

## MONIDOR case study: Pilot and measurement of benefits at Turku University Hospital Neurocenter

Neurocenter is responsible for the specialised and emergency care and the treatment of neurosurgical and vascular surgery patients in the hospital district area of Southwest Finland. Patients who have suffered disorders of the cerebral blood circulation form the largest patient group in Neurocenter. The Monidor intravenous therapy remote monitoring was piloted in two wards at TYKS Neurocenter from 8 December 2020 to 21 February 2021. The wards to be piloted were the general neurology ward and the neurosurgery ward.

**Oskari Mällinen**, a master's degree student in health technology from Turku University of Applied Sciences, carried out a research on measurement of benefits of Monidor remote monitoring as part of his thesis. The research explored several aspects, such as whether the remote monitoring saves nurses' working time, whether it is easy to use, and how it affects patient safety and nurses' workflow. The research was conducted through interviews and an online feedback survey.

### Small device helps in setting right infusion rate and fluid level

The study was able to show that Monidor's remote monitoring saves nurses' working time, and the time savings are achieved for example through reduced routine visits to patient rooms. Nurses' time savings were estimated to be 17h per month on General neurology ward. Remote monitoring was also found to have a positive effect on patient care, as it allows a timely response to potential problems with fluid therapy. A significant number of fluid therapy problems, such as blockages, were observed with the Monidor remote monitoring on a monthly basis.

In particular, the benefits of the remote monitoring were especially shown at night and in the treatment of isolation patients. The patient's experience of hospitalization improves as routine visits decrease at night. Reducing the number of visits to isolation rooms again saves on the cost of protective materials.

### The pilot led to satisfied users and product sales

According to a typical pilot, the use of Monidor infusion remote monitoring was slightly delayed at the beginning. However, through the positive experiences gained through use, the benefits of the remote monitoring became clear and use increased. The pilot did well despite the difficult Covid-19 situation in the area and after the pilot the hospital acquired Monidor remote monitoring for its use.



Oskari Mällinen's thesis work is available in full (in Finnish) in [here](#).