

Editorial Note on Health Information Technology

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Editorial

Healthcare system is the organization of people, institutions, and resources which deliver health care services to populations in need. The quantity and quality of many health care interventions are improved through the results of science, such as advanced through the medical model of health that focuses on the eradication of illness through diagnosis and effective treatment. Major advances have been made through health research, pharmaceutical research and biomedical research, which form the basis for evidence-based medicine and evidence-based practice in health care delivery.

Health Information Technology (HIT) is the application of information processing involving both computer software and hardware which deals with the storage, retrieval, sharing and use of health care information, data and knowledge for communication and decision making.

Health technology is defined by the World Health Organization as the application of organized knowledge and skills in the form of devices, vaccines, medicines, procedures and systems developed to solve a health problem and improve quality of lives. This includes pharmaceuticals, procedures, devices and organizational systems used in the healthcare industry as well as computer-supported information systems. Health Information Technology (HIT) is health technology, particularly information technology, applied to health and health care. It supports health information management across computerized systems and the secure exchange of health information between providers, consumers, quality monitors and payers.

Medical technology or Medtec is a wide range of healthcare products and is used to treat diseases and medical conditions affecting humans. Such technologies are intended to improve the quality of healthcare delivered through earlier diagnosis, less invasive treatment options and reduction in hospital stays and rehabilitation times. Recent advances in medical technology have also focused on cost reduction. Medical technology may broadly

include medical device, information technology, biotech and healthcare services.

Medical technology has evolved into smaller portable devices, for instance, smartphones, touchscreens, tablets, voice and face recognition, laptops, digital ink, and more. With this technology, innovations like Electronic Health Records (EHR), Health Information Exchange (HIE), Personal Health Records (PHRs), Nationwide Health Information Network (NwHIN), patient portals, Geographical Positioning System (GPS), Radio Frequency Identification (RFID), telemedicine, nanomedicine, genome-based personalized medicine, Clinical Decision Support (CDS), mobile home health care and cloud computing came to exist.

Artificial Intelligence (AI) is a program which enables computers to sense, reason, act and adapt. AI is not new, but it is growing rapidly. Artificial Intelligence deals with large data sets, solve problems, and provide more efficient operation. AI will be more potential in healthcare because it provides easier accessibility of information, reduce cost and improves healthcare.

One of the fastly growing areas of health care innovation lies in the advanced use of data science and machine learning. The key opportunities here are health monitoring and diagnosis, medical treatment and patient care, pharmaceutical research and development and clinic performance optimization.