Press release
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Fall detection technology helps Essex County Council eliminate hospital admissions and 'long lies'

One of the largest single installations of 4D imaging fall detection technology in the UK has cut fall related hospital admissions and long lies to zero.

In partnership with Essex County Council more than 316 Vayyar Care 4D imaging sensors have so far been installed across the county in care homes, sheltered accommodation and in the private homes of people most vulnerable to falls.

Phase one of the installation project, which began in 2023, included the largest single deployment of its kind in the UK. With 69-bed Colchester residential care home, Foxburrow Grange, having a total of 138 4D imaging sensors installed throughout the property to help better monitor its residents and increase the speed of fall detection.

Care home residents in Colchester from Freda Gunton Lodge and Cheviot Nursing Home, people living in sheltered accommodation at Crooked Elms in Harwich, and those living in private homes, have also benefited from the first phase of the fall detection technology partnership.

Once the project is complete Essex County Council hopes the fall detection technology will benefit more than 435 people most at risk from falls.

The Council has already seen positive results from the early stages of the project, with no fall related hospital admissions recorded in the last 12-months by the properties who have taken part so far.

And there have also been no incidents of residents being grounded following a fall for an extended period of time – commonly known as a 'long lie'.

Vayyar Care's fall detection system uses smart sensors that utilise 4D imaging technology.

The sensors are installed throughout a property to walls and ceilings to discreetly monitor a person's movements via radio frequency waves. The system can detect even the most subtle signs of a fall – including in pitch darkness - and their use eliminates the need for cameras to be used for monitoring falls.

As the technology automatically raises an alarm when a fall takes place, residents do not have to press an emergency button, shout for help or pick up the phone. When a fall happens the sensors detect it and set into motion an emergency response.

The system is even capable of operating in areas of dense steam, such as the bathroom where the risk of falls significantly increase.

Councillor John Spence, Cabinet Member for Social Care, Health and Integration at Essex County Council said: "This scheme is a perfect example of how embracing technology can positively impact residents receiving care or those most vulnerable.

"This innovative technology will give residents at risk of falls, and their families, peace of mind. They will know that should a fall occur; help will be on its way without having to do anything.

"The negative physical and mental health implications of a person being left on the floor after a fall cannot be understated, which is why this project is so very important."

The project is supported by the Care Tech Fund and is part of the Digitising Social Care.

Falls, and the subsequent health risks associated to long lies, remain one of the biggest challenges those caring for elderly people face.

Each year it's estimated that around half of people over 80-years-old will experience a fall, with 40% of all care home hospital admissions linked to a fall related incident. Of these, 1 in 10 results in a serious injury. (1)

While a fall can be hugely detrimental to a person's health and wellbeing, long lies pose an even bigger risk to the elderly.

A study has revealed that 20% of people over 65 who have been admitted to hospital after a fall have been on the ground for an hour or more. And tragically, half go on to die within six months – even if they were uninjured by the fall itself. (2)

People who stay on the floor after a fall may also suffer a wider range of complications, such as dehydration, pressure injuries, muscle and tissue damage, hypothermia, psychological harm and in some cases long lies can be linked to fatalities.

James Webb, Director of Sales in the UK for Vayyar Care adds: "The early results that have been achieved through the project with Essex County Council go to show the life changing impact 4D imaging technology can play in early fall detection.

"When an elderly person falls, every minute they remain on the floor can have an impact on their physical and mental health. Speed of response is vital. Our technology means they, their loved ones and those who are caring from them, can be confident that the moment a fall happens an alarm is raised, and help is on its way."

During phase one of the project with Essex County Council, Vayyar Care's fall detection sensors were integrated with the Anthropos Detect dashboard.

Through Anthropos Detect fall alerts are fed through to care team handsets, allowing a fast fall response. Monitoring data is also collected to provide care insights, such as changes in patterns of behaviour which may indicate a future risk of fall or help to identify other medical conditions which may impact a person's balance, such as a urinary tract infection

Natasha Corness, TEC Innovation Lead for Adult Social Care at Essex County Council added: "The information collected from the technology partnership between Vayyar Care and Anthropos has not only increased the speed of response after a fall, but it's also allowing care providers to understand more about falls and what steps can be put in place to prevent them from reoccurring.

"A great example of how the data is helping to achieve this is in one of our care homes, staff there have now been able to identify that most resident falls happen in the morning and in their bedrooms. It's nuggets of insight like this that help care teams increase staffing levels during high-risk periods."

Vayyar Care's technology is system agnostic and capable of integrating with all technology partners. During phase two of the project, which is due to commence in early 2025, Vayyar Care will work in partnership with Alcove.

For more information about Vayyar Care visit www.vayyar.com

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(1) NHS England and the Health Foundation
(2) Velas et al, 1997

About Vayyar Care

Vayyar Care is a leading fall detection and prevention technology specialist. For over a decade it has created smart solutions using 4D imaging technology (also known as mmWave radar) to enhance the safety of people and help them live more independently.

It's end-to-end AI monitoring service provides care providers visibility of falls and fall risks, providing a true preventative approach. Vayyar Care technology can operate in all conditions, including pitch darkness, steam and humidity. It falls monitoring solution does not use either cameras or microphones – ensuring complete privacy and dignity for users.

www.vayyar.com

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