

Utilising PainChek® in End-of-Life Care: A Case Study of Mrs D

Bettina Bannink, Clinical Manager, 4 June 2025

Introduction

Pain is defined by the International Association for the Study of Pain (IASP, 2020) as *"an unpleasant sensory and emotional experience associated with, or resembling that associated with, actual or potential tissue damage."* In older adults—particularly those with cognitive impairment or communication barriers—pain is frequently under-recognised and under-treated. Accurate and consistent pain assessment is fundamental to high-quality palliative care, especially in populations with complex needs or diminished ability to self-report.

Multiple validated pain assessment tools are used in clinical practice, including the **Abbey Pain Scale**, **PAINAD (Pain Assessment in Advanced Dementia)**, and **PainChek®**, a digital tool that combines facial recognition technology with clinical observations to assess pain in non-verbal individuals. PainChek has been increasingly utilised in aged care and palliative settings for its objectivity, repeatability, and ability to detect subtle behavioural cues indicative of pain.

Case Description

Mrs D was a 97-year-old woman who, six months prior to her death, was diagnosed with pancreatic cancer following an acute admission for nausea, vomiting, malaise, and fever. Subsequent investigations confirmed the presence of secondary liver metastases. Following discharge, Mrs D received palliative care at our care home.

Despite having a medical history that included painful conditions such as shingles and glaucoma, Mrs D was known to be stoic and rarely verbalised discomfort. Due to these communication challenges and her declining health, PainChek was introduced early in her palliative care journey to establish a baseline pain profile.

As her illness progressed, PainChek was adopted for **daily assessments** and used to monitor behavioural indicators of pain. This routine surveillance allowed the clinical team to respond proactively to rising pain scores and adjust pharmacological interventions accordingly.

During the terminal phase, PainChek played a pivotal role in identifying increasing discomfort, guiding the timely initiation of a **syringe driver** to deliver continuous subcutaneous analgesia. This intervention ensured adequate symptom control and allowed Mrs D to remain pain-free during her final days.

Discussion

This case highlights the importance of a **multimodal pain assessment approach**, particularly in end-of-life care where verbal reporting may be limited or absent. PainChek offered a structured, evidence-based method for assessing pain and guiding intervention. When used alongside clinical judgment and family insights, it contributed significantly to the quality of care delivered.

The timely escalation to syringe driver analgesia—prompted by PainChek assessments—resulted in effective pain management and a peaceful death, surrounded by loved ones. Mrs D's family expressed deep gratitude for the comfort and dignity provided in her final days.

Conclusion

This case illustrates how digital pain assessment tools like PainChek can complement clinical expertise to enhance palliative care. In patients who are non-verbal or unable to reliably self-report, objective tools serve as critical adjuncts to ensure that pain does not go undetected or untreated.

References

1. International Association for the Study of Pain (IASP). (2020). *IASP definition of pain*. Retrieved from <https://www.iasp-pain.org>
2. Abbey, J., et al. (2004). *The Abbey Pain Scale: A 1-minute numerical indicator for people with end-stage dementia*. 3. International Journal of Palliative Nursing, 10(1), 6–13.
- Warden, V., Hurley, A.C., & Volicer, L. (2003). *Development and psychometric evaluation of the Pain Assessment in Advanced Dementia (PAINAD) scale*. Journal of the American Medical Directors Association, 4(1), 9–15.
4. PainChek Ltd. (n.d.). *PainChek: Intelligent pain assessment technology*. Retrieved from <https://www.painchek.com>