Converting Data to ICD-10 with GEMs: Reference Mapping Tools Will Aid in System Transition

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Many healthcare organizations use historical coded data in governance and planning activities, contracting, quality improvement, research, and trending. The upcoming implementation of ICD-10-CM/PCS will require organizations to identify the types of coded data that will require conversion in order for these functions to continue in a meaningful way. Organizations may elect to handle the conversion process either internally by using the General Equivalence Mappings (GEMs), or they may choose to outsource this work instead.

GEMs are reference mapping tools that can be used to convert data from ICD-9-CM to ICD-10-CM/PCS or vice versa. The mappings were developed in an attempt to include all valid relationships between the codes in ICD-9-CM and in ICD-10-CM/PCS classifications, as well as to ensure that consistency in national data is maintained.

GEM files attempt to organize the differences in the two code sets in a meaningful way. The GEMs link a code to all valid alternatives in the other code set from which choices can be made depending upon the use of the code. One code set may not be able to seamlessly link to identical counterparts in the other set. It is often difficult with ICD-9-CM and ICD-10-CM/PCS to find two corresponding descriptions that are identical in level of specificity and terminology. This is to be expected, since there would be no point in moving from the old system to the new if the differences between the two-and the resulting benefits-were not significant.

The GEMs are public domain, general purpose reference mappings designed to benefit all sectors of the healthcare industry that use coded data by providing them with the tools to:

- Convert large databases and test system applications
- Link data in long-term clinical studies
- Develop application-specific mappings
- Analyze data collected before and after the transition to ICD-10-CM/PCS

Those involved with the data-conversion project will require education on the GEMs, mapping processes, and related technology. Organizations will need to assess the impact that the transition to ICD-10-CM/PCS will have on their longitudinal data analysis. To determine this impact, they should address the following questions:

- Will legacy data need to be converted?
- If so, what data needs to be converted?
- How will it be converted?
- If coded data is mapped using the GEMs, will application-specific mappings need to be developed?
- What data will be mapped using an application-specific mapping?
- What data will be maintained separately?
- What are the benefits of mapping the data?
- What are the risks if data mapping is not completed?

If there is a decision to develop application-specific mappings, additional questions regarding map validity arise.

- Who will validate the mappings?
- What guidelines will be applied to validate the mappings?
- Were the GEMs or the Reimbursement mappings used?
- Which translation options provided in the GEMs were used?

- What was the basis for choices such as clinical or financial data sources, frequency information, or other parameters that circumscribe the use of the map?
- What are the circumstances for partially automating the development of an applied mapping?

2012 ICD-9-CM to ICD-10-PCS GEM for 22.39

Potential mapping options in ICD-10-PCS for a Caldwell-luc procedure.

Source: ICD-9-CM	Target: ICD-10-PCS	GEM Flags
2239	099Q00Z	10000
2239	099Q0ZZ	10000
2239	099R00Z	10000
2239	099R0ZZ	10000
2239	09CQ0ZZ	10000
2239	09CQ3ZZ	10000
2239	09CQ4ZZ	10000
2239	09CR0ZZ	10000
2239	09CR3ZZ	10000
2239	09CR4ZZ	10000

The GEMs are also useful in more simple applications within the organization. Coders, clinical documentation improvement specialists, and others may utilize the GEMs to translate a familiar ICD-9-CM code in situations where they may not be sure of the correct code in ICD-10-CM/PCS. Using the GEMs, the individual will be able to ascertain if the code they have selected in ICD-10-CM or ICD-10-PCS is a reasonable choice.

For example, 22.39 is the ICD-9-CM procedure code for a Caldwell-Luc operation. A user of ICD-10-PCS may elect to use the ICD-9-CM to PCS GEM mapping to identify codes in ICD-10-PCS if the user is unsure of the correct root operation that applies. The user can apply the information supplied in the GEM to assist in determining which table (099 – Ear, Nose, Throat, Drainage, or 09C – Ear, Nose, Throat – Extirpation) best fits the procedure described in the documentation (see Figure 1).

The GEMs were developed to serve a specific limited, short-term need-to allow the industry to migrate systems, applications, and data from ICD-9-CM to ICD-10-CM/PCS. They are intended to be used primarily for translations of code lists or code

tables, used by an application or other coded data, when codes in one set are the only source of information.

The GEMs are not intended to be a substitute for using ICD-9-CM and ICD-10-CM/PCS directly. The code sets should be used to look up the applicable codes if the health record or the clinical terms describing a diagnosis or procedure are available. The GEMs should not be considered as a "crosswalk" between the two code systems, nor should they be viewed as a replacement for the necessary training in both ICD-10-CM and ICD-10-PCS.

References

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