Potential to Utilize Blockchain Technology in Medicine

Blockchain technology is a great recent innovation which allows digital data to be shared without being copied for better connectivity and privacy. It is a decentralized storage of information totally secured by cryptography. Nowadays, this technology is used in economic industries such as cryptocurrencies, digital contracts, and financial records. Using blockchain technology in science and medicine is expected to happen in the near future. This may include digital health records, medical insurance, scientific research, medical education, and drug supply. However, there are still some problems we should overcome to be able to depend on this technology and they are security and user adoption (Basak, Ramachandran & Khurana, n.d.).

There is a great investment in blockchain technology with expectations to reach US$400 million in 2019 (Radanović & Likić, 2018). Therefore, healthcare authorities should seriously consider utilizing blockchain technology in the health sector and medical education for a better quality of medical services.

Blockchain can be implemented in recent medical systems as there is a great progress in the development of electronic health records, wearable devices, and artificial intelligence. All of these new technologies may increase the potential to rely on blockchain in the health industry using cryptography to be involved in hospital work.

One benefit of blockchain technology for health providers is improving data regulation and integrity. This is extremely important, particularly when there is a load of patients with more health data to be submitted and managed (Basak, Ramachandran & Khurana, n.d.). Health data such as electronic health records, patient health information, and medical insurance claims are crucial information that should be securely stored and shared between health providers. Blockchain can be reliable in this process as it allows private recording and sharing of health information by anchoring this data to the public blockchain. As a result, this could allow users to verify the integrity of data such as personal health information and clinical research results.
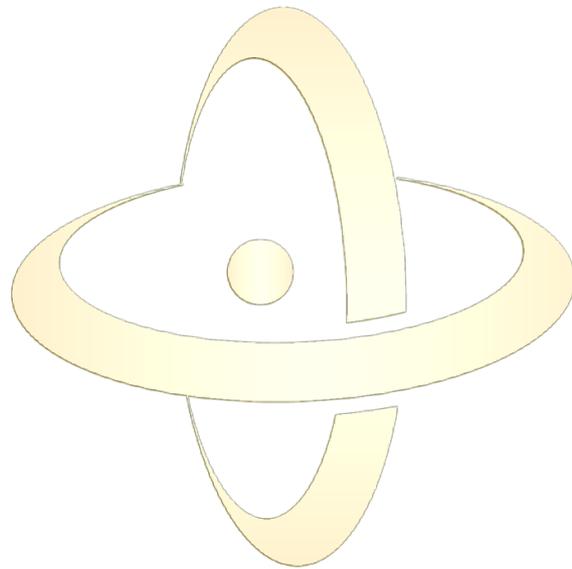
Blockchain is expected to offer more transparency of health data as it provides a decentralized database. All data will be stored including health information and details of transactions, with saved copies on every device involved in the system. There are also secure procedures performed by the system before any transaction to know the owner of a specific data block at any time. This ensures sharing health data through a full protected system saving money and time.

Many hospitals suffer from inaccurate reports on medical supplies and workflow which may waste more efforts and resources to work on these logistic tasks. Blockchain technology can convert this process to be fully automated saving this time to other important tasks as well as providing real-time accurate data.

There are some complaints from healthcare professionals about an improper connection between healthcare networks. This problem may affect the accuracy and integrity of patients' information and may delay diagnosis and treatment. Blockchain may be an awesome solution to this issue. IBM, a popular IT company announced that "Blockchain can produce a correct and immutable audit trail of ownership and location as it changes over time" ("The Potential of Blockchain Technology in Healthcare - Adaptive Medical Partners", n.d.).

References:

1. Basak, s., Ramachandran, R., & Khurana, S. How Blockchain Technology can transform the healthcare sector?. Retrieved from https://medium.com/swlh/how-blockchain-technology-can-transform-the-healthcare-sector-604d1bcdc16b

2. Radanović, I., & Likić, R. (2018). Opportunities for Use of Blockchain Technology in Medicine.

3. The Potential of Blockchain Technology in Healthcare - Adaptive Medical Partners. Retrieved from https://adaptivemedicalpartners.com/the-potential-of-blockchain-technology-in-healthcare/