Audit of the Prevention of Diabetes through NHS Health Checks 2011-2013

Cathy Aiken – Public Health Vascular Nurse
Gillian Fiumicelli – Community Vascular Co-ordinator

Public Health – Education, Care and Health
London Borough of Bromley
Aim:
To ensure patients identified at increased risk of diabetes at the NHS Health Check receive appropriate assessment and management.

Objectives:
1. To develop audit standards to assess the quality of current services in identifying patients at high risk of diabetes.
2. To assess current practices in Bromley against these standards.
NHS Health Checks Diabetes Filter

Body Mass Index $\geq 30$ (or $\geq 27.5$ if South Asian or Chinese)

Blood Pressure $\geq 140$ mmHg Systolic and/or $\geq 90$ mmHg Diastolic

South London NHS Health Checks Diabetes Filter Pathway

- Identification of risk
- Provision of intensive lifestyle programme
- Review
## Audit Standards

**Standard 1:**
If the individual has a Body Mass Index ≥ 30 (or ≥ 27.5 if South Asian or Chinese Population) or Blood Pressure ≥ 140 mmHg Systolic and/or ≥ 90 mmHg Diastolic, an HbA1c test or fasting plasma glucose (FPG) is required.

**Standard 2:**
If patients have a raised HbA1c ≥ 42 - <48 mmols/mol (6.0-6.4%) or FPG ≥ 5.5 - ≤6.9 mmol/l, they should have had a repeat blood test for HbA1c or Fasting Blood glucose within 2 years of the NHS Health Check.

**Standard 3:**
If patients have a raised HbA1c of ≥ 42 - <48 mmols/mol (6.0-6.4%) or FPG ≥ 5.5 - ≤6.9 mmol/l, they should be coded with an appropriate READ code indicating level of risk of diabetes and/or diagnostic code of pre-diabetic state e.g. Impaired Fasting Glycaemia.

**Standard 4:**
If patients have a raised HbA1c of ≥ 42 - <48 mmols/mol (6.0 – 6.4%) or FPG ≥ 5.5 - ≤6.9 mmol/l, they should receive **intensive** lifestyle intervention (this will be measured by assessment of number of consultations for lifestyle intervention and any referrals to exercise programme, weight management, dietician, smoking cessation.)

**Standard 5:**
Patient identified as high risk of diabetes should have improved risk factor profiles at 1-2 years:
- Increased physical activity GPPAQ.
- Weight loss been achieved and maintained.
- Waist circumference reduced and maintained.
- Repeated Blood test 1-2 yearly.
Audit Standards

If the Diabetes Filter was met –
1. Did they have a blood test to assess for diabetes risk?

If found to be at high risk of diabetes - HbA1c ≥42 - <48 mmols/mol (6.0 - 6.4%) or FPG ≥5.5 - ≤6.9 mmol/l

2. Did they have a repeat blood test within 2 years?
3. Did they have a READ code indicating high risk of diabetes?
4. Did they receive any lifestyle interventions?
5. Did their risk factor profile improve within 1-2 years?
Baseline number of NHS Health Checks 2011-2013

15,367

Patients who met the diabetes filter

5,379 (35%)

Number who had an HbA1c and/or FPG

3,593 (66%)

At high risk of diabetes and eligible for notes review

738 (20%)

Patients at high risk of diabetes, but excluded as 1st blood test ≥ 1 year post NHS Health check

174 (5%)

Patients who had an HbA1c and/or FPG and found not to be at risk of diabetes

2681 (75%)

Patients at high risk of diabetes consented to notes review

426 (58%)

Patients who met the diabetes filter, but did not have an HbA1c/FPG

1,786 (33%)

Patients who met the diabetes filter

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Patients at high risk of diabetes consented to notes review

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Patients who met the diabetes filter, but did not have an HbA1c/FPG

1,786 (33%)
9 (18%) patients had improved blood results and were no longer in the pre-diabetes risk group.

13 (11%) patients had a READ code linked with high risk of diabetes.

1 patient subsequently diagnosed with Type 2 Diabetes.
### Waist Circumference (WC)

<table>
<thead>
<tr>
<th>Recorded at Health Check</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>91 out of 112 (81%)</td>
<td>33 women (90%) WC ≥ 80cms</td>
</tr>
<tr>
<td></td>
<td>52 men (89%) WC ≥94 cms or ≥85 cms if South Asian/Chinese</td>
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<tr>
<td>7 out of 91 (8%)</td>
<td>4 patients had a reduction in WC, but remained in ‘high risk’ group</td>
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### BMI

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<td>110 out of 112 (98%)</td>
<td>BMI &gt; 25 = 102 (92%)</td>
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<td>BMI &gt;30 = 72 (65%)</td>
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<tr>
<td>Weight management discussed</td>
<td>62 (56%) patients</td>
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<tr>
<td>Weight management referral (lite4life)</td>
<td>10 (14%) patients</td>
</tr>
<tr>
<td>Attended weight management</td>
<td>3 patients</td>
</tr>
<tr>
<td>59 out of 112 (53%)</td>
<td>34 (58%) patients had a reduction in BMI</td>
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<td>2 patients reduced their BMI &lt;25</td>
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### GPPAQ

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<td>102 out of 112 (91%)</td>
<td>60 patients (58%) Moderately Inactive or Inactive</td>
</tr>
<tr>
<td>Physical activity discussed</td>
<td>87 (77%) patients</td>
</tr>
<tr>
<td>Referred to physical activity programme</td>
<td>3 (3%) patients</td>
</tr>
<tr>
<td>Attended physical activity programme</td>
<td>1</td>
</tr>
<tr>
<td>17 out of 112 (16%)</td>
<td>6 (32%) patients had improvement in GPPAQ</td>
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</table>
Baseline number of NHS Health Checks 2011-2013

15,367

Patients at high risk of diabetes and eligible for notes review

738 (20%)

Unable to identify why these patients did not have a blood test

Number who had an HbA1c and/or FPG

3,593 (66%)

At high risk of diabetes and eligible for notes review

738 (20%)

Patients at high risk of diabetes, but excluded as 1st blood test ≥ 1 year post NHS Health check

174 (5%)

Patients who had an HbA1c and/or FPG and found not to be at risk of diabetes

2,681 (75%)

Patients at high risk of diabetes consented to notes review

426 (58%)

Patients who met the diabetes filter, but did not have an HbA1c/FPG

1,786 (33%)

Patients who met the diabetes filter

5,379 (35%)

Patients who had letter and pathology form requesting HbA1c

Baseline number of NHS Health Checks 2011-2013

Results of this intervention:

652 (39%) NEW patients had a blood test for HbA1c or FPG

131 (20%) NEW patients had high risk with 8 patients diagnosed with Type 2 Diabetes

Patients who met the diabetes filter, but did not have an HbA1c/FPG

1,786 (33%)

Patients who met the diabetes filter and patients sent letter and pathology form requesting HbA1c

112
Results of the comprehensive notes review 
(n=112)

9 (18%) patients had improved blood results and were no longer in the pre-diabetes risk group.

13 (11%) patients had a READ code linked with high risk of diabetes.

1 patient subsequently diagnosed with Type 2 Diabetes.

Evident that READ coding not being used routinely or systematically.

Multiple READ codes available.
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No specific diabetes prevention programme available at this time

Some examples of improved risk factor profiles

Difficult to analyse due to lack of documentation

No systematic follow up and reassessment of risk factors
**Recommendations for service improvement**

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<th>Education to providers on:</th>
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<tr>
<td></td>
<td>• Importance of identification and management of people at high risk of diabetes</td>
</tr>
<tr>
<td></td>
<td>• Pathway</td>
</tr>
<tr>
<td></td>
<td>• Use of READ coding</td>
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<tr>
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<td>• Promoting behaviour change through motivational interviewing techniques</td>
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<td>• Documentation and coding of lifestyle interventions and referrals</td>
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|   | Improvements to coding, templates and searches in the GP Practice computer system |

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<td>- POCT testing for HbA1c by Alternative Providers</td>
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<td>- Service specification requirement to measure diabetes filter</td>
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|   | Joint working to promote and facilitate best practice |

|   | Re-audit to see if improvements have been made using amended computer searches |
Where are we now?

- Point of Care Testing for HbA1c
- Education events
- Improvements to computer template and searches
- Diabetes filter criteria linked to payment
- Priority for Health and Wellbeing Board

Re-audit – March 2016
Current Diabetes Prevention Programmes

Weight Watchers Diabetes Prevention Programme:

1 year intensive lifestyle support

- Patient Identified as ‘at risk’ of developing diabetes.
- Out of 166 referrals, 132 patients attended a welcome session (80%)

6 months outcome data 91/132 to date:

85% reduced risk

- 52 patients no longer at risk (57%)
- 25 patients have reduced risk (28%)
- 3 patients risk stayed the same (3%)
- 11 patients have increased risk (12%)

Walking Away from Diabetes Programme:

3 hour intervention

- Patient Identified as ‘at risk’ of developing diabetes.
- 407 completed intervention 201/16

12 month outcome data 106/407 to date:

74% reduced risk

- 45 patients no longer at risk (42%)
- 34 patients have reduced risk (32%)
- 22 patients risk stayed the same (21%)
- 5 patients have increased risk (5%)

Bromley will be part of the South London bid delivering the National Diabetes Prevention Programme
Summary

Aim:
To ensure patients identified as at increase risk of diabetes at the NHS Health Check receive appropriate assessment and management.

Objective:
1. To develop audit standards to assess the quality of current services in identifying patients at high risk of diabetes.
2. To assess current practices in Bromley against these standards using computer searches and comprehensive notes review.

Findings:
Some examples of good practice and improvements in risk factor profiles. Intervention of those missed patients worthwhile, identifying further high risk patients
Gaps in documentation - difficult to analyse, variation in practice

Recommendations for service improvement implemented:
Education, Documentation, Commissioning, Joint working,
Improved accessibility to diabetes prevention programmes,

Re-Audit – in March 2016 using amended computer searches.
To look at all filters of the NHS Health Checks
Contact details

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Public Health Directorate
London Borough of Bromley
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