USE OF IT IN MEDICAL EDUCATION

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Health information technology (HIT) is the application of information processing involving both computer hardware and software that deals with the storage, retrieval, sharing, and use of health care information, data, and knowledge for communication and decision making. HIT, technology represents computers and communications attributes that can be networked to build systems for moving health information

Health informatics tools include computers, clinical guidelines, formal medical terminologies, and information and communication sytems. It is applied to the areas of nursing, clinical care, dentistry, pharmacy, public health, occupational therapy, and (bio)medical research.

Specialized university departments and Informatics training programs began during the 1960s in France, Germany, Belgium and The Netherlands. Medical informatics research units began to appear during the 1970s in Poland and in the U.S. Since then the development of high-quality health informatics research, education and infrastructure has been a goal of the U.S., European Union and many developing economies.

With the development in IT, there has been a significant change in medical education all over the world. Information Technology can assist medical education in various ways such as in college networks and internet With the help of college networks and Internet, the medical students as well as the teachers may stay in contact even when they are off college.

Development of anatomical three dimensional atlases of various internal organs using computed tomography and magnetic resonance imaging are very illustrative and help the students to understand the subject matter clearly.

Another development is of "Advanced Life Support" (ACLS) simulators and Haptics "the science of touch" simulators are used in medical education to develop various clinical skills such as ECG interpretation, appropriate intervention such as ABC, drugs, injections, defibrillation without working on a real patient. These days, highly sophisticated simulators "virtual reality" with highly advanced medical simulation technologies and medical databases are available in the advanced medical schools that expose the medical students to the vast range of complex medical situations. It can emulate various clinical procedures such as catheterization, laparoscopy, bronchoscopy etc. With new technology, the students can virtually go inside each and every organ and see how they actually look like from outside as well as from inside.

Information technology has been very helpful to the healthcare sector. One example of a significant advancement that IT has provided to hospitals is the development of electronic medical records (EMR.) Drug prescribing patterns of individual clinicians could be carefully evaluated and compared to established standards. In fact, computer based clinical support as part of an EMR has been shown to improve physician performance and patient outcomes.

There is no argument over the influence of IT in medicine and education. But there are still many areas which need to be improved before we could utilise IT to its full extent. Last but not the least, however advanced the technology gets, it can never replace the interaction the doctors and students require with the patient and the clinical judgments which make great doctors. So, in the pursuit of modern technologies, we should be careful that the doctor patient relationships do not get overlooked.