## **University at Buffalo** The State University of New York

# School of Medicine & Biomedical Sciences Department of Biomedical Informatics

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#### "Ontological investigations into medical diagnoses"

The Ontology of General Medical Science (OGMS) defines a diagnosis as 'a conclusion of an interpretive PROCESS that has as input a CLINICAL PICTURE of a given patient and as output an assertion (diagnostic statement) to the effect that the patient has a DISEASE of such and such a type'. While this definition seems reasonable for canonical cases, it does not cover all cases asserted to be diagnoses in the problem list of widely used electronic healthcare record (EHR) systems. One can indeed wonder whether, for example, the ICD-9-CM diagnosis code [sic] 'V65.5: Person with feared complaint in whom no diagnosis was made' is a diagnosis at all. Furthermore, since until now these EHR systems provide no structured information concerning the provenance of what is asserted to be a diagnosis, it cannot easily be assessed whether diagnostic assertions that look as if they are canonical do indeed satisfy OGMS' definition. Although it can be argued that this state of affairs isn't harmful in a clinical operational setting, it provides challenges for the secondary use of EHR data stored in integrated data repositories.

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