TECHNOLOGY & ITS ROLE IN HEALTHCARE

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It could be argued that of all the ways technology has improved the lives of humans across the globe, none are as important as the technological advances in medicine. From the invention of X-ray machines to advances in surgical practices, technology has made us healthier and increased life expectancies.¹

As we move further into the 21st century, we continue to develop technologies that cure illnesses and improve our quality of life. Health informatics is heavily integrated with technology and graduates with a Master of Science in Health Informatics degree can help to push the boundaries of healthcare throughout their careers. There are individuals performing tasks far more accurately than they ever did before, with keyhole surgery now a popular option for some of the most routine medical needs.

And the technology isn’t just in the hospital; it is used in the doctor’s office and even at home to prolong life and create a better quality of life for those on around the clock care. The improvements don’t just lead to better physical health; they support better mental health, which in turn improves the physical health. Technology improves connections and relationships, offering support to everyone.

Electronic Health Records (EHRs)

As any student of health informatics knows, the movement toward electronic health records is a huge evolution in the medical field and one that can facilitate countless advances in medical diagnostics and treatment. In the past, hospitals had disparate information systems that were clumsy in their ability to share and transfer patient records. With the advent of EHRs, many systems have been connected, allowing for faster information transfers and more integrated and efficient care.

Doctors can easily access a patient’s records, allowing them to provide better, in-depth knowledge about each patient’s medical past and care. Patient files used to line the halls of practices, creating large amounts of paperwork and eliminating the possibility of finding years-past medical records. Now, technology has allowed medical records to be transcribed online, easily available to both doctor and patient. Patients feel more comfortable when their complete health picture is understood by physicians.

Telemedicine / Telehealth

Telemedicine refers to methods of advancing healthcare based on telecommunications technologies. There are several reasons telehealth is becoming more popular and successful. First, in rural areas where access to hospitals and other health-related services are lacking, patients can use their computers to meet virtually with a doctor. Second, the cost benefits associated with telehealth are substantial. According to the Alliance for Connected Care study, telehealth services can save up to $100 per doctor visit.² Another study published in CHEST Journal shows patients in an ICU equipped with telehealth services were discharged 20% faster and had a 26% lower mortality rate than traditional ICUs.¹ Physicians, hospitals, and clinics have made it a standard practice to create an avenue to the public through social media sites. This not only grants them a larger audience but allows people an easy way to reach out for information from them. They can offer advice or information specific to their practice, educating followers far and wide. Another great perk from
this is those past patients are able to leave feedback or a review of the service they received at the specific medical facility, or with a specific doctor. This can greatly help potential patients narrow down a doctor or facility that they feel could best serve their needs.

**Remote Monitoring Tools**

When patients monitor their health at home, they can save money and reduce unnecessary visits to the doctor’s office. At the end of 2012, almost 3 million patients worldwide were using home health monitoring systems. Pacemakers for patients with heart disease can automatically send data to remote health centers. Great for patients with chronic illnesses, these tools can allow systems to monitor a patient’s health from a distance. It is no secret that as we move further into the age of technology, a number of benefits are emerging. Many would consider that improved healthcare is the greatest result to come from technology. Better equipment has allowed doctors to provide more comprehensive care. Better treatments have increased the quality of life of a number of different people suffering from long-term illnesses. Better medicine has completely wiped out the fear of some life-threatening illnesses of the past. It has also helped speed up research, as well as connect medical researchers from around the world.

**Wearable Technology**

The wearable medical device market is growing quickly. These devices collect data, which helps doctors and patients alike to monitor and assess the health of the wearer. In addition to devices that alert authorities about serious medical issues, there are very popular wearables like wristbands and watches that are allowing users to take an active role in their health. According to Huffington Post, by 2018 an expected 130 million wearable devices will have been shipped to consumers.

**Genome Sequencing**

Some have called personal genomics the future of healthcare. Personal genomics refers to the sequencing and analysis of one person’s genome and then giving that person his or her genomic information. Sequencing the human genome has been one of the greatest advancements in medical technology of the last 40 years. Dr. Francis Collins, director of the National Institutes of Health, says in Modern Healthcare, “For all of human history, we have labored without understanding our instruction book, and the human genome provided that. It’s like crossing a bridge.”

Technological advances in the medical field have allowed for many life-saving procedures to become commonplace. Just the thought of virtually visiting a doctor from hundreds or thousands of miles away would have been difficult to believe only a few decades ago. From remote monitoring tools and wearable medical technology to the sequencing of genomes, technology is improving health at a rapid pace.

It is an exciting time for watching and benefiting from the improvements being made due to technology, especially in healthcare. It goes without saying that changes and upgrades will come within the next weeks, months, or years, leaving today’s technology in the past. The landscape of healthcare is more fast-paced and patient-friendly than ever before, and it can only improve from here.

**REFERENCES**

technological-advancements-for-healthcare-in-the-last-decade.html


