PainChek
Intelligent Pain Assessment

Transforming Pain Assessment and Management in Residential Aged Care

Evidence indicates that around 60%–80% of people with dementia in care homes regularly experience pain, most commonly related to musculoskeletal, gastrointestinal and cardiac conditions; genitourinary infections; and pressure ulcers.[1] Orofacial pain is also of frequent occurrence.[2]
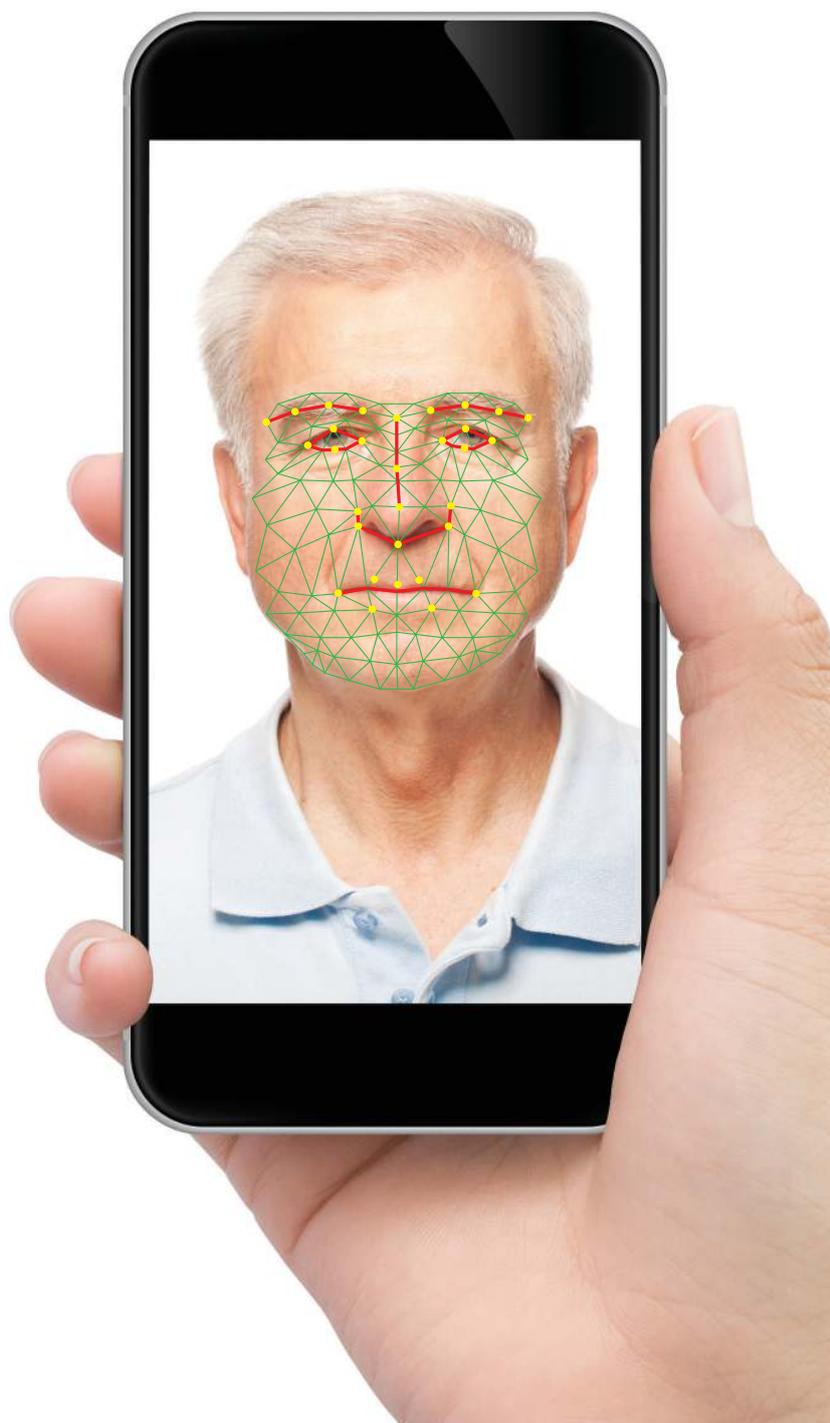
In addition to the discomfort and distress caused by pain, it is frequently the underlying cause of behavioural symptoms, which can lead to inappropriate treatment with antipsychotic medications.[3]

Where self-report is not possible, observation and detection of pain-related behaviour is a valuable approach to identification of pain in dementia.[3]

Facial expressions are particularly useful in detecting discomfort in AD.[4,5]

Interestingly, sensory and affective components of pain can be differentially expressed in the face, with sensory aspects shown by movements around the eyes, and affective aspects depicted by movements of the eyebrows and the upper lip.[6]

- PainChek® is a secure, validated, TGA cleared medical device in the form of a mobile app. It uses existing smartphone and tablet hardware to enable a simple, objective and accurate assessment of pain.

- Artificial Intelligence (AI) technology is used to analyse facial expressions indicative of pain in real time.

- In addition to facial recognition, caregivers record their observation of pain behaviours and vocalisation, to provide a comprehensive and objective assessment of pain.

- Automatic reporting in real time improves efficiency of pain assessment and reduces the administrative burden of manual data management.

Benefits of PainChek®

Quality Standard and Funding

- Assists providers to address and achieve accreditation standard 2.8
- Evidence base to support Aged Care Funding Instrument (ACFI), including Complex Healthcare (CHC) 3, 4a and 4

Clinical Utility

- Facilitates a more accurate and objective assessment of pain
- Optimises pain treatment, thereby reducing the potential for inappropriate medication

Assessment Efficiency

- Point of Care testing
- Automated documentation
- Eliminate double handling of data
- Reduce labour time to focus on care

"Using the PainChek® app has improved the way we assess pain in our facility, and enabled our staff to provide better pain care to our residents. The automatic reporting feature has improved the efficiency of data handling, and simplified reporting for accreditation and auditing purposes."

Matt Kowald – General Manager, Residential Care Services, Barossa Village.

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3. Wilco P Achterberg, Anne Corbett *et al*: Pain management in patients with dementia *Clin Interv Aging*. 2013; 8: 1471–1482.
4. Kunz M, Scharmann S, Hemmeter U, Schepelmann K, Lautenbacher S. The facial expression of pain in patients with dementia. *Pain*. 2007;133(1–3):221–228.
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6. Kunz M, Lautenbacher S, LeBlanc N, Rainville P. Are both the sensory and the affective dimensions of pain encoded in the face? *Pain*. 2012;153(2):350–358.