

## June 2021 Quarterly Update

### **PainChek Adult App achieves 60% share of Australian Residential Aged Care market, new Infant App receives regulatory clearance for commercialisation in multiple markets**

#### HIGHLIGHTS

Increases in all sales and project related KPI's across the business for the quarter:

- **Residential Aged Care growth:** 1,569 Residential Aged Care (RAC) facilities and 129,189 approved beds are now under annual PainChek® licence as at 30 June 2021, representing 117% and 110% growth respectively over the previous year and 60% domestic market share.
- **Annualised Recurring Revenue (ARR):** Australian clients will be transitioning from government funding agreement to PainChek standard contracts after their first 12 months. Projected ARR from current customers (normalised post government trial) increases 109% for the year and 60% for the quarter to \$5.57M.
- **PainChek utility:** More than 479,000 PainChek clinical assessments have been conducted in aged care as of 30 June 2021, an increase of 253% over the previous year reflecting strong clinical utility and continued implementation progress within Australian RAC Facilities.
- **PainChek Universal Solution:** Product received CE Mark and TGA clearance during Q1 2021 and has commenced roll out as a system upgrade to all existing clients. The Universal App has been shown to broaden existing market potential, accelerate new take up and support ongoing retention.
- **PainChek Infants:** PainChek Infant received multiple market regulatory clearances including Australian TGA and CE Mark (Europe) during Q2 2021. Clinical trial data was peer reviewed and accepted for publication in the *Lancet Digital Health* journal. Company now well positioned to commercialize the first sector of the large Children's markets in Australia and overseas.
- **Overseas:** UK market continues to expand with new clients and implementations as market re-opens in line with COVID-19 vaccinations. First RAC sale and integration partner completed in New Zealand.
- **US FDA:** The Company remains on target to commence clinical trials by Q4 2021 for FDA clearance.
- **Cash balance:** PainChek's consolidated cash balance at 30 June 2021 was \$11.411M

PainChek Ltd (ASX: PCK) ("PainChek" or "the Company"), developer of the world's first smart phone-based pain assessment and monitoring application, is pleased to report continued growth in the quarter ended 30 June 2021

### Core Aged Care market:

PainChek delivered significant sales growth within Australian residential aged care in the past quarter, as the offer to participate in the Department of Health funded trial ended on 31 May 2021. Sales growth in the quarter resulted in total global licences covering 129,189 beds, which is 61% growth compared to the prior quarter and 110% growth year on year. These domestic sales represent some 60% of the Australian Residential Aged Care (RAC) market. PainChek now has 398 Aged Care providers as clients, managing more than 1,500 aged care facilities, which is 118% growth year on year. This equates to contracted forward-looking annualized global recurring revenue of \$5.57M (normalised post the government grant and assuming full implementation and contract renewal).

In the last quarter PainChek continued its growth contracting a net additional 36,682 (45,512 in the last 12 months) Residential Aged Care beds; together with an increase of 122 (203 over 12 months) different Aged Care providers who operate 576 (847 over 12 months) Residential Aged Care facilities. This included many of the largest providers in Australia.

During COVID-19 restrictions, the PainChek clinical team has successfully delivered training remotely, having conducted more than 500 virtual workshops to Aged Care providers across Australia. Combined with the PainChek online learning curriculum, more than 4,000 aged care clinicians have been trained and conducted a PainChek assessment in the field. In addition, more than 479,000 PainChek clinical assessments have now been conducted in aged care, reflecting 253% growth year on year and the growing client acceptance and clinical utility.

The following is a graphical representation of the number and geographic spread of the 398 Aged Care Providers (managing 1500 facilities and 126,000 beds) with PainChek annual licences. PainChek is present in each state and is licensed to more than 60% of Australian aged care facilities.



## New Market Expansion Developments:

PainChek has also taken the opportunity to work with existing clients in the development of new PainChek initiatives including entering new larger healthcare market segments and the development of new PainChek products. These are core to the Company's business growth over the next 12 months. These new initiatives include:

### 1. PainChek Universal Pain Assessment Solution:

PainChek Universal App, combining the PainChek App with the Numeric Rating Scale (NRS), is now CE mark and TGA cleared for commercial use and has commenced roll out to existing clients in Australia.

The combination of PainChek and the NRS in one point-of-care PainChek application allows carers to assess pain for those who cannot verbalise their pain, and to also document the pain score of those who can self-report their pain. PainChek is rapidly evolving to become the Universal Pain Assessment Solution for all people in all environments.

This means PainChek can now become the sole solution for multiple healthcare professionals in assessing and documenting pain across all their patients, making PainChek even stickier with existing clients and having far greater potential to attract new clients and retain existing.

More information can be found in the attachment and at <https://painchek.com/latest-publications/>.

### 2. Home Care and Disabilities market – market entry:

PainChek has continued to develop our product and market strategy as we enter the Home Care space. With the support of a number of our Residential Aged Care clients who have Home Care packages, PainChek's development of a bespoke 'PainChek for Home Care' application continues apace. With 70% of people living with Dementia living in the community, this will ensure that no matter where the PainChek app is used, it is tailored to the clinical workflows and needs of our customers.

PainChek is currently in active negotiations to make the PainChek app available with several existing RAC clients who are also Home Care Providers.

In the Disability (NDIS) sector there is a clear need for structured and objective pain assessment. PainChek's 6-month agreement with the Nulsen Group in WA is now in its fourth month, with the PainChek tool in use across Nulsen's Supported Shared Accommodation Homes. All milestones associated with the clinical study being conducted by Curtin University entitled **"Implementation and user acceptance of PainChek® Pain Management Tool with people living in supported accommodation who have complex needs"** have been met to date. As the final stage of the agreement and clinical trial approach, PainChek looks forward to the publishing of clinical data that validates the utility of PainChek for this vulnerable group of people and provides a platform for broader use of PainChek within the NDIS sector – both in Australia and overseas.

### 3. Hospital Market Development – Ramsay Hospital Frailty Study

The Nurse-led Volunteer Support and PainChek Frailty Study funded through the Ramsay Hospital Research Foundation (RHRF) commenced at the Hollywood Hospital in WA during March in four wards and is projected to be completed in CY 2022. In this project elderly patients are assessed for frailty and pain at the time of admission. The study aims to assess whether the interventions provided lead to better outcomes with regards progression of patients' frailty during admission. Pain has been shown to be positively associated with frailty, and it is

hypothesised that improving pain management through better pain assessment and monitoring can have a positive outcome on patients' frailty status. Positive results from the research are expected to see the program be rolled out to other Ramsay Hospitals.

A second study at Ramsay's Joondalup Health Campus, also funded through the RHRF, is planned to evaluate the use of PainChek® Universal again combined with a nurse-led volunteer program across two wards which have high occupancy by patients with cognitive impairment. Here PainChek® Universal will be used as the standard of care. The study is planned to commence Q3, 2021 and will run for 6 months.

We continue to negotiate other potential partnerships for hospital access and distribution and remain in contact with Philips Healthcare in reference to the Hospital based delirium study in Europe.

#### **4. PainChek Infant:**

The PainChek Infant App received regulatory clearances during May 2021 in Australia (TGA), New Zealand, UK, European Union (CE Mark), Singapore and Canada. The PainChek Infant Face-Only pain assessment study was peer-reviewed and accepted for publication in the Lancet Digital Scientific journal in July 2021. The findings support the use of PainChek Infant for procedural pain assessment with infants aged 1 month to 12 months of age.

PainChek has identified a number of indications and market sectors to launch the PainChek Infant App during FY 22. Key focus is procedural pain indications during early life stage vaccinations, post-operative care and accessing the global markets through partnerships with medical device and therapeutic companies that provide pain treatment solutions.

PainChek plans to expand the clinical indications and applications for children to up to 3 years of age through additional clinical studies being conducted at the Royal Children's Hospital (RCH) in Melbourne.

A more detailed overview of the PainChek Infant market opportunity and progress is included later within this update.

#### **PainChek CEO Philip Daffas commented:**

"We continue to deliver on our key goals for the business during the most difficult of times. Achieving 60 % market share of Residential Aged care beds is an enormous achievement – supported by the federal government funding initiative. Our clients have demonstrated how they value PainChek through their ongoing feedback and the fact that close to 500,000 cumulative PainChek pain assessments were conducted up to 30 June 2021.

Our goal now is to fully implement these clients and transition them onto standard PainChek agreements over the next 12 months and currently this has the potential to translate into up to \$5.57m of annual recurring revenue, a number we expect to continue to grow as we broaden our reach overseas and continue to extend into new hospital, home care and disabilities markets though the next 12 months.

We continue to listen to our clients as we build a best-in-class pain assessment model that has already extended with commercial sales in international markets such as UK, Singapore, and New Zealand. The launch of PainChek Universal – a pain assessment system for all people – adults and kids – supports this goal and is useable by healthcare professional in all locations. We are on our way to achieving our ultimate goal – making pain a new healthcare vital sign.

The regulatory clearance of the PainChek Infants App in Q2 2021 is another world first. Now a clinically validated pain assessment can be conducted on an infant (aged from 1 month to 12 months) in just three seconds using a smart phone. This opens up significantly large global markets, that can exceed the adult App potential, both in the healthcare professional and consumer sectors. We have identified the initial target applications for the Infant App and will continue to work with key clinical collaborators to build the global acceptance and utility of the Infant App in the same manner as the Adult (Universal) App.

When we started the PainChek journey in 2016 we set out a core goal of being first to market with a clinically validated and regulatory cleared Adult and Infant pain assessment App. Today we have achieved those core goals and have a clear path and strategy to become the global market leader in both sectors.”

Below is a summary of key measures for the past year on a quarterly basis.

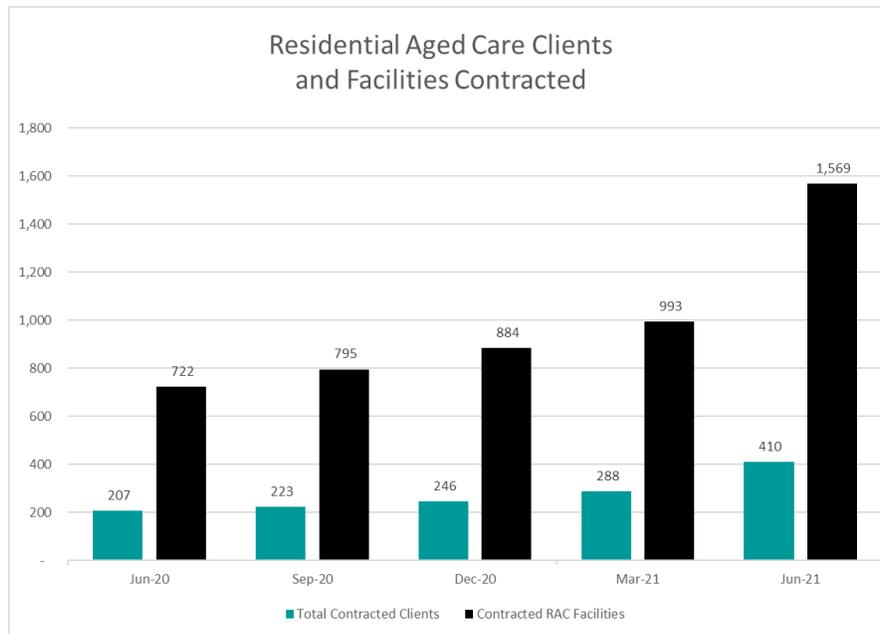


Table 1 above reflects PainChek’s total contracted Residential Aged Care (RAC) clients and RAC facilities globally as at the end of each quarter. Contracted clients at 30 June 2021 have grown to 410, an increase of 122 (or 42%) over the previous quarter and 203 (or 98%) over the prior year.

Contracted RAC facilities have also grown to 1,569, an increase of 576 (or 58%) over the previous quarter and 847 (117%) over prior year.

In the last quarter PainChek continued its growth, contracting a net additional 49,152 RAC beds and 67,618 beds over the prior year.

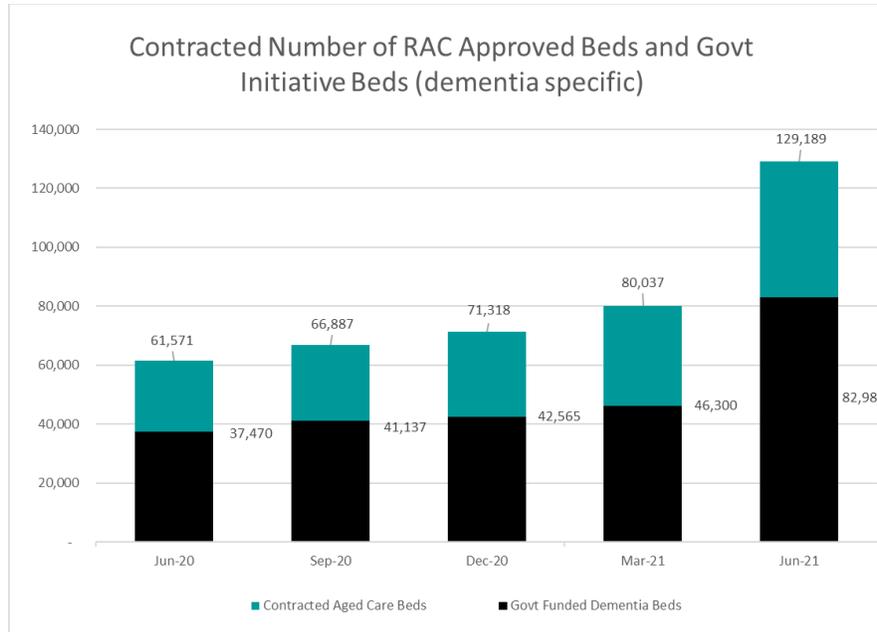


Table 2 above reflects the total approved beds contracted in all markets at the end of each quarter, including the dementia specific beds signed and funded under the government initiative which ended on 31 May 2021.

- Total approved beds contracted have increased from 80,037 at 31 May 2021 to 129,189 at 30 June 2021, a 61% increase for the quarter and an increase over prior year of 110%.
- Under the government funded initiative, the Federal Government is funding a subset of the total approved contracted beds, in that the grant is funding the use of PainChek for those people living with dementia or cognitive impairment. PainChek had achieved a total of 82,982 dementia specific beds reported to the government under the funded initiative as at 30 June 2021, representing a 79% increase for the quarter and 121% over the prior year

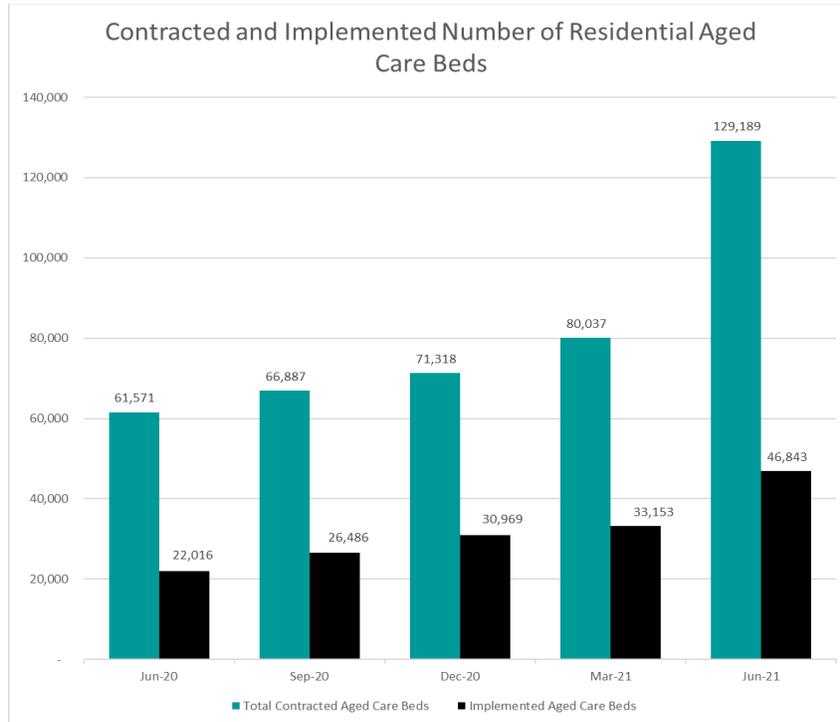


Table 3 above reflects total contracted and implemented beds at each quarter end across all markets. 13,690 beds were implemented during the quarter ended 30 June 2021, an increase of 526% on beds implemented during the prior quarter and resulting in an increase in total implemented beds of 61% compared to the prior quarter. Implemented beds were 36.3% of total contracted beds at 30 June 2021 compared to 41.4% in the prior quarter, reflecting the large number of customers contracted in the current quarter. There is a lag in implementing the bed licences for the following reasons:

- There is a time differential between signing up the client and scheduling implementation of PainChek® across a client's multiple aged care facilities, which has been exacerbated by the pandemic and the issues it created in aged care.
- Large clients can take a number of months to implement due to the large number of facilities to be covered in the roll out.
- The continuing impact of COVID-19 in terms of staff availability to attend training and implement change in clinical practices.

To improve customer implementations the Company has increased the resources delivering training both on site and virtually, continued to improve the quality and quantity of the on-line training tools and successfully transitioned to provide this service to clients through the remote digital delivery platform. Our clients are currently scheduling their implementation dates over the remainder of CY2021.

\* Normalised ARR is post completion of the government grant reflecting contracted or standard pricing on completion of the trial. It assumes all clients fully implement the PainChek App and enter a standard PainChek contract after the initial 12-month grant period. So far clients representing 75% of contracted beds have entered into agreements that have second year commercial terms post completion of the government grant period.

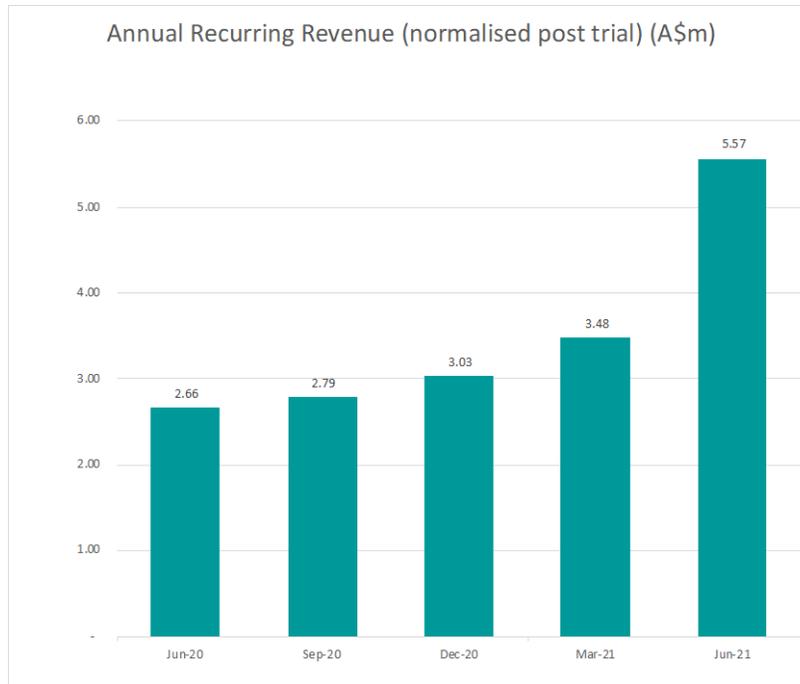


Table 4 above reflects the increase in projected Annualized Recurring Revenue (ARR) for the quarters to 30 June 2021.

- ARR measured on this basis provides an indication of the Company's future revenue, as PainChek's normal commercial pricing will apply to total approved beds across all existing RAC's in year two of the contract, on the assumption that the clients do not terminate their contracts after the initial 12-month grant period.
- For the 129,189 approved beds contracted as at 30 June 2021, the projected Annualized Recurring Revenue on a normalized basis in year 2 of the contract is as \$5.57M, a 60% increase for the quarter and 121% over prior year.

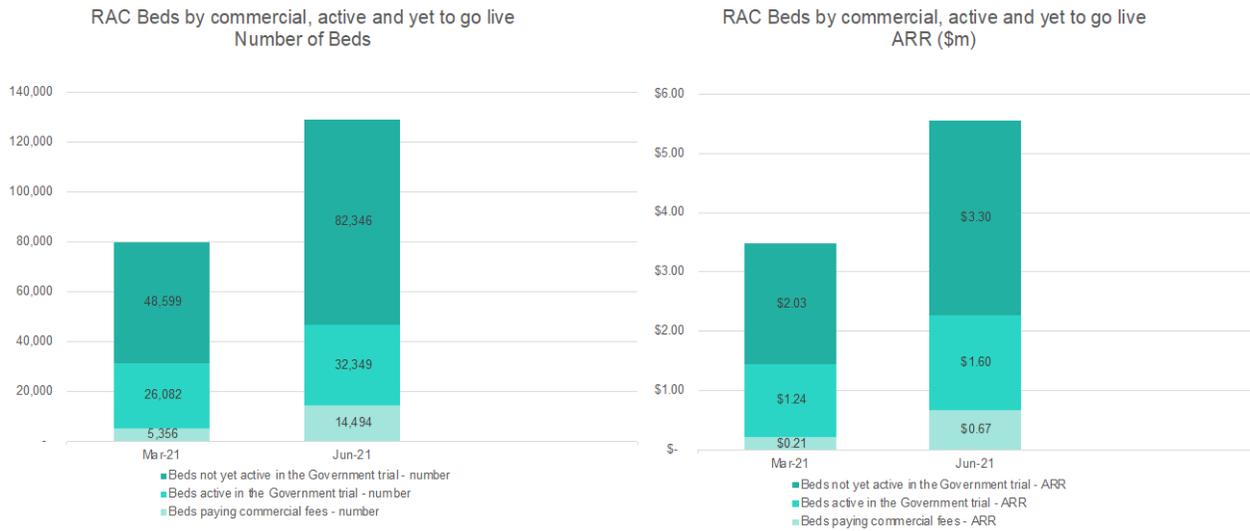


Table 5 above reflects the number and value of implemented beds which have transitioned from the government grant to commercial terms after 1 year, implemented beds which are still in the government trial, and beds yet to be implemented:

	% of Total Contracted Beds in Current Quarter	% Change in Contracted Beds from Prior Quarter
Beds implemented on commercial terms	11%	171%
Beds implemented and in government trial	25%	24%
Beds not yet implemented	64%	69%

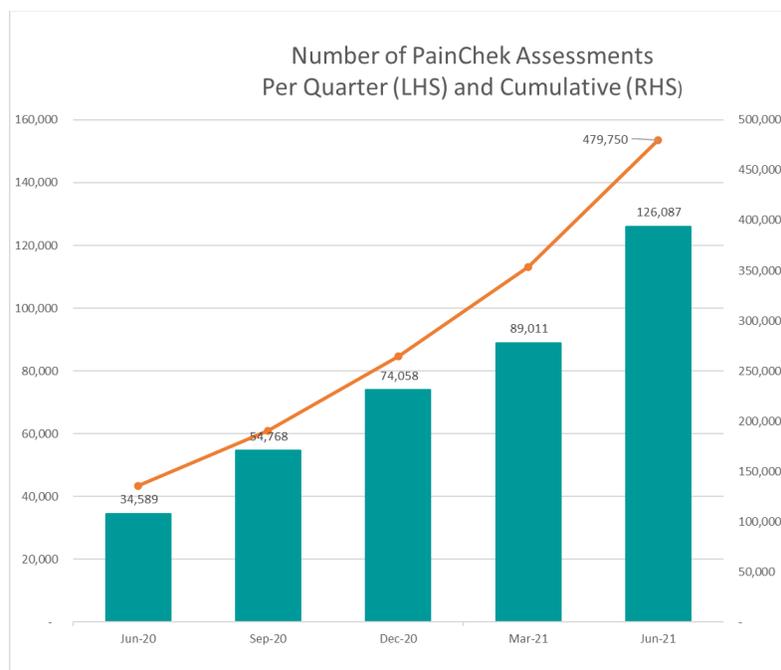


Table 6 above reflects the quarterly number of PainChek assessments up to 30 June 2021. There have now been more than 479,000 clinical pain assessments conducted by clients, demonstrating the App’s strong clinical utility and uptake in the residential aged care market.

As a consequence, PainChek now has a comprehensive and growing database of pain assessments for people living with dementia. This database represents a significant asset to the company, PainChek users at an organisational, facility and patient level, and for researchers. The data collected is being used to:

- Develop business intelligence tools
- Promote and monitor best practice
- Facilitate future App and web admin portal development
- Further the understanding of how pain is manifested in those living with dementia

***Australian Government funded sales activity this quarter***

In the quarter ended 30 June 2021, the Company signed 120 new clients to the government trial, representing an additional 574 RAC facilities and 49,117 approved beds. These figures represent the gross number of new contracts and exclude net non-renewals or adjustments during the quarter.

Early adopters of the national trial continue to transition off the 12-month trial and continue as contracted PainChek customers after successfully embedding PainChek as their pain assessment practice

As of 30 June 2021, the Company has delivered and fully implemented PainChek into 214 of the clients signed or who opted into the government trial, covering 563 residential aged care facilities and 45,173 beds.

### **Federal Government / Department of Health Grant milestones**

The Department of Health Grant ended on 31 May 2021, the following payments have been paid, there are no further payments to be made:

<b>Milestone</b>	<b>Payment Amount (excl. GST)</b>
Received prior to 30 June 2020	\$3,000,000
Provision of 75,000 cumulative licences during FY2021 <b>(Milestone 3: end date 31<sup>st</sup> May 2021) Paid June 2021</b>	\$950,000
Provision of 82,982 of the target 100,000 cumulative licences during FY2021 <b>(Milestone 4: end date 31<sup>st</sup> May 2021), pro rata payment paid in June 2021</b>	\$303,316
Provision of evaluation report during FY2021, paid June 2021	\$100,000
Total funding received (out of \$5,000,000 grant available)	\$4,353,316

The final achievement of providing 82,982 dementia licences represents approximately 60% of the total Australian Residential Aged Care beds market.

### **PainChek infant's App market introduction**

There are 400 Million pre-verbal children<sup>1</sup> in the world of which it is estimated 100 million are born to first time parents each year. This is a significantly large new market opportunity.

PainChek is pleased to report that the PainChek Infant Face-Only clinical study has been successfully completed and the manuscript outlining the findings has been accepted for publication by Lancet Digital Health<sup>2</sup>. Further, human factor validation testing has been completed on the App, which demonstrated good useability.

PainChek received regulatory clearance including the Australian (TGA) and European (CE Mark) in Q2 CY21, and is engaging with clinical partners to establish strategies for the implementation of PainChek<sup>®</sup> infant in a range of clinical settings, involving both healthcare professionals and parents.

The PainChek Infant Face-Only study was developed to test the feasibility of using PainChek<sup>®</sup> Infant's face domain alone as an indicator of pain, and to evaluate it using video recordings of infants undergoing painful procedures.

Whilst facial expressions are commonly used by healthcare professionals and laypersons alike, to assess pain in non-verbal children, accurate assessments can be difficult to achieve. This is highlighted by the findings of a recent study where 143 adults (59% healthcare professionals) were asked to evaluate 20 pictures of 10 newborns which had been taken at rest and during a painful procedure, and rate whether the child was in pain or not.<sup>2</sup> Eye tracking showed that whilst the adults commonly looked at the eyes, mouth and forehead of the children, changes in which are known

to be associated with pain, only 80 of the 143 adults (67.5% healthcare professionals) were able to accurately identify which pictures showed newborns in pain and no pain.<sup>3</sup>

PainChek® Infant provides an automated means of translating infant's facial expressions into a meaningful and reliable way of assessing procedural pain in just 3 seconds. Procedural pain is very common in this cohort of children, and whilst considered short-lived, poorly managed, it can have significant long-term consequences including needle aversion and chronic pain.<sup>4</sup>

Under-treatment of childhood pain is a significant issue, and a Lancet Child and Adolescent Health study<sup>4</sup> recommended four strategies to address this, namely 1) make pain matter, 2) make pain understood, 3) make pain visible, and 4) make pain better. PainChek® Infant addresses Strategy 3 by providing a rapid and reliable means of assessing pain.

PainChek continues with next steps to broaden the clinical applications of PainChek Infant, including research at the Royal Children's Hospital (RCH) in Melbourne which has now recommenced.

### UK market progress

The UK market has around 450,000 aged care beds with a broad range of large, mid-sized and small care homes.

Q2 2021 saw market confidence return following the second COVID-19 wave of Q1, and the high rates of vaccination in the UK combined with planned easing of lockdown restrictions in July 2021. Rollout of Erskine Hospitals Care Group (Scotland) was completed on time and Orchard Care continue to rollout across their estate with 750 of 1,350 licences deployed. Furthermore, we saw Handsale Care agree to rollout PainChek across its full estate. They are a medium size care home operator, trading across the three main UK domiciles – this gives PainChek an entry into Wales.

Marketing activity was ramped up via social media and other channels through Q2. Various citations of the merits of PainChek were released including a CNN article and a White Paper available to download from the PainChek UK website. Subscribers continue to grow. Our largest client, Orchard Care, has provided excellent feedback on the benefits seen since launching PainChek.

Q2 saw PainChek UK achieve a milestone of 1,000 beds live with a further 1,500 planned for deployment. The pipeline into Q3 is healthy with a number of major UK care home groups engaged in dialogue. There is a clear appetite to ensure PainChek is integrated with leading care management software (CMS) and to this end a further CMS partner integration agreement was secured, giving access to c15% of the UK market. Q3 will see active rollout and marketing of the additional CMS integration(s). The appetite has been driven to some extent by the challenges faced during the pandemic. The Numeric Rating Scale and PainChek Universal has been deployed to existing UK customers and will be the standard offering for new customers. Client management reporting was also launched at the end of Q2. Additional functionality launched through Q2 has made scaling much easier. Partner channel growth will be a key area of focus into Q3 and Q4.

### FDA regulatory clearance progress

PainChek has received the reviewers' feedback on its pre-submission Supplement application and met with FDA to discuss this. The Company has now amended the protocol for its pivotal trial, which will be submitted to FDA in Q3 CY21 and looking to commence clinical trials in Q4 C2021.

In the meantime, PainChek already has TGA, CE mark, HSA Singapore and Health Canada clearances that covers approximately 40% of the global market. With FDA clearance the Company will effectively have access to more than 70% of the global medical device market.

In accordance with ASX Listing Rule 4.7C.3, the amount of \$106,000 stated in section 6.1 of the Appendix 4C paid to related parties and their associates related to director fees and salaries for the quarter.

This release has been authorized for release by the Company's board.

**Philip Daffas**  
**CEO – PainChek Limited**  
**29 July 2021**

### References

1. See PainChek ASX release Company presentation 28<sup>th</sup> November 2019
2. Hoti K, Chiivers PT, Hughes JD. Assessing procedural pain in infants: A rapid point-of-care solution using automated facial analysis. *Lancet Digital Health* 2021 (In Press)
3. Barros MCdM, Thomaz CE, da Silva GVT, et al. Identification of pain in neonates: the adults' visual perception of neonatal facial features. *J Perinatol* (2021). <https://doi.org/10.1038/s41372-021-01143-1>
4. Eccleston C, Fisher E, F Howard RF, et al. *Delivering transformative action in paediatric pain: a Lancet Child & Adolescent Health Commission*. *Lancet Child & Adolescent Health* 2021; 5: 47-87.



# PainChek<sup>®</sup>

Intelligent Pain Assessment

Quarterly Update  
July 2021



PHILIP DAFFAS, CEO & MD

PAINCHEK LTD | ASX:PCK

## CORPORATE OVERVIEW



- **PainChek provides Software -As-A-Service that uses AI for the detection of patient pain via video analysis**
  - Targeting enterprise customers who have patients with an inability to communicate pain levels (e.g. dementia)



- **Technology is clinically & commercially validated, has key regulatory approvals & is unique**
  - Multiple peer reviewed publications & clinical trials – 90% + concordance to existing methods
  - **Adult and Infant Apps** regulatory cleared for sale in Australia, Europe, NZ, Singapore and Canada – FDA in progress
  - Patent granted in US, Japan, Australia and China – awaiting grants in Europe – protection until 2037



- **Large global markets - now in global commercialization phase based on strong Australia take up**
  - 1,569 aged care facilities & 129,189 beds already signed up to SaaS contracts in Australia – 60% market share
  - UK, NZ and Singapore sales commenced
  - **80-85%** long term gross margins & recurring revenue each month
  - Multiple new products scheduled for launch over next 2 years to drive further growth (B2C dementia, infant/toddler)



- **Better outcomes for patients & enterprise customers**
  - Improved patient care – more targeted treatments & better outcomes
  - Improves efficiency – saves customers money – less data entry/ labour, less adverse patient events



PainChek®  
gives a **voice**  
**to people**  
who **cannot**  
**reliably verbalise**  
their pain

## THE INITIAL SIZE OF THE PROBLEM

400M

pre-verbal children



25-42%

of hospital beds occupied  
by people with dementia



50M

people living with  
dementia



1. Ecology Communications Group. [www.ecology.com/birth-death-rates](http://www.ecology.com/birth-death-rates)
2. World Alzheimer Report 2016
3. Germossa et al. BMC Nursing (2019) 18:40
4. 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.

# PAIN ASSESSMENT IS READY FOR DISRUPTION

PainChek® builds on the benefits of the Abbey Pain Scale <sup>1</sup>, maintaining clinical practice while improving clinical process & brings it into the digital age by:



Using video/AI to automate the facial expression assessment – eliminating subjectivity & improving accuracy



Eliminating paperwork – all digital



42 data points with prompts = faster assessments



Automatic logging of pain scores over time – monitor trends



Integrates into medical records



Helps care homes meet accreditation standards & protect income & revenues

## Abbey Pain Scale

*For measurement of pain in people with dementia who cannot verbalise*

Q1. Vocalisation (eg whimpering, groaning, crying)  
Absent 0 Mild 1 Moderate 2 Severe 3

Q2. Facial expression (eg looking tense, frowning, grimacing, looking frightened)  
Absent 0 Mild 1 Moderate 2 Severe 3

Q3. Change in body language (eg flinching, rocking, guarding part of body, withdrawal)  
Absent 0 Mild 1 Moderate 2 Severe 3

Q4. Behavioural change (eg confusion, refusing to eat, alteration in usual pattern)  
Absent 0 Mild 1 Moderate 2 Severe 3

Q5. Physiological changes (eg temp, pulse/BP outside normal limits, perspiring, flushing, pallor)  
Absent 0 Mild 1 Moderate 2 Severe 3

Q6. Physical changes (eg skin tears, pressure areas, arthritis, contractures)  
Absent 0 Mild 1 Moderate 2 Severe 3

Total pain score

Tick the box that matches the total pain score

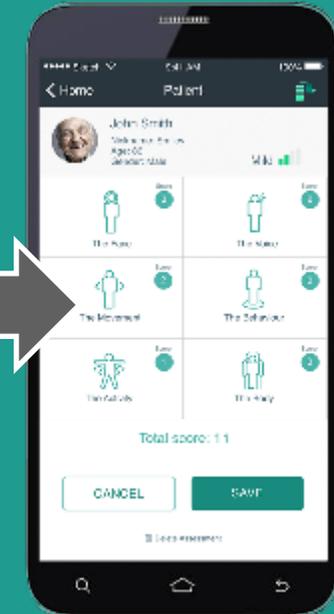
0-2	3-7	8-11	12+
No pain	Mild	Moderate	Severe

Tick the box that matches the type of pain

Chronic	Acute	Acute/Chronic
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Abbey Pain Scale developed by Jennifer Abbey AM, 2005. Copyright 2011. All rights reserved. Abbey Pain Scale is a registered trademark of Jennifer Abbey AM. All other trademarks are the property of their respective owners.

## PainChek®



Abbey Pain Scale & similar manual systems are the current standard of care in developed countries for assessment of pain in dementia patients. It relies on a significant amount of subjective measures that can vary greatly between practitioners/ carers .

<sup>1</sup> Dr. Jennifer Abbey AM (of the Abbey Pain Scale) is on the PCK advisory board & supports the transition from APS to PCK

## WHERE PAINCHEK STARTED



**PainChek**  
Intelligent Pain Assessment

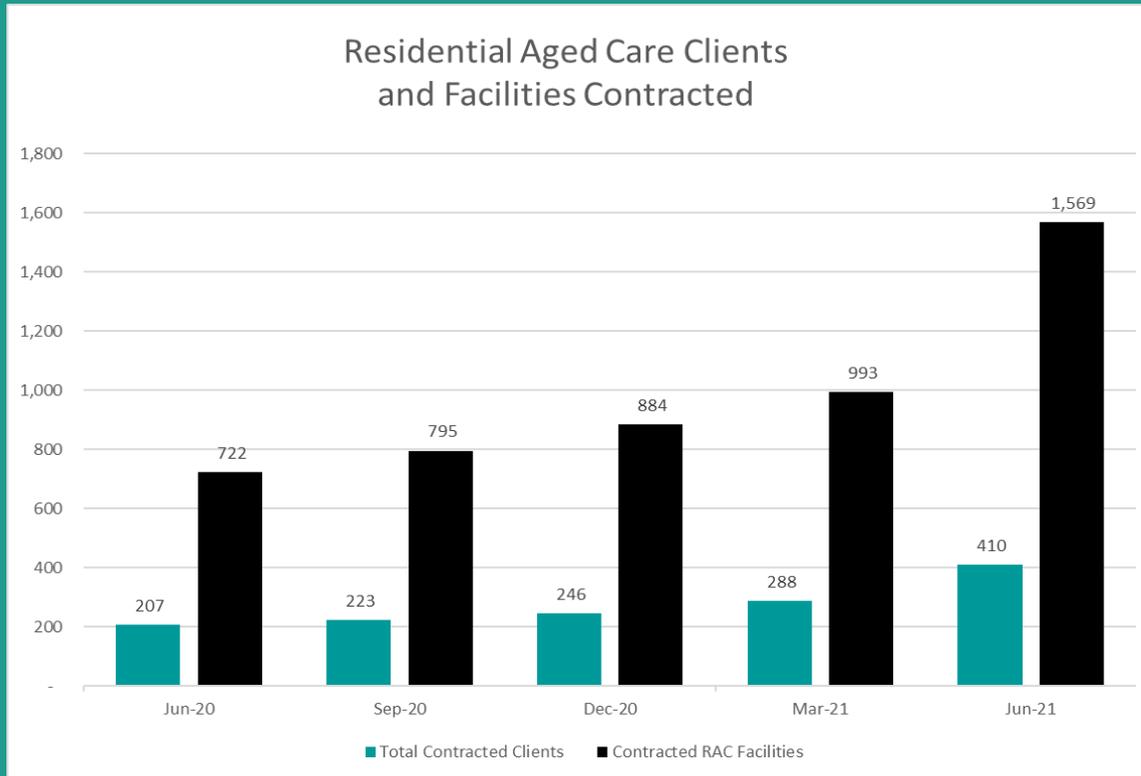
CARERS OF  
THOSE WHO CAN'T  
SELF-REPORT  
THEIR PAIN

Australian  
Residential  
Aged Care

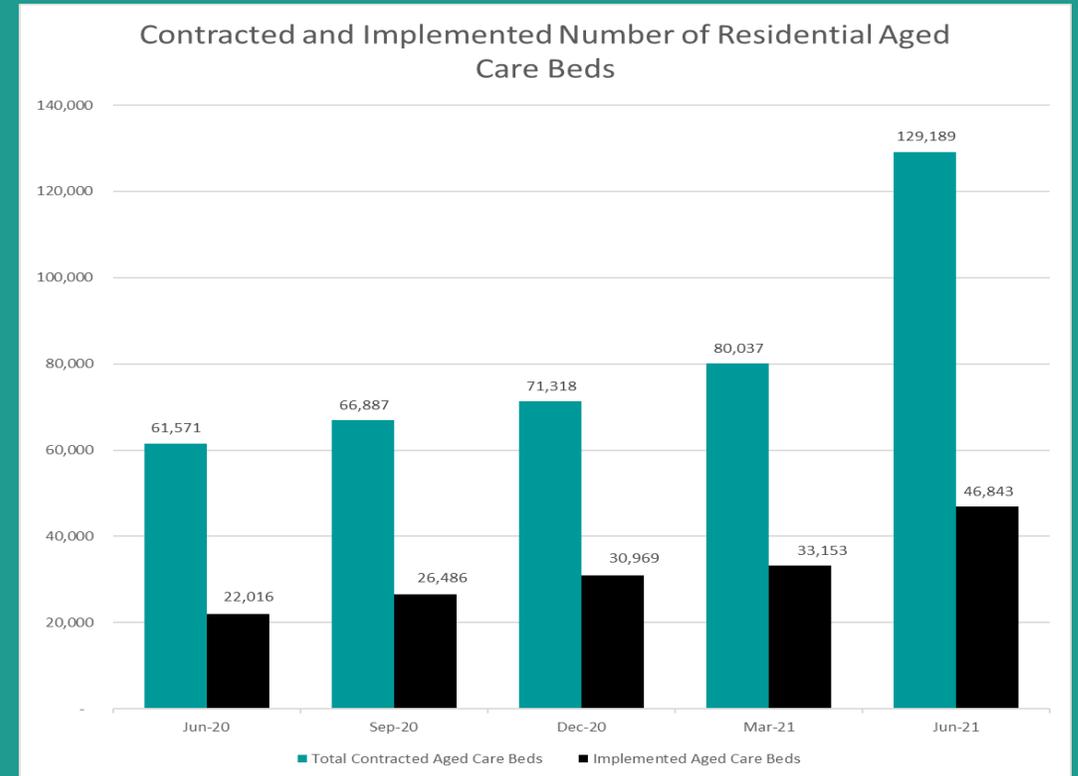


# PAINCHEK® PROVEN PRODUCT AND BUSINESS MODEL

1,569 Aged Care facilities contracted across four continents – up 117% year on year



129,189beds under contract in Aged Care – up 110%year on year



## JUNE 2021 QUARTERLY UPDATE

Continued QOQ growth of 40%+ across all key metrics

Strong sales growth as government grant sign up deadline reached during the period

New clients include BUPA, Estia Health, Opal Healthcare and more

PainChek now has 60% market share of Australian aged care beds

	Mar 2021 Quarter	June 2021 Quarter	% Change
Contracted Clients	288	410	↑ 42%
Contracted Facilities (RACs)	993	1,569	↑ 58%
Approved Places Contracted Beds	80,037	129,189	↑ 61%
Annualised Recurring Revenue <sup>1</sup>	\$3.5m	\$5.57m	↑ 59%
Net Operating Cashflow For Quarter	-\$0.50m	-\$0.48m	↑ N/A

<sup>1</sup>Assumes normal commercial pricing terms on the assumption that no contracts are terminated after the first year of government subsidy



# PROJECTED ARR\* COVERS CORE PCK AUSTRALIAN BUSINESS COSTS



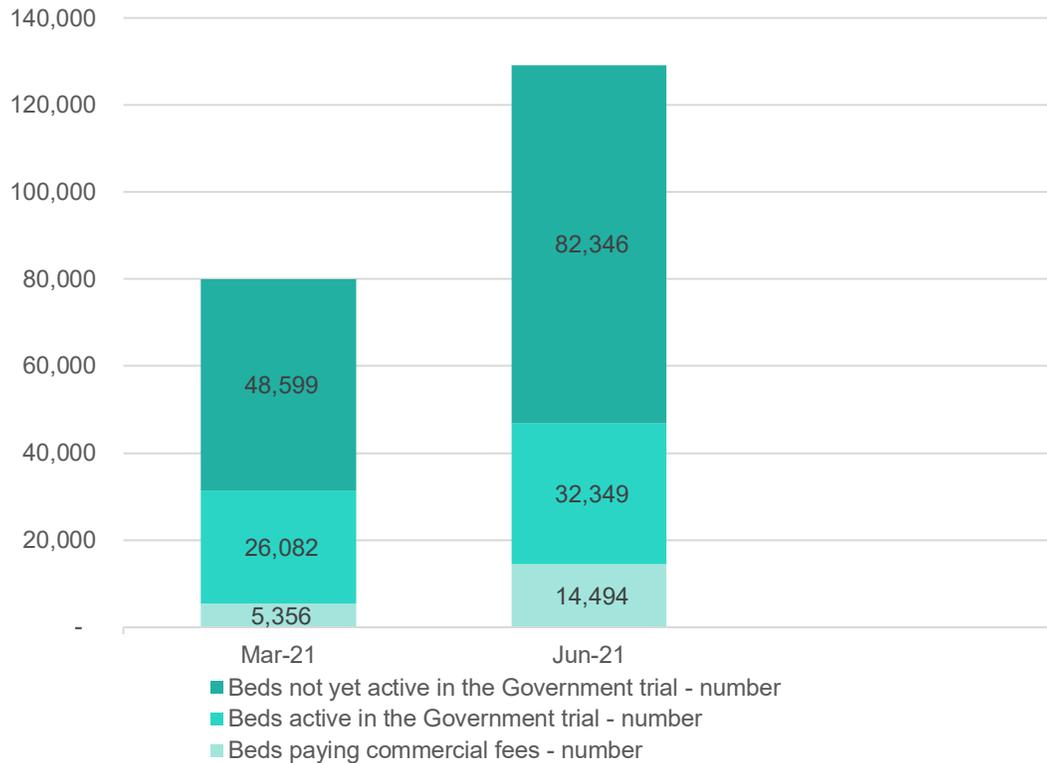
PainChek market penetration of 129,189 beds — projecting \$5.57m ARR — post govt trial

- Provides a validated platform for global expansion
- Projected ARR would result in PCK covering the current Australian operational cost base
- Outstanding opportunity for a highly profitable global business in aged care, with significant upside from home care & hospital settings and large children's market

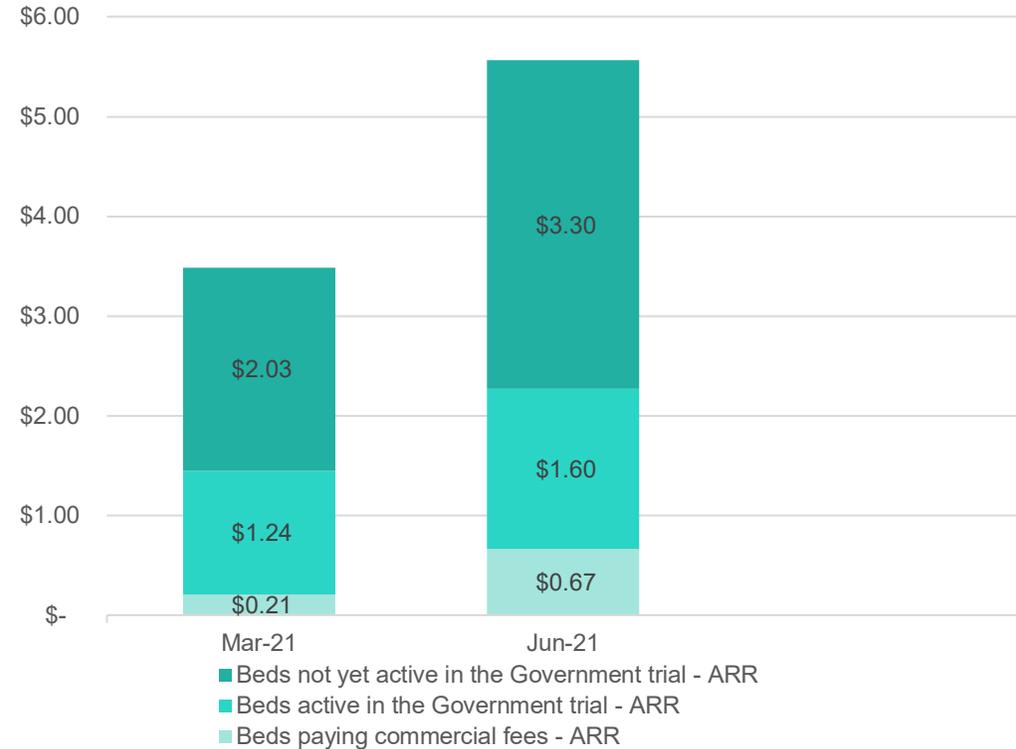
\* Normalised ARR is post completion of the government grant reflecting contracted or standard pricing on completion of the trial. It assumes all clients implement the PainChek App and enter a standard PainChek contract after the initial 12-month grant period. So far clients representing 75% of contracted beds have entered into agreements that have second year commercial terms post completion of the government grant period.

# TRANSITIONING GOVT FUNDED BEDS TO STANDARD PCK LICENSES

RAC Beds by commercial, active and yet to go live  
Number of Beds



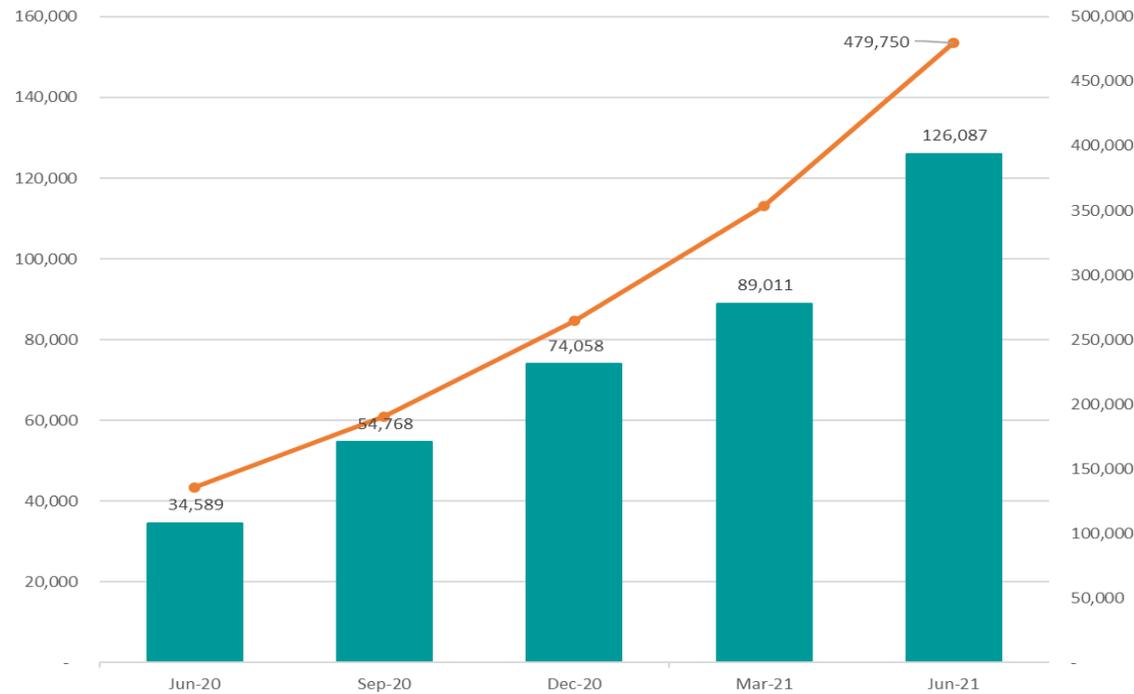
RAC Beds by commercial, active and yet to go live  
ARR (\$m)



# PAINCHEK® PROVEN PRODUCT AND BUSINESS MODEL

More than 479,000 documented clinical assessments – up more than 250% year on year

Number of PainChek Assessments Per Quarter (LHS) and Cumulative (RHS)



# INTEGRATION PARTNERS

# – EXPANDING LOCALLY & INTERNATIONALLY

PainChek is integrated with aged care management systems covering more than 180,000 aged care beds in Australia, 25,000 beds in New Zealand, and 40,000 beds in the UK

Point of care PainChek assessments on a resident is automatically transmitted to the care management system in the aged care center driving better care and reducing duplication of data entry.

## AUSTRALIA



## UNITED KINGDOM



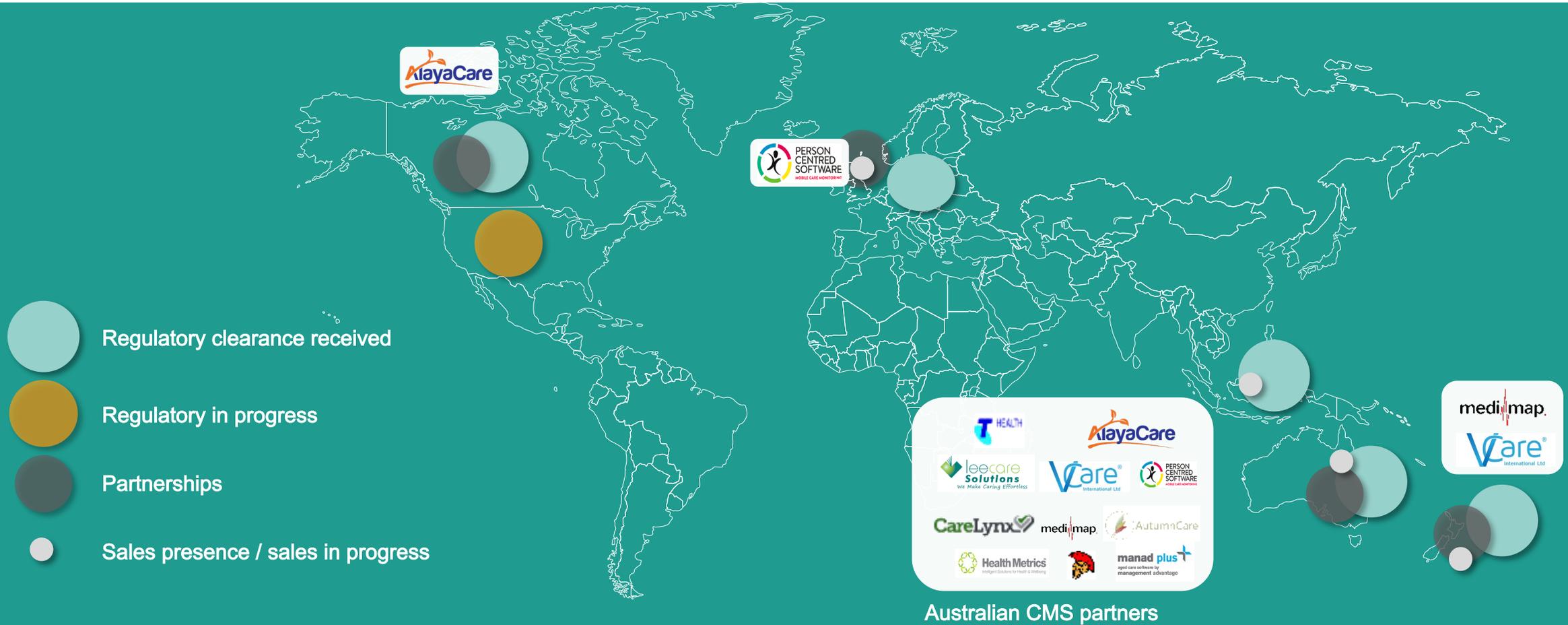
## CANADA



## NEW ZEALAND



# GLOBAL MARKET ACCESS INCREASING



# PAINCHEK UK PROGRESS GAINING MOMENTUM



Market confidence high following easing of restrictions post UK's second COVID -19 wave



More than 1,000 total beds now live in UK with a further 1,500 planned for deployment



Rollout completed with Erskine Hospitals Care Group (Scotland)



Orchard Care rollout continues with 750 of 1,350 licences deployed – with excellent feedback



Mid -sized home care player Handsale Care agrees to rollout across its full estate



Negotiations ongoing with major UK home care groups



Focus on delivering further CMS partner integrations due to appetite for this



Ramp up of marketing activity/social media through the quarter

# PAINCHEK® — DEMENTIA IS A LARGE GLOBAL MARKET OPPORTUNITY

## ENTERPRISE DEMENTIA MARKET VALUE

	Aus	UK	US	ROW est	TOTAL
No. Aged Care Beds	0.22m	0.54m	1.7m	4.5m	6.96m
Annual Market Value @ A\$4 per bed per month	<b>A\$11m</b>	<b>A\$26m</b>	<b>A\$81m</b>	<b>A\$216m</b>	<b>A\$334m</b>

## CONSUMER DEMENTIA MARKET VALUE

	Aus	EU	US	ROW est	TOTAL
No. of People living With Dementia at home	0.3m	5.6m	5.1m	32.4m	43.5m
Annual Market Value @ \$7 monthly subscription	<b>A\$25m</b>	<b>A\$475m</b>	<b>A\$432m</b>	<b>A\$2,720m</b>	<b>A\$3,655m</b>

<sup>1</sup> World Alzheimer Report 2016

<sup>2</sup> Alzheimer's Australia key facts and statistics 2017

<sup>3,4</sup> Australian health care statistics

<sup>5</sup> Estimated based on Australian dementia data ratios

<sup>6</sup> Estimated based on Australian population ratios

<sup>7</sup> Management Estimates

- PCK now penetrated 60% of Australian Aged Care market and initial sales in UK, Singapore and New Zealand
- Home care opportunities being explored in same markets and Canada/Europe in FY 22
- US FDA clearance projected in C23

# KPMG EARLY EXAMPLE CASE STUDIES

Case studies are showing early impacts of **PainChek** in residential aged care facilities

**Reduction in psychotropic behaviour by identifying pain as a cause of challenging behaviour**

- Male resident with fractured shoulder referred to dementia unit due to aggressive behaviour
- Upon arrival, PainChek assessment undertaken which highlighted severe pain
- Allowed patient's GP to remove psychotropic medication & manage pain more appropriately, significantly improving behaviour of the patient

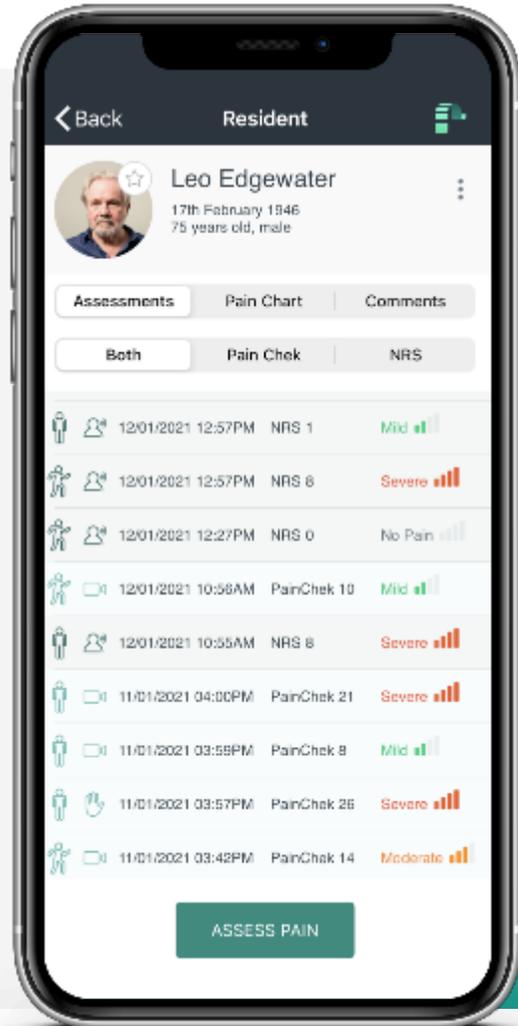
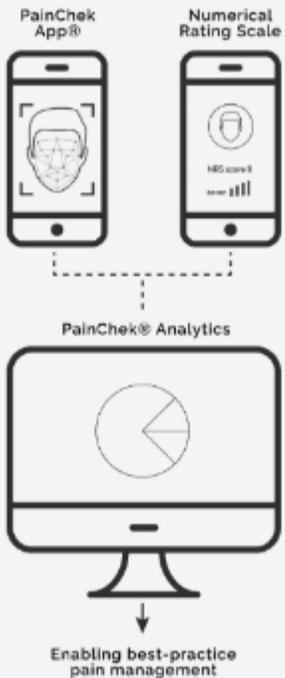
**Renewed focus on pain assessment within facilities**

- Female resident complained of chest pain, couple with challenging behaviour
- Staff concluded the pain was psychosomatic, no treatment provided
- PainChek assessment showed moderate pain levels, leading to PRN analgesia
- Patient became far less stressed & agitated

**Non-medication interventions being initiated to manage pain**

- Severe dementia patient has PainChek assessment, indicating low pain level
- Allowed pain to be treated with a heat pack rather than PRN medications which can cause drowsiness
- Beneficial outcome for patient which led to a revised treatment pathway

# PAINCHEK UNIVERSAL SOLUTION NOW CE & TGA CLEARED



Accelerates adoption by new clients and supports retention of existing clients



Broadens PainChek global market opportunity in aged care, home care and hospitals segments



Provides greater insights for medical decision making on pain management & new product development and collaborative opportunities with therapeutics industry

# INFANT APP REGULATORY CLEARED FOR SALE IN MULTIPLE MARKETS\*

World first facial recognition technology to assess pre-verbal infant pain through a 3 second AI based video analysis of the face – CE & TGA clearance for Infant version **achieved Q2 CY21**

PCK infant clinical study accepted for publication in *Lancet Digital Health* July 2021

Separate independent clinical study confirms parents/practitioners have difficulty discerning whether pre-verbal children are in genuine pain or just crying from discomfort, hungry, wanting attention etc.

Global market opportunity very large with low customer acquisition cost

## APP SCREENSHOT



## CONSUMER PRE-VERBAL CHILDREN MARKET VALUE

Indicative App Price	A\$10/month
Net Revenue after app store commissions	A\$7/month
No. 0-3 year old Worldwide	400m
No of Infants (1 month to 1 year)	140m

## MARKET SHARE EXAMPLES

0.1% Global Market Share	400k subscribers = A\$33.6m Annualised Revenue
1% Global Market Share	4m subscribers = A\$336m Annualised Revenue

## TARGET MARKETS

- Children's Hospitals
- Post Natal Wards
- Post surgical units
- Health care professionals
- General Practitioners
- Parents
- Day care workers

1 <http://www.ecology.com/birth-death-rates>

2 ABS 2016

3 Management Estimates

\* Regulatory clearances received in UK, Europe, Canada, Singapore and New Zealand

# PAINCHEK INFANT ACCEPTED FOR PUBLICATION BY LANCET DIGITAL HEALTH

- Renowned journal Lancet Digital to publish *Assessing procedural pain in infants: A rapid point-of-care solution using automated facial analysis*
- PainChek Infant's validity and reliability was assessed against the paper-based Neonatal Facial Coding System Revised (NFCS-R), and the observer administered Visual Analogue Scale (ObsVAS)
- Study used video recordings of 40 infants aged 2 to 7 months of age, with more than 4,300 pain assessments completed in two separate evaluation sessions, four weeks apart
- PainChek Infant pain scores demonstrated excellent correlation with NFCS-R and ObsVAS scores, moderate to excellent inter-rater reliability and high levels of internal consistency
- The findings provide evidence that PainChek Infant offers valid and reliable means of assessing and monitoring procedural pain in infants



# NEW STUDY CONFIRMS DIFFICULTY IN ASSESSING PAIN IN PRE-VERBAL PATIENTS <sup>1</sup>

- Facial expressions noted as one of the most important cues to assess pain in infants <sup>2</sup>
- Recognising pain by observing the face is challenging
- Barros et al<sup>1</sup> recent study found:
  - Only 80 out of 143 adults correctly identified pain/no pain in newborns
  - Health professionals were able to more accurately identify pain/no pain
- Findings provide further evidence of need for automated facial assessment of pain in infants
- **PainChek** <sup>®</sup> Infant automatically identifies facial features indicative of pain irrespective of who assesses it ( ICC=0.81-0.97, p<0.001).



1. de Moraes Barros MC, Thomaz CE, da Silva GV, Soares JD, Carlini LP, Heiderich TM, Orsi RN, Balda RD, Silva PA, Sanudo A, Andreoni S. Identification of pain in neonates: the adults' visual perception of neonatal facial features. *Journal of Perinatology*. 2021 12:1-5.

2. Pillai Riddell RR, Horton RE, Hillgrove J, Craig KD. Understanding caregiver judgments of infant pain: contrasts of parents, nurses and pediatricians. *Pain Research Management* 2008;13:489-96.

# PAINCHEK INFANT INITIAL TARGET MARKETS



## 1. Post vaccination

Approx 140 million children born globally each year inc 300,000 in Australia — 95% fully immunised at 12 months after five immunization appointments



## 2. Post procedural pain

Post operative procedures including Cochlear implantation where children are implanted at 3 months of age



## 3. Partnerships & licensing

Targeting global therapeutic players providing pain medication and management for health care professional and families

PainChek Infant is intended for use to assess **procedural pain** / medical investigations or treatments e.g. immunisations, suturing & dressing changes, invasive procedures such as fracture reductions or bone marrow biopsies

Users of PainChek Infant can include healthcare professionals or laypersons, in settings including hospitals, day surgery centres, GP clinics or the home

## POST COCHLEAR IMPLANTATION - EXAMPLE

Children born deaf are implanted as early as 3 months of age to maximise outcomes



Infants experience pain intra and post the implant surgical procedure



Pain assessment post surgery and switch on is complex and challenging for clinicians and families

# UNIVERSAL PAIN ASSESSMENT FOR MULTIPLE GLOBAL MARKETS



# THE TEAM



**Philip Daffas**  
CEO & Managing  
Director, MBA, BSc

Philip is a highly accomplished global business leader & people manager. Philip has held senior global leadership positions with Cochlear & Roche in Europe, US & Australia.



**Prof. Jeff Hughes**  
Chief Scientific  
Officer PhD, MPS

Jeff is a professor in the School of Pharmacy, Curtin University in Western Australia. Jeff is one of the team who developed the PainChek® concept.



**Andrew Hoggan**  
Head of Operations

Andy is a Psychologist, management consultant, business leader & executive coach. Andrew has worked in both Australia & the UK across aged care & home care services.



**Iain McAdam**  
CFO

Iain has over 20 years finance & transformational change experience within listed high growth multinational software & services companies, including iSoft & eServGlobal.



**Scott Robertson**  
Chief Technology Officer, MBA,  
B.Eng.(Comp. Systems)

Scott has over 25 years' experience designing, deploying & managing enterprise software systems, adapting to changing client needs.



**David Allsopp**  
Head of Business  
Development ANZ

David has extensive account management, relationship management. He is renowned for establishing trusting, transparent & long-standing relationships in the healthcare space.



**Pete Shergill**  
Business Development  
Director, UK

Pete is a UK Healthcare business leader & pharmacist with over 15 years of experience across Health & Social Care. Previous senior commercial roles with Lloyds Pharmacy UK & I-Care UK – a major residential aged care software provider.

# THE BOARD



**John Murray**  
Non -Exec Chair

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25 years in tech & Venture Capital. Founder of Technology Venture Partners, ex Chair of Residential Aged Care provider. Multiple non-exec board roles.



**Philip Daffas**  
CEO & Managing Director

---

Philip is a highly accomplished global business leader & people manager. Philip has held senior global leadership positions with Cochlear & Roche in Europe, US & Australia.



**Ross Harricks**  
Non -Exec Director

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Senior global medical device executive with Nucleus & experienced healthcare NED.



**Adam Davey**  
Non -Exec Director

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Corporate finance executive with extensive capital markets experience.

# PAINCHEK FOCUSES FOR FY22



## CONTINUE TO MAINTAIN & GROW POSITION IN ANZ MARKETS

- Develop pipeline to enable PainChek to maintain/top -up ~120k total beds in ANZ RAC
- Transition clients to commercial agreements
- Maintain/grow integration partnerships with CMS partners & medication management providers
- **Home care**  
Leverage RAC partners with home care offerings  
Commercial partnerships with targeted CMS home care groups
- **Hospitals**  
Leverage existing studies with Ramsey & Hollywood in WA  
Partner with medical device suppliers  
Bundle Infant and Adult app

## DEVELOP INTERNATIONAL MARKETS

- **UK**  
Rapidly expand RAC beds penetration  
Expand integration partners  
Quickly develop home, hospital & infant markets following ANZ
- **Other geographies**  
Development of Canada, Asia & mainland Europe opportunities  
Target US, Japan & China in 2023 – post regulatory approvals

## PAINCHEK INFANTS

- Build market acceptance & early -stage revenues in ANZ & UK
- Studies to support entry into procedural pain indication – focus on vaccinations & post -op care within clinics/hospitals
- Extend product portfolio inc greater age range & validating multidimensional versions
- Identify & build global go -to -market partnerships



# CORPORATE SUMMARY

## Financial information

Share price (28 July 2021)	A\$0.055
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Shares on issue	1,126.8m
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<b>Market capitalisation</b>	<b>A\$62.0m</b>
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Cash (30 <sup>th</sup> June 2021)	A\$11.4m
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Unlisted options/performance rights	34.7m
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Debt	Nil
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## Top shareholders %

Peters Investments Proprietary Ltd	9.7%
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Board & key staff	11.6%
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# Q&A

PHILIP DAFFAS, CEO & MD

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