**CIS-DISCUSSION: 9**

A.

Electronic health records (EHRs) contain detailed information regarding patient’s history and current treatment protocols. Such information can be accessed by the patient using a functionality called ‘Blue Button’. Most of the EHRs provide with this option to download the data by the patient from anywhere. Access to such information can entail the patient to become aware and educated about one’s own health. According to The Office of the National Coordinator for Health Information Technology (ONC) (2019), the practical implications of using a Blue Button include sharing of the electronic documents with primary care physicians, check for accuracy of information present in the document, keep a tract of vaccinations and prescriptions, avail medical history in case of emergency or while switching the insurance companies. ONC (2019) notes that it is mandatory and legal right of citizens in the United States to have access to their medical records and this is made possible with the availability of Blue Button. One such application is the ability to download the Medicare claim data using Medicare’s Blue Button using the website of Centers for Medicare & Medicaid Services (n.d.). Today, consumers or patients are entitled to share their claim data with the third-party vendors by the click of a button (Scrimshire, 2018). Blue Button played a vital role in educating the people and improving the patient outcomes. This contrasts with the past practices where information concerning a patient is stored in paper format which impeded access by the patient. According to Klein et al. (2015) most of the patients used Blue Button to access and share the laboratory results. This signifies the impact of Blue Button on health care and clinical workflows.

B.

The research of Pinsonneault et al. (2012) stated that incorporation of information technology (IT) into health care have resulted in improved patient outcomes by reducing the patient odds of hospitalization and reducing the visits during emergencies. The indirect impact of health IT resulted in the improvements in relational and management continuity of care which also contributed to increased quality of care (Pinsonneault et al., 2012). Electronic health records are often combined with other information systems like Clinical Decision Support Systems (CDSS) and e-Prescriptions. One such example mentioned in the paper by Roden et al. (2018) is use of point-of-care approach and pre-emptive approach to determine the genetic variants of the prescribing drug. Such approaches reveal the importance of storing vital information in EHRs which are deployed with CDSS to help physician prescribe medications in the future appointments of the patients. However, such integration is not without hassle. The study of Lowry et al. (2014) had shown that 60% of the ambulatory care settings have experienced challenges with EHR usability in the workflow settings. Other unintended consequences like inefficient clinical documentation that required long hours had resulted in slowing of EHR adoption, especially in pediatric and ambulatory care settings (Lowry et al., 2014). According to Lowry et al. (2014) some of the workflow challenges include requirement for multiple logins, alert fatigues, amount of time and effort required to switch between screens to fetch information, difficulty in processing non-standardized orders, and lack of functionalities to write clinical notes on subsequent encounters. It also comes with the issues from physicians to adapt and use the new technology as some of them might not be teach-savvy. The initial set-up, maintenance of EHRs and keeping them up to date with other technical advances is quite expensive. This impedes their usage in small health care settings. To overcome the shortcomings of EHR integration into clinical workflows, human factor modelling methods like artifact review, design audits, goal-directed task analysis and many more have been developed (Lowry et al., 2014). Other proposed modalities to improve the outcomes are the improvements in User-Centered Design (UCD).

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