



Overview

The ICD-9-CM to ICD-10-CM transition is looming. The Centers for Medicaid and Medicare Services (CMS) provides default mappings between ICD-9 and ICD-10, the General Equivalency Mappings (GEMs), to help healthcare organizations make this large and complex transition. These mappings were created in part using CMS claims data, and can serve as a starting point to assist payers and providers in creating custom maps. In addition, as payers seek to convert medical policies, and providers seek to convert superbills and other lists of codes, the GEMs can help with bulk conversion of the original ICD-9-CM codes.

To ease the transition, Health Language offers the LEAP I-10 tool, which provides sophisticated list conversion, map creation, searching, and financial analytics for your conversion. You can use LEAP I-10 to enhance and customize the GEMs to meet your individual business needs. LEAP I-10 includes the Health Language Provider Friendly Terminology (PFT) and ICD-10-CM Attributes.

However, the GEMs as a basis for conversion are often incomplete or unsuited to the individual needs of a specific healthcare organization. Transition efforts based exclusively on the GEMs may not produce optimal results, and can even expose the organization to significant financial risk. To enhance the clinical accuracy and business appropriateness of your ICD-9 – ICD-10 conversion, Health Language offers SmartGEMs, an HLI custom content set containing GEMs enhancements for diagnosis codes designed to give you the correct and appropriate ICD-9 – ICD-10 mapping for your specific needs.

What is HLI SmartGEMs?

The HLI SmartGEMs content set extends the GEMs and adds ICD-9 – ICD-10 diagnosis code mappings missing from the original set. Using attributes such as Encounter type (initial, subsequent, sequela) and Laterality (right, left, bilateral, unspecified), clinicians and coders at Health Language have created additional maps in the forward direction that augment the incomplete GEMs maps related to these attributes. This can result in a more comprehensive and clinically correct ICD-9 to ICD-10 translation.

The list below shows specific attributes that are included in the initial release of SmartGEMs:

- Encounter type (initial, subsequent, sequela)
- Fetus type (unspecified, Fetus 1, Fetus 2, Fetus 3, Fetus 4, Fetus 5, other Fetus)
- Fracture Healing type (routine healing, delayed healing, nonunion, malunion)

- Fracture type (open, closed, open Type I, open Type II, open Type IIIA, open Type IIIB, open Type IIIC)
- Gender type (male, female)
- Laterality type (right, left, bilateral, unspecified)
- Severity type (mild, moderate, severe)
- Trimester type (first, second, third, unspecified)

Using SmartGEMs for your transition

Health Language SmartGEMs helps you eliminate deficiencies encountered using CMS GEMs maps while trying to identify the broadest range of ICD-10-CM codes. For example, the ICD-9-CM code 733.11, *Pathologic fracture of humerus*, is mapped using the forward and reverse GEMs only to those ICD-10-CM codes that pertain to the initial encounter. Thus, ICD-10-CM codes like M84.421S, *Pathological fracture, right humerus, sequel*, are not identified in the GEMs at all. If you are converting a medical policy or superbill that includes the ICD-9-CM code 733.11, you would want to include this ICD-10-CM code as a potential future replacement.

Another example, 040.81, *Tropical pyomyositis*, does not include maps to ICD-10-CM such as *infective myositis, unspecified right arm; infective myositis, unspecified left arm; or infective myositis, unspecified right leg*. Laterality and other body sites are missing from the GEMs. Health Language adds these maps in SmartGEMs.

Health Language SmartGEMs is available in the HLI LEAP I-10 solution to enhance your ICD-9 – ICD-10 diagnosis code list conversion and map creation projects. The powerful combination of Health Language LEAP I-10, PFT, ICD-10-CM attributes, and SmartGEMs provides the most comprehensive offering of ICD-10-CM tools and content available today.

SmartGEMs is also available in Health Language's LEAP and LEAP Code Explorer tools, and can be delivered as a flat export file.

Background: Provider Friendly Terminology and ICD-10-CM Attributes

To complement the LEAP I-10 tool and SmartGEMs, Health Language's Provider Friendly Terminology (PFT) offers several hundred thousand synonyms for ICD-10-CM terms to help users locate correct codes. The content set allows the use of familiar abbreviations, colloquial expressions, terms from the coding books, and other common clinical search expressions. Examples of familiar terms in the PFT include *COPD, Afib, cholera, AML*, and many other common clinician terms and abbreviations.

Additionally, Health Language has identified ICD-10-CM attributes to better differentiate between codes. These synonyms and attributes assist in finding and characterizing the ICD-10-CM codes. Health Language now offers over 200,000 additional maps of these attributes between ICD-9-CM and ICD-10-CM.

Two types of attributes are available:

Coding attributes

- Severity type
- Gender type
- Encounter type
- Laterality type
- Fetus type
- Fracture Healing type
- Fracture type
- Trimester type

These attributes can help determine the best ICD-10-CM code for billing purposes.

Clinical attributes

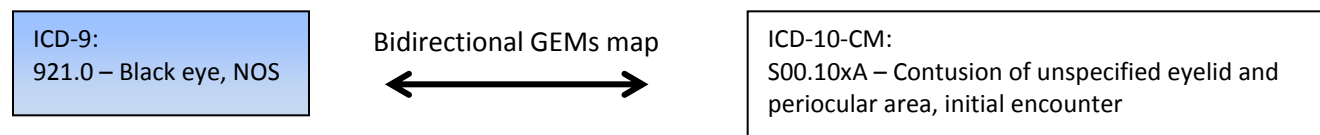
- Due to
- Following
- Subsequent encounter for
- With
- Without

These clinical attributes capture additional information about the ICD-10-CM code that is also mapped to SNOMED CT. For example, the ICD-10-CM code A38.0, *Scarlet fever with otitis media*, has a “with” attribute to otitis media that is then mapped to the SNOMED CT concept of otitis media. Thus, the diagnosis code A38.0 could be converted to two separate problem list codes in SNOMED CT if necessary. Or a computer-assisted coding application could use these attributes to assign a single ICD-10-CM code based on the presence of these two separate findings in a patient record.

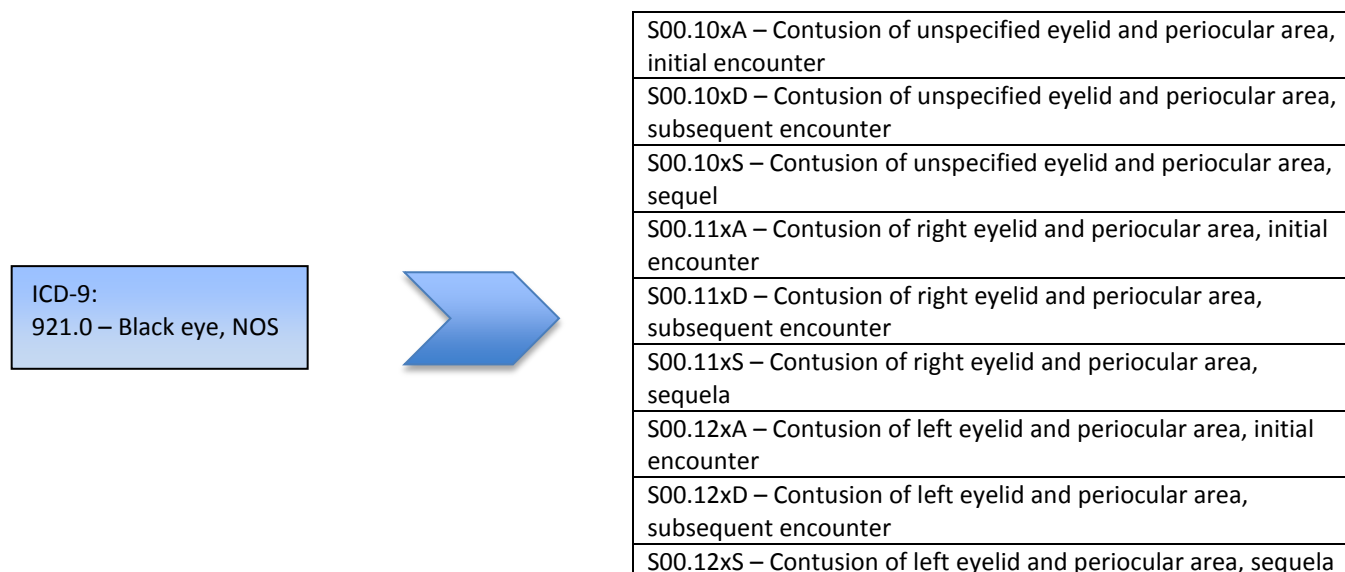
SmartGEMs Methodology

SmartGEMs captures additional ICD-10-CM codes by programmatically identifying codes in the same ICD-10 clinical hierarchy with similar attributes. In addition, by using GEMs reverse maps (ICD-10 to ICD-9) and GEMs Reimbursement Maps (one-to-one ICD-10 to ICD-9 relationships), the SmartGEMs ICD-10 target list provides a comprehensive list of clinically appropriate ICD-10 targets for a single ICD-9 source code. This results in a more comprehensive and clinically correct ICD-9 to ICD-10 translation.

Without SmartGEMs, an example mapping ICD-9 to ICD-10 looks like the chart at the top of the following page:



With SmartGEMs, this ICD-9 to ICD-10 mapping now looks like:



In this example, the GEMs map from ICD-9 to ICD-10 identifies only *S00.10xA – Contusion of unspecified eyelid and periocular area, initial encounter*, as a bidirectional map. The ICD-10 to ICD-9 GEMs Approximate and ICD-10 to ICD-9 GEMs Reimbursement Map identify two additional ICD-10 targets: *S00.11xA – Contusion of right eyelid and periocular area, initial encounter*, and *S00.12xA – Contusion of left eyelid and periocular area, initial encounter*. SmartGEMs completes the comprehensive mapping from ICD-9 to ICD-10 by programmatically identifying additional ICD-10 codes with laterality and encounter within this same ICD-10 code hierarchy. In this example, the HLI tools provide a comprehensive list of ICD-10 codes that would more accurately translate all the possibilities for our ICD-9 code.

About Health Language, Inc.

Founded in 2000 and based in Denver, Health Language, Inc. (HLI) provides leading healthcare terminology management solutions that normalize all data within a healthcare organization into standardized code sets such as ICD-10, SNOMED, and LOINC. By establishing a data infrastructure in which disparate information is fully integrated, HLI's advanced Language Engine (LE) and supporting tools enable healthcare providers and payers worldwide to simplify the management and analysis of critical patient, financial, and operational information. This helps hospitals, health systems, and other healthcare organizations overcome industry challenges such as Meaningful Use, ICD-10 remediation, and health information exchange. For more information, visit www.healthlanguage.com or call 720-940-2900.