Study shows efficacy of ResAppDx use with masks

Brisbane, Australia, 22 July 2022 – ResApp Health Limited (ASX:RAP), a leading digital health company developing smartphone applications for the diagnosis and management of respiratory disease, is pleased to announce the results of a small clinical study which investigated the use of ResAppDx to identify acute respiratory disease in patients wearing surgical masks. The study showed substantial or near perfect agreement between patients wearing a mask and not wearing a mask for all studied endpoints.

Infection control guidelines during the Covid-19 pandemic require patients to wear surgical masks while seeking treatment. The Breathe Easy study: Mask On, Mask Off sub study for diagnosis of respiratory illness (ACTRN12621001086853), was designed to measure the effect of mask wearing on the cough audio-based ResAppDx algorithms and recruited 221 adult patients presenting with acute respiratory symptoms at Joondalup Health Campus in Perth, Western Australia. The principal investigator was Dr Paul Porter. Patients used the ResAppDx software twice, once while wearing a surgical mask and once without a surgical mask.

ResAppDx comprises four disease specific algorithms for adults: pneumonia, asthma exacerbation, chronic obstructive pulmonary disease (COPD) exacerbation and lower respiratory tract disease (LRTD). The agreement between mask on and mask off results was measured using Cohen's kappa coefficient, a statistical method used to measure inter-rater reliability. Calculated kappa showed perfect agreement for pneumonia (k=1.0), almost perfect agreement for LRTD (k=0.92) and asthma exacerbation (k=0.96), and substantial agreement for COPD exacerbation (k=0.79).

While the number of patients for each individual disease was small, the ResAppDx results were also compared with a clinical diagnosis made by a specialist physician and showed generally similar performance as previously reported.

Tony Keating, CEO and Managing Director said: *"These are very encouraging results. The use of masks has been, and will remain, a very important part of infection control during the Covid-19 pandemic. For in person settings such as hospitals or GP clinics, it was important for us to demonstrate that our audio-based algorithms were not affected by the wearing of masks and that a mask could potentially to be worn while the patient is undergoing the test."*

The clinical team is preparing a manuscript to submit for publishing in a peer-reviewed journal. ResApp will engage with regulators over the use of this data in future regulatory submissions.

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About ResApp Health Limited

ResApp Health Limited (ASX: RAP) is a leading digital health company developing smartphone applications for the diagnosis and management of respiratory disease. ResApp's machine learning algorithms use sound to diagnose and measure the severity of respiratory conditions without the need for additional accessories or hardware. ResApp's regulatory-approved and clinically validated products include ResAppDx, a smartphone-based acute respiratory disease diagnostic test for use in telehealth, emergency department and primary care settings; and SleepCheck, a smartphone application which allows consumers to self-assess their risk of sleep apnoea. Both products are CE Marked in Europe and TGA approved in Australia. For more information, please visit www.resapphealth.com.au.

Contacts

Dr Tony Keating
CEO and Managing Director
+61 430 180 659
tony@resapphealth.com.au

Mr Brian Leedman
Executive Director, Corporate Affairs
+61 412 281 780
brian@resapphealth.com.au

This ASX announcement was approved and authorised for release by the board of directors of ResApp Health.