



## Case Study: Clinical Interventions for a Cognitively Impaired Senior

### Overview

Walter is a 74 year old man living with his wife in a single family suburban home. He suffers from cognitive decline and is under the care of a neurologist. His wife, a nurse, works multiple daytime shifts per week. Walter's family has engaged an in-home care professional to provide support during a portion of his wife's work hours, but he otherwise spends her workdays alone. Out of concern for his safety when he's alone, Walter's family has counseled him to not walk further than the back yard and to remain on the first floor of his home.

### Approach

Walter's daughter and professional care team were concerned. Anecdotal evidence suggested that Walter's behavior during the overnight hours was inconsistent. Since his wife suffers from moderate hearing loss, she did not wake up at night when Walter left the bedroom and therefore could not confirm his overnight behaviors. Further anecdotal evidence suggested that Walter's overnight behavior was more erratic on days he spent without a professional caregiver in the home.

Additionally, a neighbor had found Walter wandering alone outside. This event launched an investigation by Adult Protective Services (APS).

envoyatHome was engaged to better understand the risks to Walter's safety and well-being. With continuous passive operation, behaviors that were deemed a risk to his safety or well-being resulted in an immediate notification to the care team's mobile phones so they could quickly intervene. Insights produced from his behavior over the course of a few weeks were analyzed by his family, care team, and neurologist.

# Results

Walter's wife and daughter were shocked by the envoyatHome data.

Overnight Behavior – Walter demonstrated a behavioral pattern of leaving the bedroom and pacing during the night. His journey included multiple trips up and down the stairs, walking from room to room, and going into the garage. This behavior was most acute when he had been alone for much of the day.

Daytime Behavior – In addition to at least one elopement event, Walter would hover at the front and back doors to the home, often opening then closing them repetitively. This behavior was most acute after his caregiver left for the day.

envoyatHome behavioral data supported 3 critical interventions.

1. **Walter's neurologist examined envoyatHome Insights** data and added a new diagnosis to Walter's case, anxiety. His dementia medications were adjusted.
2. **The family recognized Walter's need for more supervision** during the day. Walter's wife took fewer nursing shifts and his professional caregiver hours were increased on days she went to work.
3. **APS concluded their investigation** and found the family "NOT NEGLIGENT" and labeled their care as "ABOVE AND BEYOND". The latter designation cited envoyatHome as the differentiator.

Post-interventions, envoyatHome data confirmed that medical and caregiving adjustments had improved Walter's behaviors.

# Conclusions

Assumption, guesswork, and “no news is good news” are common, yet inherently risky strategies for families caring for a cognitively compromised loved one at home.

**For Families** – family peace of mind for a loved one who spends time alone. envoyatHome can answer both “Is my loved one ok RIGHT NOW?” and “How can I improve care to keep my loved one living independently, longer?”

**For Doctors** and Clinicians – envoyatHome overcomes the shortcomings of self-reporting, incomplete information, and inconsistent observation. Subjective information is replaced with objective evidence for data-driven decision support.

**For Discharge Managers** - discharged patients lacking the recommended level of in-home care may be at higher risk for recidivism and readmission. envoyatHome can supplement part time professional and family care for full time, round the clock coverage.

**For Case Managers** – care planning becomes agile, data driven, and adjusts as data suggests patient needs have changed. Executing the right care plan at the right time – before an acute event – helps avoid tragic and costly consequences.

**For Senior Living Communities** – envoyatHome data driven care delivers 24/7 services wherever a senior lives independently.

