Pre diabetes: The Identification and Management of Patients at risk of developing Type 2 Diabetes within Clusters

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Introduction:

The number of people in Wales with diabetes is increasing with an average rise of about 3% every year since 2010[1].

In Afan Cluster network of ABMU which has a registered practice population of 50,500 there is a high prevalence of diabetes with about 7.4% of their patients on their diabetes registers.

Concerned about the diabetes 'ticking time bomb' and relying on evidence that early identification and management of patients at risk of developing diabetes could help to reverse the growing trend, the Afan Cluster GP practices developed a project aimed at

- Identifying their pre- diabetic patients
- Providing the patients with an annual health check

Methods:

Step 1: Agree criteria

What is pre diabetes?

- Impaired fasting glycaemia (> 6 to < 7 mmol/l)
- Impaired glucose tolerance read codes
- HBA1C > 41mmol < 48 mmol

Who is at risk of pre diabetes?

- 45+
- Hypertensive
- Ever obese

Step 2: Develop and run an audit to identify pre-diabetic patients

Generate - Clinical Audit - All Audits & nGMS Monitoring

File Status Searches Generate View Help

Audit Source: All Audits & nGMS Monitoring

Data Integrity Assurance for Full Extract
Immunisations and Health Protection (inc PHE, HPS)
In Practice Systems (Daily)
Administration
Endocrine/Metabolic Disease

PRE-DIABETES (Using HBA1C or Fasted Glucose) (Version 9, 06/06/2016)

Count	%	Description
2771		Total Practice Population
228	8.23%	Pts >= 17 yrs on diabetic register
2082	75.14%	Pts >= 17 yrs without diabetes
125	6.00%	Pts with IFG ever but no diabetes
27	1.30%	Pts with IGT ever but no diabetes
222	10.66%	Pts with HBA1C>= 42mmol or Fasted Glucose > 6.0 ever but no diabetes
239	8.63%	Pts with PRE-DIABETES (IFG or IGT or HBA1C>= 42mmol or >6% ever) but no diabetes
217	90.79%	Pts with PRE-DIABETES had HBA1C or Fasted Glucose or GTT last 15m
22	9.21%	Pts with PRE-DIABETES NOT had HBA1C or Fasted Glucose or GTT in last 15m
209	87.45%	Pts with PRE-DIABETES had education/counselling about lifestyle re risk of diabetes in last 15m (67H., 67H9.)
30	12.55%	Pts with PRE-DIABETES NOT had education/counselling about lifestyle re risk of diabetes in last 15m (67H., 67H9.)
182	76.15%	Pts with PRE-DIABETES who are eligible for Primary CVD risk assessment (No IHD/CVA/PVD)
64	35.16%	Pts with PRE-DIABETES had QRISK/other CVD risk calculation last 36m
118	64.84%	Pts with PRE-DIABETES NOT had QRISK/other CVD risk calculation last 36m
174	6.28%	HIGH RISK OF PRE-DIABETES defined as >= 45yrs hypertensive & obese (bmi>=30 ever) BUT non-diabetic and NO (IFG or IGT or HBA1C>= 42mmol or Fasted Glucose > 6.0)
156	89.66%	High risk pre-diabetics who have had HBA1C or Fasted Glucose or GTT in last 15m
18	10.34%	High risk pre-diabetics who have NOT had HBA1C or Fasted Glucose or GTT in last 15m
130	74.71%	High risk pre-diabetics had education/counselling about lifestyle re risk of diabetes in last 15m (67H., 67H9.)
44	25.29%	High risk pre-diabetics NOT had education/counselling about lifestyle re risk of diabetes in last 15m (67H., 67H9.)
413	14.90%	TOTAL with PRE-DIABETES (IFG or IGT or HBA1C> 42mmol) OR HIGH RISK PRE-DIABETES (age >= 45yrs HT & bmi>=30 ever)

Oct 2016 | Age Sex | Prevalence | Incidence | GP Analysis | Generate | Audit Manager | QOF Reporting

Generation Status: Searches Counts Percents Reminders

Monthly generated for Aug 2016.
Daily generated on 03 Oct 2016.

Request Reminders Generation

Generation Options: Generate Reminders; Export Audit after Generation

Ready

Figure 1. Pre diabetes audit template

Step 3: Provide accredited training to Health Care support workers and other practice staff

- 3 day Level 2 Community Food and Nutrition Skills Training attended by 15 staff members

Step 4: Develop appropriate lifestyle literature

Figure 2. Patient information booklet [2]

Step 5: Invite identified pre-diabetic patients for their annual health checks

- A blood test (HbA1c)
- Lifestyle advice by an appropriately trained member of staff
- A lifestyle booklet
- Signposting to relevant services

Results:

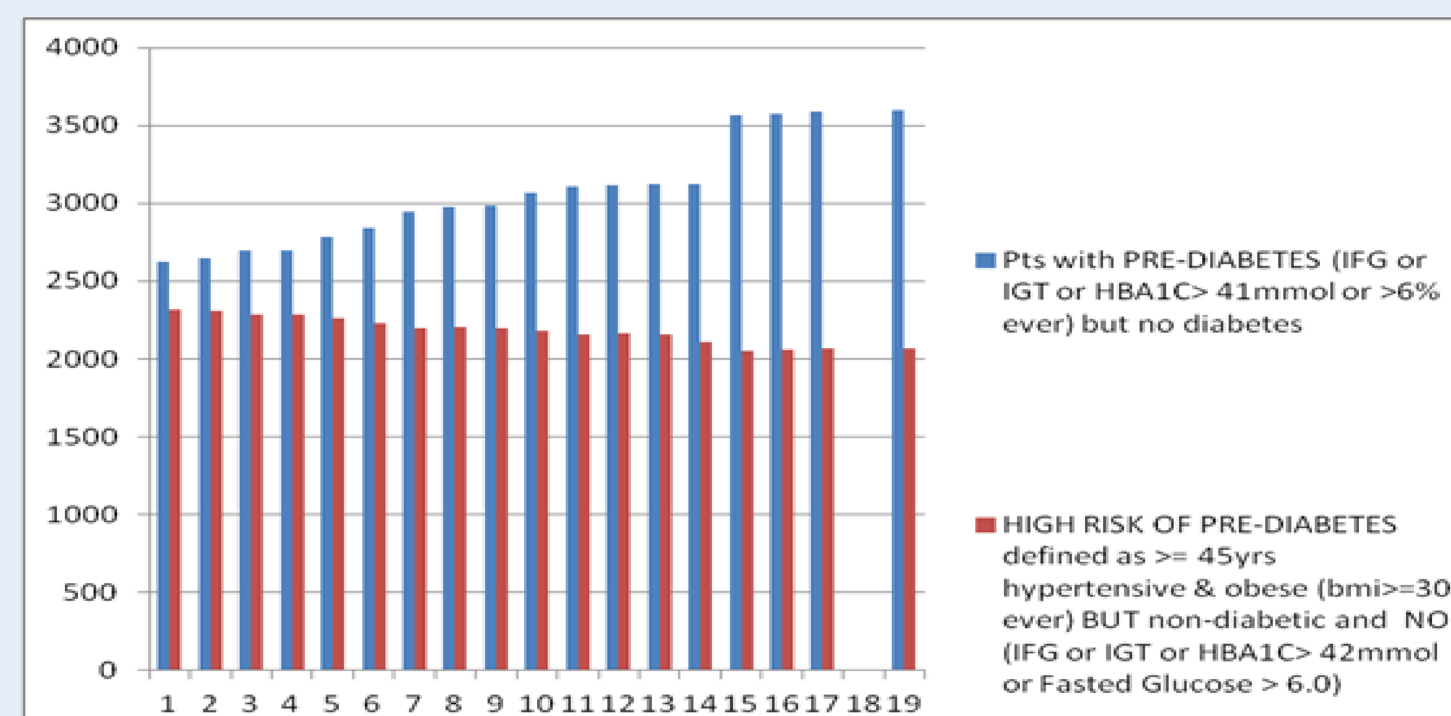

Figure 3. Months 1 – 19 rising numbers of pre diabetics discovered

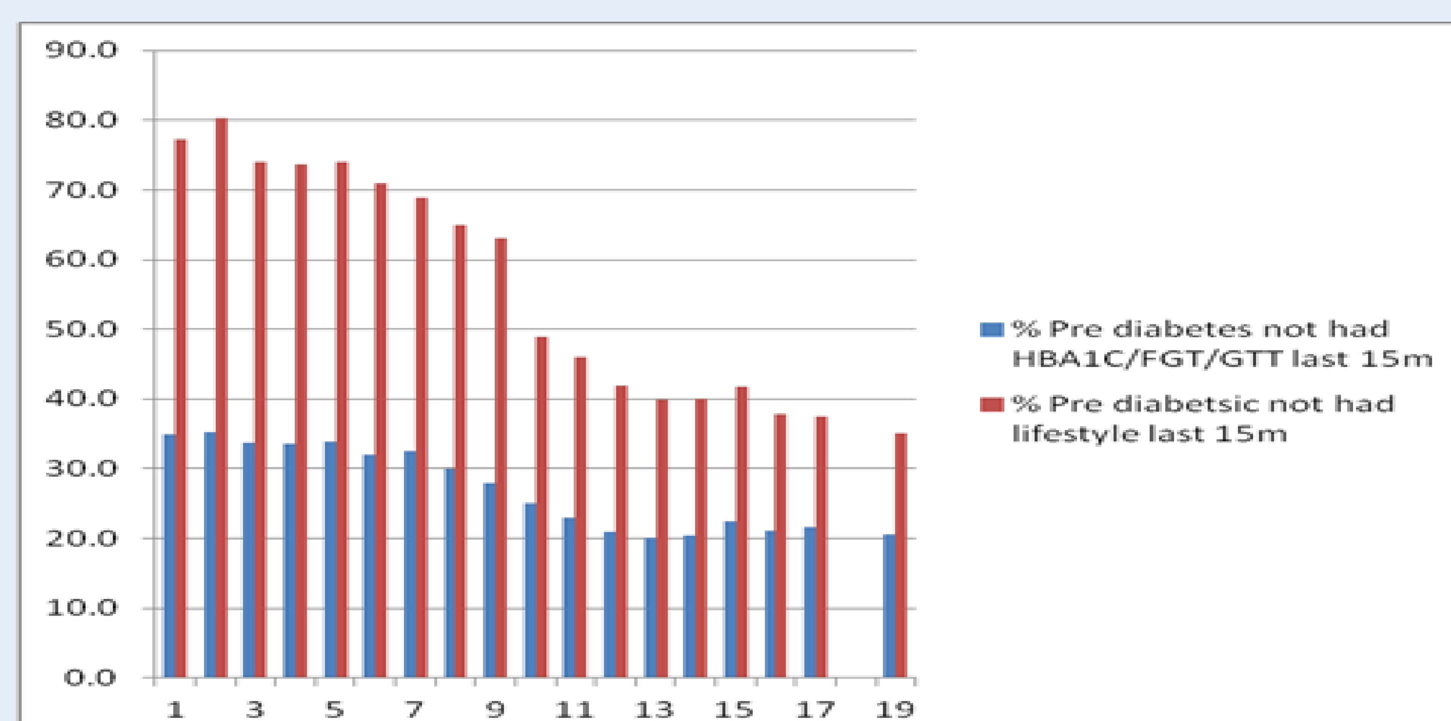

Figure 4. Progress: Months 1 – 19 (management of patients with pre diabetes)

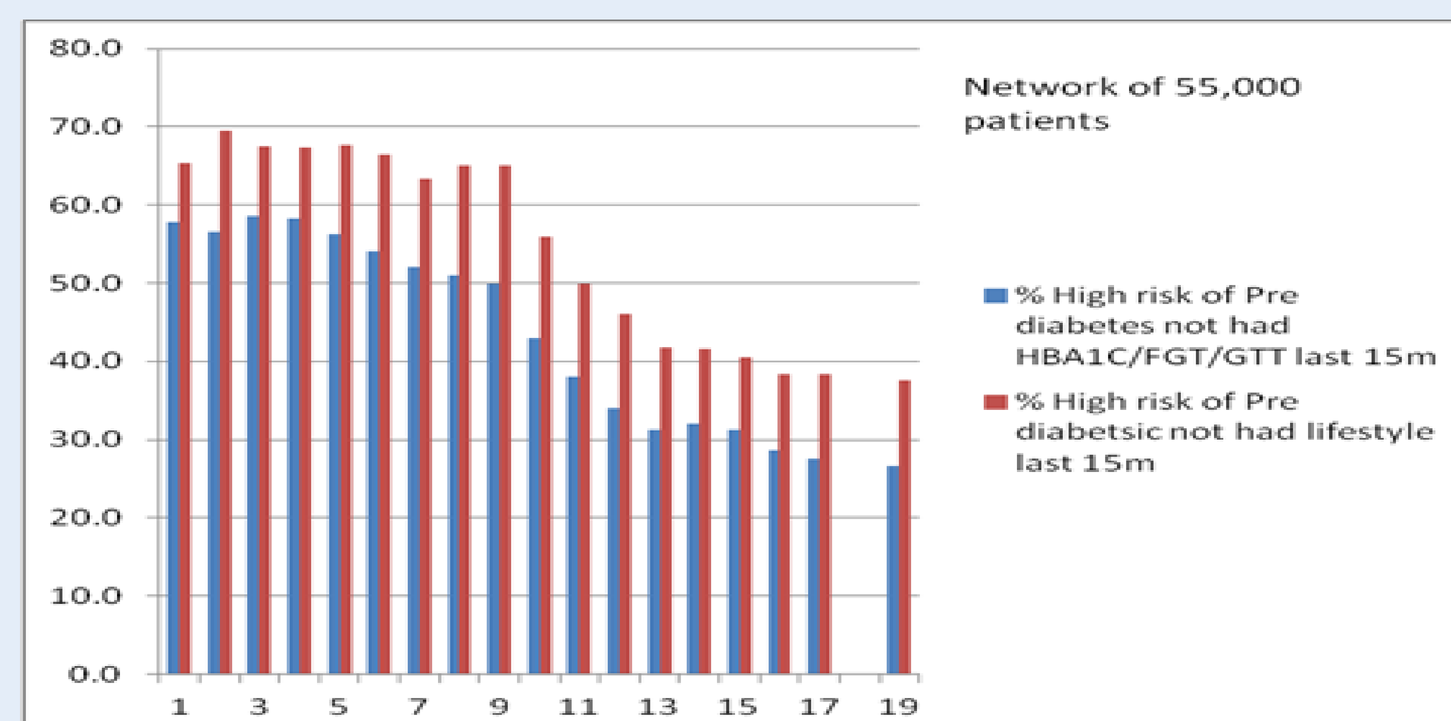

Figure 5. Progress: Months 1 – 19 (management of 'at risk of pre diabetes' patients)

Conclusion:

Initials results from 1st 394 patients are encouraging :

- Mean HBA1C 2015 pre intervention 41.7
- Mean HBA1C 2016 post intervention 38.8
- % group currently Pre diabetic 2015 57.1%
- % group currently Pre diabetic 2016 25.1%
- % Drop in Pre Diabetics 2016 v 2015 56.0%

The project has received interest and is being rolled out to 4 other clusters within ABMU Health Board covering a registered population of 175,000 patients. So far over 17,000 patients with pre diabetes or at risk of pre diabetes are now being screened.

Acknowledgements:

1 Together for Health: Diabetes Annual report 2015, © Crown copyright 2016 WG28192 Digital ISBN 978 1 4734 6055 3

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