National Institute for Health Research

NIHR Themed Call: Specification

Preventing the Development and Spread of Antimicrobial Resistance

In the second half of 2013 the National Institute for Health Research (NIHR) will issue a call for research into the evaluation of public health measures, health care interventions and health services to reduce the development and spread of antimicrobial resistance and consequent morbidity.

This call for research is part of a coordinated response by the NIHR to the publication of the 2nd volume of the 2011 Annual Report of the Chief Medical Officer: Infections and the rise of antimicrobial resistance. It will also support the Department of Health-led UK Antimicrobial Resistance Strategy (expected to be published in summer 2013) which sets out how the challenges outlined in the report will be met.

This call is intended to cover all aspects of translational, clinical and public health research that could through new developments or changes in practice, contribute to a reduction in the development and spread in humans of organisms with antimicrobial resistance, and infection. Research may encompass better prevention, improved surveillance and monitoring and diagnosis as well as the more effective use of existing antibiotics, improved education and training and the development of new antimicrobial therapies and better treatment strategies.

The following eight NIHR managed research programmes will be participating:

- Efficacy and Mechanism Evaluation (EME)
- Health Services & Delivery Research (HS&DR)
- Health Technology Assessment (HTA)
- Invention for Innovation (i4i)
- Programme Grants for Applied Research (PGfAR)
- Public Health Research (PHR)
- Research for Patient Benefit (RfPB)
- NIHR Fellowships programmes

Research proposals must be within the remit of one of the participating programmes and applicants should carefully consider the remit described for each programme. However, this call provides opportunities to evaluate interventions which cross NIHR programme boundaries and applications which span the remit of one or more NIHR programme will be considered. The inclusion of patient views and experiences are considered important by each participating programme.

For further information please visit: www.themedcalls.nihr.ac.uk/amr

Application forms will be available from participating programmes' websites between July and December 2013. Please note that submission dates vary and completed forms must be submitted by the date specified on the relevant programmes' website.

The funding arrangements for the eight NIHR-managed programmes contributing to this call are described on their individual websites

In addition:

Applications to the **EME Programme** may test interventions used in the prevention of infection or the diagnosis or treatment of antimicrobial resistant organisms. Applications should concentrate on determining the efficacy of interventions, and may also include the evaluation of mechanisms. Applications should have the potential to contribute work of significant benefit to the clinical management of patients. Applications may investigate novel or repurposed interventions and technologies but studies of incremental or minor improvements to existing technologies or the discovery of new biomarkers are not within the remit of the EME programme.

For the **HS&DR programme**, there are particular professional and organisational responses to the threat of anti-microbial resistance where research could inform practice. These might include studies to evaluate interventions to modify prescribing behaviour by clinicians. Research is also needed to assess the effectiveness of organisation-wide initiatives in hospitals, practices and the community to improve stewardship of antibiotics. Studies are also welcome which help decision-makers to identify the most cost-effective models of care for isolation and management of people with resistant strains of infection and anticipate the workforce needs for facing these new challenges.

Applications to the **HTA programme** may explore the effectiveness of changes to clinical practice; in primary care, the community or in hospital as well as the use of pharmaceuticals, surgical and non-surgical devices and other clinical interventions and tests. Interventions should aim to reduce the likelihood of development of infection, better treat infection or ensure the more appropriate choice or targeting of antibiotic therapies and so ultimately contribute to a reduction in the occurrence and morbidity resulting from infections due to antimicrobial resistant organisms.

For applications to the **i4i programme**, the scientific evidence upon which the proposed project is based must have progressed beyond basic research. The proposed project must also be focused on a specific application, with the specific qualities or characteristics of the proposed technology defined. Proof of the scientific principle must have already been achieved. In exceptional cases and where technology from a sector other than health is being investigated, proposed projects may look to obtain technical feasibility. Project teams should have the demonstrable experience to carry out all aspects of developing the proposed technology, scientifically, clinically and commercially. Where there are known gaps, applicants should explain how they plan to address these.

Applications to **PGfAR** are likely to describe substantial programmes of research involving a number of discrete but inter-related components or activities which together have potential for benefits to patients and the NHS within 3 – 5 years of the end of the grant.

The **PHR Programme** evaluates public health interventions intended to improve the health of the public and reduce inequalities in health. The programme would be pleased to consider applications looking at the effectiveness and cost effectiveness of public health measures outside of healthcare settings to prevent the occurrence and transmission of antimicrobial resistance.

Applications to **RfPB** should arise from daily practice in the NHS and must demonstrate a trajectory to patient benefit in the short to medium term. The programme supports applications which are regionally derived and applications for feasibility and pilot studies are welcome.

NIHR Fellowships support outstanding individuals to become the health research leaders of the future. NIHR Fellowships are designed to support researchers whose work focuses on people and patient-based clinical and applied health research. Applications can come from individuals working in any scientific discipline or sector, who can demonstrate a role in, or contribution to, improving health, health care or services.