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THE USE OF ADVANCED MEDICAL TECHNOLOGIES AT HOME: A SYSTEMATIC REVIEW OF THE LITERATURE

Ingrid ten Haken^a, Somaya Ben Allouch^b and Wim H van Harten^c^aSaxion University of Applied Sciences, Netherlands^bUniversity of Twente, Netherlands^cRijnstate Hospital, Netherlands

The number of medical technologies used in home settings has increased substantially over the last 10–15 years. In order to manage their use and to guarantee quality and safety, data on trends and practical experiences are important. We conducted a literature review on these topics regarding the use of advanced medical technologies (AMTs) at home. We focused on technologies that are part of the technical skills and hands on by nurses, excluding information technology such as domotica. The review was performed by searching the databases MEDLINE, Scopus and Cinahl, included papers from 2000–2015 and articles containing empirical material. Research on AMTs used at home has increased considerably until 2015. We identified 87 relevant articles, 62% was published in the period 2011–2015. Of the included studies, 45% considered devices for respiratory support, 39% devices for dialysis and 29% devices for oxygen therapy. Most research has been conducted on the topic user experiences (36%), mainly regarding patients or informal caregivers. Much is already known on topics, such as user experiences; safety, risks, incidents and complications; and design and technological development. Nurses have a key role in supporting patients and family caregivers in the process of homecare with AMTs and in providing information for multi-disciplinary teams. However, we identified a lack of research exploring the views of nurses with regard to AMTs for homecare, such as user experiences of nurses with different technologies, training, instruction and education of nurses and human factors by nurses in risk management and patient safety.

Biography

Ingrid ten Haken has completed her graduation in Educational Technology at the University of Twente, The Netherlands. After her graduation, she worked many years on Curriculum Development and Quality Management at the Saxion University of Applied Sciences, School of Health. Since 2014, she is a Member of the Research Group Technology, Health and Care and is working on her PhD research project.

i.tenhaken@saxion.nl

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