

# Avoiding falls, ambulance call outs and A&E attendance using technology in care homes

## The challenge

Falls-related injuries particularly affect the frail elderly, with 30% of people aged 65 and older, and 50% of people aged 80 and older falling at least once a year. The human cost of falling is an impact on the quality of life including; distress, pain, injury, loss of confidence and loss of independence. Falls are estimated to cost the NHS nationally more than £2.3 billion per year. Applied as a percentage of national expenditure, this is circa £115 million each year for the North East.<sup>1</sup>

Teesside based housing provider Coast & Country has built relationships spanning a wide range of health and wellbeing stakeholders in an attempt to mitigate the impact falls are having on both the NHS and residential care homes. How has it used its HomeCall Independent Living Service to align the use of technology to the commissioning intentions of the regional CCG?

## What we did

Coast & Country Housing's HomeCall Independent Living Service supports over 5,000 people, helping them to live independently at home with the support of a range of services including telecare. Many of the calls received at its monitoring centre are related to service users falling, and its response team have specialist training and equipment to enable them to help people who have fallen, avoiding unnecessary ambulance call outs. In 2014/15, HomeCall responded to more than 1,500 calls as a result of falls in the Teesside area; in 84% of cases the responders could treat the service user without the need for an ambulance.

The success of the service led the HomeCall team to discuss with the North East Ambulance Service (NEAS) ways they could develop a more appropriate response to non-urgent falls in the North East. It was identified that care homes in the region were a significant user of the ambulance service, and many of these calls were unnecessary and may have been made to mitigate risk. HomeCall and the South Tees NHS Falls Team approached the South Tees Better Care Fund representative to discuss funding for a project aimed at introducing telecare and revised protocols into care homes to reduce ambulance call outs and hospital admissions.



<sup>1</sup>North East Ambulance Service Falls Prevention Report 2016/17

## Aims

With the support of Local Authority contract management within care homes, especially around post fall management, this six month pilot aimed to:

- Aid towards the prevention of falls within residential care homes across South Tees
- Educate care home staff to manage falls more appropriately within residential care homes across South Tees
- Reduce North East Ambulance Service call outs to respond to falls within residential care homes across South Tees and conversion of calls to hospital admissions
- Evidence a reduction in the number of hospital admissions as a result of improved education around falls and management of falls within residential care homes across South Tees
- Utilise telecare equipment in the prevention of, and reaction to, falls in a residential care home
- Improve the patient experience

Using performance information of residential care homes within Middlesbrough and Redcar and Cleveland, the project team identified the top eight priority residential care homes (four per borough) based on hospital admissions and cost of hospital admissions, and the number of call requests to North East Ambulance Service from the care home.

“

”

This pilot has created positive improvements and outcomes for a range of South Tees NHS services, and most importantly, care home residents. Their daily experience has been enhanced through the reassurance and attentiveness telecare has provided. In addition to resident experience, the savings to the public purse have been incredible.

**Paula Briggs, Project Manager –  
South Tees Better Care Fund**



# The process

## Stakeholder engagement

Relevant local authorities contacted the selected care homes to inform them of this project and their required involvement. Following initial contact from the local authority, care homes were contacted directly by South Tees Falls Team to answer any queries and arrange a date to undertake the needs assessment of each resident.

## Baseline data collection

During initial contact with South Tees Falls Team, pilot care homes were requested to gather historical falls data where available, and record information on falls. Requests from HomeCall were made to North East Commissioning Support and NEAS for 2015/16 data and outlining 2016/17 data requirements following the completion of the pilot.

## Needs assessment and falls training

Needs assessment and falls training was carried out by South Tees Falls Team at each care home.

## Telecare equipment installation and training

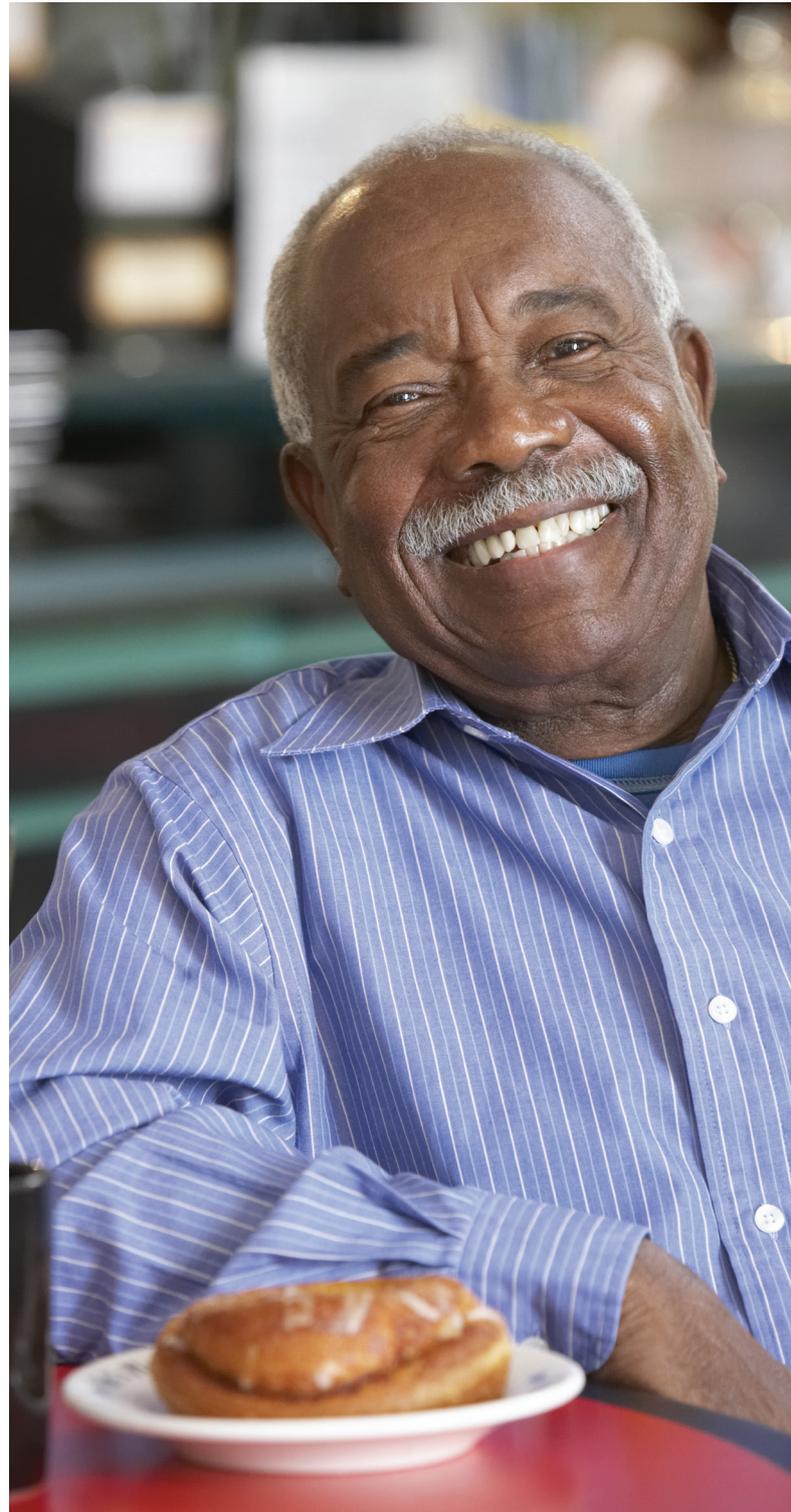
HomeCall Independent Living Service staff visited each home to install equipment and train staff on its use. Equipment included:

**CareAssist pager** – a small device carried by care home staff which receives instant alerts if a telecare sensor is activated and provides the location of the sensor.

**Bed occupancy sensor** – a specially designed pressure pad which fits under the mattress and provides an early warning by alerting that the user has left their bed and not returned within a pre-set time period.

**Chair occupancy sensor** – working in a similar way to the bed occupancy sensor, alerting staff via the CareAssist pager if a resident leaves their chair and may be at risk of falling.

Telecare enables staff to respond straight away if a sensor detects that a resident is at risk of falling, in many cases enabling them to support the resident before they fall, e.g. when getting out of bed to use the bathroom during the night. If a fall does occur, telecare means staff are alerted immediately, rather than as a result of, for example, an hourly check.



## Data collection

Data was collected on a care home by care home basis by South Tees Falls Team during February, March and April 2017. This data has been used to identify the number of alarm activations within each care home during the pilot project.

## Results

### Hospital admissions to South Tees Hospitals

Both the number of hospital admissions, and cost of admissions, reduced during the pilot period, in comparison to the same quarters in the previous financial year:

- 167 admissions from the pilot care homes in Q3 and Q4 of 2015/16 at a cost of £448,288
- 154 admissions from the pilot care homes in Q3 and Q4 of 2016/17 at a cost of £427,373

This represents a **reduction of 13 hospital admissions** in comparison to the same period in the previous year and a corresponding saving of £37,251.24.<sup>2</sup>

### A&E attendance at South Tees Hospitals

The total number of A&E attendances from the care homes during the pilot **reduced by 25** in comparison to the same period in the previous year, equating to a saving of £3,500<sup>3</sup>.

- 255 attendances from the pilot care homes in Q3 and Q4 of 2015/16
- 230 admissions from the pilot care homes in Q3 and Q4 of 2016/17

### North East Ambulance Service calls, response requirements and hospital admissions

The amount of hospital admissions via NEAS from the pilot care homes **reduced by 41** when the pilot project was compared with the same period for 2015/16. In addition to this, the number of calls handled by NEAS from the pilot care homes reduced by 41 (310 to 269). The number of 'hear and treat' from the pilot care homes reduced by 21; with the number of 'see and treat' increasing by 21. Overall, the conversion of calls to NEAS which resulted in a hospital admission reduced from 49% in 2015/16 to 46% in 2016/17. This indicates more NEAS calls were able to be resolved with telephone advice / onsite treatment. Overall savings are £5,543.<sup>4</sup>

**Total savings: £46,294.24**

**Cost of telecare equipment: £26,728**

**Total savings to the health service: £20,107.24**

## Next steps

The service is to be extended to further care homes, and to include telehealth monitoring for long-term conditions.

<sup>2</sup>Single Hospital Admission - £2,865.48 - Calculated by the total cost of all admissions (£4,473,015), divided by the number of admissions (1,561) from all care homes for Redcar & Cleveland and Middlesbrough in 2016/17.

<sup>3</sup>£140

<sup>4</sup> Calls received reduced by 41; Saving £205

- Hear and Treat reduced by 21; Saving £777
- Onsite treatment increased by 21; Costing £3,885
- Admissions from pilot care homes involving NEAS reduced by 41; Saving £8,446