**About the Study:** UC Berkeley and SafelyYou, Inc are teaming up to design a safety system that detects key safety concerns for loved ones in memory care. Using wall-mounted cameras, wireless sensors, and software algorithms we are developing ways to detect when a person:

- Rises from bed
- Leaves the room
- Has fallen down

**The technology** does not require any action of residents such as wearing a fall pendant or pressing call buttons, ideal for residents with dementia.

**Our Goal** is to reduce falls in memory care, the leading cause of hospitalization. The focus of this study is to record videos of falls to determine if personalized recommendations from an occupational therapist reduces the fall rate and to develop software for detecting falls from video. We hope to use this data to create a system which provides real-time detection without requiring a wearable device.

**Cameras will be placed in participating resident rooms.** They require no active maintenance, record no audio and adhere to strict privacy standards set by DSS Community Care Licensing.

**When an unwitnessed fall is discovered,** staff will be able to immediately review the footage of the fall to assess for head injuries. This aids staff in knowing when to send residents to the ER and when to seek other medical care.

**Our Occupational Therapist will review falls to assess the cause and give personalized professional recommendations to facility management.** In our first pilot, this reduced the fall rate by 80%.

**Your feedback will be used to create a real-time fall detection system.** Our aim is to provide residents with a safe home and caregivers with peace of mind.

**Benefits Include:**
- An Occupational Therapist to review videos of falls and provide professional recommendations for each participant at no-cost.
- Assessment of head injury status post-fall.
- Identification of precipitating factors for adjustment of the environment as needed.
- Possible reduction in fall rate, based on 80% reduction with first pilot community.
- Giving back to improve the future of care.

**Did you Know?** Residents with Alzheimer’s disease in managed care communities fall on average 4 times per year. Cognitively healthy adults in the same care communities fall on average 2.3 times per year, nearly half the rate.

We are gathering participants that are interested in being part of our study. If you choose to participate, we will ask you to sign an informed consent document and install a camera in the participant’s room. Care staff will have access to the video while physically present at the facility and all video will be securely maintained at UC Berkeley.

**For more information,** contact our Research Director, George Netscher at 510-423-3639 or Dementia.Tech.2015@gmail.com
Q: What do I need to do to participate?  
A: All participants or legally authorized representatives need to sign an informed consent form. Once enrolled, a camera will be installed. A 15-minute check-in by phone will occur monthly.

Q: Are the videos and other data secure?  
A: All information is stored safely as encrypted data in a physically locked room at UC Berkeley.

Q: What if a fall occurs?  
A: If a fall occurs, the facility will proceed with their existing safety measures. Our system is not used for live detection, but may be used to determine what happened after the fact.

Q: Who has access to the video?  
A: No audio is recorded. Video is available to authorized facility staff while physically present at the facility; the participant or participant’s legal representative on request; the research team at UC Berkeley which includes an occupational therapist, registered nurse, and data entry personnel; and engineers from UC Berkeley and SafelyYou.

Q: How are you helping the research community?  
A: Falls remain the greatest safety concern in dementia care. The data you provide will be used to inform and improve fall prevention technology. With that data, we will create a real-time detection system to help reduce the fall rate in dementia care.

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