# Check-in and check-out of patients at public hospitals in Norway

### **EuLDP 2015-2017 for Johan Wendel and Tor Paaske Utheim**

#### **Background**

Check-in and check-out of patients at the country's hospitals is currently a manual procedure. This requires large resources and often creates queues.

#### Idea

The idea behind this project is that patient check-in and check-out should be done by patients themselves, using patient terminals. The patient terminals will be integrated with the hospital's IT systems.

# Benefits to the patients

The goal is to enable the patients to: 1. Pay for today's consultation 2. Schedule a new appointment; 3. Receive brief and accurate non-sensitive information adapted to the patient's diagnosis and treatment 4. book a taxi, and 5. provide feedback on today's consultation. Collectively, these features provide increased user involvement.

# **Benefits to hospitals**

It has been estimated that the introduction of such terminals could provide an annual saving of an estimated 90 man-years, or NOK 60 million at Oslo University Hospital. In addition to the economic benefits, check-in and check-out terminals will give benefits to staff through the gain of time released from manual and partly monotonous tasks. Currently, patient terminals already facilitate direct check-in at the hospital. This project builds on this existing system, which although simple, has led to savings and efficiency in hospital operations. This has been documented at Hospital Østfold HF (SØ) and the Nordland Hospital HF this year. Payment terminals have also been installed at general practitioner offices and gyms. These terminals have been widely disseminated because they streamline payment from patients.

The current project describes terminals with considerably more features than those currently available. They will enable the patients to freely schedule an appointment with a doctor based on the doctor's availability within a certain time interval after the patient's first consultation. This is a huge advantage compared to the current system, where the patients normally have no influence on the exact day of consultation. Flexibility in scheduling to meet patient needs will thus likely lead to higher attendance at consultations. The biggest saving in the described project is, however, the need for fewer man-years in the counters at hospitals in Norway. Quick payment without the use of giro, envelope and postage also provides better hospital economics.

## Funding and implementation of the idea

Johan Wendel and Tor Paaske Utheim were granted national public innovation funding to support the project in 2016. They were able to involve four hospitals: Drammen Hospital, Oslo University Hospital, Østfold Hospital, and Sunnass

Hospital. These four hospitals belong to the Southern and eastern Norway regional health authority, which is the largest of four health regions in Norway. The idea resulted in further investment of NOK 500.000 from Østfold Hospital and funding from the private IT-company Imatis.

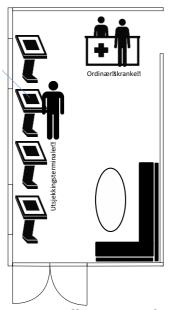


Figure 1: Illustration check-in and check-out of patients.



Figure 2: Illustration check-in and check-out as an integrated part of new hospitals.