Free case study on the language of health informatics

Health & Medicine, Nursing

Johns Hopkins Medicine is the health facility that uses informatics systems in the process of improving patient services. The medical institution also has academic computing to ensure that health professionals learn how to operate computing facilities. The main course units taught are wireless support, software services, and procurement of computers.

Patient health services have been improved with the use of technology. It is now possible to have an accurate diagnosis and prescribe for the patients. Patient records are readily available for doctors to review them. It is also easier to share information from one section to another because records are accessed using patient identification at any point. The health informatics systems have also enabled patients to book for doctors appointments at the comfort of their homes. Hospital appointments can also be rescheduled and rearranged between the patient and the physician or doctor easily. There is a beneficiary to the patient when it comes to paying their bills. Online bill payment offers opportunities for health care bills to be settled by any person for a patient regardless of their schedule.

The institution has information technology guides to the physicians, pharmacists, medical students and nurses. The hospital builds e-based clinical decision support tools that can be accessed at the clinician point of care.

Data storage standard language

The hospital uses electronic medical record systems in management of patient records. The medical facility in 2013 launched Epic software which will enable it to integrate all the medical record systems into a central database. The institution has implemented informatics in the delivery of

drugs. There are different types of formats in which medical records can be stored. The format of information entered into the computer depends on the source of the professional speciality. Dentists use a data standard referred to as ADA while nurses use a data format referred to as ANIA for exchange of data. Clinical images are exchanged in a standard format referred to as DICOM. All this format required to be unified into a single format that enable data to be stored in a central location. If each profession uses their own standard format then they would be a database system for every section which expensive.

Unified Medical Language System (UMLS) was created to aid in developing health information systems. It was designed by National Library of Medicine NLM in 1986 (Lindberg, 1990) The language was aimed at enabling health professionals to integrate biomedical information captured from different sources. It is a language that enables data retrieval in their original format and displays it in a normal manner in the information systems. The language was intended to close the gap between missing words in the computer databases and the terminologies used in various disciplines.

UML has three knowledge sources; UMLS meta thesaurus which offers many number of biomedical vocabularies ad classifications. Specialist lexicon contains syntax information of component words ad English words which are not found in the UMLS thesauruses. The UML semantic network is another component of the UMLS which provides categories about diseases, viruses and the syndrome.

There are computerized facilities within the health facility. The information technology department is the one in charge of the implementation of the

health informatics in the hospitals. All the departments have access to data through their terminals. They can access information on handheld devices and portable computers within the health facilities and when they are far from it.

References

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