

Cough app targets US success

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Credit: AI-generated image ([disclaimer](#))

Resapp Health, the developer of a cough-interpreting smartphone app that diagnoses some respiratory conditions better than a stethoscope-armed specialist, aims to replicate the success of its West Australian clinical trials in the US.

Preliminary findings from its first adult clinical trial at Joondalup Health Campus, [announced](#) on June 21, included that the [app](#) diagnosed patients

with chronic [obstructive pulmonary disease](#) with 96 per cent accuracy, asthma at 92 per cent accuracy and pneumonia at total accuracy.

A total of 322 adults coughed into smartphones in the trial and the overall results were comparable to an earlier paediatric clinical study at Joondalup Health Campus and Princess Margaret Hospital.

ResApp CEO and managing director Tony Keating says two results from the earlier paediatric clinical studies are particularly exciting.

"The first is that the ResApp technology was able to identify lower respiratory tract disease even when an experienced clinician using a stethoscope was unable to," he says.

"The second exciting result was the ability to differentiate the cause of pneumonia—that is whether the pneumonia was caused by a bacterial infection or a viral infection.

"This is difficult to do using existing techniques and is currently very costly and not available in all but the best hospitals."

Invented by University of Queensland Associate Professor Udantha Abeyratne with the help of funding by the Bill and Melinda Gates Foundation, the app quickly diagnoses patients using algorithms created from a large database of disease-linked coughing and breathing sounds and patterns.

The algorithms are designed to make the app "learn" and improve its diagnostic ability over time.

The sounds from coughing also contain significantly more information than the sounds picked up by a stethoscope.

While the app is proving to be faster, cheaper and more accurate in diagnosing key [respiratory conditions](#) it is unmatched for telehealth scenarios, where remotely located patients cannot be tested by a stethoscope.

The app could be commercialised by early 2017 but no app store launches are on the cards.

"Today our focus is providing a better tool for doctors," Mr Keating says.

"Our primary focus is the US, initially by delivering a clinically-accurate diagnostic test to telehealth practitioners and also providing a fast, accurate diagnosis in the emergency department.

"The next major milestone is completion of a US clinical study to mirror our Australian studies."

Massachusetts General Hospital was recently selected as the first American clinical study site.

The Perth-based tech company was also awarded as the Best Tech IPO/Venture Capital Raising at the 2016 Talent Unleashed Awards Asia Pacific Division.

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