Putting the ICD-10-CM/PCS GEMs into Practice (2016 update) - Retired

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Editor's Note: This Practice Brief supersedes the [May 2013](#) and [March 2010](#) Practice Briefs titled "Putting the ICD-10-CM/PCS GEMs into Practice."

Mappings between ICD-9-CM and ICD-10-CM/PCS will play a critical role in the successful utilization of ICD-10-CM/PCS. The Centers for Medicare and Medicaid Services (CMS) and the Centers for Disease Control and Prevention (CDC) created the General Equivalence Mappings (GEMs) as a tool to ensure consistent national data when using ICD-10-CM/PCS.

The GEMs act as a translation dictionary to bridge the language gap between ICD-9-CM and ICD-10-CM/PCS. It helps users analyze and manage the translation of one code set to the other. GEMs also help users create their own applied mappings as needed.

This Practice Brief outlines how healthcare organizations can best use the GEMs to facilitate translations to ICD-10-CM/PCS.

Understanding the GEMs

The GEMs are a more complex translation between ICD-9-CM and ICD-10-CM/PCS, and not a simple one-to-one crosswalk.

They are public domain general purpose reference mappings designed to give all sectors of the healthcare industry a tool to use for coding data. GEMs allow entities that use coded data to:

- Convert large databases and create data sets to test systems and 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
- Convert reports (both forward and backward mapping) that overlapped the ICD-10 implementation year

The GEMs were developed to serve a specific and 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, when the code is the only source of information.

The GEMs are not intended to be a substitute for using ICD-9-CM and ICD-10-CM/PCS code sets directly. The code sets should be used if the clinical documentation describing a diagnosis or procedure is available.

The GEMs organize the differences in the ICD-9-CM and ICD-10-CM/PCS code sets by linking a code to all valid alternatives in the other code set. Choices among the alternatives can be made depending on the particular conversion project for which the GEMs are being used. In order to be utilized correctly, mappers should understand that the "complete meaning" of a code is based on code set instructions, index entries, official coding guidelines, and—when ICD-9-CM is the source system—applicable *Coding Clinic for ICD-9-CM* advice. For a glossary of terms used in this Practice Brief, see [Appendix B](#).

For example, from the ICD-10-CM to ICD-9-CM GEM, the ICD-10-CM code S32.415D, Nondisplaced fracture of anterior wall of acetabulum, left side, subsequent encounter for fracture with routine healing, links to ICD-9-CM code V54.13, Aftercare for healing traumatic fracture of hip.

In many instances, a code in the source system is not linked to any code in the target system. The situation occurs when the concept does not exist in the target system. For example, in ICD-9-CM there is a diagnosis code for laparoscopic surgical procedure converted to open (ICD-9-CM code V64.41), but this concept does not exist in ICD-10-CM because this is really a surgical—rather than a diagnostic—concept. Underdosing and blood type are examples of concepts for which there are codes in ICD-10-CM, but no correlation in the GEM file for ICD-9-CM.

In ICD-9-CM, there are adjunct procedure codes that do not identify a procedure but convey additional information about the procedure (such as the number of vessels treated or the number of stents inserted) and must be paired with a code describing the procedure to be meaningful. Sometimes a combination of codes (referred to as a "cluster" in the GEM user guides) in the target system is needed to completely describe a code in the source system. For example, ICD-10-CM code I25.110, Atherosclerotic heart disease of native coronary artery with unstable angina pectoris, links to a combination of two ICD-9-CM codes:

- 414.01, Coronary atherosclerosis of native coronary artery
- 411.1, Intermediate coronary syndrome

Understanding these differences in the code sets is essential to determining the impact of the transition on reimbursement, eligibility, quality measurement, and other processes that rely on ICD coded data.

All ICD-9-CM and ICD-10-CM/PCS codes are included in the collective GEMs. However, the GEMs have different content in each direction. The backward (ICD-10-CM/PCS to ICD-9-CM) and forward (ICD-9-CM to ICD-10-CM/PCS) mappings are not mirror images of each other, since all translation alternatives are based on the meaning and level of specificity of the code in the source system.

Not all ICD-9-CM codes are used in the ICD-10-CM/PCS to ICD-9-CM GEMs, and not all ICD-10-CM/PCS codes are used in the ICD-9-CM to ICD-10-CM/PCS GEMs. In other words, all codes in a code set are included in the source system, but not when it is the target system, as the examples in the table on the right show.

In the table's forward GEM example (ICD-9-CM to ICD-10-CM), ICD-9-CM code 070.44 maps to ICD-10-CM code B18.2 because the presence or absence of hepatic coma is not specified in the ICD-10-CM code and therefore ICD-9-CM codes for chronic hepatitis C with and without mention of hepatic coma link to ICD-10-CM code B18.2.

However, in the backward GEM (ICD-10-CM to ICD-9-CM), ICD-10-CM code B18.2 maps back to ICD-9-CM code 070.54 instead of code 070.44 because code B18.2 does not specify that hepatic coma is included in the complete meaning of the code and therefore it can't link to an ICD-9-CM code that specifically includes hepatic coma.

Because the GEMs were developed for implementation in electronic applications, they are far more flexible than any printed translation dictionary. For example, coding professionals can perform a "reverse lookup." This is akin to taking the Spanish word *hombre* and looking in the English-to-Spanish half of the dictionary to see how many English words translate to *hombre*.

Users of a printed translation dictionary can look up only a Spanish word in the Spanish-to-English dictionary and an English word in the English-to-Spanish dictionary. Reverse lookup is an important feature with many benefits such as the development of applied mappings, which will be discussed in detail later in this Practice Brief.

Applying GEMs for Different Purposes

The GEMs make it possible to accurately and effectively convert coded data from ICD-9-CM to ICD-10-CM/PCS and ICD-10-CM/PCS to ICD-9-CM for a number of purposes, including:

- Comparing data across the transition period for various purposes, such as long-term clinical studies, epidemiological and other research, and calculating costs and other institutional financial measurements
- Comparing estimated ICD-10-CM/PCS-based reimbursement with previous ICD-9-CM-based reimbursement
- Facilitating the conversion or refinement of ICD-9-CM–based applications, such as payment and coverage edits and policies, utilization/case management software, clinical risk grouping applications, quality measures, and groupers used for reimbursement and pricing

The GEMs can be used by anyone who needs to convert coded data from ICD-9-CM to ICD-10-CM/PCS. They can also be used to convert incoming ICD-10-CM/PCS data back to ICD-9-CM.

Types of users of the GEMs include:

- Payers
- Providers
- HIM professionals
- Researchers
- Informatics professionals
- Utilization managers
- Quality managers
- Developers of quality measures
- Software vendors
- Business intelligence
- Systems analysts
- Application developers
- Data analytics

Forward and Backward Mappings are Not Mirror Images				
ALL CODES in a code set are included when that code set is the source system, but not when it is the target system.				
ICD-9-CM			**ICD-10-CM**	
070.44	Chronic hepatitis C with hepatic coma	links to ———> (forward)	B18.2	Chronic viral hepatitis C
ICD-9-CM			**ICD-10-CM**	
070.54	Chronic hepatitis C without mention of hepatic coma	links from <——— (backward)	B18.2	Chronic viral hepatitis C

How GEMs Should Not Be Used

GEMs should not be used as simple crosswalks or by a system or application in unaltered form to get from one code in the source code set to one code in the target code set. They are reference mappings to assist users in navigating the complexity of translating meaning from the contents of one code set to the other code set according to the definitions and rules of the applicable code set. It is up to end users, including payers, vendors, and providers, to use the GEMs as a basis for converting systems or as a basis to create applied mappings that meet their specific needs.

Coding professionals should not use the GEMs as a means to code health records for external reporting or other administrative purposes, such as reimbursement or state data reporting. When coding health records, codes should be assigned using an ICD-10-CM/PCS code book or coding software and should be based on health record documentation.

Mapping simply provides a linkage between a code in one set and its closest equivalent in the other code set, without consideration of context or specific patient encounter information, whereas coding involves assigning the most appropriate code based on health record documentation, knowledge of other codes on the medical record, and applicable coding guidelines.

Selecting the Appropriate GEM

It is important to understand the differences that need to be reconciled in linking coded data. The method used to reconcile those differences may vary, depending on factors such as:

- Whether the data is used for research, claims adjudication, or analyzing coding patterns between the two code sets
- Whether the desired outcome is to present an all-embracing look at the possibilities (one-to-many mapping) or to offer the one "best" compromise for the application (one-to-one mapping)
- Whether the desired outcome is to convert existing coded data to their counterparts in the new code set (forward mapping) or to track newly coded data back to what they may have been in the previous code set (backward mapping)
- User or application constraints

Individual GEM files for a code set can be used in one direction at a time or both directions to find all possible translation alternatives. If it is necessary for all codes in a particular code set to be explicitly represented in the mapping application, the GEM in which that code set is the source system should be used. For example, since the ICD-10-CM to ICD-9-CM GEM does not contain every ICD-9-CM code (because ICD-9-CM is the target system in this GEM), this GEM file would not be the best option for a project requiring every ICD-9-CM code.

The ICD-10-CM/PCS to ICD-9-CM GEM could be used to convert applications containing lists of codes via reverse lookup. Since it contains all ICD-10-CM/PCS codes, it could also be used for applications that depend on all ICD-10-CM/PCS codes being present (i.e., claims submitted for encounters on or after October 1, 2015 that contain ICD-10-CM/PCS codes). The ICD-9-CM to ICD-10-CM/PCS GEM could be used to convert historical data, such as quality measures. Combined GEMs could be used for small conversion projects with access to original health records or additional clinical information, forecasting, strategic planning, or general education.

Distinguishing Between Direct Conversion and Applied Mapping

Direct conversion is like translating the user manual for a microwave oven from English into Spanish. There will be two copies of the user manual, one in Spanish and one in English. Spanish-speaking owners of the microwave will use the Spanish copy, and English-speaking owners of the microwave will use the English copy.

There is no direct, ongoing link between the two manuals. They are used independently, like an ICD-9-CM version of an application and an ICD-10-CM/PCS version of the same application.

An applied mapping, on the other hand, is like a handheld translator from English to Spanish. When a user keys in an English word, the translator returns a Spanish word. The translator is an applied mapping in that it creates a direct, ongoing link between individual words in the two languages.

Since October 1, 2015, healthcare claims have been submitted to payers using ICD-10-CM diagnosis codes and ICD-10-PCS procedure codes. Some payers such as CMS are converting their reimbursement systems to use ICD-10 codes directly. However, some payers and other organizations that use coded data in financial applications may still be dependent on ICD-9-CM-based legacy systems until their legacy system conversion or replacement is complete.

For this reason, CMS has released the ICD-10 Reimbursement Mappings to help prepare reimbursement systems for the transition and to support the phase-out of ICD-9-CM-based systems after the transition.

The reimbursement mappings provide a temporary mechanism for converting records containing ICD-10-CM/PCS diagnosis and procedure codes into "reimbursement equivalent" records containing ICD-9-CM diagnosis and procedure codes, so that the records may continue to be processed by legacy systems expecting ICD-9-CM.

What are the Reimbursement Mappings?

Unlike the GEMs, which include all plausible translation alternatives for each code in a system, the reimbursement mappings offer a single recommended mapping of each ICD-10 code to a single ICD-9-CM alternative. Each ICD-10-CM diagnosis

code is mapped to ICD-9-CM Volume 1 and each ICD-10-PCS procedure code is mapped to ICD-9-CM Volume 3.

Submitted ICD-10-CM diagnosis codes are converted into ICD-9-CM diagnosis codes, and submitted ICD-10-PCS procedure codes are converted into ICD-9-CM procedure codes (CPT/HCPCS codes are left alone). The claim is then processed as if it had been submitted with ICD-9-CM codes.

Direct Conversion of Applications

Any size and type of conversion project can benefit from GEM use, including a large project such as the conversion of a reimbursement system, a medium project like the conversion of a lengthy, complex document containing multiple references to ICD-9-CM codes, or a small project involving the conversion of the ICD-9-CM codes used in a single research study.

The federal government has used the GEMs to:

- Convert the Medicare MS-DRGs versions 26 through 32 to an ICD-10-CM/PCS-based application
- Facilitate the creation of the "Official Guidelines for Coding and Reporting" for ICD-10-CM/PCS
- Convert the Medicare Code Editor to an ICD-10-CM/PCS-based application
- Convert the ICD-9-CM codes to ICD-10-CM/PCS codes in National Coverage Determinations

For more information on the conversion of MS-DRGs, visit the ICD-10 MS-DRG Conversion Project web page at www.cms.gov/Medicare/Coding/ICD10/ICD-10-MS-DRG-Conversion-Project.html.

Conversion projects using the GEMs can be used for both replication and optimization of an existing application. The goal of replication is to produce an ICD-10-CM/PCS-based "copy" of the application that yields essentially the same results as the current ICD-9-CM-based application. The initial test conversion of the MS-DRGs versions 26 through 32 are examples of replication.

The goal of optimization is to produce an ICD-10-CM/PCS-based application that produces optimized results based on the increased detail in ICD-10-CM/PCS. Optimization is a more complex conversion project than replication.

For example, ICD-10-CM contains codes for "underdosing," whereas ICD-9-CM does not. The ICD-10-CM codes for underdosing could be used as exclusionary criteria for a quality measure of outcomes in diabetes patients. The combination of the underdosing code and a code for patient noncompliance provide information relevant to patient outcomes that was not available prior to the implementation of ICD-10-CM because the concept of underdosing did not exist in ICD-9-CM.

Every conversion project will not require the use of the GEMs. For small-scale projects, such as updating a policy document containing a specific narrative description of diagnoses or procedures instead of a list of applicable ICD-9-CM codes, or converting a small number of ICD-9-CM codes, it would be quicker, easier, and more accurate to look up the codes directly using a code book or encoder.

Finding the Correct Choice

The correct choice or the closest match may differ depending on the purpose of the map. For example, ICD-10-CM combines the concepts of intraoperative hemorrhage and hematoma into a single code, whereas ICD-9-CM splits hemorrhage and hematoma complicating a procedure into two distinct codes. Based on only the meanings of the codes, there is no way to choose between hematoma and hemorrhage. Both are equally correct. Therefore, other reference data or parameters relevant to the applied mapping must be used in making the correct choice.

In developing a mapping for a medical necessity application, it would not matter which ICD-9-CM code alternative is selected if both hematoma and hemorrhage met the same medical necessity criteria. Either translation would produce the same result in the mapping. The ICD-10-CM code, mapped to either the ICD-9-CM hemorrhage or hematoma code, would end up in the same list in the ICD-9-CM-based medical necessity application, so either code would be correct.

In developing an applied mapping for a study that tracks treatment outcomes for surgical evacuation versus medical treatment of hematoma, however, the ICD-9-CM hematoma code is the only correct choice.

Note that in the first hypothetical mapping, both ICD-9-CM options were deemed the correct choice because either choice produces valid results for the application. This may often be the case where fine distinctions are not made in an application between individual ICD-9-CM codes, but instead entire categories of ICD-9-CM codes are treated the same in an application (i.e., assigned to the same policy, payment category, or other list).

Applied mappings might be useful in areas that include:

- Revenue cycle impact analysis
- Quality measurement
- Claims adjudication
- Utilization review policy assessments
- Payer contract negotiations

Translation Alternatives in ICD-10 to ICD-9 GEMs (2015)		
ICD-10 codes with ...	**ICD-10-CM (Diagnoses)**	**ICD-10-PCS (Procedures)**
Only one ICD-9 code alternative	61,368 (88%)	56,597 (79%)
Only one ICD-9 cluster alternative	1,961	578
Multiple ICD-9 code alternatives	4,382	13,256
Multiple ICD-9 cluster alternatives	103	187
Multiple ICD-9 code or cluster alternatives	1,936	1,306
No translations	73	0
Total ICD-10 codes	69,823	71,924
Total requiring rule	6,421	14,749
Source: Centers for Medicare and Medicaid Services. "ICD-10-CM/PCS to ICD-9-CM Reimbursement Mappings." (2015 Version). www.cms.gov/Medicare/Coding/ICD10/Downloads/Reimbursement_Mapping_dx_2015.zip.		

Public Domain Reimbursement Mappings

CMS' public domain ICD-10-CM/PCS Reimbursement Mappings are an example of an applied mapping. They were developed in response to requests from the commercial payer community for a "standard one-to-one reimbursement crosswalk." They are intended to be used as a temporary mechanism to process ICD-10-CM/PCS-based claims received on or after October 1, 2015, with a legacy ICD-9-CM-based system, until systems and processes are developed to process ICD-10-CM/PCS-based claims directly.

It is important to note that CMS did not use the reimbursement mappings for any purpose, because they converted their systems and applications to accept ICD-10-CM/PCS codes directly by October 1, 2015.

In order to develop the reimbursement mappings, CMS used the ICD-10-CM to ICD-9-CM and ICD-10-PCS to ICD-9-CM GEMs as a starting point. In those instances when an ICD-10-CM or ICD-10-PCS code converted to more than one ICD-9-CM alternative, a single ICD-9-CM translation alternative was chosen based on hospital inpatient frequency data. For example, ICD-10-CM code J45.22, Mild intermittent asthma with status asthmaticus, links to two ICD-9-CM translation alternatives: 493.01, Extrinsic asthma with status asthmaticus, or 493.11, Intrinsic asthma with status asthmaticus.

Frequency data showed that the ICD-9-CM code for extrinsic asthma with status asthmaticus is more prevalent, so that was the single translation selected for the reimbursement mapping. Unlike the GEMs, which include all plausible translation alternatives for each code in the source system, the resulting reimbursement mappings offer a single recommended mapping of each ICD-10-CM/PCS code to a single ICD-9-CM alternative.

Note that the mapping is not necessarily to a single ICD-9-CM code. As discussed earlier, in some instances a combination of ICD-9-CM codes is needed for a complete translation of an ICD-10-CM/PCS code (i.e., a "cluster"). In these instances, in the

reimbursement mappings there is only one ICD-9-CM translation alternative, but it is a cluster of codes instead of a single code.

In some cases, a payer using the reimbursement mappings may need to adjust to meet their individual needs. Since the reimbursement mappings involve the selection of the single best ICD-9-CM alternative when there are multiple translation alternatives, the other ICD-9-CM alternatives are not included.

Organizations wishing to use the reimbursement mappings should review the ICD-9-CM codes used in the reimbursement mappings and determine if any codes essential to their application are not used as the target system mapping. If that is the case, they should use the GEMs to develop an applied mapping to address these situations or refine the affected mapping entries in the reimbursement mapping.

Principles for Developing Applied Maps

Developing an applied mapping that can withstand scrutiny and can be readily maintained during its lifespan requires using the GEMs and standardized processes.

A standardized process will yield the correct answer for the specific application. In addition, having the documentation of the development method and the mapping files available to business associates and other stakeholders will address questions or concerns over the outcome. Making the rationale available will provide transparent and consistent results that can be easily understood and explained. This will go a long way toward assuaging industry fears of hidden changes to an application that may give different, unexplained results.

For example, a payer's applied mappings should have been made available to providers with whom they have contracts, so that all affected entities understand the mapping process that was used to convert a payment policy or reimbursement category from ICD-9-CM to ICD-10-CM/PCS.

Taking the applied mapping method as an example, two basic principles can guide the building of the map—transparency and consistency.

Transparency

Base the ICD-9-CM map choices for a given applied map on one of the following decision types:

- Highest frequency in Medicare Provider Analysis and Review (MedPAR) data file
- Highest frequency in other publicly available data set (i.e., state data set)
- Highest frequency in internal data set
- Closest clinical match based on defined use (i.e., outpatient versus inpatient), context, or other additional information (i.e., when mapping a procedure code, information about the patient's diagnosis could be used to select the most appropriate procedure code translation)
- Blind choice based on defined rule (i.e., first code in list of alternatives)

Consistency

Make all necessary choices for a given applied map based on a single decision type, not a mixture of decision types, in order to:

- Make it easier to document the process for internal and external communication
- Reassure users/customers that the results are not biased
- Facilitate refinement of the map and new application design now that ICD-10-CM/PCS data is being collected

Key Points to Remember

A single one-size-fits-all map might seem like a reasonable solution, but such a map would mean the code sets were so similar that there would be no point in transitioning to ICD-10-CM/PCS. The correlation of specificity and meaning between the two

code sets is not that simple. There are many, many more examples—more than 8,000 ICD-10-CM/PCS codes convert to multiple, equally plausible ICD-9-CM choices. Examples offered in Appendix A, illustrate why a one-size-fits-all map is not possible.

Applied mappings should not be created when systems and applications can be converted directly (using the GEMs as a starting point) or when coding directly from the ICD-10-CM/PCS code sets would be more efficient and accurate for the intended purpose. As discussed in the CMS MS-DRG conversion report, direct conversion of an application using the GEMs is the preferred option. Producing an ICD-10-CM/PCS-based copy of an application that currently contains ICD-9-CM codes provides the most solid link to the ICD-9-CM historical data and the most solid foundation for an ICD-10-CM/PCS-based future.

CMS indicated that conversion of applications was the least disruptive and most effective way to leverage the information built into existing applications and to prepare for the development of ICD-10-CM/PCS-based systems that reap the full benefits from the increased specificity of ICD-10-CM/PCS. However, the GEMs can also be used to develop applied maps for specific purposes where necessary. Applied mappings narrow the possible choices in the target code set by implementing a set of user-defined criteria.

Due to the differences in the ICD-9-CM and ICD-10-CM/PCS code sets and the multiple types of applications where coded data are used, applied maps based on the GEMs are the closest to an industry-wide consistent mapping standard that is likely to be reasonable and achievable. Although the differences in the code sets inherently present challenges to data comparability across the transition period, the development of applied mappings does not in and of itself add to these challenges as long as applied mappings are developed appropriately and according to the principles outlined above.

Since there is no single correct translation alternative for all purposes (for which data are being converted) when multiple alternatives exist in the GEMs, the accuracy of the converted data increases when there is flexibility to allow selection of the best alternative for a given situation or when additional information outside of the GEM is available that can improve the accuracy of the chosen alternative.

Finally, a GEM Disclaimer

The GEMs are not finite crosswalks and it may be beneficial to consult a certified coder to ensure accurate mapping. For more information about the GEMs and how to use them, see the documentation and user's guides posted on the CMS and CDC websites. For more information about conversion of applications directly to ICD-10-CM/PCS, see the MS-DRG conversion report on the CMS website. The links to these resources can be found under "References" below.

Appendixes

Appendix B: Glossary of Terms (updated)

Note: These definitions are drawn largely from "Procedure Code Set General Equivalence Mappings: ICD-10-PCS to ICD-9-CM and ICD-9-CM to ICD-10-PCS Documentation and User's Guide" available on the CMS website.

Applied mapping: distillation of a reference mapping to conform to the needs of a particular application (e.g., data quality, research).

Approach: a character of the seven-character ICD-10-PCS code that "defines the technique used to reach the site of the procedure."

Approximate flag: attribute in a GEM that when turned on indicates that the entry is not considered equivalent.

Backward mapping: mapping that proceeds from a newer code set to an older code set.

Choice list: in a combination entry, a list of one or more codes in the target system from which one code must be chosen to satisfy the equivalent meaning of a code in the source system.

Cluster: in a combination entry, one instance where a code is chosen from each of the choice lists in the target system entry, that when combined satisfies the equivalent meaning of the corresponding code in the source system.

Combination entry: an entry in a GEM for which a code in the source system must be linked to more than one code option in the target system to be a valid entry.

Combination flag: attribute in a GEM that when turned on indicates that more than one code in the target system is required to satisfy the full equivalent meaning of a code in the source system.

Complete meaning [of a code]: all correctly coded conditions or procedures that would be classified to a code based on the code title, all associated tabular instructional notes, and all index references that refer to a code.

Forward mapping: mapping that proceeds from an older code set to a newer code set.

General Equivalence Map (GEM): reference mapping that attempts to include all valid relationships between the codes in the ICD-9-CM classification and the ICD-10-CM diagnosis classification or ICD-10 Procedure Code System (ICD-10-PCS).

ICD-9-CM: International Classification of Diseases 9th Revision Clinical Modification (I-9).

ICD-10-CM: International Classification of Diseases 10th Revision Clinical Modification (I-10).

ICD-10-PCS: International Classification of Diseases ICD-10 Procedure Code System (PCS).

No map flag: attribute in a GEM that when activated indicates that a code in the source system is not linked to any code in the target system.

Reference mapping: mapping that includes all possible valid relationships between a source system and a target system.

Reverse lookup: using a GEM by looking up a target system code to see all the codes in the source system that convert to it.

Root operation: a character of the seven-character ICD-10-PCS code that "defines the objective of the procedure."

Scenario: in a combination entry, a collection of codes from the target system containing the necessary codes that when combined as directed will satisfy the equivalent meaning of a code in the source system.

Single entry: an entry in a GEM for which a code in the source system linked to one code option in the target system is a valid entry.

Source system: code set of origin in the mapping; the set being mapped "from."

Target system: destination code set in the mapping; the set being mapped "to".

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Acknowledgements

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Acknowledgment (Original)

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Driving the Power of Knowledge