Medicines optimisation and adherence
Opportunity for innovations

Context

The West Midlands Academic Health Science Network (WMAHSN) has a defined process for addressing the region's health delivery needs and challenges through asking for outcome-focused innovation proposals that can be received and agreed with our partners throughout the year. This document provides you with an overview of the areas in which we are interested in seeking to pull innovation proposals.

WMAHSN criteria

Proposals will be shortlisted against the following criteria:

- Regional scalability
- Fit with WMAHSN priorities and business plan
- Clear deliverables, outcomes measures and quality indicators
- Evidence of support across the region
- Patient/carer involvement
- Consistency with other WMAHSN themes
- Fit with the NHS Outcomes Framework
- Evidence of additional investment.

Priority – Medicines optimisation and adherence

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 – the patient decides not to follow the treatment recommendations because, for example, because of side effects.
- Unintentional – the 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 or affording 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.

The WMAHSN would like to focus on key areas for future programmes of work that consider the challenges of:

- **Getting the right information to the right people at the right time including patients and carers, as well as healthcare professionals**
  - Programmes need to focus on how 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. Health professionals need to understand that patients may make different decisions in how they manage their condition and therefore want support to use medicines effectively in a way that suits them.

- **Overcoming physical, cultural, language and mental barriers**
  - Physical – people may have poor eyesight or poor dexterity.
  - Cultural and social – people may prefer to listen to advice from their family and 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 such as dosette boxes) are being used with increased frequency and cost. There may be novel solutions to address some of the above challenges.

- **Minimising errors and wastage in prescribing and dispensing**
  - Paperless (or paper light) total quality system to minimise errors in prescribing and dispensing with appropriate checks and 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 and healthcare practitioners.

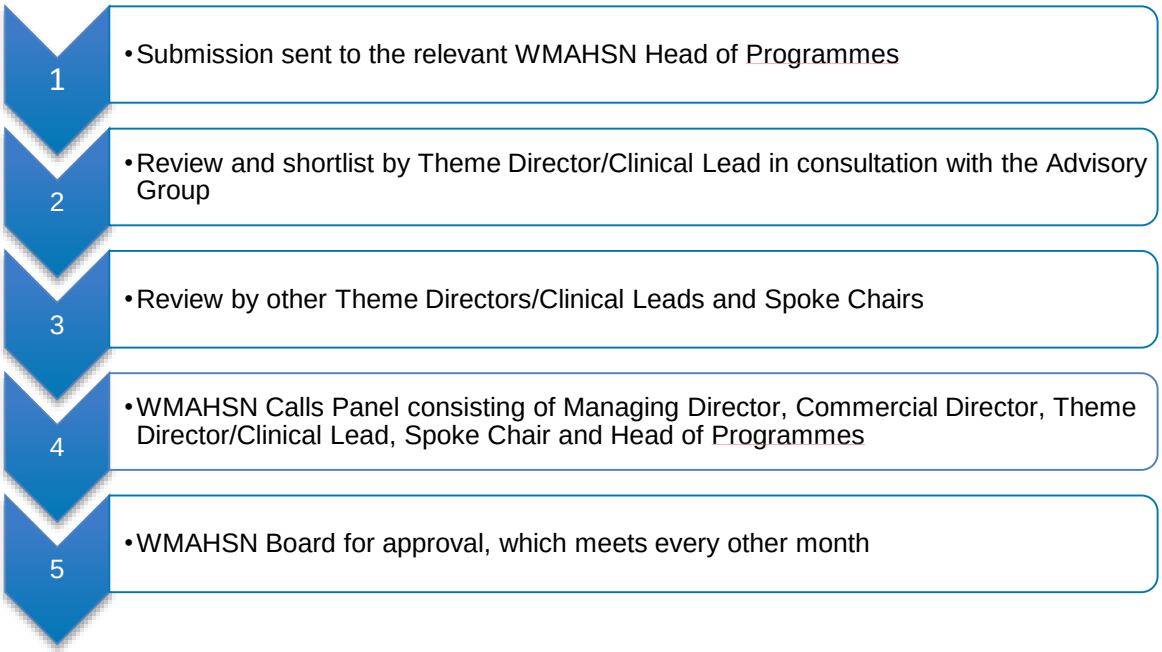
- **Risk stratification in medicines adherence**
  - It is particularly important to target adherence initiatives towards people at highest risk of not taking their medicines correctly. Currently, it is difficult to identify these people. For example, patients are registered with GP practices but not required to register with a particular community pharmacy and can be admitted to different hospitals.
  - There is a need to identify and target those patients who do not use their medicines effectively 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).

- There is a need to understand what side effects are important to patients and therefore individualise drug therapy accordingly.

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 and community pharmacy care and hospital (acute) care. Handovers and information sharing between these systems is poor and often non-existent. WMAHSN is 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 and functional interoperability standards including those from standards bodies (Dictionary of Medicines and 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).

Process



For any queries on the process please contact the relevant contact for assistance. A template for any submissions can be obtained from our website at www.wmahsn.org/get-involved/Opportunities or by emailing for a copy.

Theme	Contact	Email
Medicines optimisation and adherence Patient experience and feedback Wealth creation	Lucy Chatwin	lucy.chatwin@wmahsn.org
Digital health	Neil Mortimer	neil.mortimer@wmahsn.org

Mental health Open data		
Education and workforce for the future	Louise Stewart	louise.stewart@wmahsn.org
Integrated care Long term conditions Evidence and adoption Wellness and healthy ageing	Lucy Chatwin and Neil Mortimer	lucy.chatwin@wmahsn.org neil.mortimer@wmahsn.org
Patient safety	Peter Jeffries	peter.jeffries@wmahsn.org