



Improving outcomes of patients with COPD through better long term and self-management of the disease

SBRI Healthcare NHS England competition for development contracts

September 2013

Summary

A new national Small Business Research Initiative (SBRI) Healthcare competition is being launched by NHS England in partnership with the Academic Health Science Networks (AHSN's) to find innovative new products and services. The projects will be selected primarily on their potential value to the health service and on the improved outcomes delivered for patients.

The competition is open to single companies or organisations from the private, public and third sectors who will ultimately be capable of supplying the NHS with the resulting product or service on a commercial basis. The competition will run in two phases:

- Phase 1 is intended to show the technical feasibility of the proposed concept. The development contracts placed will be for a maximum of 6 months and up to £100,000 (inc. VAT) per project
- Phase 2 contracts are intended to develop and evaluate prototypes or demonstration units from the more promising technologies in Phase 1. Only those projects that have completed Phase 1 successfully will be eligible for Phase 2.

Developments will be 100% funded and suppliers for each project will be selected by an open competition process and retain the intellectual property rights (IPR) generated from the project, with certain rights of use retained by the NHS.

This competition theme focuses on the challenges in improving diagnosis and management of COPD (Chronic Obstructive Pulmonary Disease) and is jointly led by Kent Surrey Sussex AHSN and Wessex AHSN. Of interest and importance to this theme is the recognition and consideration of co-morbidities associated with diagnosis of a long term condition, in conjunction with supporting personalised care planning for treating not only directly but also non-directly related conditions affecting those patients.

The competition opens on 16th September 2013. The deadline for applications is 1200hrs on 31st October 2013.

Background

Nationally, COPD has a large impact on health care provision and society. In the UK there are approximately 6 million COPD sufferers, causing 24 million working days to be lost, at a cost of nearly £4bn per year from reduced productivity. The human cost is also high with approximately 23,000 deaths due to COPD per annum, which means a death every 20 minutes¹.

The increasing burden of chronic disease such as COPD is putting a considerable strain on limited healthcare budgets. Much of the cost associated with COPD is incurred in management of patients as in-patients suffering acute exacerbations of their condition.

Across the UK, COPD is an under diagnosed condition, and around half of sufferers are unaware of their diagnosis. Innovative solutions are needed to try to improve diagnostic rates, reduce the burden of exacerbations and prevent the need for hospital admissions, and to enable patients to be managed more proactively in their own homes. Poor recognition and treatment of respiratory failure increases the risk of mortality, and COPD solutions that recognise and monitor respiratory failure and leading to demonstrably improved outcomes are required. The costs of medication for known COPD patients are also high (e.g.

¹ Atlas of Variation for Respiratory Disease 2010/11

£46.6million in Kent Surrey and Sussex for inhaled steroids) and there is evidence of sub-optimal value being derived.

Telehealth approaches in COPD over the last 5 years have failed to show sustained improvement in COPD outcomes, but newer solutions that incorporate smartphone and internet based technologies, usable by the target elderly COPD population, and integrated into self-management, diagnosis, monitoring and education tools are required.

Challenges

Evidence from studies over the last 20 years has identified a variety of COPD interventions. Innovative technologies and solutions are sought that would help optimise care and address specified blocks in the pathway in diagnosis, treatment and prevention of deterioration.

1. Diagnosis:

There is a gap between known and expected cases - late diagnosis leads to suboptimal care. Solutions are needed for:

- Finding the 'missing million'
- Targeted early interventions to improve outcomes

2. Exacerbations:

There is a need to reduce the misery of exacerbations which increase mortality, morbidity and costs. A range of solutions are needed:

- Prevention of onset
- Earlier prediction of onset
- Prompt appropriate treatment
- Stratified therapies using existing and novel markers
- Improved self-management strategies e.g. via patient education

3. Medicines Optimisation:

There is high spend on medications and best value is not obtained. Solutions are required for:

- Compliance with medication regimen
- Strategies incorporating innovative patient education to improve and maintain adherence to the myriad of inhalers

4. Activity:

Pulmonary rehabilitation is known to be a cost-effective intervention, but the proportion of patients who access this is low. Daily activity is also a main driver for reducing COPD morbidity

- Solutions that are tailored for adults that monitor, encourage and improve activity in the home environment. This may include or be part of novel self-management approaches
- Solutions to increase access to PR for wider socio-economic and ethnic groups
- Consideration to adaptation of technologies that have a proven application for people with dementia may be of use.

5. Respiratory failure:

There is widespread suboptimal care of respiratory failure leading to potential harm², therefore solutions are required for:

- Early recognition and prompt action to treat respiratory failure in COPD, including appropriate use of home oxygen
- Monitoring those with established respiratory failure and treated by home oxygen and home non-invasive ventilation
- Support of appropriate post hospitalisation care that reduces morbidity from the current exacerbation and reduces the chance of readmission through targeted interventions to prevent further exacerbations

Key policy documents

Improving Care for People with Long-Term Conditions: 'At a Glance' Information Sheets for Healthcare Professionals published in November 2010 provides a series of information sheets for those supporting delivery of care and anyone supporting individuals with long term conditions. The information sheets cover a range of topics including care planning, care co-ordination, managing need and assessment of risk, motivating people to self-care, goal setting and action planning and end of life care.

The **Quality and Outcome Framework** of the new GP contract is designed to provide financial incentives for doctors to identify, monitor and treat individuals with many common long-term conditions (e.g. COPD) more effectively.

The **White Paper - Our health, our care, our say: a new direction for community services** - published in January 2006 focuses very strongly on the role of self-care support for people with longer term needs. It includes commitments to provide integrated care plans for those with a **long-term condition** by 2010.

NHS Choices includes '**Your health, your way - a guide to long-term conditions and self-care**'. This covers the 'four pillars' of support for self-care (information, tools, skills and support networks) together with healthy lifestyle choices. 'Your health, your way' will provide people with long-term conditions with the information they need about the choices, which should be available to them locally, to enable them to self-care in partnership with health and social care professionals.

Application process

This competition is part of the Small Business Research Initiative (SBRI) programme which aims to bring novel solutions to Government departments' issues by engaging with innovative companies that would not be reached in other ways:

- It enables Government departments and public sector agencies to procure new technologies faster and with managed risk;

² NPSA Safety Alert Emergency Oxygen 2009

- It provides vital funding for a critical stage of technology development through demonstration and trial – especially for early-stage companies.

The SBRI scheme is particularly suited to small and medium-sized businesses, as the contracts are of relatively small value and operate on short timescales for Government departments.

It is an opportunity for new companies to engage a public sector customer pre-procurement. The intellectual property rights are retained by the company, with certain rights of use retained by the NHS and Department of Health.

The competition is designed to show the technical feasibility of the proposed concept, and the Phase 1 feasibility contracts placed will be for a maximum of 6 months and up to £100,000 (incl. VAT) per project. It is envisaged that a competition for Phase 2 Development contracts will be run during 2014.

The application process is managed on behalf of NHS England by the Eastern Academic Health Science Network through its delivery agent Health Enterprise East. All applications should be made using the application forms which can be accessed through the website www.sbrihealthcare.co.uk.

Briefing events for businesses interested in finding out more about the competition will be held on the 24th September (Nottingham), the 30th of September (London) and the 2nd of October (North West). Please check the website for confirmation of venues and to register attendance.

Please complete your forms using the online application process and submit them by 1200hrs on the 31st October 2013.

Key dates

Competition launch	16 th September 2013
Briefing events	24 th & 30 th Sept, 2 nd Oct 2013
Deadline for applications	1200hrs 31 st October 2013
Assessment	November 2013
Contracts awarded	February 2014

More information

For more information on this competition, visit:

www.sbrihealthcare.co.uk

For any enquiries, e-mail:

sbrienquiries@hee.co.uk

For more information about the SBRI programme, visit:



www.sbrihealthcare.co.uk



The SBRI Healthcare programme is directed by the Eastern Academic Health Science Network on behalf of NHS England and managed by Health Enterprise East.