

New study reveals potential role for PainChek® in pain assessment in patients with delirium

23 January 2020: A new review published by the Journal of European Geriatric Medicine has revealed a potential role for PainChek® in the assessment and management of pain in patients with delirium.

According to the paper by Sampson et al., delirium affects people's ability to self-report pain and can make it more challenging for practitioners to recognise, assess and treat pain.¹

Professor Sampson, Marie Curie Palliative Care Research Department, University College London, believes there should be more investigation into what tools practitioners are using to assess pain in people with delirium.

"Delirium can exacerbate movement-related pain but it can also alter how people perceive pain and reduce their ability to communicate their pain. PainChek® may have a useful role in detecting pain in people with delirium and we are currently running a research project to see whether it could be helpful," said Professor Sampson.

The PainChek® app utilises artificial intelligence to assist in the detection and quantification of pain. PainChek® Chief Scientific Officer, Professor Jeff Hughes said this is an area that the company is keen to pursue, adding to their vision to give a voice to those who cannot verbalise their pain.

"It is estimated that there are over 130,000 cases of delirium across the aged care and hospital settings in Australia annually. A specific problem for assessing pain in these people is the overlap of delirium symptoms with commonly cited pain behaviours. This makes non-verbal behavioural signs an important aspect of pain communication," said Professor Hughes.

"PainChek's® automated facial recognition and analysis means the technology is well placed to assist in the diagnosis of pain in people with delirium. We are excited to be exploring this promising approach for future care with Professor Sampson."

PainChek® is current working with Professor Sampson on the DeCoDe-H (Dementia, disComfort and Distress- acute Hospitals) study. It aims to determine the gold standard for assessing pain in people with advanced dementia. The study is evaluating the effectiveness of the PainChek® technology on 150 participants with moderate to severe dementia in three acute hospitals in London. The population being assessed is at a high risk of delirium.

Poorly managed pain can lead to a 3.26 times higher risk of delirium in hospitalised patients with dementia who have pain at rest² and a 54% increase in the use of antipsychotic medication.³

People with delirium stay an extra 13.4 days in hospital contributing to significantly increased care costs of \$27,791 per stay.⁴

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References

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3. Tsai, I. P., Jeong, S. Y. S., & Hunter, S. (2018). Pain assessment and management for older patients with dementia in hospitals: an integrative literature review. *Pain Management Nursing*, 19(1), 54-71.
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About PainChek®

PainChek® Ltd is an Australian based company that develops pain assessment technologies.

PainChek® is a smart-phone based medical device using artificial intelligence to assess and score pain levels in real time and update medical records in the cloud. PainChek® records a short video of the person’s face and analyses the images that indicate pain and records them.

Next, the caregiver uses PainChek® to record their observations of other pain related behaviours that complete the assessment. Finally, PainChek® calculates an overall pain score and stores the result allowing the caregiver to monitor the effect of medication and treatment over time.

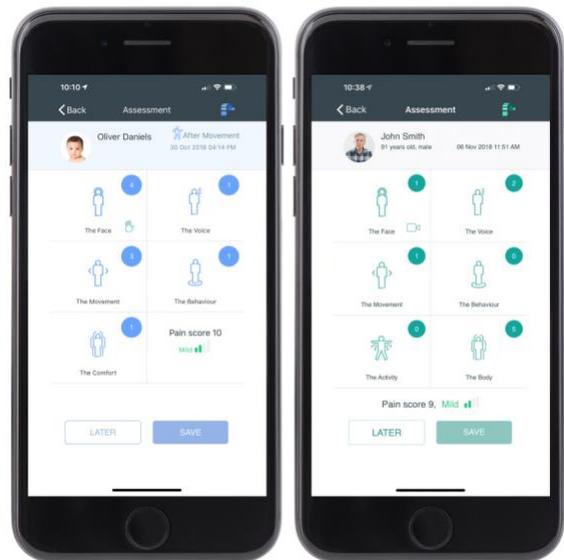
PainChek® is being rolled out globally in two phases: first, PainChek® for adults who are unable to effectively verbalise their pain such as people with dementia, and second, PainChek® for Children who have not yet learnt to speak.

The PainChek® Shared Care Program is a PainChek® licensing model which enables a professional carer to share their resident or patient data securely with other healthcare professionals or designated homebased family carers for ongoing pain assessments or clinical data review.

To find out more, visit www.painchek.com



PainChek® artificial intelligence assesses facial micro-expressions that are indicative of the presence of pain.



PainChek® domains of pain assessment that calculates pain severity score.