

S. VAN DER WEEGEN, D.R.M. LUKKIEN, H.H. NAP, C.C. CORNELISSE. **The implementation of new generation care surveillance technologies.** *Gerontechnology* 2016;15(suppl):26s; doi:10.4017/gt.2016.15.s.798.00 **Purpose** Recently, long-term care in the Netherlands is organised in such a way that primarily people who require intensive 24-hour care live in institutional care settings. Nursing homes for psychogeriatric care and homes for people with disabilities are required to provide more intensive night care. Surveillance technologies can support care providers to detect possible changes in the behaviour of clients during the night which could negatively impact well-being and health (e.g., a fall, epilepsy, bladder problems). In the present study, applications possibilities on new generations of surveillance technologies that use ambient intelligent technology (AIT) (*Table 1*) for institutional night care were assessed with a focus on acceptance, usability, technical infrastructure, and effectiveness¹. **Method** Two implementation paths of new generations of acoustic, sensory and video surveillance in the institutional psychogeriatric care and one path in the care for people with disabilities were monitored. Facilitators and barriers of different systems were explored through usability and technology acceptance questionnaires^{2,3} and interviews with night care personnel. Furthermore, night care shifts were observed and group discussions were held with a night care team leader, night care personnel and a member of the client council. In addition, log files of alarms were analyzed to compare the effectiveness (hit – false alarm ratio) of the new generation of surveillance technologies to previous generations. **Results & Discussion** The evaluation of the different implementation paths showed that the smarter algorithms in the surveillance technologies reduced the amount of false alarms. From the group discussions and individual interviews with night care personnel it appeared that the decrease in false alarms reduced the workload and enhanced the privacy and security of residents. More privacy, autonomy and comfort is only guaranteed if the surveillance technology is customised to every single resident. For each resident consideration must focus on how and to what extent the individual can (actively) alarm whether supervision via (passive) technology is necessary. One of the participating health care providers stated: ‘By default, we do not use surveillance technology, unless necessary.’ Furthermore, it was found that training, coaching and the deployment of super users was essential to create support and technology acceptance among staff, family and residents in all implementation processes. In addition, we recommend running small scale pilots to appropriately map context-specific needs and barriers, prior to full implementation.

References

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Table 1. Functionalities of three generations of acoustic, sensory and video surveillance

Generation	Acoustic	Sensory	Video
1	Sound level	Motion	Video
2	Sound level + time	Motion + direction	Limited video + motion / sound level
3	Sound level + time + self-learning	Motion + direction + patterns	Limited video + motion / sound level + pattern