

Joint NIHR PGfAR/ Diabetes UK Request for Applications

PGfAR for Diabetes Complications

Summary

Programme Grants for Applied Research (PGfAR) is partnering with Diabetes UK. Co-funding is available, in all PGfAR rounds open in 2020, for proposals which aim to prevent or slow the progression of diabetes complications in Type 1 or Type 2 diabetes who are at extremely high risk.

Background

The 2015-2016 UK National Diabetes Audit found that people with diabetes account for 25-30% of hospital admissions for cardiovascular complications and that those with Type 1 diabetes are younger than those with Type 2 diabetes or without diabetes.¹

An early onset of Type 1 diabetes during childhood and adolescence is associated with a higher risk of microvascular complications (microalbuminuria, retinopathy, neuropathy) and a five times higher risk of cardiovascular events than for those with onset in adulthood.^{2,3}

Young-onset Type 2 diabetes (15-30 years of age) is associated with a higher prevalence of diabetes complications, a more adverse profile of cardiovascular risk factors and greater mortality than for those diagnosed with Type 2 diabetes in adulthood – and even for those with young-onset Type 1 matched for age of onset.⁴

Although there has been a decline in the number of people with more advanced Chronic Kidney Disease (CKD) – CKD stages 3-5 – due to diabetes, there are rising numbers of those with CKD stages 1 and 2, which may reflect improvements in detection and management.¹ Despite this, the risk of end-stage kidney disease is still 19 times greater for people with Type 1 diabetes and 4.5 times for people with Type 2 diabetes. People with diabetes account for 40-70% of hospital admissions (and 40% of bed days) for amputations and renal replacement therapy.¹ Age-specific mortality rate ratios are increased at all ages, with an associated reduction in life expectancy, largely due to cardiovascular disease.^{6,7} Moreover, as diabetes is diagnosed around 10 years earlier in UK non-white populations, they are exposed to a higher risk of specific complications.⁸ Long-term care home residents have higher rates of diabetes complications⁹ as do those with severe mental illness, especially if they are not on appropriate psychiatric treatment.¹⁰

In response to these challenges, there have been substantial advances in generating guidelines to optimise diabetes care. However, there continue to be people with Type 1 and Type 2 diabetes who remain at extremely high risk of acute and/or chronic complications, usually due to suboptimal diabetes management and/or elevated risk factor levels. Underlying reasons may be biological or social and may indicate a need for additional intervention beyond the usual standard care pathway.

This area of unmet need has also been identified as important by people with diabetes and healthcare professionals. One of the recent priorities identified by the James Lind Type 2 Priority Setting Partnership was: “*How do we identify people with Type 2 diabetes who are unlikely to engage with their treatment plans, including medication and lifestyle changes, and what are the best strategies to overcome this?*” (Priority 16).

Scope

NIHR Programme Grants for Applied Research (PGfAR) and Diabetes UK invite applications for collaborative, multidisciplinary programmes of applied research which aim to prevent or slow the progression of diabetes complications, in people with Type 1 or Type 2 diabetes who are at extremely high risk.

Applications should fall within the remit of the PGfAR programme; more information can be found using the link below:

<https://www.nihr.ac.uk/explore-nihr/funding-programmes/programme-grants-for-applied-research.htm>

Applications should also contain a comprehensive updated summary of previous high quality research on this topic.

Where the programme includes the development and testing of interventions, it is expected to provide evidence for efficacy, sustainability and cost effectiveness of novel approaches, *beyond the usual standard of care*. Such approaches may, for example:

- seek to re-engage in a different way with those who have not been attending standard care
- involve strategies for improving psychological support or strategies for additional attempts at risk factor control
- include innovative strategies to prevent and detect complications earlier using appropriate tools including lifestyle changes, drug therapies, education and self-management tools and psychological support.
- Consider the effectiveness and cost-effectiveness of novel technology specifically targeted to these high-risk groups to minimise complication development and progression.

Any intervention described should, where possible, aim to optimise engagement with multi-disciplinary teams and it should be clear how high risk individuals/groups are to be identified.

The programme of research and any interventions should include people with Type 1 or Type 2 diabetes who are at high risk of developing complications for any reason. Including (but not exclusively) one or more of the following risk factors:

- Developed one or more diabetes-related complications before the age of 40 years
- Onset of Type 1 diabetes in childhood
- Onset of Type 2 diabetes at younger than 30 years
- Persistent suboptimal control of glycaemia or other risk factors (e.g. weight, blood pressure, lipids) established to lead to complications
- Unengaged with diabetes services for any reason: e.g. language, ethnicity, mental health, deprivation, learning difficulties, addictions, mobility, transport issues
- In the lowest decile for attendance rates at scheduled appointments for any reason

How to apply

In addition to this brief, you will need to carefully review the Guidance for Stage 1 applicants via this link <https://www.nihr.ac.uk/documents/programme-grants-for-applied-research-guidance-for-stage-1-applications/20161> and the Supporting information for Stage1 and Stage 2 applicants via this link <https://www.nihr.ac.uk/documents/programme-grants-for-applied-research-supporting-information-for-stage-1-and-stage-2-applicants/20555>

Applications must be submitted through the NIHR Central Commissioning Facility Research Management System

Contact Information

Applicants who require further guidance can send a short summary of their research proposal using the following [pre-submission](#) enquiry form.

Further assistance can be obtained by contacting us on

PGfAR

Tel: 020 8843 8056

Email programme.grants@nihr.ac.uk

Diabetes UK

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