5 Ways Technology Is Leading The Revolution In Patient Care

Technology is proving itself to be a driving force behind innovations in the healthcare industry. Advances in medical technology are empowering both patients and healthcare providers to take data driven decisions for better health outcomes and improved care efficiency.

Healthcare currently accounts for 17.8 percent of annual GDP spending in the US, which is projected to rise to 19.9 percent by 2025.[1] Adoption of technology is slated to play a major role in this growth in healthcare and prove immensely beneficial for everyone within the chain of care.

Here are the ways technology is leading the revolution in patient care:

1. Rise in Electronic Health Records

Data is the backbone of technological developments and widespread adoption of EHRs across hospitals has made the collection and analysis of healthcare data an easy task. 86.9 percent of all physicians make use of EHRs to store patient data.[2]

Storage, maintenance and analysis of this data is important for efficient monitoring of the patients. Advances in computing methods, big data analytics and use of artificial intelligence to sift through medical data at revolutionary pace and obtain meaningful results is all contributing towards better patient outcomes.

Adoption of EHRs comes with it's own set of challenges, data security being the biggest threat of all. According to research, healthcare industry is subjected to 340 percent more security incidents than any other industry and is 200 percent more likely to encounter data theft.[3] Storage of medical data thus has to be done ensuring the security measures are in place and sensitive patient data is always protected.

2. Increased Adoption of Telehealth

Telehealth is revolutionizing patient care by making healthcare services more accessible to all. CMS recently proposed it's 2019 *Medicare Physician fee Schedule* and *Quality Payment Program* that would result in increased adoption of telehealth

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services.[4] The proposed changes would result in advancing virtual care for patients by leveraging technology, laying down norms for physician reimbursement for

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telehealth services, thus reducing physician burden.

The widespread use of smartphones and advances in mobile networks and connectivity has enabled the physicians to have virtual consultations with the patients. It negates the need for the patient to travel down to the physician's office for a routine health consultation which is extremely important in case of chronically ill and debilitated patients.

It also makes patient management more efficient by streamlining patient appointments and reducing wait times. Remote patient monitoring results in better health outcomes while reducing healthcare costs. Use of telemedicine to tackle ER triage recorded a 25 percent reduction in staffing costs in the hospital, while increasing the admission rate by 20 percent.[5]

The telehealth market is already growing fast and is projected to reach 52.89 billion by the end of 2025.[6] It has already transformed patient care and further technological advancements like advent of 5G technology will give it a further boost in the days to come.

3. Wearable Tech and Internet of Medical Things

One of the most important technological revolutions in recent times has been the advent of wearable devices. The smartwatches sale is projected to reach 86 million units by 2021 which will be only 16 percent of all wearable devices.[7]

Equipped with state of the art sensors, these fitness and medical devices track the individual health stats empowering it's wearer to take conscious, data driven health decisions.

The healthcare data collected by these devices is also utilized by the healthcare providers in order to curate customized care plans on the basis of individual needs. The in-built sensors detect any abnormality in the readings resulting in an early diagnosis of the underlying conditions.

Use of Artificial intelligence tools to compute the data collected by these devices can help predict disease trends across populations and bring about a data driven revolution in the field of medical research.

4. Patient and Workflow Management

Leveraging technological tools like Artificial Intelligence[8] to automate the routine tasks in patient

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management can ensure that the doctors and nurses[9] can prioritize on the more important tasks on their hands. Use of technology to manage things like patient registration, filling in the notes in

patient's medical records, processing discharge and payments not only results in saving time and resources within the hospital, but it also makes the workflow within the hospital more organized and optimized.

Use of self serving kiosks for patient registry, voice to text input of patient data into medical records, use of chatbots for routine conversations with patients to ensure patient compliance are some of the ways in which technology is transforming patient management.

Automation of the routine non-emergency tasks would result in better focus on the emergent cases and more time spent by both doctors and nurses at the patient's bedside, resulting in greater patient satisfaction and improved patient outcomes. An optimized hospital workflow also results in optimal usage of resources thus saving operational costs.

5. Mobility in Healthcare

Mobility in Healthcare[10] is going to undergo a revolutionary growth of 28.3 percent by 2022 allowing the focus to shift from hospital based care to a more patient centric approach.[11]

Development of robust mobile apps[12] empowers the physicians to provide the best possible treatments, resulting in more positive patient outcomes and overall decrease in treatment costs. Rise

of mobility has made it possible for the patient data from the wearable devices to be integrated into the EHRs resulting in a more holistic care plans to be designed for specific patients.

Mobility in healthcare also results in better workflow optimization within the hospital by tracking the real time location of the healthcare providers resulting in better access and communication.

Summing up

The field of healthcare has historically been one of the last segments to adapt to rapidly changing technology. The scenario is now transforming with the gradual inflow of advancements which have resulted in a renovation of the healthcare sector. While the applications are plenty and the transformation has just begun, one thing is for sure, incorporation of technology in healthcare is leading us towards a brighter future.

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