Prototype for proactive COPD patient management

October 14 2014, by Rachel Bloom-Baglin

Today at the Dreamforce 2014 conference in San Francisco, Royal Philips and Nijmegen, the Netherlands-based Radboud university medical center announced the debut of a prototype to support patients with chronic obstructive pulmonary disease (COPD). The launch marks the start of joint explorations between Philips and Radboudumc to apply mobile, digital and cloud technologies to improve patient outcomes, care coordination and patient empowerment across the health continuum.
According to the US Centers for Disease Control and Prevention (CDC), 117 million Americans, or nearly one-half of the US adult population, have at least one chronic condition, and one in four adults has two or more. The CDC estimates that caring for patients with chronic conditions accounts for 70% of the annual health care spend in the U.S. In a study released by The World Economic Forum, the global economic impact of the five leading non-communicable diseases – cardiovascular disease, chronic respiratory disease, cancer, diabetes and mental ill-health – could total USD 47 trillion over the next 20 years.

Management of COPD is challenging and often costly, as the progressive nature of the disease leads many patients to require complicated therapies and frequent hospital readmissions. At the same time, consumers are increasingly looking for new ways to take control of their personal health in order to live healthier and better lives.

"Unlike other wearable solutions recently introduced to the market, this prototype collects more than just wellness data from otherwise healthy people," said Jeroen Tas, CEO Healthcare Informatics Solutions and Services at Philips. "We are demonstrating the power of harnessing both clinical and personal health information to better manage chronic disease patients across the health continuum, from healthy living, prevention, diagnosis, treatment, recovery and home care."

**How it works**

The wearable diagnostic prototype for COPD patients feeds data collected from patients at home to clinicians through the Philips HealthSuite Digital Platform to two clinical applications currently available on the cloud-based platform – eCareCompanion and eCareCoordinator – which both recently received FDA 510(k) clearance. Once a COPD patient has left the hospital, a wearable diagnostic prototype collects data day and night – including physical
activity/inactivity, respiratory indicator, heart rhythm and heart rate variability. That data is then sent via the cloud to the Philips HealthSuite Digital Platform, where it is shared with the appropriate care providers via the eCareCoordinator application, presenting a more complete view of the patient's illness.

"Together with Philips, we are exploring and developing tools to enable patients to be true partners in their own health care, including Hereismydata™ and thus creating a digital platform for patients to collect data from EMRs as well as personal wearable technology," said Lucien Engelen, director REshape Innovation Center at Radboud university medical center. "Our collaboration with Philips creates the scale needed for a globalizing sustainable healthcare approach."

Radboudumc is considered to be one of the most innovative medical centers in Europe focused on digital solutions to enable patient centric care. The innovation center at Radboudumc, part of the network of
Singularity University's Exponential Medicine track in Silicon Valley, is at the forefront of the convergence of technology and patient empowerment, both inside and outside the hospital.

As part of Philips vision for the HealthSuite Digital Platform, the company is working to create a suite of open application programming interfaces (APIs) that can be used by developers to create innovative applications for hospitals and health systems. Visitors to the Philips booth in the Salesforce Customer Showcase at Dreamforce can sign up to learn more about this Developers Toolkit, expected to be available in early 2015.

Provided by Philips


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