I00   Rheumatic fever without heart involvement
I010 Acute rheumatic pericarditis
I011 Acute rheumatic endocarditis

ICD-10

Official CMS Industry Resources for the ICD-10 Transition
www.cms.gov/ICD10

The General Equivalence Mappings

Use the GEMs When…

- You are translating lists of codes, code tables, or other coded data

- You are converting a system or application containing ICD-9-CM codes

- You are creating a "one-to-one" applied mapping (aka crosswalk) between code sets that will be used in an ongoing way to translate records or other coded data

- You want to study the differences in meaning between the ICD-9-CM classification systems and the ICD-10-CM/PCS classification systems by looking at the GEMs entries for a given code or area of classification

Use the ICD-10-CM/PCS and ICD-9-CM Code Books When…

- You have a short list of ICD-9-CM codes with their code descriptions

- You have access to the medical record

- You have access to other forms of clinical information, such as text descriptions or clinical terms from surveys, research, or clinical software applications

Note: A medical record that will be processed and stored as ICD-10 data should always be coded directly in ICD-10-CM/PCS, using the code books or an encoder.

Compliance Timeline

JANUARY 1, 2010

- Payers and providers should begin internal testing of Version 5010 standards for electronic claims

DECEMBER 31, 2010

- Internal testing of Version 5010 must be complete to achieve Level I Version 5010 compliance

JANUARY 1, 2011

- Payers and providers should begin external testing of Version 5010 for electronic claims

- CMS begins accepting Version 5010 claims

- Version 4010 claims continue to be accepted

DECEMBER 31, 2011

- External testing of Version 5010 for electronic claims must be complete to achieve Level II Version 5010 compliance

JANUARY 1, 2012

- All electronic claims must use Version 5010

- Version 4010 claims are no longer accepted

OCTOBER 1, 2013

- Claims for services provided on or after this date must use ICD-10 codes for medical diagnosis and inpatient procedures

- CPT codes will continue to be used for outpatient services

Visit **www.cms.gov/ICD10** for ICD-10 and Version 5010 resources from CMS.

I061 Rheumatic aortic insufficiency
I062 Rheumatic aortic stenosis with insufficiency
I068 Other rheumatic aortic valve diseases
I069 Rheumatic aortic valve disease, unspecified
I070 Rheumatic tricuspid stenosis
I071 Rheumatic tricuspid insufficiency
I072 Rheumatic tricuspid stenosis and insufficiency

GEMs Files at a Glance

ICD-10-CM (diagnosis) GEM	ICD-9-CM Diagnosis GEM	ICD-10-PCS (procedure) GEM	ICD-9-CM Procedure GEM
[year]_I10gem.txt	[year]_I9gem.txt	gem_pcsi9.txt	gem_i9pcs.txt
ICD-10-CM is the code to be translated (source system)	ICD-9-CM is the code to be translated (source system)	ICD-10-PCS is the code to be translated (source system)	ICD-9-CM is the code to be translated (source system)
Contains all ICD-10-CM codes *Note:* Each GEM file contains all of the source system codes for that GEM, but not all of the target system codes	Contains all ICD-9-CM diagnosis codes *Note:* Each GEM file contains all of the source system codes for that GEM, but not all of the target system codes	Contains all ICD-10-PCS codes *Note:* Each GEM file contains all of the source system codes for that GEM, but not all of the target system codes	Contains all ICD-9-CM procedure codes *Note:* Each GEM file contains all of the source system codes for that GEM, but not all of the target system codes
Translation determined by ICD-10-CM meaning and specificity *Note:* The GEM translation is determined by the meaning and specificity of the source system code	Translation determined by ICD-9-CM meaning and specificity *Note:* The GEM translation is determined by the meaning and specificity of the source system code	Translation determined by ICD-10-PCS meaning and specificity *Note:* The GEM translation is determined by the meaning and specificity of the source system code	Translation determined by ICD-9-CM meaning and specificity *Note:* The GEM translation is determined by the meaning and specificity of the source system code
Contains ICD-9-CM clusters	Contains ICD-10-CM clusters	Contains ICD-9-CM clusters	Contains ICD-10-PCS clusters
Contains entries with no target system translation (No Map Flag is 1)	Contains entries with no target system translation (No Map Flag is 1)	All source system entries have a target system translation (No Map Flag is 0)	Contains entries with no target system translation (No Map Flag is 1)
Recommended use – Convert an existing application that uses ICD-9-CM codes to ICD-10-CM – Create a backward mapping from ICD-10-CM to ICD-9-CM – Research the translation differences between the two diagnosis code sets	*Recommended use* – Convert stored data containing ICD-9-CM codes to ICD-10-CM – Research the translation differences between the two diagnosis code sets	*Recommended use* – Convert an existing application that uses ICD-9-CM codes to ICD-10-PCS – Create a backward mapping from ICD-10-PCS to ICD-9-CM – Research the translation discontinuities between the two procedure code sets	*Recommended use* – Convert stored data containing ICD-9-CM codes to ICD-10-PCS – Research the translation discontinuities between the two procedure code sets

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I072 Rheumatic tricuspid stenosis and insufficiency

Using GEMs File(s) for Specific Projects

Mapping Project	GEMs File to Use	How to Use the GEMs File
Convert an existing system or application that uses ICD-9-CM codes to an ICD-10-CM/PCS based system	ICD-10-CM (diagnosis) GEM [year]_I10gem.txt ICD-10-PCS (procedure) GEM gem_pcsi9.txt	– **Re-sort** the file so that you can look up the relevant GEMs entry based on the ICD-9-CM code (aka reverse lookup) – **Find** all translation alternatives for the ICD-9-CM code(s) in your applications list or table – **Replace** the ICD-9-CM code(s) with the ICD-10-CM/PCS translation alternatives – **Review** the translated ICD-10-CM/PCS list for relevance of the code detail to the specific use for the list and application
Convert an existing data warehouse or other stored data containing ICD-9-CM codes to ICD-10-CM/PCS (create a forward mapping)	ICD-9-CM diagnosis GEM [year]_I9gem.txt ICD-9-CM procedure GEM gem_i9pcs.txt	– **Find** all GEMs entries for every ICD-9-CM code that contains multiple ICD-10-CM/PCS translation alternatives – Based on a consistent set of rules or reference data, **choose one** ICD-10-CM/PCS mapping for each ICD-9-CM code that translates to multiple ICD-10-CM/PCS alternatives *Note:* Because of translation differences between the two systems, "one" ICD-9-CM code may map to "one" ICD-10-CM/PCS cluster
Create a "one to one" backward mapping from ICD-10-CM/PCS to ICD-9-CM for a specific purpose	ICD-10-CM (diagnosis) GEM [year]_I10gem.txt ICD-10-PCS (procedure) GEM gem_pcsi9.txt	– **Find** all GEMs entries for every ICD-10-CM/PCS code that contains multiple ICD-9-CM translation alternatives – Based on a consistent set of rules or reference data (rules that pick the correct code for a service area or the most frequently recorded ICD-9-CM code), **choose one** ICD-9-CM mapping for each ICD-10-CM/PCS code that translates to multiple ICD-9-CM alternatives *Note:* Because of translation differences between the two systems, "one" ICD-10-CM/PCS code may map to "one" ICD-9-CM cluster

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I062 Rheumatic aortic stenosis with insufficiency
I068 Other rheumatic aortic valve diseases
I069 Rheumatic aortic valve disease, unspecified
I070 Rheumatic tricuspid stenosis
I071 Rheumatic tricuspid insufficiency
I072 Rheumatic tricuspid stenosis and insufficiency

Mapping Project	GEMs File to Use	How to Use the GEMs File
Research the translation differences between the two diagnosis code sets, for your own understanding or for planning future changes to a system or application	ICD-10-CM (diagnosis) GEM [year]_I10gem.txt ICD-9-CM diagnosis GEM [year]_I9gem.txt	– **Find** the code of interest in both GEM files – **Compare** the translation alternatives for the code of interest, when it is the source system code (the code being translated) and when it is the target system code (a translation alternative of a code in the other code set) *Note:* The code of interest may not be listed as a target system alternative; this in itself is useful information, to learn that the code is not considered a plausible translation based on the meaning and specificity of the source system code
Research the translation discontinuities between the two procedure code sets, for your own understanding or for planning future changes to a system or application	ICD-10-PCS (procedure) GEM gem_pcsi9.txt ICD-9-CM procedure GEM gem_i9pcs.txt	– **Find** the code of interest in both GEM files – **Compare** the translation alternatives for the code of interest, when it is the source system code (the code being translated) and when it is the target system code (a translation alternative of a code in the other code set) *Note:* The code of interest may not be listed as a target system alternative; this in itself is useful information, to learn that the code is not considered a plausible translation based on the meaning and specificity of the source system code

Glossary

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

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

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

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 diagnosis classification and the ICD-10-CM diagnosis classification

ICD-9-CM: International Classification of Diseases 9th Revision Clinical Modification

ICD-10-CM: International Classification of Diseases 10th Revision Clinical Modification

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

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

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'