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Poster abstract

Reliable automatic fall detection

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Abstract

Introduction: Seniors are living longer and remaining in their own homes; however, falls have become an epidemic problem that jeopardizes seniors' chances to live independently. Subscribers wish there would be something that could call for help when they cannot. There are emergency response and fall detection systems, but many lack wearability, usability and reliability.

Aims and objective: Philips worked closely with elderly consumers in the field to design a system that fits into the lives of the target audience. These frail seniors demand a system that is highly accurate, efficient, dependable, easy to use and easy to wear.

Methods: We developed an automatic fall detector with breakthrough accuracy, using multi-sensor technology. The multi-sensor architecture enables high reliability and long battery life time. The system quality is verified by extensive lab- and field-trials.

Results: Lifeline with AutoAlert features the only pendant-style help button that can automatically call for help if a fall is detected and the user is unable to push his/her help button.

Conclusions: Emergency response systems with automatic fall detection provide help when needed. By raising confidence and reducing fear of falling they enable longer independent living.

Keywords

independent living, elderly care, personal emergency response, automatic fall detection