NHS
Newbury and District
Clinical Commissioning Group

Newbury and District CCG:

Pre-diabetes project

Context

Newbury and District Clinical Commissioning Group (CCG) is made up of 11 GP practices, and has a total registered population of approximately 113,000. This compares to a national average for all 212 CCGs in England of 261,000.

Obesity, lifestyle and demographics are conspiring to result in an inexorable rise in the prevalence of Diabetes Mellitus Type 2 (DM2) in the UK. As the disease progresses silently, up to half of people with DM2 have complications at the point of diagnosis.

While treatment of those identified is crucial, prevention is a vital part of managing this epidemic. With diabetes one of three key local priorities for Newbury and District CCG, commissioners began to explore ways to address early identification and prevention.

Analysis

Dr Tim Walter, a Newbury GP and clinical lead for IT at the CCG, was instrumental in driving forward development of the pre-diabetes programme. In doing so he collaborated with Nottingham University and the local public health team.

The key aim was to raise awareness of pre-diabetes with the local population through a range of means.

The programme aimed to apply the QDiabetes tool – a web-based computer system – to the local population to assess each individual patient's 10-year risk of developing diabetes.

This was in line with NICE guidance, which recommends the use of a validated computer-based risk-assessment tool such as QDiabetes to identify people on practice registers who may be at high risk of DM2.

Once at-risk patients are identified through QDiabetes, they can be characterised by demographics, body morphology (height, weight, waist measurement and body mass index) and blood values – it also highlights patients in the pre-diabetes group.

This allows GPs to establish the prevalence of co-morbidities such as vascular disease (heart disease, stroke, hypertension) according to their QDiabetes risk level – these can be referenced against established local and national statistics.

Dr Walter also collaborated with the local public health team to establish links with the Eat4Health course. This 10-week intensive lifestyle course is therapy-based and designed to change attitudes and behaviours to increase healthy eating and weight loss, crucial for the management of diabetes.

Anticipated outcomes of the programme were as follows:

At organisational level to:

- improve early detection rates of diabetes
- increase early help to those at high risk of DM2
- reduce the cardiovascular risk amongst participants and their families.

At a practice level to:

- reduce adult obesity in the practice population
- increase awareness about DM2 amongst the population
- reduce the short, medium and long term risks of diabetes.

At a patient level to:

- improve the physical and mental wellbeing of patients
- achieve a of 5-10% weight loss
- enhance activity or fitness levels
- increase awareness of healthy eating and lifestyle issues
- raise awareness of local leisure facilities and interventions
- improve DM2 control among family members.

The CCG did not set out to identify diabetics per se; however it was recognised that this would potentially be an associated outcome of the project.

Solution

The QDiabetes tool was applied to the entire local population of patients; approximately 100,000 across all GP practices in the CCG locality.

Of those patients identified as having a 30 per cent risk of developing diabetes, the top 50 from each practice were selected to receive a personal invitation from their GP to attend the practice for the HbA1C blood test. These patients were also asked to enroll on the Eat4Health course.

To raise awareness of pre-diabetes, the CCG attended the Royal County of Berkshire Show, which attracted approximately 60,000 people. GPs and practice nurses conducted assessments using the QDiabetes tool and provided on the spot HbA1C blood tests for those identified as having a 15-30 per cent risk.

Dr Walters' Falkland Surgery also piloted a screening programme for patients with a 15-30 per cent risk of developing diabetes. Of 226 patients in this category, half were invited to a drop-in screening day at the practice and half received a referral letter inviting them to attend their local hospital for a blood test. All letters were personalised with information about the patients' own personal risk.

The CCG provided £18,000 to fund the programme as a quality improvement project. The scheme was also awarded a £10,000 QInnovation grant from QResearch (a joint not-for-profit partnership between Emis plc, Emis NUG and University of Nottingham).

Outcomes

Having used QDiabetes to identify the most at risk patients, the CCG was able to compare the effectiveness of different interventions.

Combined costs of the interventions worked out on average as a £1,000 spend per diabetic identified. This is deemed cost-effective when compared per case to other types of screening, such as for cervical, colon and breast cancer, especially considering the lifelong cost of diabetes, which are similar to cancer costs.

Out of the 550 high-risk patients invited for a blood screening, 100 had blood tests and participated the in Eat4Health intervention.

The Eat4Health lifestyle course showed measurable improvements for the majority of patients after 10 weeks, including weight loss and reduced waist circumference. Patients also showed an increased psychological sense of hope and enthusiasm that was not present at the beginning.

Attendance at the Royal County of Berkshire Show meant the project potentially reached a maximum of 60,000 people over the course of two days. The team conducted 310 QDiabetes assessments and 110 bloods tests, which resulted in five people being identified with pre-diabetes and one diabetic.

Approximately half of the 133 patients invited to the drop-in screening day at Falkland Surgery attended the practice, while 25 per cent of patients who received a referral letter attended the hospital. The two interventions resulted in five case of pre-diabetes and one actual diabetic diagnosis for each.

Following the success of the pilot, Newbury and District CCG has committed to rolling the drop-in screening element of the programme out to GP practices across the locality during 2014/15 as an enhanced service.

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