



Transforming Residents Lives

Healthier, Happier and Longer

Ally Resident Monitoring



Who here cares about their sleep?



- The Consequences of Poor Sleep
- What we can do to help and how
- Real World Examples of Impact



- **Approximately 40% of people aged 65 and over experience insomnia regularly, with up to 75% suffering from some form of sleep disturbance.***
- **In long-term care 75% of residents are woken each night by poor sleep environment ****



Research - Impact on Quality of Life



- Poor mood / challenging behaviour
- Increased or reduced appetite - weight & hydration
- Reduced exercise
- Reduced social engagement

Imbalancing one of these 5 pillars will have a knock on effect.

Research - Clinical Impact



- Increased risk of depression by 21%
- 23% increase in hypertension risk
- 48% increase in coronary heart disease
- 15% increase in stroke
- Reduced physical function and increased falls risk
- Increased risk of Alzheimer's by up to 33% .

[Impact of Poor Sleep on Physical and Mental Health in Older Women](#)

[NREM sleep as a novel protective cognitive reserve factor in the face of Alzheimer's disease pathology](#)

[Five hours' sleep a night linked to higher risk of multiple diseases](#)



Poor Sleep Reduces Lifespan by 0.8 Months / Yr



- Sleep duration of five hours or less at age 50+ was associated with **25% increased risk of mortality** over the 25 years of follow-up *
- Across 56,000 over the age of 50 - those without sleep disturbance could live 1.3 years longer over 20 years. **Or 0.8 months extra per year ****

* [Five hours' sleep a night linked to higher risk of multiple diseases](#)

** [Sleep Duration and Sleep Disturbances as Predictors of Healthy and Chronic Disease-Free Life Expectancy Between Ages 50 and 75: A Pooled Analysis of Three Cohorts](#)

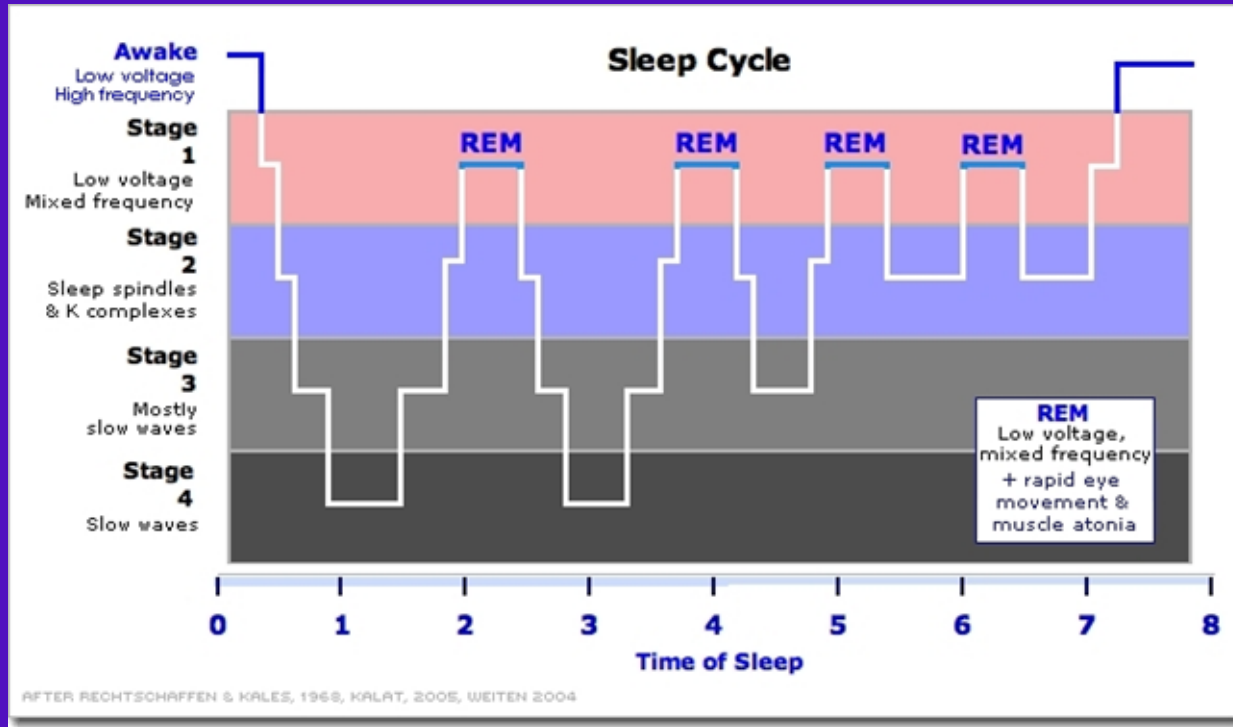
Reported Challenges



- Getting to sleep or waking too early
- Disruption (in long-term care)
- Emotional issues (worrying, thinking, stress)
- Environmental issues (heat, cold, light)
- Physical issues (itching, restless legs, pain)
- Hunger
- Sensory issues (hallucinations, discomfort, nightwear)
- Issues with the sleep (waking, nightmares, sleep apnoea)



Night-Time Sleep Cycle



- Residents are more susceptible to disruption further into their sleep, and less likely to go back to sleep
- 20% of checks are disruptive, waking residents or reducing their deep sleep time, which is their recovery.
- Outside noises can be just as disruptive. E.g. Birds tweeting, traffic, corridor noise.



Creating a Sleep Positive Environment



“ We have changed how we operate at night to create a sleep positive environment, including checking less regularly, lights down, coaching staff to keep the noise down in corridors, shutting doors when residents are asleep and turning TV’s off, even discovering how the noise/vibrations of the mattress pumps on the footboard was causing disruption and just simply needed moving.

Our goal is that our care home feels like your own home would be at night, quiet and dark. “



Examples of Impact

Case Study - Huntington Disease



Background: Diagnosed with Huntington Disease, experienced disruptive sleep patterns and involuntary movements, leading to significant distress and weight loss. Staff struggled to manage her continuous agitation and felt helpless in alleviating her discomfort.

Initial observations with Ally: staff identified bursts of intensive activity around the same times each night. They noticed a correlation between the days events, particularly mealtimes, and night-time restlessness.

Intervention: The team involved a dietician and an occupational therapist to explore ways to offer more calories in less volume, aiming for an instant energy boost similar to what athletes might need. Despite the counterintuitive approach, the goal was to address her insatiable appetite

Nursing

Sleep

Case Study - Huntington Disease



Outcomes:

- **Shorter Periods of Restlessness:** *The duration of restlessness episodes was reduced.*
- **Longer Periods of Rest:** *Female A experienced longer periods of uninterrupted sleep.*
- **Weight Gain:** *There was a noticeable and important increase in her weight.*

Case Study - Antipsychotic Medications

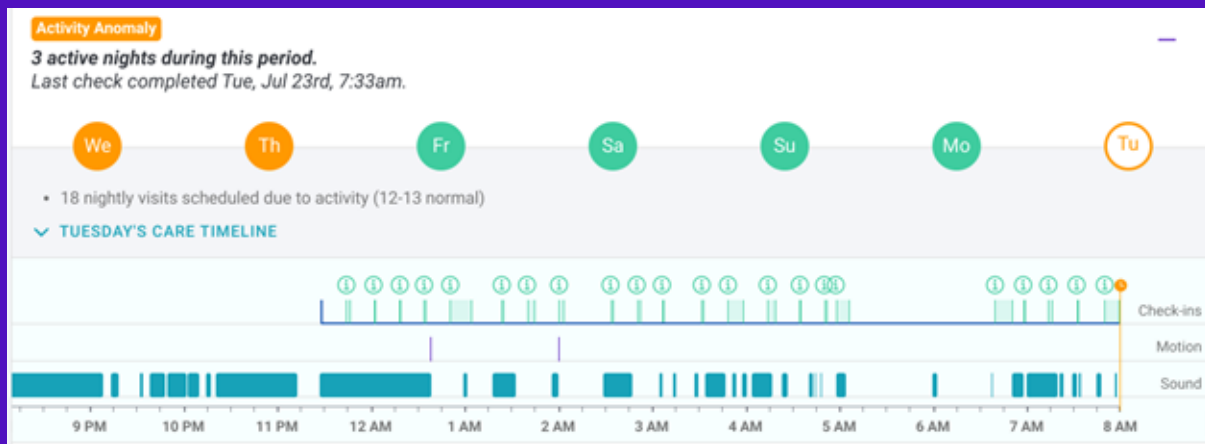


Initial Problem resident have challenging behaviours in the day and the staff were struggling to look after them.

Ally Observation: using Ally we found they were awake alot more in the night that initially realised

Intervention: checked less regularly to disrupt him less, developed a night-time routine, kept lights down and quieter corridors.

Outcomes: They are now better rested, more engaged in the day and, his challenging behaviours have stopped, we have also stopped their antipsychotic medications.





Discovering Other Sleep Impacts

Identifying Pain - Ally Prompted

"Ally notified to a resident in pain, checking their care plan we confirmed an earlier incident, re-assessed their pain levels and increased their pain medication."

Identifying Medication Side Effects - Ally Prompted

"We heard a resident talking in a confused way to themselves in their bedroom, which was abnormal. We investigated and found that the medication introduced the previous week had hallucinations as a side effect, we contacted the GP and got this changed"

Identifying Chest Infections - Ally Prompted

"Through Ally we identified a resident developing a persistent cough, this resident was a high risk of chest infections so we acted quickly and got antibiotics prescribed, we also took greater precautions with infection control which helped reduce the risk of spread"



Quantifiable Outcomes

Clinical Outcomes with Ally



56% fewer hospital admissions

- *50% better sleep*
 - Residents are active and engaged in the day, better mood, less cognitive decline
 - Weight and fluids improve
 - Fewer sleep medications and antipsychotics, and better adherence
- *63% fewer night-time falls (30% fewer daytime falls)*
- *50% fewer infections*

**outcomes measured across 2000 residents with ICB's and NHS Digital*

The Solution - Continuous Monitoring - Ally's Resident Monitoring System



Intelligent Rounds

- Reducing disruption
- Improve **sleep**
- Free up staff **time**

Sleep

Monitor & Alert

- When assistance is needed
- Wellbeing changes
- Understanding the sleep environment

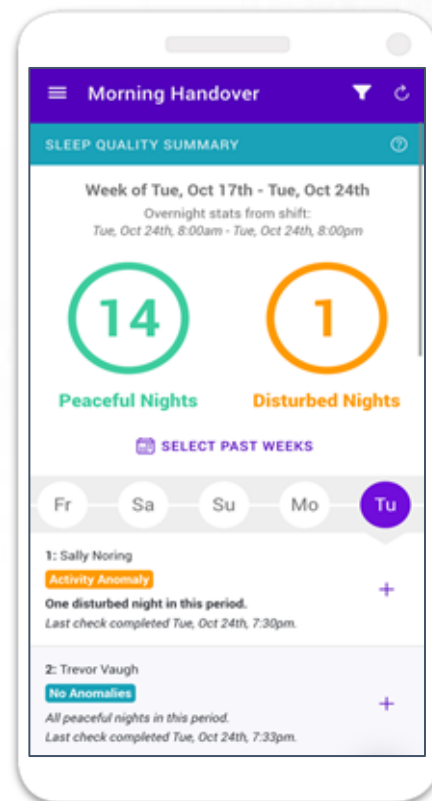
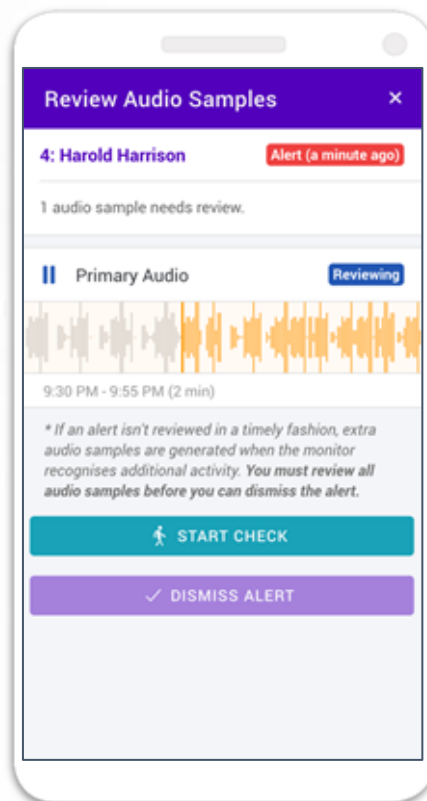
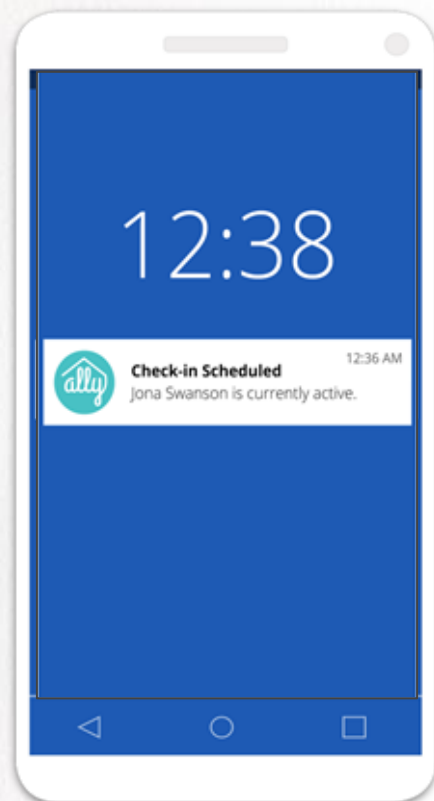
Safety

AI Insights Platform

- Sleep and Wellbeing Changes
- Informing care planning

Wellbeing Insights

Ally Overview



Summary



- *Poor sleep is a common problem*
- *Poor sleep can imbalance a person's wellbeing, impacting quality of life as well as worsening the progression of dementia.*
- *Improving one small thing can improve sleep.*