Supporting SNOMED CT implementation with terminology services

We speak the language of healthcare



HLI: Global Leader in Medical Terminology

Serving over 5000 customer sites in 14 countries

Hospitals and Health Systems





























Clinical Applications

























Content Publishers







BlueCross BlueShield

of Vermont







System Integrators/SI Tools











BlueCross BlueShield

Association

Payers and Governments











HIEs and HIE Vendors







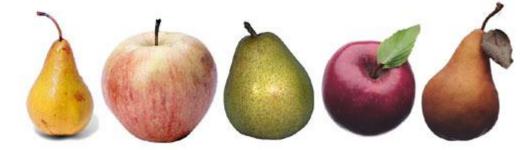






The Value of Terminology Management

Single source for all codes and terms from standards bodies, throughout the enterprise and customer base.





The Value of HLI Terminology Management

Content development tools to:

- extend content sets.
- build custom content sets.
- position for new terminology.



The Health Language Engine®

INPUT OUTPUT MANAGE Standards such as ICD-9, Correct term, **Runtime access** Model ICD-10-CM, LOINC, SNOMED, code, concept, FDB, RxNorm map, consumer friendly term, Index Map indexed document, HLI etc. **Load and update** Language **Engine LEAP** for Search Crosswalk **LE Access Portal** browser-based access to **Local and proprietary** content content including Manage synonyms, acronyms, extensions, modifications, Flat files for provider friendly terms, Export, embedding in consumer friendly terms applications such distribute as EHRs HLI CONTENT DATABASE

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Clinical Scenario

(http://www.youtube.com/watch?v=q0S5EN7-Rtl)



Clinical Narrative

care of hair.

97 year old female patient with fracture of femur. Fasted and otherwise well

Apart from O/E – temperature low and pH 6.8. Patient in emergency room in asystole. Received cardiopulmonary resuscitation and is apparently now dead and unfit even for

Anesthetist has head pain and is likely to suffer from a fracture of hand in the next few minutes.



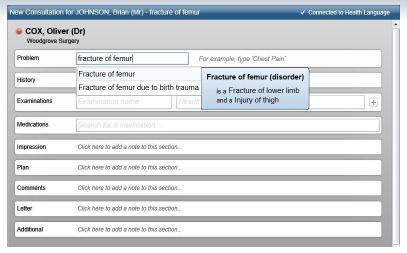


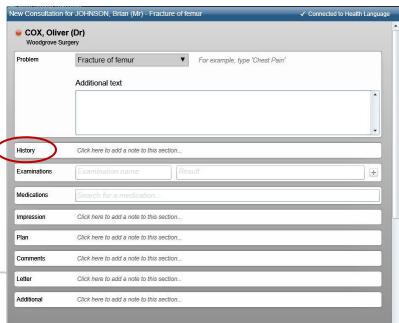
- Microsoft Patient Journey Demonstrator (site http://pjd.mscui.net/) implements SNOMED
 CT through a runtime link to the Language Engine (LE)
- Clinical narratives can be written and coded in real time through in the Primary Care Demonstrator:
 - Click the Primary Care Demonstrator button



- Hover over the grey bar at the top of the screen
- Select Option 7 'Add a consultation'
- Click the button in the top left hand corner of the consultation record that appears
- Select 'New Consultation'

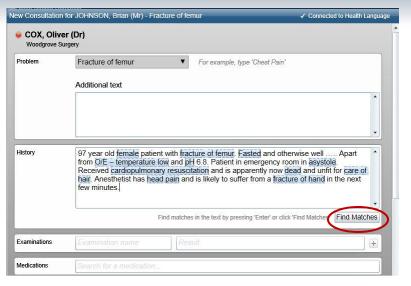




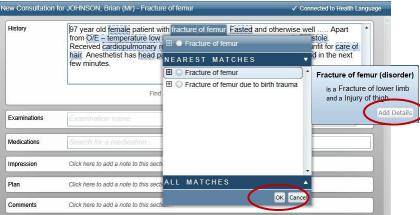


- Typing into the 'Problem' box returns
 SNOMED CT problems from LE based on text matching algorithms
- In our scenario the 'Problem' was "fracture of femur"
- Hovering over the returned concepts displays the Fully Specified Name and concept parents from LE
- Double clicking on the required concept commits it to the consultation's record
 - Note the color change to grey to denote commitment to the record
- Clicking on the 'History' box will open it to allow free text narrative to be added prior to coding





- Clicking 'Find Matches' returns potential SNOMED CT concepts from LE based on text matching algorithms
- Clicking on each highlighted concept allows other potential matches to be returned from the server for review and selection if appropriate.



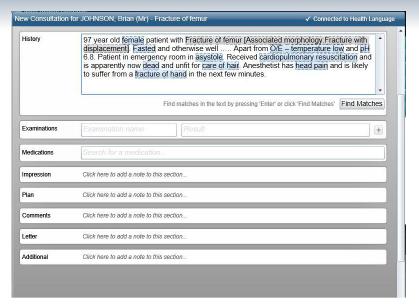
- Clicking on each highlighted concept displays the Fully Specified Name and concept parents from LE
- Clicking on the 'OK' button commits the selected concept to the record
- Clicking on the 'Add Details' button of the highlighted concept allows it to be refined according to the SNOMED CT concept model



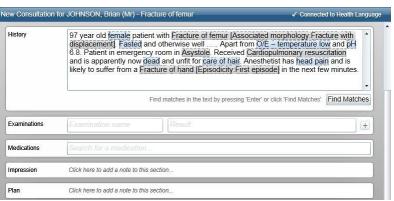


- The 'Add Details' button returns all SNOMED CT refining attributes associated with the chosen concept from LE
- Clicking the attribute required to be refined –
 in our scenario the fracture was displaced
 requiring the 'Associated morphology' to be
 refined returns the allowable values for
 that attribute
- Selecting the desired refining value and clicking the 'OK' button commits the refined concept to the record





- The committed record reflects the post coordinated refinement that has been modeled using the terminology service
- The initial free text entry has been edited to reflect the post coordinated refinement performed and approved



- Further refinement (fracture of hand) and selection of concepts to code can occur until the clinician has committed all that is required to the record
 - Note the color change to grey to denote commitment to the record



Health Language, Inc.

A privately held company, Health Language, Inc. (HLI) was founded in 2000 and has offices in the United States, the United Kingdom, and Spain. HLI is headquartered in Denver, CO.



HEALTH LANGUAGE, INC., HEADQUARTERS

4600 S. Syracuse Street, Suite 1200 Denver, CO 80237 USA 720-940-2900 www.healthlanguage.com



HEALTH LANGUAGE, INC.

Round Foundry Media Centre, Office G4-5 Foundry Street Leeds LS11 5QP England +44 (0) 0870 420 2470

