OIG Data Miners Use More Effective Tools To Revisit DRG Window Unbundling

DRG window unbundling is resurfacing as a problem area after years of improved compliance, but this time around auditors are identifying errors much faster, an HHS Office of Inspector General audit manager tells RMC.

“We haven’t looked at unbundling in quite some time because hospitals had pretty much cleaned up their act,” says Stephen Conway, audit manager in the OIG’s regional office in Boston. “Recently, we ran the match all over again. We are still finding instances where hospitals are billing for both inpatient and outpatient services” provided to the same person during the same three-day period.

DRG window unbundling refers to improper hospital billing for preadmission testing and treatment. Medicare won’t pay separately for most services provided to patients during the three days before their admission as an inpatient. The services are bundled into the DRG payment for the inpatient care. The Department of Justice and OIG ran a national enforcement initiative on DRG window unbundling in the 1990s, collecting repayments or entering settlements with many hospitals throughout the U.S.

OIG data mining and analysis are very effective at identifying billing errors like DRG window unbundling, according to Conway. “We can identify every instance of what looks like noncompliance,” he says, and OIG auditors can do this at lightning speed compared to what they could accomplish a decade or two earlier.

OIG has its own Medicare national claims database that contains 4.5 billion transactions spanning 2005 to 2009. “We house it on a server in Washington, D.C., and we have instant access to the data,” he says. “We have been able to merge Parts A, B and D into one database.” Claims are matched against each other to identify potential errors (e.g., outpatient services provided at the same time a patient is in acute care).

When Conway did DRG window unbundling matches for the national enforcement project, “it would take over a month to run all the claims data I had on the mainframe. Now I could run the same claims data in an hour,” he says. “I am matching about 40 million inpatient claims to 100 million outpatient claims per year. I am doing it in an hour versus the months it took years ago.” However, auditors must conduct medical-record reviews before they can determine whether the hospital unbundled and overbilled Medicare.

DRG window unbundling also is a target of two recovery audit contractors (RACs). CGI Federal is auditing “diagnostic services (including clinical diagnostic laboratory tests) provided to a beneficiary by the admitting hospital, or by an entity wholly owned or wholly operated by the admitting hospital (or by another entity under arrangements with the admitting hospital), within 3 days prior to and including the date of the beneficiary’s admission are deemed to be inpatient services and included in the inpatient payment.” HealthDataInsights is auditing “certain services provided by the admitting hospital or its wholly owned or wholly operated entity within three days prior to and including the date of the beneficiary’s admission are to be included in the inpatient payment, unless there is no Part A coverage.”

Three Data-Mining Techniques Are Used

Here are three types of data-mining techniques used by the OIG Office of Audit Services (OAS):

1) **Time-sequencing analysis:** This approach identifies patterns in billing based on time or order of events. For example, OAS looks for spikes in the volume of procedure codes billed over time. Did Dr. X suddenly bill 10 times more appendectomies in August? “There are schemes where the provider may bill at a low code for a couple months, then spike, then drop down to stay under the radar,” Conway says. “If they always bill at a high level of reimbursement, they will stand out and hit prepayment edits, but if it’s cyclical, [they think they] stay under the radar.” Time-sequencing also allows OAS to identify when providers are submitting claims in an illogical way (e.g., billing for cast removal before charging for the X-ray).

2) **Clustering:** This tool focuses on identifying groups of similar records and organizes data in buckets (e.g., every internist in Boston) to identify anomalies. Which physician stands out, for example, in terms of the number of procedures performed or the number of beneficiaries treated?
(3) Association rules: This method searches for events or attributes that occur together. “I am looking for a high frequency of services that don’t make sense if paired together,” he says. Does the procedure clash with the diagnosis (e.g., dialysis for hypertension)? Is the type of specialist nonsensical for the service (e.g., an anesthesiologist bills for podiatry)?

More Data Are Analyzed than Ever Before

“We are doing data analysis more heavily than we ever have,” Conway says. In the near future, he says the data miners and auditors will start looking in greater detail at hospitals and other institutional providers that appear on the OAS radar screen. “We are starting at the top and going all the way to the provider level and looking at a particular provider to find out why,” for example, a Massachusetts provider would have a beneficiary in northern Maine.

OAS is also building a data warehouse of Medicaid claims data, he says. However, the logistics “are a bit more difficult since we are dealing with 50 plus different programs. So we look at the Medicaid claims data on a state-by-state basis.” Because many Medicare issues are also Medicaid issues, Conway says OAS “replicates the same data analyses” used on the Medicare side.

The government’s improved data-mining tools significantly raise the enforcement risks for providers and suppliers, says San Francisco attorney Judy Waltz, with Foley & Lardner LLP. OIG and CMS can much more rapidly identify problem areas across similarly-situated providers, so there will be less time for providers to reactively determine if they have a similar problem.

For example, where a provider once might have investigated for a potential problem after reading an OAS audit report or after review of the OIG Work Plan, by that time OIG may now have already assessed, or had the ability to assess, a large group of providers for that particular issue. “Providers now need to proactively assess their individual information footprint, and do their own data-mining to determine if there are potential problem areas considering what information they have provided to the government. They should consider their claims data, their quality reporting data, their utilization data, etc., and actively look for outliers that might invite scrutiny.”

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