

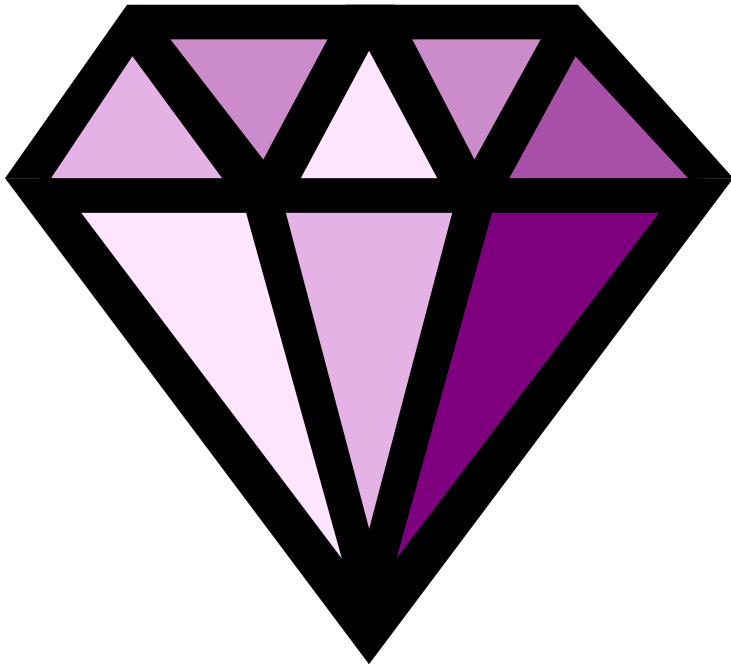
WEDI ICD-10 Forum Crosswalks

July 29, 2009 – July 30, 2009

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◆ Background information:

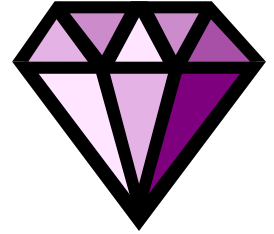
- GEM versus crosswalk



What is a GEM?

◆ GEM

- Stands for “General Equivalence Mapping”
- Contains all possible conversions between the ICD-10 and ICD-9 code populations.
- These conversions can be simple 1-to-1 conversions or complex 1-to-many conversions that require combinations of codes in order to correctly map.



An Example of a GEM

◆ GEM Table Entries

- The ICD-10 and ICD-9 columns contain the codes from their respective populations.
- The Approximate Match column is used to determine if the conversion between the two codes is a perfect match (a value of 0) or if it is an approximate match (a value of 1).
- The No Match column is used to determine if there is a conversion available between the two codes. If there is not, a value of 1 is present, otherwise a value of 0 will be displayed.
- The Combination column is used to determine if multiple codes are required to convert between the two populations. If multiple codes are needed, a value of 1 is present, otherwise a value of 0 will be displayed.
- The Scenario column is used when multiple diagnoses are present for a particular code conversion. In the following case, there are 4 possible diagnoses for the code present, each requiring different codes sets for conversion.
- The Choice list column is used to pinpoint the location of the entry in the combination set. In the example, the items with a Choice of 1 corresponds to the first value of the combination while the Choice of 2 corresponds to the second value of the combination.

An Example of a GEM

◆ GEM Example A18.01 Tuberculosis of the Spine

- An example of a CM GEM is shown below for the ICD-10 diagnosis “Tuberculosis of the Spine”

ICD-10	ICD-9	Approximate Match	No Match	Combination	Scenario	Choice
A18.01	015.00	1	0	1	1	1
A18.01	737.40	1	0	1	1	2
A18.01	015.00	1	0	1	2	1
A18.01	711.48	1	0	1	2	2
A18.01	015.00	1	0	1	3	1
A18.01	730.88	1	0	1	3	2
A18.01	015.00	1	0	1	4	1
A18.01	720.81	1	0	1	4	2

An Example of a GEM

◆ GEM Complexity

- The next slide contains an example of the complexity that can appear on the GEM matrix. This is the conversion matrix for the ICD-9 procedure “Radical Laryngectomy “
- Note the multiple selections that are present for each of the 3 choices. You must select one code from each of the three choices, which gives 96 potential conversions for this one code (4 x 4 x 6).

An Example of a GEM

◆ GEM Example Radical Laryngectomy

ICD9	ICD10	Approximate Match	No Match	Combination	Scenario	Choice
30.4	0CTS0ZZ	1	0	1	2	1
30.4	0CTS8ZZ	1	0	1	2	1
30.4	0CTS4ZZ	1	0	1	2	1
30.4	0CTS7ZZ	1	0	1	2	1
30.4	0WB60ZZ	1	0	1	2	2
30.4	0WB64ZZ	1	0	1	2	2
30.4	0WB6XZZ	1	0	1	2	2
30.4	0WB63ZZ	1	0	1	2	2
30.4	0GTG0ZZ	1	0	1	2	3
30.4	0GTK4ZZ	1	0	1	2	3
30.4	0GTG4ZZ	1	0	1	2	3
30.4	0GTH0ZZ	1	0	1	2	3
30.4	0GTH4ZZ	1	0	1	2	3
30.4	0GTK0ZZ	1	0	1	2	3

GEM Analysis

◆ 2009 GEM Analysis

GEM Overview	CM (Diagnostics)				PCS (Procedure)			
	ICD10 to ICD9		ICD9 to ICD10		ICD10 to ICD9		ICD9 to ICD10	
	Entry Count	Unique Code Count						
	Backward Mapping		Forward Mapping		Backward Mapping		Forward Mapping	
GEM Category Breakdown	Codes	%	Codes	%	Codes	%	Codes	%
	Category							
No Mapping Present	805	1.2%	414	3.0%	-	0.0%	209	5.5%
1-to-1 Mapping - Exact Match	3,435	5.0%	3,386	24.2%	63	0.1%	63	1.6%
1-to-1 Mapping - Approx Match w/o Multiple Choices	56,282	82.6%	6,888	49.1%	67,077	92.4%	242	6.3%
1-to-1 Mapping - Approx Match w/ Multiple Choices	2,929	4.3%	2,628	18.7%	3,515	4.8%	3,144	82.2%
1-to-Many Mapping (Single Scenario)	4,499	6.6%	292	2.1%	1,676	2.3%	17	0.4%
Complex Mappings	130	0.2%	409	2.9%	256	0.4%	149	3.9%
Possible Error	23	0.0%	2	0.0%	2	0.0%	-	0.0%
Totals	68,103		14,019		72,589		3,824	

What is a Crosswalk?

◆ Crosswalk

- A crosswalk provides a means to convert a code in one code set to an equivalent code or codes in the other code set.

◆ CMS Reimbursement Mapping

- The CMS Reimbursement Mapping is a crosswalk that contains the most common conversion mapping of the GEM based on real world data.
- The real world data is based on the analysis of 11 million Medicare MedPAR records and 4 million inpatient hospital records provided by California Office of Statewide Health Planning and Development.



An Example of a Crosswalk

◆ Crosswalk Example

- Below is an example of the Crosswalk for the ICD-10-CM diagnosis code used in Scenario 4 of the earlier GEM example.

ICD10	Number of ICD-9 Codes Needed	Code1	Code2	Code3	Code4	Code5
A18.01	2	015.00	720.81			

In this example, of the 4 scenarios listed in the GEM for the ICD-10 code A18.01, the most common entry was the combination of the ICD-9 codes 015.00 and 720.81, which was the 4th scenario on the GEM.

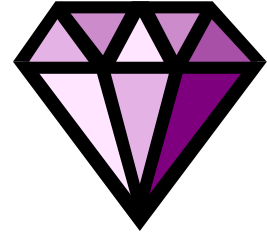
Crosswalk Analysis

◆ 2009 CMS Reimbursement Mapping Analysis

	Number of ICD 9 Codes Needed					Unique Reimbursement Codes
	1	2	3	4	5	
ICD-10-CM	63,496	4,574	27	5	-	68,102
	93.24%	6.72%	0.04%	0.01%	0.00%	
ICD-10-PCS	70,674	856	514	458	24	72,526
	97.45%	1.18%	0.71%	0.63%	0.03%	

Pros and Cons of Each

◆ GEM



Pros: Contains all possible conversions between the ICD-10 and ICD-9 code populations.

Cons: Multiple scenarios are present for most codes, which would require an analysis of the patient records to determine the best scenario.

- Would necessitate manual processing of some claims
- or would require automated assumption of which scenario to use.

Pros and Cons of Each

◆ Crosswalk

Pros: Contains a more definitive means to convert a code in one code set to an equivalent code or codes in the other code set. For the CMS Reimbursement Mapping it contains the most common conversion based on real world data.

Cons: The entry may not be the best match based on the patient's record and the particular situation.



◆ Audience discussion topics:

- Value and use of crosswalks
- Where / how many places
- Should everyone use the same one
- How long should they be used
- Should entities carry both codes
- Limitations