



ICD-10 Impact on Revenue Cycle Management

A Study on Medical Billing Comparing ICD-9 to ICD-10 in Prognosis EHR

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Brief History of ICD-10 Implementation

In October of 2015, nearly twenty years after it was initially published, the United States health care industry made the switch to the International Classification of Diseases, Tenth Revision (ICD-10) for coding, classifying, and reporting diagnoses and procedures. The World Health Organization (WHO) curated the data and published the codex and its previous iterations. For almost forty years before the implementation of the new classification, the US health care system used ICD-9 as its standard coding process. During that time, many doctors trained and placed deep roots in the subsequent practices they opened. Many doctors feared the coming of the new system would be detrimental to their business revenue.

The engineering of ICD-10 began in 1983 and was completed in 1992. Nearly twenty years of anticipation to integrate these standards into the industry created anxiety for industry leaders, providers, and nearly one hundred other specialty groups. Some placed a firm grip and large sums of money to push implementation further and further away. In August of 2008 the Department of Health and Human Service (HHS) proposed that clinicians begin using ICD-10 for transaction counting and reporting diagnoses. A few months later in January 2009, the HHS published the definitive ruling that ICD-10 would be the next standard in medical coding, with an implementation date of Oct 1, 2013. It was extended yearly afterwards, until the HHS determined that operation would finally begin in October of 2015.

How ICD-10 Codes are Used

Electronic Medical Record (EMR) software is often viewed as the first line of impact for medical coding upgrades and updates. An EMR is a subset of applications which provide the complete technical infrastructure of a modern healthcare facility. The EMR is the software which provides the on and off-ramps for a patient's data to other applications, concurrently binding and protecting the sensitive medical information to and from other involved stakeholders. An EMR is often counterpart to an Electronic Health Record (EHR) system, which provides additional functions and connections, for example, to Patient Portals for patient scheduling, or Medical Billing modules. ICD-10 codes are used to document the services rendered and to facilitate the proper billing and compensation. These codes provide a common language amongst insurance companies, the government and other parties responsible for compensation of services while minimally exposing patient privacy in these documents. The codes also provide a data structure on which the healthcare industry can pool and analyze large groups of data for the purpose of improving patient care and outcomes.

Often times the initial step of sending the claim out is to use a "Clearing House", a middle-layer of sorts, which provides value-add in its expertise in working with many different insurance carriers on behalf of the medical practice. This saves providers time and resources in what would otherwise be a very arduous process, contacting each payer separately.

Some of the claim submissions will raise minor issues which create a cycle of communication between medical practitioners, clearing houses and responsible parties in order to sort miscommunications that are blocking payments. There is some small percentage of billing where no resolution is reached, or it takes so long and with so much effort that business operating margins disappear. The goal of the medical billing services and clearing houses are to provide the best percentages of paid claims in as brief a time as possible. By pooling expertise gained across a high volume of clients, medical billing services are often able to greatly improve the payment percentages and minimize the time involvement of providers than if they were to tackle this part of their business on their own.

PrognoCIS is a Clinical Information System which provides EMR, EHR and Medical Billing services as a unified application and services. It is a cloud-based solution, which means it efficiently updates when new versions or features are available - such as the transition from ICD-9 to ICD-10 coding – without any local efforts needed by the providers using the application. This is true for all the devices connected to the application in the clinical setting – desktop, laptop, tablet and mobile.

Revenue Cycle Milestones

From patient to payment, the codes travel through the system with several stops along the way. After submission, they are transferred to a clearinghouse, where they are put through an algorithm designed to detect miscommunications or frequently rejected situations. If it passes clearinghouse inspection, the code continues to the payer, where the final review is filed and payment is either initiated or rejected and returned. Both of those milestones are opportunities for decision on if the claim is paid, which reflects on the quality and alignment of the coding process to the software and user.

Analyzing Revenue Cycle Management Concerns

In this study, the analysis regards the impact of changing the code database and if there is a negative effect on how the information is then used to send the bill out to the responsible party for compensation.

The ICD-9 to ICD-10 database transition would raise the amount of usable codes from around 14,000 to 69,000 with around only 5% of ICD-10 codes finding a match with their ICD-9 counterpart. Such a growth of coding options would appear to severely increase the possibility of errors, cost an enormous amount of man-hours devoted to looking up unfamiliar codes, and/or create software interfaces that would be impossible to navigate, making proper coding, and therefore revenue cycle management, a nightmare resulting in possible financial catastrophe. The worries of the industry were not unfounded: if not done correctly, ICD-10 coding could incur significant and persistent damage to cash flow and patient care reimbursement that could be measured by hundreds and thousands of dollars per medical location.

Many healthcare providers and personnel believed that codes could simply “crosswalk” from ICD-9 to ICD-10 as a substitute for learning the new codes- which simply could not be done since many codes morphed into a version which would no longer be compensated if documented in the historic fashion. Diagnosis information could be lost or incorrectly added when attempting to emulate the same coding

structure. ICD-10 required a high degree of coding specificity, and for that reason it was essential that health care organizations have the proper technology to be accurate.

EHR Software Company Partners in Preparation

The preparedness of Prognosis began back in 2013 when the HHS first mandated the transition to the new format. Industry engineers were ready for implementation a whole two years before the go-live date was actually released in October 2015. This gave everyone a leg up in producing a quality EHR that was void of bugs with a streamlined user interface.

To accomplish the correct implementation of the new codes, Prognosis partnered with Intelligent Medical Objects (IMO) to integrate a drill-down feature that prompts you a series a questions that sequentially scope into the symptoms and help you identify the correct ICD-10 code.

Following are some of the key software interface adjustments that were engineered by Bizmatic in order to accomplish the ease of use and accuracy required to facilitate the new codes.

Improved User Interface

Due to the advanced preparation of our engineering, we recommended that clients begin familiarizing themselves with the ICD-10 codes prior to the go-live date. The new codes would not be active, but were displayed along with the traditional ICD-9 codes. This inevitably led to a richer, broader understanding of the index, not only for our clients, but for the engineers who designed a more cohesive and accessible user interface.

Drill Down Feature

Figure 1. After inserting the code for “head” the system gives you a set of more specific symptoms which are linked and clickable to quickly find additional coding options.

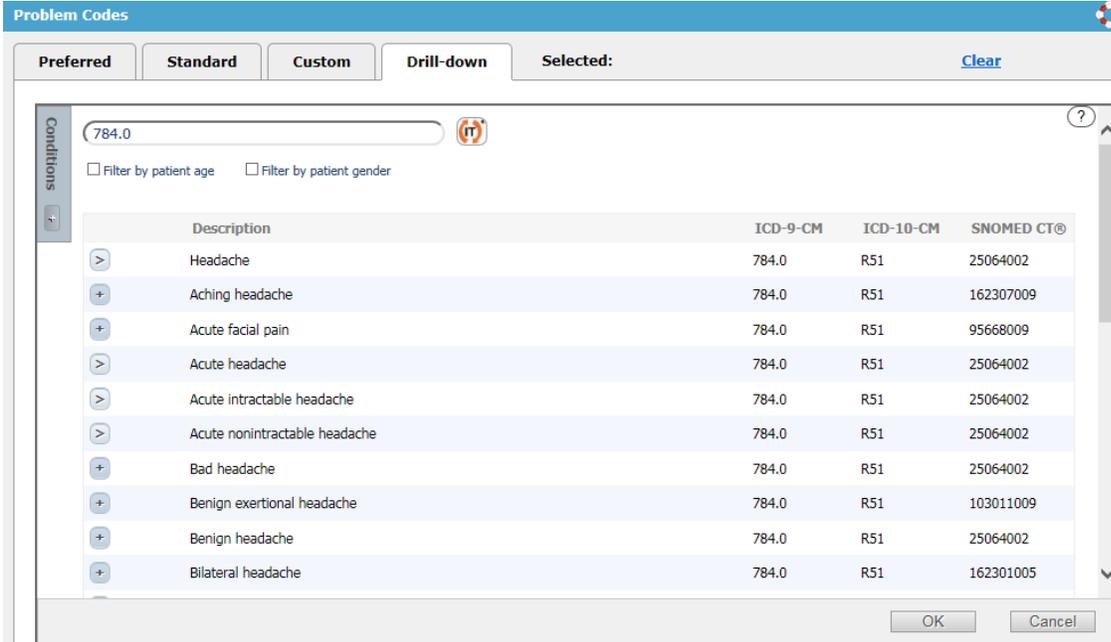


Figure 1

Figure 2. After selecting a generalized description of the symptom, PrognosisCIS telescopes even further to help designate precise locations of the ailment.

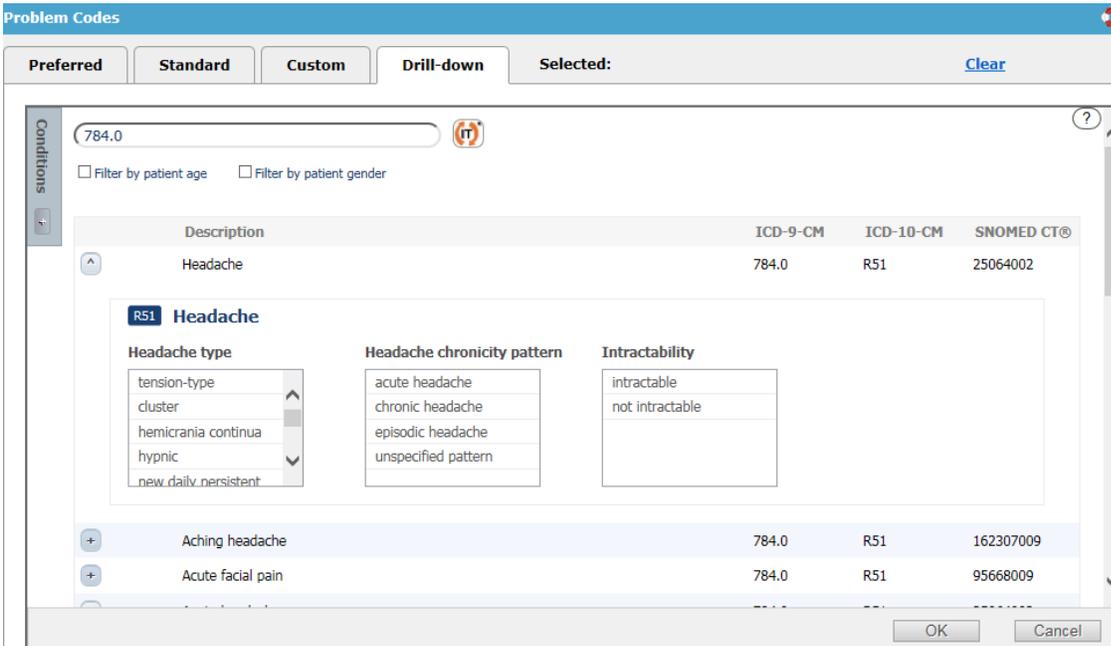


Figure 2

Figure 3. After answering the questions, Prognosis gives you a “drilled-down” final version of the ICD-10 code.

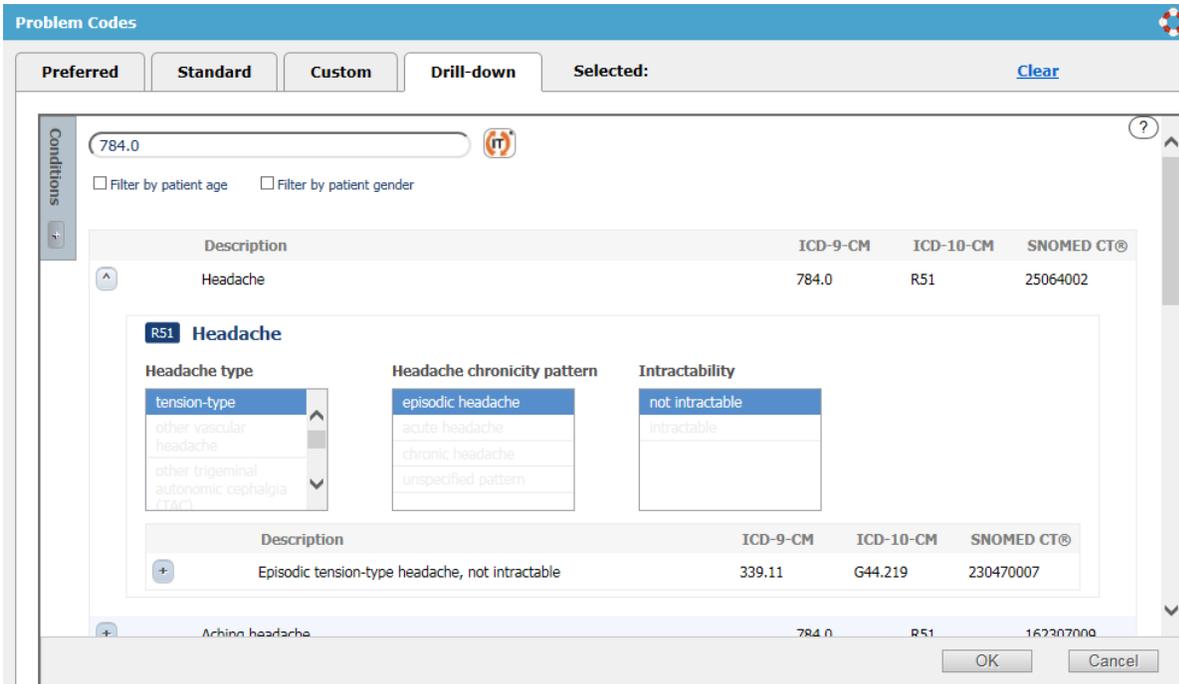


Figure 3

Success Through Pre-Testing

Software teams were able to test their claim submissions with Clearing Houses in advance of the go live date. [Practice Management software and Lab vendors](#) whose components also integrate with EHRs were also able to test interoperability – related to passing the data and codes back and forth in the right formats to be understood correctly – well in advance of the starting date as well. And the results of these tests were communicated to the medical providers as well, providing assurance in advance of the start date.

Education Through Training Webinars

“When it went live on October 1, a lot of our clients had already transitioned [to ICD-10] the previous year,” Prognosis trainer and educator Joe Shanabarger had to say about the move to ICD-10.

Joe also helps implement Prognosis education and preparedness through a wide variety of training tools, including webinars and video tutorials, which coach clients through the software interface.

“This has been the easiest transition since I started with the company nearly eight years ago,” he summarized.

Transition Impact Study & Methodology

To evaluate the efficacy of the Prognosis implementation of the new ICD-10 coding, Bizmatics, Inc. has performed an analysis of rejection rates for claims using the new ICD-10 standard in comparison to historic rates using ICD-9. The data was extracted from our cloud based clientele between October 1 and late November.

Results

Regarding the impact of the ICD-9 to ICD-10 coding transition for medical practices using Prognosis Electronic Health Records software, the results are now in: Reimbursement rates are on the rise, rejections are down, and functionality has been regarded as an enormous success.

Comparison of Claim Rejection Rates from ICD-9 to ICD-10

	ICD-9	ICD-10
Clearinghouse Rejections	7%	2%
Payer Rejections	5%	3%

Table 1

The ICD-10 rates of rejection are significantly lower than those of its predecessor, and this is only after one month of integration. There is no evidence to suggest that ICD-10 has differed in any empirical way from ICD-9.

Conclusion

Implementation concerns, which were being studied - the analysis of impact on changing the code database, and if there is a negative effect on how the information is then used to send the bill out to the responsible party for compensation - shows a positive result. Providers using Prognosis medical billing software and revenue cycle management are having claims rejected less and are able to quickly receive more payments while using ICD-10 than ICD-9. The process of data entry, sending the claim and payment from the responsible party has actually improved by a small margin.

There are many factors in play to lead towards this positive result:

- Well-designed improvement of the user interface to accommodate frequently used codes
 - Quick and accurate access to the new codes as provided by the “drill down” features
- Preparation of customers through Prognosis training webinars
- A thoroughly pre-tested EHR and related systems infrastructure
- A lengthy transition period to allow for all of the above

Bizmatic Inc. would like to thank Prognosis customers for their efforts in this transition and we look forward to continuing to work in the industry to provide the best service towards quality of care and improving revenue cycle management with well designed user interfaces and leveraging industry partnerships.

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