

ELECTRONIC PATIENT RECORD AT AN
OSTEOPOROTIC OUTPATIENT DEPARTMENT
– a Health Technology Assessment

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ELECTRONIC PATIENT RECORD AT AN OSTEOPOROTIC OUTPATIENT DEPARTMENT – a Health Technology Assessment

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Summary

There is high prioritization of the development of an electronic patient record (EPR) within the healthcare sector. Seen from a users' perspective, it is crucial that an EPF model can regard the entirety of the patient's diagnostic-specific problems. This report describes – and assesses one example of this type of diagnostic-specific model.

A combined database and electronic record have been developed in connection to the examination of patients requiring an osteoporosis exam. It has been in use since 2000. The diagnosis and treatment of osteoporosis adhere to established guidelines and recommendations and many patients are referred to this examination. This field has therefore been selected as suitable for investigation, as it consists of a relatively simple relations database and electronic record.

Through a gradual development of software, the database has been implemented as a permanent part of the Osteoporosis Outpatient Clinic at Hvidovre Hospital. As of June 1, 2007, more than 5,000 patients have been entered into the database, accounting for over 12,000 consultations. The program database is used, or has been used, by more than twenty users at Hvidovre Hospital.

An investigation of patient satisfaction was conducted, which showed that there is no significant difference in feedback between EPR and conventional paper records. The EPR model used was fully accepted by patients. There was essentially no difference in patient satisfaction with the two record systems, mainly because the content of the consultations (according to the patient) were the same; the doctors' behavior and the patients' experience were identical, regardless of which record system was used.

Although noticeable changes were made in the traditional division of labor between doctors and secretaries in connection with the EPR, there were found only to be minor changes in the combined time consumption. Through the redefining of doctors' and secretaries' work tasks, major changes were achieved in the treatment of patients. This resulted in a combined increased time consumption of 0.5 minutes for secretaries and only 1.4 minutes for doctors per consultation. The combined additional expenditures to manage the Osteoporosis Outpatient Department with the present number of referrals at 1,200 patients a year, is estimated to be maximum 17,000 DK per year. Thus only a fairly marginal increase in human resources is required to introduce this type of EPR, and it can not be ruled out that this difference will be further reduced as a result of achieving increased familiarity with the use of EPR. Concern that human expenses should hinder the introduction of an EPR system is therefore unfounded. On the other hand, it is important to make clear that this EPR model does not imply any personnel cutbacks.

The development process has been quick and efficient. A detailed knowledge of the specific disease is thought to be an essential prerequisite to be able to communicate a precise demand to a computer programmer. It is found to be of central importance that all of the involved personnel groups participate in the process from day one and that all parties test all software versions quickly. The actual development costs are difficult to calculate, because none of the involved parties are paid in a customary manner. The implementation has also been simple; both because the hospital had the necessary intranet at their disposal in advance and because the hardware was already present.

It has been an important prerequisite that the development group, in addition to consisting of the central individuals, also is kept to the smallest number of participants as possible. By establishing a small group, a broad dynamic and efficiency is achieved. It is however thought to be important to have two specialists, who can be in dialogue and can bounce ideas back and forth between each other. It is likewise thought to be essential to balance the level of ambition to what, with reasonable certainty, will be able to work successfully. The best is often the enemy of the good and if the level of ambition is too high, there is a risk of capsizing. This does not conflict with the possibility that in a later stage of the development there is an attempt to achieve a more ambitious goal. Early user acceptance is a big help in the further development of software and it is therefore crucial that users, through involvement in the process at an early stage, have joint ownership for the product and thereby become positive partners in the ongoing development of the technology.

At present, the developed EPR model must work collaboratively with hospital paper records, which means that the printed notes from the osteoporosis journal must be entered into the paper records. When a general EPR model is introduced, this detour will be avoidable and the results are expected to immediately be generally accessible in the general EPR.

Local, diagnostic-specific database initiatives and EPR models can thereby serve more purposes; they can relieve the handling of well defined patient groups and increase the possibilities for research and quality control. In addition, they can assist in elucidating which requirements and needs a general EPR must be able to consider. Local database initiatives can therefore account for an essential foundation of experience, which ought to be utilized in the preparation of an all-encompassing EPR for the entire hospital system.

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