Crowe can customize specific peer groups to analyze hospitals in the most meaningful segments, including geographic regions, urban versus rural, academic hospitals only, outsourced versus internal revenue cycle functions, patient accounting systems, net revenue per day, and payer mix. Our method uses daily feeds of account transaction information and is supplemented by a monthly upload used for generating a variety of finance and revenue cycle metrics.

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Contact information

For more information about the Crowe RCA benchmarking program, please visit crowe.com/benchmarking or contact: Ken Ruiz, Principal +1 317 706 2765 ken.ruiz@crowe.com

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The Crowe Revenue Cycle Analytics (Crowe RCA) solution was invented by Derek Bang of Crowe. The Crowe RCA solution is covered by U.S. Patent number 8,301,519. Text created in and current as of May 2016; Cover and artwork updated in May 2018.

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