

T. KAMPEL, H. VERLOO. **Technologies sustaining home healthcare services and home-dwelling older adults to remain at home: An integrative review.** *Gerontechnology* 2016;15(suppl):86s; doi:10.4017/gt.2016.15.s.707.00

Background The world's population is growing older with higher absolute numbers of older adults. The majority of older adults wish to live in their own homes, for as long as possible even when they need intensive healthcare^{1,2}. This creates a growing interest in technologies to enable older people to remain living independently at home. Healthcare providers and policy makers are exploring alternative ways to offer and to improve the quality of care of declining home-dwelling older adults³. **Purpose** This review assessed the state-of-the-art of the effectiveness and innovative development of technology employable in home healthcare services to maintain older adults to live secure in their own home. **Method** MeSH terms and keywords were employed in the following electronic scientific databases: Cinahl, Medline, Dare, Web of Science, Embase and Joanna Briggs Institute to search relevant literature for the period 1990–2015. A total of 128 publications were appraised after applying the inclusion/exclusion criteria. Finally, 48 publications revealed to be relevant. **Results & Discussion** Table 1 expose results obtained with this review. There is a majority of quantitative studies that have been conducted. Level of recommendations is mainly low. Telehealth devices and domotic systems have been the type of gerontechnologies mostly studied. Health outcomes have been seldom measured in the studies included for this review. Several classifications of gerontechnologies for home healthcare services were discovered. Beside the effectiveness to detect and manage healthcare problems, some studies assessed the acceptability of the technological devices for older adults and their healthcare providers. Older adults and healthcare providers are not opposed using technologies to assess and to manage healthcare situations. However, integration of new technologies in home healthcare practice requires special resources and competence to maximize their use among home dwelling older adults and their healthcare providers.

References

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Table 1. of included papers ; GRADE=Grading of Recommendations Assessment, Development and Evaluation: A=High level of evidence; B=Moderate/Low level of evidence; C=Very low level of evidence; AT=Assistive Technologies; ICT=Information and communication technologies ; NBIC= Nanotechnology, Biology and medicine, Information sciences, and Cognitive Sciences

Content	Study device				Grade			Category of technology				Health outcome measures		
	Quantitative	Qualitative	Mixed	Literature review	A	B	C	AT	Domotic	TIC	NBIC	Robots	Yes	No
Studies, #	18	26	1	3	0	9	39	11	18	24	0	4	10	38