

Peter Gunther
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Digital Compression and Patient Care Records

Mr. Gunther's discussion centered on data issues and new technologies in patient care records.

Problems with traditional health records in both the United States and Canada include that they may be illegible, incomplete, not fully portable or inaccessible. For example, many hospital records are stored off campus 31 days after one has left the hospital. In some cases, it becomes easier to redo tests than to access old records.

What are the advantages of a digital health records system? They will be accurate, legible, complete, compressed (and therefore easily and efficiently stored on a single file archived on a card), can utilize artificial intelligence (to check prescriptions for conflicts), and data will be accessible on a need to know basis.

Who wins in establishing these systems? Patients are insured against receiving incorrect or conflicting drugs, do not need to unnecessarily repeat tests, and have a complete health record on file which is accessible to all of the patient's medical providers. The public wins in terms of earlier identification of plagues. The medical profession can handle more patients. HMO's can send people home to better care sooner, and don't need to incur super storage costs for items such as X-rays. Home Care Providers can service more patients with the same level of personnel and improve their services. Insurance companies also win because extended longevity means greater profits.

What are the necessary components of the system? Communication systems (secure notepads for medical professionals), archives (local, state and perhaps national), digital compression and decompression facilities (at all hospitals and in all medical professional offices), set-top boxes (hooked into the communication system to connect to the archive), patient care cards (which contain all of the patient's information) and software (the artificial intelligence to run the system). In Ontario, the system is about six months off from implementation.

Mr. Gunther challenges Connecticut to begin the new millennium by getting babies born now on such a system, and then build from there. The records could be done on a voluntary basis.

A conference participant inquired about the cost to alternative medical practitioners such as massage therapists. Mr. Gunther responded that the set-top box would cost less than \$2,000.

Finally, Mr. Gunther indicated that we will need information filters within the system so that people are not harassed to donate blood, bone marrow, etc.