

A novel Tidal-Breathing Respiratory Monitoring Device and a study of symptomatic asthmatics during the first month of Corticosteroid treatment

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Abstract

In this presentation we will review the development of respiratory monitors based on tidal breathing, including the technology, the data capture methodology and the data interpretation. We will also look at the factors that can compromise the data itself and identify how these have been overcome. Then we will look at the current state of the two leading devices currently being developed: CRI's N-Tidal and Redecol's DHRMS. We will review the use of the devices in clinical studies and focus on the results of a study of symptomatic asthmatics during their first month of corticosteroid treatment ("The device was equivalent to peak expiratory flow in detecting changes to lung function tracked using FEV1."), together with the results of a methacholine challenge study ("The device was able to detect changes in lung function tracked using FEV1.").

Biography

Jeremy has spent the last fifteen years developing novel transformational technologies to monitor lung function. His primary focus is unlocking the contextually-rich data from normal tidal breathing. He has led the development of two exciting technologies based on the primary outputs of the respiratory cycle – CO₂ and water vapour. Both technologies are progressing through clinical studies towards regulatory approval. Jeremy has been granted two patents and has four others pending. His innovative developments have been supported by over \$6m of non-dilutive Government and charity funding. Jeremy has been a life-long innovator and entrepreneur developing syndicated healthcare data, information and education services. He has been involved in two NASDAQ healthcare IPOs and acted as a Digital Health expert adviser for Innovate UK. Jeremy graduated from Bristol University with an aeronautical engineering degree, before flying jets in the Royal Air Force.

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