

Cybersecurity in Healthcare

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Digital healthcare technologies are dominant across the globe, as they possess a considerable potential to perk up patient outcomes and the quality of healthcare service delivered to patients and families. However, according to Coventry and Branley (2018), there is an increasing concern regarding the safety of digital devices and data. It is the shared belief amongst scholars that the healthcare industry has not kept pace with technological advancements, thereby rendering existing equipment vulnerable to contemporary cyber threats (Kruse, Frederick & Monticone, 2017). Healthcare is one of the primary targets for cybercrime, as hospitals represent rich sources of personal data (Jalali & Kaiser, 2018). With their overemphasis on patient safety, health institutions need to prioritize cybersecurity through national legislation and individual policies. Ronquillo et al. (2018) assert that cyber hacking is responsible for over 80% of damaged health records over the last five years. This data demonstrates the imperative need to integrate the tenets of cybersecurity in modern hospital information systems.

Cybersecurity represents not only a safety concern but also a quality issue in modern medicine. A lesson borrowed from the airline industry following the crash of Boeing 737 Max is that a simple software fault can have disastrous implications (Humaidi & Balakrishnan, 2018). For instance, Slowitner et al. (2018) informs us that expert hackers have the ability to infiltrate cardiac implantable electrical devices (or “CIEDs”), which means they can cause a patient’s heart to stop, pump more slowly or quickly, and even induce heart attacks. Therefore, for the medical practitioner seeking to protect their patients from external harm, proper planning and investment in Information Security Management Systems (ISMS) are crucial undertakings (Park et al. 2010). According to Perakslis (2014), as autonomous practitioners, the ISMS must take

patient, staff, and organizational requirements into consideration, coupled with political support for long-term operability. The paper emphasizes the importance of cybersecurity and the practices that health practitioners and managers can employ to fully enact the concept of patient safety.

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