

What do GPs want in return from a Syndromic Surveillance system?

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OBJECTIVE

The Norwegian Centre for Telemedicine plans to establish a peer-to-peer symptom based surveillance network between all General Practitioners (GPs), laboratories, accident and emergency units, and other relevant health providers in Northern Norway. This paper describes some initial results from a study of GPs' user requirements, regarding what they want in return from the system.

BACKGROUND

In the Northern part of Norway, all GPs and hospitals use electronic health records (EHR). They are connected via an independent secure IP-network called the Norwegian Health Network. The newly developed "Snow Agent System" [1] can utilize this environment by distributing processes to, and extracting epidemiological data directly from, the EHR system in a geographic area. This system may enable the GPs to discover local disease outbreaks that may have affected the current patient by providing epidemiological data from the local population [1]. Currently, work is being done to add more functionality to the system. The overall goal for this project is to contribute to a system that will share epidemiological information between GPs and provide them with information about contagious diseases that may be useful in a clinical setting.

To achieve this, we need the GPs to accept and use the system. Nearly one half of information systems fail due to user resistance and staff interference despite the fact that they are technologically sound [2]. One of the reasons for user resistance is lack of user involvement and bad design. The more specialized the system, the more you need user research to ensure success [3]. With this in mind we have decided to take a User-Centred-Design approach to the project.

METHODS

Semi-structured interviews of five GPs with various levels of technology experience and knowledge about surveillance system were conducted as an initial part of the design phase. The interviews were conducted with one person at the time and lasted from one to two hours. Notes were taken during the interview, and all except the first were recorded. The interviews have been transcribed and analyzed.

RESULTS

All of the GPs interviewed showed a high level of support for the project. They agreed on some specific requirements that can aid in system design: These are

- Automatic extraction of epidemiologic data from the EHR systems without user interaction.
- Information that is up to date, concise and to the point.
- Information that is valid and relevant as part of the ongoing decision processes.
- They do not want to spend "one minute extra" on getting informed.

CONCLUSIONS

The results show that the improved Snow Agent system needs to be integrated with the existing EHR systems both for automatic extraction and for presentation of data. To provide data that is relevant and valid in the clinical setting, we will explore a context model that takes into account background information about the patient. In addition, output regarding prevalence of all diseases that matches the patient's symptoms, for all geographical areas where the patient has recently been must be presented to the physician before the medical reasoning process starts. One approach to achieve this is by using pro-active EHR components that provide this kind of information prior to the patient consultation.

REFERENCES

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