Using telecare to support falls management in care homes

> This project has shown what a significant contribution telecare can make to the management of falls in high risk residents. Technology is only part of the answer, with staff training and partnership also vital to the success of the project, however there is no doubt that telecare is a fantastic tool for safeguarding the health and wellbeing of residents
>
> **Yvonne Cheung, Falls Co-ordinator, North Tees and Hartlepool NHS Foundation Trust**

The challenge

Older people living in care homes are three times more likely to fall than older people living in their own homes, and there are ten times more hip fractures in care homes than in other environments. Approximately 40% of hospital admissions from care homes follow a fall.[1]

There are many contributing factors to this increased risk including:

- residents of care homes are more likely to be physically frail
- residents may be physically inactive, resulting in weak muscles and poor balance
- many residents have long term medical conditions which can increase their risk of falling
- residents may be taking a number of medications
- newer residents are unfamiliar with their new surroundings

How did Stockton-on-Tees Borough Council's project using telecare in a care home help to prevent falls and mitigate their effects?

What we did

In 2012 NHS funding was secured to assess the effectiveness of using telecare to reduce falls in residential care homes. The Council's community integrated assessment team undertook multifactorial falls assessments of residents of a care home in Stockton-on-Tees to identify those at high risk of falling. Nineteen residents took part in the pilot project as a result.

Many falls occur when getting up from or into a chair or bed unaided, therefore the telecare solutions provided focus on alerting staff when these activities took place. Stockton-on-Tees Borough Council's telecare emergency response service Care Call supplied and installed Tunstall bed and chair occupancy sensors and passive infra red (PIR) movement detectors and fall detectors based on the individual needs of each resident. Should a sensor detect a possible fall a member of staff would be notified of the nature and location of the fall on a portable CareAssist handset, enabling them to respond swiftly.

[1] Managing falls and fractures in care homes for older people, Care Inspectorate, NHS Scotland, 2012

As well as receiving demonstrations of the telecare solutions and their features and benefits, staff also received training to increase awareness of the cause and effects of falls. Falls prevention posters were displayed as a reminder for staff and visitors, and a step-by-step plan was created to help care staff to look at risk factors and the action required to help residents avoid falling.

Highlights

- **Falls reduced by 67% from 107 to 35 over 3 months (17 residents)**
- **Cost saving £34,612 over 3 months**
- **Staff report technology easy to use**
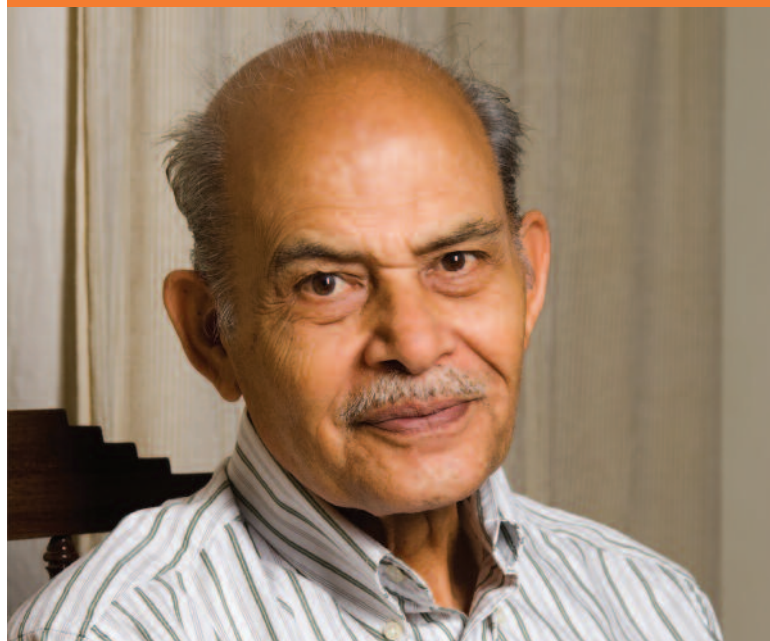
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Results

	Pre telecare (3months)	Cost £	Post telecare (3months)	Cost £
No. of falls	107		35	
Ambulance calll out @ £244	26	6,344	3	732
A&E attendance @ £100	21	2,100	1	100
Hospital admission	7		0	
Length of stay @ £300 per day	40	12,000	0	0
GP Call out	3		0	
No of fracture	0	0	0	0
No of #NOF @ £15,000	1	15,000	0	0
Total cost		35,444		832

The project took place over a 3 month period and the evaluation included number of falls, ambulance call outs, admissions to A&E, admissions to hospital, length of stay in hospital, GP call outs, and any fractures resulting from the falls. A total of 17 residents of the 19 taking part in the project were reviewed, as no previous falls history was available in two cases.

Since the introduction of the sensors for the 17 residents, the number of falls was reduced by 67% from 107 to 35 over three months. This has resulted in significant costs savings, with cost of 107 falls estimated at £35,444, and the cost of 35 falls approximately £832, saving of £34,612 (£2,036 per resident) following the introduction of telecare.*

Most of the care staff in the project stated that the sensors were easy to use and have helped to reduce the number of falls, and improved the overall management of the residents. There was no change in the number of staff, demonstrating that the technology was not used to substitute staff.

The project has demonstrated significant benefits in using telecare solutions to help manage the falls in high risk residents. When used in conjunction with training for care home staff and with input from other key stakeholders, telecare can radically improve outcomes and quality of life for residents.

Following the success of the project, a scheme has been introduced which offers residents of care homes at high risk of falls up to two telecare devices bespoke to their needs, linked to a CareAssist pager carried by staff. Falls packages for up to 80 residents have been funded on a first come first served basis, but residents are also able to pay to receive telecare should they wish to do so.

*Costs do not include GP call out, care staff being with the resident who had a fall (reassuring, monitoring and attending A&E), cost of telecare sensors or input from health and social care.

"This initiative was focused in and around the resident and their needs. Early intervention was key; by identifying the risk, installing the right technology and responding more quickly the outcomes speak for themselves. A partnership approach involving many teams has significantly reduced admissions and resulted in considerable savings.

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