

Electronic patient record – promises to be redeemed

In our health care strategy the goal of the implementation of information technology is to improve the productivity, accessibility, and quality of health services. The first attempts at an electronic patient record (EPR) started in the 1970s in Finland. The utilization of EPR began to become prevalent in the beginning of the 1990s, and about ten years ago one half of the health care centres used EPR. Hospitals achieved the same levels some years later. A couple of years ago we had progressed to the situation in which all of the health care centres and hospital districts used EPR. Regional transfer of patient record information has become increasingly prevalent during at last few years. Today it is utilized in almost all hospital districts and most of the health care centres.

Widespread use of information technology has been realized in our country. We can transfer real-time information no matter where the relevant information is located. The productivity, accessibility, and quality of health care should accordingly be clearly better nowadays than in the beginning of this decade. This is not true, however. In this connection we must remember that information technology is only one tool among the other tools of health care service production. It is however one of the most important ones, because work in health care is information intensive. When we assess the efficiency of health care, we also have to include information technology.

The feasibility of information technology can be assessed in terms of creating, locating, and accessing of information. We communicate fluently when we speak. Creating information *l-e-t-t-e-r b-y l-e-t-t-e-r* is, conversely, very slow. That is, in fact, the situation in our health care system; data managing hinders doctors' and nurses' efficient use of working time. Using a typist only brings an extra loop into the documentation process, and the dictated text has to be returned to the author for verification and signing. Speech recognition systems have not, so far, succeeded in providing the breakthrough which was hoped for.

The problems with locating information in an EPR are very frustrating. For instance, in order to make a change in the medication of a patient in a bed ward, even 14 keyboard or mouse clicks may be needed, and the *w-r-i-t-i-n-g* of the name of the medicine is not even included. The documenting process requires more concentration and time than the recognition and solving of the problem of the medication. In addition, the realization of a desired action in the EPR system does not always happen in a logical and guided manner, and may require irritating back-and-forth jumping from one monitor view to another.

The third problem is the accessibility of information, which concerns both the information created in the individual units and elsewhere in the organization. The piloting of a structured nursing record system in a hospital district had to be interrupted recently. The reason was that seeking out information through the complex structure of the system was found to be very laborious. In addition, because of the difficulties with inputting the information, some of it was left out. As far as obtaining patient record information from another organization is concerned, the process of determining the patient's consent has to be accomplished first. After that, obtaining the information from a reference-based regional information system is time-consuming, because there may be several references, which need to be browsed before the right one is found. In addition, summarizing information cannot always be found from lab results.

Problems with information management slow down the operations of health care, strain employees, and induce the danger that information remains undocumented or unobtained, which jeopardizes patients' safety also. The negative sides cancel out the benefits of the electronic information management. The EPR is still immature. On the other hand, it is unrealistic to assume that EPR would ever be perfect. Actual implementation in a real environment is a strict test which reveals problems. Decision makers, system designers, and providers have to listen to the users more than earlier, and the users have to participate in the product development. Everyone must show readiness for change. It is now more important than ever as the transfer to a national health care archive is beginning.

Ilkka Winblad, Editor-in-Chief