Improving medicines adherence

SBRI Healthcare NHS England competition for development contracts

May 2014

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 (AHSNs) 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 challenge of improving Medicines Adherence and is jointly led by West of England AHSN and Wessex AHSN.

The competition opens on 19 May 2014. The deadline for applications is 1200hrs on 10 July 2014.

Background

It is estimated that between a third and a half of prescribed and dispensed medicines (e.g. tablets, syrups, ointments, capsules, inhalers, creams, eye drops, and suppositories) are not used as recommended.

Non-adherence and underuse represents a loss to patients, the healthcare system and society at large, as it is a lost opportunity for health improvement and a waste of valuable resources for healthcare systems.

Adherence presumes an agreement between the prescriber and the patient about the prescriber's recommendations for medications and is defined as the extent to which the patient's actions match the agreed recommendation.

Non-, or partial, adherence can be due to a variety of factors but often is a result of a failure of the prescriber to fully agree the prescription with the patient in the first place and to appropriately support the patient once the medicine has been dispensed.

Non-adherence falls into two overlapping categories:

Intentional	Patient decides not to follow the treatment recommendations.	For example, because of side effects
Unintentional	Patient wants to follow the treatment recommendations but has practical problems in doing so.	For example, poor recall or difficulties in understanding the instructions, problems using the treatment, inability to pay for the

		treatment or simply forgetting to take it

To better understand and therefore address factors that influence motivation to start and continue treatment, it is necessary to have:

- An open 'no blame' approach that encourages patients to discuss any doubts or concerns about treatment with an informed healthcare professional e.g. prescriber or community pharmacist
- A patient centered approach that encourages informed adherence
- Identification of perceptual and practical barriers to adherence at the time of prescribing and during regular reviews.

Improving medicines adherence is a wide ranging topic and the potential solutions to address the challenges are likely to come from a wide range of approaches.

Challenge

1. Getting the right information to the right people at the right time

(This includes patients & carers, as well as healthcare professionals).

We need to help empower patients and their carers to access the information they need and encourage healthcare professionals to listen to what their patients say is important to them about taking or not taking their medicines.

We are keen to explore medicines passports, peer-to-peer buddy systems, mobile apps, easy ways to get personal advice, and means of coordinating advice, especially if the person is taking multiple medicines.

2. Overcoming physical, cultural, language and mental barriers

- **Physical** – people may have poor eyesight or poor dexterity.
- **Cultural & social**– people may prefer to listen to advice from their family & friends rather than their doctor or a pharmacist. People may not take their medicines because the ingredients maybe contrary to their beliefs.
- **Language** – English may not be a first language or the instructions are unclear
- **Mental** – people with memory loss can forget what tablets they've taken or some people may not think they require their prescribed medicines.

Compliance devices (monitored dosage systems e.g. dosetts) are being used with increased frequency and cost. There may be novel solutions to address some of the above challenges.

3. Minimising errors and wastage in prescribing & dispensing

- **Paperless** (or paper light) total quality system to minimise errors in prescribing & dispensing with appropriate checks & sign-offs at each stage.
- **Minimising wastage**. Mechanisms to ensure that the most suitable form of medicine is used for patients in order to enable adherence. Systems to further understand the reasons for medicines wastage, hence enabling the management and minimisation of medicines wastage by patients. This applies to returned unwanted medicines and those dispensed on repeat prescriptions.

- **Links** using appropriate standards to other systems to inform patients & healthcare practitioners.

4. Risk stratification in medicines adherence

It is particularly important to target adherence initiatives towards people at highest risk of not taking their medicines correctly. Currently it is difficult to identify these people. For example patients are registered with GP practices (primary) but not required to register with a particular community pharmacy and can occasionally be admitted into different hospitals (acute care).

- There is a need to identify and target those patients who do not take their medicines appropriately and who are frequently readmitted to hospital.
- There is a need to identify patients most at risk of frequent hospital admission due to medicines non-adherence before these admissions occur and to provide this information to healthcare professionals.
- There is also need to identify subgroups of patients where non-adherence poses a risk to the community (e.g. tuberculosis (TB)).

5. Eliminating risks at system interfaces

People use various health care systems depending on their health condition and the local clinical pathway. This means they move between GP (primary) care, community & community pharmacy care and hospital (acute) care. Handovers & information sharing between these systems is poor and often non-existent.

- We are keen to consider systems which allow the patient and healthcare professional appropriate access to a single accurate record and/or the Summary Care Record. Medicines passports are also of interest in this context.
- Such systems must meet current technical & functional interoperability standards including those from standards bodies (Dictionary of medicines & devices (dm+d), Clinical Documentaton Architecture (CDA), EU Falsified Medicines Directive (FMD), SNOMEDCT etc), professional pharmacy organisations and the Royal College of Physicians (via Professional Records Standards Body)

Scope

All areas of the health economy, primary, secondary and community care are the focus for this call with a desire to provide more patient focussed self-management tools that can feed into the health system when required. You may also wish to look at the Integrated Care category which is also part of the current SBRI Healthcare call.

Key policy documents

Concordance, adherence and compliance in Medicines taking: Report for the National Coordinating Centre for NHS Service Delivery and Organisation R&D R Horne et al (Dec 2005)

NICE clinical guideline 76, Medicines Adherence: Involving patients in decisions about prescribed medicines and supporting adherence 2009

NICE Guide to resources Medicines Adherence: Implementing NICE Guidance 2009

www.nice.org.uk/nicemedia/live/11766/43741/43741.doc (accessed 02May14)

Department of Health: Improving the use of medicines for better outcomes and reduced waste: An Action Plan October 2011.

NHS England: Making medicines-taking a better experience http://www.england.nhs.uk/wp-content/uploads/2014/04/mo-ws-report-02-14.pdf

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;
- 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 in 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 (inc. VAT) per project. It is envisaged that a competition for Phase 2 Development contracts will be run during 2015.

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 03 June (Birmingham) and 09 June (Daresbury, Cheshire). 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 10 July 2014.

Key dates

Competition launch	19 May 2014
Briefing events	03 and 09 June 2014
Deadline for applications	Noon 10 July 2014
Assessment	August – September 2014
Contracts awarded	October 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.innovateuk.org/SBRI

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.