

IMPROVEMENT IDEAS FOR THE SURGERY JOURNEY OF CHILD PATIENT

- collected as part of the WILLE (Wireless Lab Environment for Business) project

Aims related to surgery journey of child patient

- Collect end-user needs
- Collect co-creation motivations
- Create ideas for hospital services

How the end-users were involved?

- interviews for doctors (7)
- workshops with nurses (2 on pediatric day surgery, 1 on challenging surgery)
- workshop with parents of child patients
- online discussion and questionnaire for parents of child patients
- demoday where companies presented their solutions to the public

Motivation for co-creation

Patient representatives participate for

- interest in the topic or innovation
- desire to improve things
- feeling of becoming heard and making impact

Healthcare professionals participate for

- making impact, e.g. by easing their own work
- face-to-face discussions
- co-creation being part of their working hours or receiving monetary compensation

Improvement ideas from child patients' families

Improvement needs described by child surgery patient families concentrated on the transparency of care journey, meaning fast, real-time and extensive information mediation and support before, during and after the surgery, as well as continuous feedback channel. In particular, needs and possible solutions described by the parents included

- more information on surgery preparation and how to tell the child about the surgery - solutions enabling better communications between home and hospital (such as reminders before the surgery or online communication between doctor, nurse and parents after the surgery)
- arriving to the surgery - indoor navigation
- real-time follow-up of operation waiting time, progress and transition
- more fluent access to patient diagnosis & lab results
- integration of self-reported/self-monitored data to electronic patient records
- exploitation of child's own experience and parents' experience in estimating the pain level in the care of pain
- novel gamification solutions to support children's journey from home to hospital and back home

Improvement ideas from healthcare professionals

NURSES' NEEDS & IDEAS

- solutions for better patient-hospital communication to prevent surgery cancellations, support patients and their parents and to make the nursing work more fluent – mobile guide with information and reminders, mobile navigation into and inside the hospital
- automatic integration of patient data into health information system – sensor solutions for physiological data tracking
- digital solution for following child's pain level
- minimizing separate physical medical devices at surgery hall & minimizing tubes, needles, etc. to be attached on the child
- gamification solutions supporting child in his/her journey from home to hospital and back home

DOCTORS' NEEDS & IDEAS

- data round-up & healthcare information system interoperability - intelligent support for decision making
- automated data management (minimizing IT work)
- surgery robots and automated surgery hall configuration
- continuous patient monitoring – automated, wireless monitoring of patient information
- new methods for collection of patient feedback and patient recovery tracking – wireless sensors and mobile app

WILLE project's (implemented 1/2016 - 5/2017) aim was to create a service co-creation platform enabling the co-design of digital services for hospital environment together with researchers, health care professionals, end users, healthcare industry and SMEs. The development of platform is supported by dynamic business modelling validated through proof-of-concept cases. In this leaflet the main end-user research findings of one of these WILLE PoC cases, focusing on child patient's surgery journey, are described. WILLE project is funded through Innovative Cities programme of Tekes, the Finnish Funding Agency for Innovation. For more information on WILLE project and your Wille contacts see project web site: <http://ouluhealth.fi/wille/>.

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