

Implementation Toolkit myCOPD



Any time. Any place. Any device.



Introduction

NHS England's Innovation and Technology Tariff (ITT) went live on 1 April 2017. This new Tariff was introduced to incentivise the adoption and spread of transformational innovation in the NHS. The first two-year ITT runs from 2017 to 2019, with six themed product types identified as being suitable for at-scale introduction in the NHS and likely to result in great benefits for patients.

Four innovations on the NHS Innovation Accelerator (NIA) - an NHS England initiative supported by England's 15 Academic Health Science Networks (AHSNs) - meet the required theme specifications of the ITT.

These are: myCOPD, the Non-Injectable Arterial Connector (NIC), PneuX Prevention System, and Episcissors-60. Under the ITT, the first three innovations are funded under a zero cost model. Providers order the innovations directly from the supplier at no cost and NHS England reimburses the supplier directly. Episcissors-60 can be ordered via NHS Supply Chain, with providers reimbursed based on use.

In parallel, but separately from the ITT, NHS England is centrally funding the purchase of mobile ECG technology. A further NIA innovation, AliveCor's Kardia, meets the stringent specification of this technology, which will be available and managed via the AHSN Network.

The NIA has produced Implementation Toolkits for Episcissors-60, myCOPD, the Non-Injectable Arterial Connector (NIC), PneuX Prevention System, and AliveCor's Kardia. These toolkits detail how the innovations provide solutions to key challenges within our healthcare system; impact and outcomes, including cost savings, patient benefit and organisational advantage; an evidence summary and supporting testimonials; plus an overview of how to procure each innovation, including payment/price detail.

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Introducing the NHS Innovation Accelerator (NIA)

The NHS Innovation Accelerator (NIA) is an NHS England Initiative delivered in partnership with the Country's 15 Academic Health Science Networks (AHSNs), hosted by UCLPartners. It supports delivery of the *Five Year Forward View* by accelerating uptake of high impact innovations for patient, population and NHS staff benefit, and providing real time practical insights on spread to inform national strategy.

Fellows supported by the NIA all share a set of values and passion for scaling evidence-based innovation to benefit a wider population, with a commitment to share their learnings. Some impressive results have been achieved by the NIA Fellows in their first 20 months since July 2015, with 469 additional NHS commissioners and providers now using NIA innovations; £28.6m in external funds secured; 14 awards won; 51 jobs created; and ten innovations selling internationally. In addition, impact data is already available at adopter sites which demonstrates earlier intervention, reductions in complications and emergency admissions, alongside cost savings.

The NIA hosts 25 Fellows representing 26 innovations aimed at: activating people to self-manage; earlier intervention; long term conditions management and improving safety. The next NIA call, to be launched in June 2017, will select innovations that address the population challenges prioritised within the 44 Sustainability and Transformation Partnerships (STPs).

For more information about the NIA, email NIA@uclpartners.com

An overview of the Innovation and Technology Tariff (ITT)

The Innovation and Technology Tariff (ITT) has been introduced to incentivise the adoption and spread of transformational innovation in the NHS.

Introducing new innovative products to the NHS can often be hampered by the need for multiple local price negotiations. The ITT aims to remove this need, while guaranteeing that local NHS organisations will be reimbursed for the costs of purchasing an ITT-approved product type. At the same time, the ITT allows NHS England to optimise its purchasing power and negotiate national 'bulk buy' price discounts wherever possible on behalf of the whole NHS.

The first two-year ITT runs from 2017 to 2019. This first Tariff has been developed as a pathfinder, with six themed product types identified as being suitable for at-scale introduction in the NHS, and likely to result in great benefits for patients.

The ITT themes are:

- Guided mediolateral episiotomy to minimise the risk of obstetric anal sphincter injury
- Arterial connecting systems to reduce bacterial contamination and the accidental administration of medication
- Pneumonia prevention systems which are designed to stop ventilator-associated pneumonia
- Web-based applications for the self-management of chronic obstructive pulmonary disease
- Frozen Faecal microbiota transplantation (FMT) for recurrent *Clostridium difficile* infection rates
- Management of Benign prostatic hyperplasia as a day case

The ITT operates under a zero cost model for four of the six themes, which allows providers to order ITT innovations without the need for multiple financial transactions. The zero cost model has been established to minimise the number of transactions and create a more efficient system to administer across the NHS. Both the 'guided mediolateral episiotomy to minimise the risk of obstetric anal sphincter injury' and 'the Management of Benign prostatic hyperplasia as a day case' operate under separate arrangements.

Mobile ECG Technology

In parallel, but separately from the tariff, NHS England is centrally funding the purchase of mobile ECG technology to improve diagnosis of atrial fibrillation (AF). Taking repeat ECG recordings continuously over a 24-hour period or recording events over several days can increase the probability of detecting an arrhythmia, but needs small, portable ECG machines to be practical. The availability of this technology will be managed through the Academic Health Science Networks (AHSNs).

The NHS England Innovation and Technology Tariff 2017-2019 Technical Notes is available to download at: www.england.nhs.uk/resources/pay-syst/development/tech-tariff-17-19-technical-notes/

Introducing myCOPD

Challenge/problem identified

Chronic Obstructive Pulmonary Disease (COPD) is a long-term respiratory condition (most commonly chronic bronchitis and emphysema) that is among the top five causes of death, leading to 24,000 deaths a year. It is also the second most common cause of hospital admissions with direct NHS healthcare costs of £800 million.

COPD causes 115,000 emergency admissions per year, 24,000 deaths per year and 16,000 deaths within 90 days of admission. Around 835,000 people in England are currently diagnosed with COPD with 2.2 million undiagnosed. (<https://www.england.nhs.uk/wp-content/uploads/2014/02/rm-fs-6.pdf>)

Treatment is complex, with different inhalers needing to be used in different ways. Most patients have an inhaler, but 90% do not use them correctly, affecting the dosage they receive. Compliance with treatment is often extremely low, leading to poor outcomes and wasted prescribing.

For this reason, improving self-management for patients with COPD is a key priority for the NHS. As COPD has no cure, it 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.

One of the key issues in COPD care is the provision of pulmonary rehabilitation at a scale needed to meet the requirement of the local population.

Solution

myCOPD is an integrated online education, self-management, symptom reporting and pulmonary rehabilitation (PR) system.

It helps patients to manage their condition more effectively with a self-management plan and inhaler diary, a COPD Assessment Test (CAT), a pulmonary rehabilitation program, online education tutorials, weather and pollution forecasts, and symptom reporting.

Evidence indicates that disease-specific self-management improves health status and reduces hospital admissions for patients with COPD. Studies in COPD have shown that self-management increases patients' knowledge and skills required to treat their own illness.

myCOPD is effective because it educates and empowers patients to take more control of their own care. This brings significant improvements in inhaler use and raises the currently low levels of compliance with treatment. Furthermore, the platform interfaces with a clinician-facing dashboard to allow remote monitoring and management of patients at individual and population level. Local healthcare providers and CCGs can use the platform to monitor exacerbation burdens in real time, and review potential inequalities in health care to more effectively plan support services.

Impact and outcomes

Key statistics

- myCOPD is currently the only NHS approved app on the recently released NHS App Store.
- To date, myCOPD is being used across England with CCGs, hospitals, community teams, pulmonary rehab providers and primary care
- myCOPD is being delivered to patients who are newly diagnosed with COPD, patients being discharged from hospital and patients at their annual review,
- It is also being offered to patients who find it difficult or unable to attend class-based Pulmonary Rehabilitation, and in areas where there are long waiting lists for class-based PR.
- myCOPD has proven to correct 98% of patient inhaler errors without clinical involvement
- myCOPD has proven to reduce time in delivering the annual review by 50%
- myCOPD has doubled the rate of recovery from acute exacerbations
- myCOPD provides the same outcomes as class-based Pulmonary Rehabilitation classes
- A CCG with an average COPD population of 5,000 patients would expect to make savings in the first year alone of over £200,000 if deployed to 60-80% of their COPD population
- myCOPD's PR service costs £20 for the life time of a patient, versus current NHS costs of £400-£800 per six-week course
- A further 45 CCGs have already expressed interest in adopting myCOPD in 2017/18 as it becomes available via the ITT

Impact Modelling Tool

The NIA has developed an Impact Modelling Tool to provide an indication of the savings that could be achieved through implementation of myCOPD.



MyCOPD_economic
modelling.xlsx

Testimonial

"Last year, before using myCOPD, I had 12 exacerbations, this year I have had 2. I now know when and how to take my medication, when to use my rescue pack and I perform my rehab exercises most days. I know far more about my COPD than before. I rely on my doctor far less than before."

Patient

How to procure myCOPD

The below is detailed within The NHS England Innovation and Technology Tariff 2017-2019 Technical Notes, available to download at:

www.england.nhs.uk/resources/pay-syst/development/tech-tariff-17-19-technical-notes/

Payment/price detail

The ITT payment arrangement for this innovation is based on software licenses for the myCOPD programme valued at £20 per patient. Before deciding to use this innovation under the arrangements outlined in the ITT Technical Notes, providers and commissioners need to be aware of the following eligibility criteria.

NHS England will fund myCOPD licences for patients with a diagnosis of severe/very severe COPD up to a maximum of 20% of the total COPD patient population per CCG. It is the responsibility of the CCG to record the number of licences obtained and not to seek further licences through the zero cost arrangement where the 20% threshold has been reached: the cost of any such additional licences sought above the threshold would be liable to clawback by NHS England.

The following patient groups are eligible:

1. New COPD patients referred to an acute pathway managed by community or secondary care
2. Existing COPD patients on the acute pathway managed by community or secondary care

Refer to page 23 of the ITT Technical Notes for reporting instructions.

Availability

CCGs can order licences directly from the supplier at zero cost, up to the limit specified above. Forward enquiries to: ian.thompson@mymhealth.com

Evidence summary

- Bourne, S (submitted to BMJ Open) Online Versus Face-to-Face Pulmonary Rehabilitation for Patients with COPD: Randomised Controlled Trial). Comparing six-weeks of face-to-face and online pulmonary rehabilitation showed that online supported pulmonary rehabilitation was not inferior to a conventional model delivered in face-to-face sessions¹.
- North, M. (2015) Improving outcomes with online COPD self-care. Nursing Times; 111: 30-31, 22-23. If self-management was implemented properly, the NHS could save an estimated £235m over the next ten years. An online self-management system for people with chronic obstructive pulmonary disease allows patients to access information whenever they need it. A comparison of conventional and online approaches to COPD self-management showed the online system is more effective in terms of health status and inhaler technique².
- NHS England has produced an overview of the potential to reduce lives lost from COPD through intervention. This document indicates that if the local areas currently above the median death rate for COPD could achieve the median death rate, 3,500 lives could be saved. Furthermore, if local areas could achieve the death rate of the lower quartile areas, 7,800 lives could be saved. This improvement in mortality will be achieved through the cumulative impact of evidence-based care across the COPD pathway both in long-term treatment and during acute episodes³.
- In an independent Department of Health Economic Analysis, myCOPD has been estimated to reduce admissions and exacerbations by 25-35% by correcting inhaler technique allowing the evidence based reduction in exacerbations and hospitalisation to be realised⁴.

References

1. Bourne et al (submitted to BMJ Open) Online Versus Face-to-Face Pulmonary Rehabilitation for Patients with COPD: Randomised Controlled Trial.
2. Research paper: Nursing Times. Available from:
https://www.researchgate.net/publication/281461552_Nursing_Times
3. NHS England overview of potential to reduce lives lost from COPD through intervention:
<https://www.england.nhs.uk/wp-content/uploads/2014/02/rm-fs-6.pdf>
4. Department of Health Economic Analysis of myCOPD (on file)

Useful links

- myCOPD product video: <https://mymhealth.com/mymhealth/mycopd>

Contact information

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NHS Innovation Accelerator

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NHS Innovation and Technology Tariff

E: innovation.england@nhs.net

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NHS Innovation Accelerator