An evaluation of the prevalence of Diabetes and Pre-Diabetes in a Cardiac Rehabilitation nurse led PCI clinic at University Hospital Limerick

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Introduction: It is estimated that there are approximately 190,000 people in Ireland with diabetes, with type 2 diabetes accounting for approximately 90% of all cases. The Institute of Public Health predicts that the prevalence of diabetes will increase from 4.5% in 2007 to 5.9% of the population by 2020. Recent data shows 5.5% adults aged 50 years and over in Ireland have pre-diabetes, placing them at increased risk of developing type 2 diabetes in the future.

Purpose: We set out to evaluate the prevalence of Diabetes & Pre-Diabetes in patients attending the nurse-led Percutaneous Coronary Intervention (PCI) clinic by Cardiac Rehabilitation nurses at UHL and the management/follow-up of these patients once diagnosed.

Methods: All patients discharged from the Cardiology department in UHL following PCI are reviewed at the PCI clinic by Cardiac Rehabilitation nurses 4-6 weeks later where Fasting Glucose (FG) & HbA1c were reserved. All patients who attended the Cardiac Rehabilitation nurse led PCI clinic at UHL from Jan 2015–Sept 2016 were included in this audit (N = 734 patients).

Results: A total of 734 patients were included, mean age 65 years. There were significantly more male patients (n=553) than females (n=180). Indication for PCI were as follows: STEMI (n= 176), NSTEMI (n= 150), Angina (n= 330), Dyspnoea (n= 26), Syncope (n= 18), Other (n= 34). There were 107 known diabetic patients in this cohort (14.6% of total patients), mean HbA1c – 63mmol/mol & mean FG 9.3mmol/L. However, of interest was the proportion of patients newly diagnosed as diabetic on the basis of this test. 113 patients had HbA1c ≥48mmol/L and a further 91 patients had FG ≥ 7mmol/L. This resulted in 204 patients (33%) being diagnosed as diabetic. Furthermore, we analysed results of patients in the ‘pre-diabetes’ range - HbA1c 42-47 &/or FG 6.1-6.9. This yielded very interesting results. 140 (22%) patients had HbA1c 42-47mmol/mol & a further 57 (9%) patients had FG 6.1-6.9mmol/L. This resulted in a further 31% of patients being categorized as ‘pre-diabetes’. Patients newly diagnosed Diabetic & those in the Pre-Diabetes range are primarily referred back to their GP - the Cardiac Rehabilitation CNS will write to GP with results and request follow-up. The Cardiac Rehabilitation CNS has forged links with community programmes – DESMOND and CODE where patients can be referred by the CNS directly for further education and support.
Conclusion: It is estimated that each year, the Irish state spends €350m on Diabetes care, 59% of which is spent on treating the complications of the disease. Early identification of patients and initiation of treatment can reduce the development of complications of diabetes and therefore testing for diabetes in high risk asymptomatic patients is recommended & very beneficial. The integrated care with community programmes takes pressure off hospital services and ensures a high level of care to patients in the community.

References available on request.

Keywords: diabetes; nurse-led; percutaneous coronary intervention