

**D.R.M. LUKKIEN, S. VAN DER WEEGEN, H.H. NAP, C.C. CORNELISSE.** **Literature review on healthcare surveillance technology.** *Gerontechnology* 2016;15(suppl):130s; doi:10.4017/gt.2016.15.s.796.00

**Purpose** Healthcare organizations have been applying care surveillance technology for decades to support the care for people with dementia and intellectual disabilities, especially during the night. These systems are used to guarantee the quality, safety and continuity of care for clients by notifying the caregiver in case of an emergency or if they need to go to the toilet, for instance. A literature review was performed to provide a comprehensive overview of the existing literature on surveillance technologies and services to support institutional care. **Method** A systematic search was performed in the scientific databases Pubmed and ACM, complemented by Google Scholar. Inclusion criteria were: Manuscripts reporting on care surveillance technologies that detect, display and recognize behavioral activities and events of people and use information in sensor data to detect abnormal events and short term shifts in the behavior of patients, e.g. inactivity, leaving the room, leaving the bed, epilepsy. Exclusion criteria were: manuscripts that reported on devices that primarily or exclusively monitor the health status of a person. **Results & Discussion** Recent developments in Ambient Intelligent Technology (AIT) allow for the use of novel tools for the management and monitoring of emergency conditions in the care for people with dementia and intellectual disabilities<sup>1,2</sup>. A number of new generation surveillance technologies are being used in The Netherlands to support care professionals during the night in monitoring the behaviour and detecting possible health risks of their clients. However, the technologies described in the literature lack behind these recent developments in the field<sup>3</sup>. Establishing and publishing research is time consuming, while the developments outpace these time consuming activities. This results in published studies showing insights on the more outdated versions of care surveillance technologies. For care providers and institutions, it is difficult to determine which system best matches the needs of their specific target group and context of use. In order to facilitate healthcare organizations to make well-founded choices for new surveillance technologies and services and to rely less on the trustworthiness of suppliers, we advocate for a demand-driven scientific platform where healthcare organizations and researchers meet for low profile research questions. This will speed up the process of sharing insights on the use of new technologies. Furthermore an innovation contract rather than a service contract with suppliers is recommended to compel suppliers to iteratively enhance their technology to the latest standards and end-users needs.

## References

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