

Editorial

The digitization of medical records

For thousands of years, doctors and other medical personnel kept detailed notes on papyrus describing the disease encountered, and the treatment applied in all areas of medicine, including gynecology, bone surgery and eye complaints. Papyrus was a firm and ancient writing scroll; the word paper is derived from papyrus. Papyrus was discovered in Egypt around 4000 BC. The raw material of papyrus paper came from the plant 'Cyperus papyrus'. Medical records in the days of Imhotep (the immortal Egyptian physician and demi-god) and even Hippocrates were kept on papyrus. It was comfortable for the doctors. It was slow but time was on the side of doctors because the doctors were demi-gods or at least their own masters at the time; it is no longer so now. When papyrus disappeared, the pulp paper was developed by the Arabs. With the pulp paper, came the writing papers and the medical doctors at this era were also comfortable to write prescription and records on papers.

The emergence of computer with all types of digital soft-wares and Internet technology are changing the face of medical practice. The digitization of medical practice is not very comfortable to many doctors despite the enormous economic and educational advantage associated with it. Digital technology can be intimidating to many people including medical doctors. Many doctors around middle age and above are not comfortable with the use of computer because they were never trained to use it and not to talk of the use of various digital soft-wares designed for modern medical practice. The medical school curriculum remains so conservative that soft-ware training is not part of the curriculum. Even the newly qualified doctors who had computer training in the high schools are still struggling with electronic/digital medical record. Many doctors hassle themselves into it by pushing the computer keyboards haphazardly until they acquire perfection. This is uncomfortable to many doctors. The advantages of electronic/digital practice are enormous. I remember running a two-doctor clinic with a 71 year old lady physician who was computer illiterate. By the time she could see 10 patients, I would have finished with 20 patients. Some medical soft-wares pre-empt the doctor about the dosages and the adverse reactions of the drugs being prescribed. A red flag may warn that a particular combination of drugs portends danger. With an increasing population of the World, electronic medical record seems to offer solution to frequent loss of manual records often seen in big hospitals.

In early 2000, Britain embarked on a process of paperless medical practice where all the clinical records must be kept in the computer and the doctor must use the computer to record clinical signs and symptoms including physical examinations; the doctor must make prescriptions, make appointments and referrals at the same time through the computer. In fairness, the UK government organized computer and digital training program for the doctors through the area health authorities and even allowed the change to go gradually till perfection. Nowadays, job interview questions for doctors include knowledge of soft-wares for medical practice. Australia, New Zealand and almost the whole of Europe have changed to digital medical practice. America has refused to digitize and is on a close race and snail speed with some developing countries of the World.

According to Progressive Policy Institute of America; as of February 2006 only 17% of clinics in America have converted from manual to electronic medical records. This record has not changed much as of now. The Obama administration has embarked on a \$19 billion program of digitization of medical records – an endeavor that will save \$80 billion a year (RAND study, 2005). Therefore, this is a worthy investment. Hospitals will no longer award contracts to print hospital stationeries – hospital forms, letterheads and all types of papers used in hospitals etc. Challenges are coming from conservative quarters, probably from some quarters who are intimidated by digitization and Internet technology and probably from contractors who would want to supply stationeries to hospitals at cut-throat prices. Some prominent Harvard university doctors are challenging the electronic medical records claiming that there is no evidence to prove that digitization will improve the care of patients.

Every group is entitled to some arguments but there are some obvious empirical facts. Electronic medical record improves medical services. Doctors are faster and can see more patients per hour with less stress. Records are not misplaced as it occurs in manual records and manual filling. Hospital spaces are saved instead of using a whole floor of a large hospital building entirely for storage of manually recorded medical files. Billions of dollars which would have been given away yearly to contractors to print hospital stationeries will be saved (RAND study, 2005).

For developing nations, digitization equally has a value. It will save hospitals money from shark contractors who collect more than their due value of money for printed hospital stationeries. Before that, there remains a need for fundamental infrastructures such as un-interrupted electricity, equipping the hospitals with enough computers, man- power training in Information Technology and soft-ware availability. It is an investment that is worthy and profitable on a long term.

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