1 "Emerging Technologies in Healthcare"

1. INTRODUCTION:

Emerging technologies are technologies whose development, practical applications, or both are still largely unrealized, such that they are figuratively emerging into prominence from a background of nonexistence or obscurity.

Health technologies comprise of all the devices, medicines, vaccines, processes, procedures, and systems designed to streamline healthcare operations, lower costs, and enhance quality of care. Technology drives healthcare more than any other force. It is drastically changing and improving healthcare, from anesthetics and antibiotics to MRI scanners and radiotherapy. This technology-driven progress in healthcare is often called Health 2.0. It is well known that hospitals adopt new technologies that enhance their service capabilities and enable them to attract and retain physicians who use the technologies.

2.CONCEPT OF EMERGING TECHNOLOGY:

Emerging technology (ET) lacks a consensus on what classifies them as "emergent." It is a relative term because one may see a technology as emerging and others may not see it the same way. It is a term that is often used to describe a new technology. A technology is still emerging if it is not yet a "must-have" . An emerging technology is the one that holds the promise of creating a new economic engine and is trans-industrial.

ET is used in different areas such as media, healthcare, business, science, or education. Emerging healthcare technologies cannot be fully exploited without a clinical team to shape the therapeutic response, something hospitals have been able to do over the years with their multidisciplinary clinical workforce. How hospitals and policymakers respond to these emerging technologies will help determine whether hospitals remain at the center of the US healthcare system. Some US hospitals have remarkably responded to these new technologies and adapted their service offerings to incorporate new technologies.

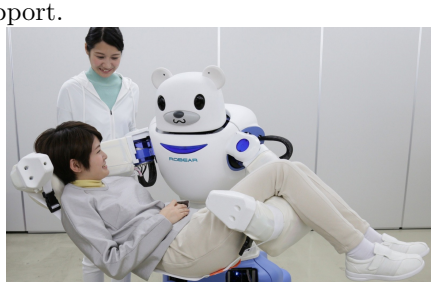
3.EMERGING HEALTHCARE TECHNOLOGIES:

Emerging technologies in healthcare include information technology, nanotechnology/nanomedicine, biotechnology, cloud computing, Internet of things, augmented/virtual reality, GPS, RFID, voice search, chatbots, social media, blockchain, personalized medicine, biometrics, electronic health records, wearable computing devices, drones, robotics, and artificial intelligence. Of the several emerging technologies, the following examples stand out:
A) Artificial intelligence (AI):
This is a field of computer science that is concerned with designing systems to do things that would require intelligence of humans. Today, artificial intelligence

is shorthand for any task a machine can perform just as well as, if not better than, humans. Today, artificial intelligence is shorthand for any task a machine can perform just as well as, if not better than, humans. AI in healthcare refers to the application of AI technology in the diagnosis and treatment of patients. AI is being applied in healthcare to review mammograms, monitor early stage heart disease, and enable accurate decision-making among medical practitioners.

B) Robotics:

This deals with the design, construction, operation, and application of robots. Robots are becoming an integral part of the healthcare toolkit. Robots play an important role in healthcare as they can improve diagnosis, lower the number of medical errors, and improve the overall quality and effectiveness of healthcare delivery. They hold the promise of addressing major healthcare issues in surgery, diagnostics, prosthetics, physical and mental therapy, monitoring, and support.



C). BLOCKCHAIN:

This technology consists of a shared or distributed database used to maintain a growing list of transactions, called blocks. With blockchain (BC), transaction records are stored and distributed across all network participants rather than at a central location. Blockchain in health care will be in clinical trial records, regulatory compliance, and medical records.

Blockchain is able to securely, privately and comprehensively track patient health records. It makes electronic medical records more efficient, disintermediated, and secure. It also makes health information exchanges (HIE) more secure, efficient, and interoperable.

4.CONCLUSION:

Frankly speaking, healthcare has no end of problems: we all want and expect better care, costs are rising, and performance is declining, we live living longer with chronic illness, etc. If we want healthcare to improve in the future, we must continuously plan for it. Future technological innovations (new drugs, new treatments, new devices, etc.) will keep transforming healthcare. Since technology drives healthcare, the fundamental problems of wellbeing, health and happiness, will remain. We need to be aware of the drivers, align with them, and work with them to ensure the best outcomes for society.