HW 10 – Ontologies – BMI 500

How many 1-1 mappings?

According to the program, the 9-> 10 GEM file had 22522 1-to-1 mapping, and the 10->9 GEM file had 72560.

How many 1-many mappings are there? In general, is the concept on the 1 side equivalent to the concepts on the many side? Explain.

According to the program, the # of 1-many mappings of the 9-> 10 GEM file is 334; the # of 1-many mappings of the 10-> 9 GEM file is 114

The concepts on one side are not equivalent to the many side. One of the reasons for ICD10 is that ICD9 was not specific enough. There are also no perfect matches for many ICD9 concepts (i.e. approximate matches). If the concepts were truly equivalent then this wouldn’t occur. Also, a concept is permanent, and therefore should not be subject to change; there are changes in how concepts are being described between ICD 9 and 10, though they are actually referring to the same diagnoses. For instance, referring to anatomical site of a burn instead of the depth of burn, or “degree” (arbitrary example).

How many terms have no mappings?

According to the program, the # of no mappings in the 9-> 10 GEM file is 422; the # in the 10-> 9 GEM file is 731.

Given the goal of resolving all 1:many mappings down to 1:1 mappings, which mapping direction (10->9 or 9->10) is more feasible? Explain your answer

10->9 is more feasible since it has less of them.