

myCOPD:- The digital self-management solution for patients. (#1804)

(Submitted by Ian Thompson | 11/01/2016 - 10:28 | Sign Posted)

Innovation 'Elevator Pitch'

myCOPD is the first step for patients in having their COPD pathway online. 98% of patients had their inhaler technique corrected with no clinical interaction with myCOPD.

Overview of Innovation

myCOPD is a complete online self-management solution for patients with COPD. Developed under a £1million NHS contract, myCOPD was selected by Sir Bruce Keogh for the NHS Innovation Accelerator Programme.

<https://mycopd.mymhealth.com>

<https://mypulmonary.rehab>

myCOPD is able to deliver the expertise normally provided by the consultant, nurse, physiotherapist, pharmacist and even psychologist at a time and place to suit the patient.

Built by clinicians and tested with patients, myCOPD delivers a simple, functional user interface that can be accessed on any device that connects to the Internet from smartphones and tablets to laptops and desktop computers delivering advanced patient self-management, education, pulmonary rehabilitation and disease management at an individual and population level. myCOPD brings together patients and clinicians in a single, integrated platform delivering an interface for the clinician managing a population of patients with COPD. The clinician dashboard allows the prompt identification of patients with worsening symptoms. Allowing clinicians to monitor their population more efficiently and allocate resources more appropriately.

myCOPD is scalable, fully language and region translatable allowing the application to be used in multicultural communities and wider markets in Europe and beyond.

myCOPD has proven to correct 98% of inhaler errors (present in over 90% of patients) with no other clinical intervention.

Patient features

- An interface where patients can feedback their symptoms and quality of life scores to their health care provider
- Online self-management plan
- Patient education
- Online inhaler diary
- Oxygen alert card
- Inhaler technique videos
- Comprehensive online pulmonary rehabilitation program

Clinician features

- Community/Exacerbation Review
- Primary Care Review
- Secondary Care Review
- Oxygen Assessment
- Spirometry
- Medicine use review
- Upload any document

Stage of Development

Market ready and adopted - Fully proven, commercially deployable, market ready and already adopted in some areas (in a different region or sector)

Online Discussion Rating - 4.8 (votes 6)

Initial Review Rating - 4.8 (votes 2)

Compelling proposition - 5

Innovation fit - 5

Health outcome potential for the region - 5

Wealth creation opportunity for WM region - 4

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Innovation stage - 5

WMAHSN priorities and themes addressed

Long term conditions: a whole system, person-centred approach / Wellness and prevention of illness / Wealth creation / Clinical trials and evidence / Digital health / Innovation and adoption / Person centred care

Benefit to NHS

There is no cure for COPD and good symptom management is essential to stabilise disease and prevent recurrent flare-ups or exacerbations. Exacerbations often require intensive treatment and can be severe enough to require hospital admission. COPD is associated with considerable costs, both to the NHS and to society. COPD is the second most common reason for emergency admission to hospital, accounting for one in eight non-elective admissions¹. In England in 2012-2013, there were 121,836 admissions for COPD of which the vast majority (95%, n=115,814) were emergency admissions. From a clinical standpoint, the benefits of systematic symptom documentation, explicit care planning, improved inhaler technique, improved adherence and better access to pulmonary rehabilitation can all be expected to yield improved disease control. The myCOPD system has been evaluated and each individual component has been shown to reduce the likelihood of an acute exacerbation or allow it to be identified early enough to avoid hospital admission. This has clear cut economic benefits.

Prior to going onto myCOPD, over 90% of patients were not able to use their inhalers properly, after 3 months with no clinical interaction the patients were re-evaluated. The result was that 98% of patients were then able to use their inhalers properly with no clinical errors. 95% of patients improved their CAT score. The cost of medicines wastage to the NHS runs well into the millions, add on the fact that patients are not able to take their medications we are wasting money on medications on a large scale.

Now if patients were able to take their inhalers properly and we start to see the drug trial results with exacerbation reduction by around 25%, the savings would be on a large scale. There is an economic evaluation attached which was completed by a third party prior to our SBRI Phase II application for detailed cost savings.

When it comes to Pulmonary Rehabilitation, we are able to provide this at 100th of the cost of current channels.

Benefit to WM population

We believe that self-management should begin at the point of diagnosis. We need to put the right tools in the patient's hands at the start of their pathway, not at the end, not in the middle or somewhere in between, but at the start. Mortality in COPD is high, patients do not want to go to hospital and will often turn to the internet when they need answers about their disease. For most of us, our lives are managed online – banking, shopping, to name a few but not our health, for now. Having a better-educated COPD population, that can access the information they need and more, which has been written by NHS respiratory specialists, will ensure patients understand their disease like never before. Are able to keep track of symptoms and medicines usage. What we will start to see is a better informed patient population, that understands when their CAT scores are getting higher they need to start their rescue pack – that will not only save a nurse/GP appointments but help the patients recover quicker.

Pulmonary rehabilitation (PR) is delivered at a dictated time, day and place – thus resulting in only 5-7% of the eligible COPD population being able to access PR. For the first time the WM population will have the option of opting to do their classes either face to face through the traditional channels, or online or as part of a blended programme where they can access both face to face and digital. Thus delivering real patient choice to how and where they receive their rehab care.

Current and planned activity

Back in July, Sir Bruce Keogh announced after a global calling that they had selected 17 proven technologies to be rolled out at scale across the NHS, in line with the vision of the Five Year Forward View. myCOPD was one of them and the only respiratory selection. Over the last 6 months we have been working with many senior figures across the NHS to uncover the barriers and real drivers for change. We have focused our activities with aligned AHSNs and the largest COPD based CCG populations. We want to raise awareness that a digital self-management solution is now available for those with COPD, the aim is to get the solution commissioned across CCGs so all patients are able to access it.

Return on Investment (£ Value)

Very high

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Return on Investment (Timescale)

0-6 mon

Ease of scalability

Simple

Detailed submission

Regional Scalability

The innovation is easily and readily scalable. All data that feeds into myCOPD sits on servers at Portsmouth NHS Trust on the N3 network. As this is an online solution, scalability is not an obstacle, it has been built on Cassandra databases which means linear scaling is infinite - these are the same platforms Netflix, Google and other use. When a CCG has full access to myCOPD it is easy to create user/patient accounts - with the click of a button.

We have not scaled in any other area - we have only been fully ready for market since December 2015.

Measurement of outcomes

Measures

The outcomes are reductions in hospitals admissions, re-admissions, increased access to pulmonary rehab, increased completed number of pulmonary rehab attendees, a significant improvement in inhaler/medication adherence, improvement with inhaler technique.

Imbedded within the programmes for the patients is the COPD Assessment Test (CAT). Which is a patient-completed instrument that complements existing approaches to assessing COPD impact. It has been designed to provide a simple and reliable measure of health status in COPD and assists patients and their physicians in quantifying the impact of COPD on the patient's health.

The CAT has undergone a rigorous, scientific development process and the first validation studies show that it has properties very similar to much more complex health status questionnaires such as the St George's Respiratory Questionnaire (SGRQ) that are used in research studies. It takes only a fraction of the time to complete, however, making it suitable for routine use. It is and has been used in COPD studies in Europe, USA and Asia.

Year on year admissions into hospital with COPD are increasing, the impact the solution makes on the patient population can be measured through past admissions data Vs. patients on myCOPD and looking at re-admissions data.

Adoption target

Is for 3-5 CCGs in the WM provide access for patients to both myCOPD and myPR within the next 12 months. This will provide access to at least 6,000 patients. It can used within the community, primary care and secondary care teams. There is currently a complete absence of reliable tools for patients and clinicians in the digital space for COPD.

User Comments

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Submitted by Ian Thompson on 11 November, 2016 - 09:50.

News article in The Guardian regarding myCOPD a patient story...

https://www.theguardian.com/healthcare-network/2016/nov/09/apps-patients-take-care-themselves-digital-tech?CMP=share_btn_tw
https://www.theguardian.com/healthcare-network/2016/nov/09/apps-patients-take-care-themselves-digital-tech?CMP=share_btn_tw

Submitted by Lucy Chatwin on 11 November, 2016 - 09:15.

Ian - I have passed this on the LPN Chair of the West Midlands to see how it supports the Community Pharmacy agenda as well as the BSol CCG Respiratory Network programme manager. I will let you know if I hear anything.
Thanks Lucy

Submitted by Ian Thompson on 11 November, 2016 - 09:52.

Who is the BSol CCG Respiratory Network programme manager? Thanks.

Submitted by Tammy Holmes on 20 June, 2016 - 08:41.

We have recieved great news from Ian regardarding myCOPD which has had some significant news coverage across the country with Simon Stevens announcement at the NHS Confederation 2016.

Please see some of the links below for reference.

NHS website link

<https://www.england.nhs.uk/2016/06/treatment-innovations/>

National news stories:-

<https://www.theguardian.com/society/2016/jun/17/nhs-to-offer-free-devices-and-apps-to-help-people-manage-illnesses>

<http://www.dailymail.co.uk/wires/pa/article-3645856/NHS-chief-agrees-new-budget-streamline-getting-medtech-patients.html>

<http://www.telegraph.co.uk/news/2016/06/17/millions-of-patients-to-get-access-to-life-saving-gadgets-under/>

Submitted by Neil Mortimer on 27 January, 2016 - 08:26.

Hi Ian

Nice to see an innovation that has the user right at the centre of the design.

You mention a clinician dashboard and a document upload facility. Are these currently integrated with any of the common NHS clinical systems?

Neil

Submitted by Ian Thompson on 28 January, 2016 - 14:49.

The short answer is no, not yet, but it has been built so they can be with things like systmOne, Emis etc.

Submitted by Denise Barrett on 15 January, 2016 - 16:32.

I work in Ladywood, Birmingham, which has the worst prevalence of COPD in the City.

The City Council wants to transform the Ladywood Health and Community Centre, into a Creative Well Being Hub. The aim is to co

design and deliver a blend of physical, cultural and training activity, to enable community capacity and resilience.

I wondered if we could arrange a large group demonstration at the Centre?

We could invite local patients and health professionals into the Centre, to introduce the app (and provide some hot food provied by the

Real Junk Food Kitchen)?

The Centre has wifi, so we could help support patients to monitor their condition, in their community?

Thoughts welcome.

Denise

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Submitted by Ian Thompson on 25 January, 2016 - 14:03.

Dear Denise,

My contact details are ian.thompson@mymhealth.com - please email me and we can go from there.

Submitted by Lucy Chatwin on 17 January, 2016 - 21:18.

Happy to support you with this Denise and will be in touch. Thanks, Lucy

Submitted by Simon Potter on 15 January, 2016 - 15:05.

I think this is very good and places the patient at the heart of treatment. One of the innovations we have is to attach scannable QR



codes to the inhaler packaging which connect to inhaler technique videos.