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## Medical Health Record using Block Chain

Ashfaque Shaikh<sup>1</sup>, Numan Shaikh<sup>2</sup>, Yash Narvekar<sup>3</sup>, Saniya Farzin<sup>4</sup>, Muzzakir Siddique<sup>5</sup>

Assistant Professor, Department of Information Technology<sup>1</sup>
Students, Department of Information Technology<sup>2,3,4,5</sup>
M. H. Saboo Siddik College of Engineering, Mumbai, Maharashtra, India

Abstract: The future of healthcare systems is being shaped by incorporating emerged technological innovations to drive new models for patient care. By acquiring, integrating, analyzing, and exchanging medical data at different system levels, new practices can be introduced, offering a radical improvement to healthcare services. We present a novel smart and secure Medical health record system which, leverages blockchain technologies, permits patient centric medical records transactions. Office of the National Coordinator (ONC) for Health Information Technology is seeking patient-centric MHR designs that shift data ownership from providers to patients. There are multiple barriers to patient-centric MHR in the current system, such as security and privacy concerns, data inconsistency, timely access to the right records across multiple healthcare facilities. After investigating the current workflow of MHR, our system provides a feasible solution to these challenges by utilizing the unique features of blockchain. In particular, we develop a blockchain-based architecture and enable a flexible configuration thereof, which optimize medical data sharing between different health entities and fulfill the diverse levels of Quality of Service (QoS) that MHR may require. Finally, we highlight the benefits of the proposed MHR system and possible directions for future research.

Keywords: Medical Health report, Patient centric, blockchain technology, Data ownership, Secure

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