

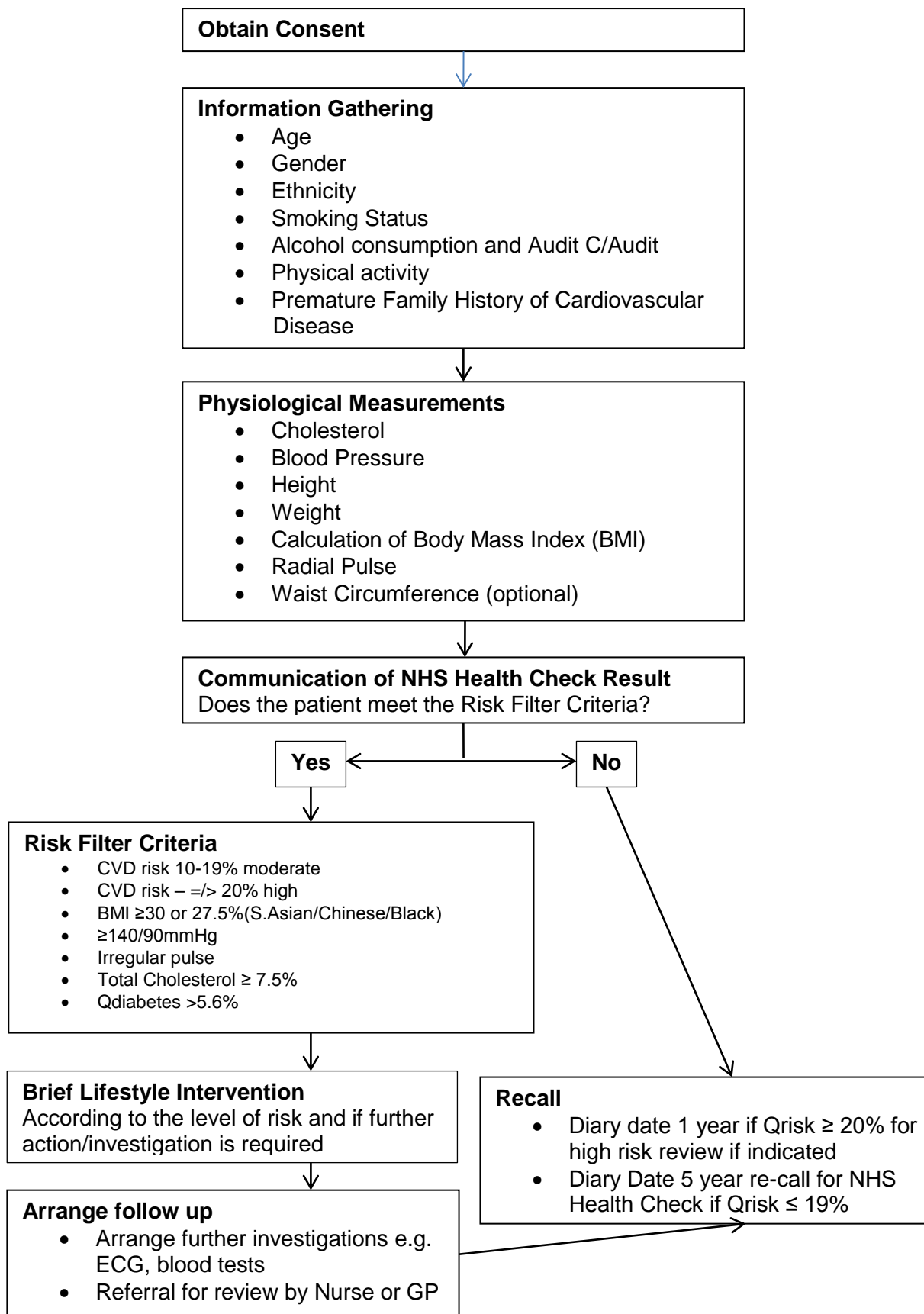
SECTION 6: Delivering the NHS Health Check

It is important that all staff completing the NHS Health Check on patients in Bromley follow use the NHS Health Check template in the patient electronic medical record. This ensures an excellent quality NHS Health Check can be provided and monitored. Vision practices have a template within the vision template library for the NHS Health Check. The NHS Health Checks template on Emis has been designed by the Public Health Vascular team to flow through the NHS Health Check in a logical manor and enables Nurses and Health Care Assistants to provide an individual assessment of the patient. Following physiological measurements, discussion of family history and lifestyle and identifying the patient's risk of developing CVD the results of the check are relayed to the patient in a supportive manor and utilising motivational interview techniques to round up the NHS Health Check. Any further tests that may be required according to the various filter criteria and review at the surgery according to the patients Qrisk result must be explained to the patient at the time of the check.

The Public Health Vascular team will provide training, supervision and support for the NHS Health Check programme.

An outline of the flow of the NHS Health Check is below:

6.1 Summary of the NHS Health Check Appointment



	Normal	Raised/High	Action	Very High	Action
Blood Pressure	≤130/80-139/89	≥140/90 ≤179/109	blood tests for HbA1c (fasting Glucose if patient has *haemoglobinopathies) U&E's, eGFR plus Refer for ABPM or Home BP monitoring OR Review in routine appointment by HCA/PN/GP	≥180/110	Recheck x2 if still the same or higher to see GP Same day or if out of hours refer to A&E
BMI	18.5-24.9 (Black African-Caribbean/S. Asian/Chinese <23)	25-25.9 (Black African-Caribbean/S. Asian/Chinese ≥23)	Give weight reduction advice	≥30 (Black African-Caribbean/S. Asian/Chinese ≥27.5)	Bloods for HbA1c or Fasting Glucose for patients with *haemoglobinopathies. Discuss referral to Weightwatchers if BMI ≥35, or ≥33 with comorbidities
Waist Circumference * 4 cm less for male Asian patients	♂ up to 94cm (Up to 90cm S. Asian) ♀ up to 80cm	♂ 94-102cm (Over 90cm S. Asian) ♀ 80-88cm (S. Asian 80-84cm)	At risk of developing diabetes and heart problems, give advice on diet & exercise	♂ *102cm + (S. Asian ≥ 93cm) ♀ 88cm + (S. Asian ≥ 85cm)	Explain at high risk of diabetes and heart disease. Give advice on diet and exercise
	Normal	Abnormal	Action		
Pulse	Regular beat	Irregular beat *	If pulse irregular, possible Atrial Fibrillation, refer to GP/PN (Patient may need an ECG) Without symptoms = Standard appointment With symptoms = Same day GP appointment (A&E if out of hours) *Possible symptoms may include dizziness shortness of breath or feeling ill.		
QDiabetes Risk Tool	Below 5.6%	≥ 5.6%	Requires blood test for HbA1c (fasting glucose if patient has *haemoglobinopathies)		

	Normal	High risk of Diabetes	Action	Possible Type 2 Diabetes	Action
Hba1C (mmol/mol)	≤41	≥42-47	Give lifestyle advice and lab-test form for Hba1C. If 42-47 - offer referral to Walking Away From Diabetes or NHS Diabetes Prevention Programme.	≥48	Repeat test using venous sample Standard appointment if no Symptoms present. Same day appointment if Symptoms of Diabetes Present.
	Normal	High	Action	Very High	Action
Serum Cholesterol (total cholesterol)	<5 – <5.5 mmol/L or Below	5.5 – 7.4 mmol/L	Give advice on lowering cholesterol. Provide a diet sheet.	≥7.5	Give advice on lowering cholesterol – provide a diet sheet PLUS bloods for Fasting lipid profile, HbA1c, U&E's & eGFR, Thyroid Function (TFT) Liver Function Test (LFT), and a routine appointment.
	Normal	Abnormal	Action		
HDL	♀ Above 1.2 mmol/L ♂ Above 1.0 mmol/L	♀ Low less than 1.2 ♂ Low less than 1.0	Advice on how to improve the HDL (diet and exercise) NB –a HDL of less than 0.8 may be an inaccurate reading. Repeat test if client willing.		
TC/HDL Ratio	4.5 mmols/L or below	Greater than 4.5mmols/L	If ratio is ≥4.5 - <6 give advice as above about reducing total cholesterol and raising HDL If ratio is ≥6 Refer for fasting lipids blood test.		
Alcohol 'regularly drinking'***	Up to 1-2 units/day (Max14 units/week)	Above 1-2 units/day (over 14 units/week)	***'Regularly' means drinking every day or most days of the week. Give Brief intervention advice on reducing alcohol intake.		

Audit-C/Alcohol Audit Score	Score of 4 – lower risk	Score ≥ 5 on Audit C then complete full Audit questionnaire adding score from Audit C full Audit score	Full AUDIT score: 8-15 - Increasing risk, 16-20 - Higher risk, 20+ - possible dependence. Give brief intervention on alcohol using brief intervention tool. Refer to GP/PN if score is 16-20 if needed. Refer to GP/PN and or BDAS (020 8289 1999) for scores 20+ and above.		
	Low Risk	Moderate Risk	Action	High Risk	Action
Qrisk2 10 year Cardiovascular Risk Score	Below < 10% Recall for NHS Health check: in 5 years	≥ 10-19.9%	Advice and trial of lifestyle modification. Reassess Qrisk2 with GP/PN 3-12 months after trial of lifestyle modification. If still risk score remains at $\geq 10\%$ on reassessment, refer to GP/PN for discussion about statin therapy RECALL: 5 years	$\geq 20\%$	<u>Blood test</u> for Non fasting Lipid profile, HbA1c, U&E's, eGFR, Thyroid Function (TFT) & Liver function test (LFT),. Set Lifestyle goals and refer to GP or PN for discussion about statin therapy following blood tests. RECALL: No further NHS Health checks – will have annual review.

♂ = male ♀ = female

***Haemoglobinopathies – Sickle Cell Anaemia, Sickle Cell Trait, Thalassaemia etc**

Appointment :

Type Routine - To see GP/PN 2-3 weeks for non-urgent appointment.

Standard – To see GP/PN within the next week.

6.2 Information gathering / history taking - in detail

Consent

Prior to proceeding with the NHS Health Check an informed consent to the assessment process and data sharing with Public Health should be obtained from the patient. The assessment processes will include history taking, physiological measurement and near patient finger prick test for Cholesterol. Where the Check is happening outside the GP Practice, patients should give consent for information to be sent to the GP Practice, they will also be tested for HbA1c if needed.

Information to collect from the patient

Some of this information may already be in the patients clinical record but the practitioner performing the NHS Health Check should double check the information they have is still accurate. Any measurements must be recorded at the appointment i.e. Blood Pressure, Height and weight etc.

Inclusion rules for previous tests

- Blood results: valid for up to 6 months prior to date of NHS Health check

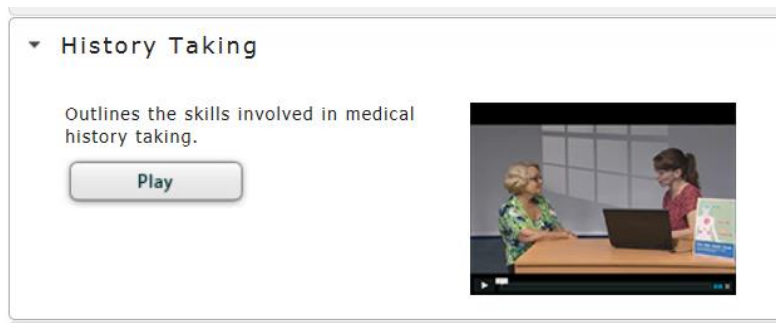
(Please check that they are readable in the NHS Health Check Template)

At the Health Check the following information should be collected from the patient:

- Age (should be between 40 and 74 years inclusive)
- Gender
- Ethnicity (this should be self-assigned by the patient)
- Smoking Status (Smokers who have stopped within the last 5 years are still classed as a smoker for the calculation of CVD risk)
- Alcohol consumption (Audit C questionnaire and number of units a week).
- Family History of premature cardiovascular disease in 1st degree relative. – Father, mother, brother(s), sister(s) having/had Cardiovascular Disease (less than 60years),
- Physical activity - Using GPPAQ questionnaire

Click on the following link to access the E-Learning for Healthcare video on history taking

[E-learning for Healthcare video - History taking](#)



GPPAQ – GP Physical Activity Questionnaire

The PHE Best Practice Guidance recommends assessing the patient's level of physical activity using the GP Physical Activity Questionnaire (GPPAQ). This tool has been found to provide a more accurate objective measurement¹

The GPPAQ is a validated screening tool for use in primary care that can be used to assess adult (16-74 years) physical activity levels. It generates simple, 4-level Physical Activity Index (PAI) categorising patients as: Active, Moderately Active, Moderately Inactive, and Inactive.

All patients who receive a score less than "Active" should be offered a brief intervention supporting behaviour change to increase their physical activity.

The GPPAQ comprises of

- A questionnaire for patients and can be completed during the consultation, outside of the consultation or given to the patient to complete as they are waiting for their appointment.
- The GPPAQ has been incorporated into the Emis system and can be accessed via a link in the Bromley NHS Health Check template on the Vision GP Patients Medical Records System.

The GPPAQ questionnaire can be found in Appendix 7

Alcohol & Audit Questionnaire

If your patient is Teetotal they do not need to complete the questionnaire but you do need to record that they are Teetotal in their medical record.

All patients who attend the NHS Health Check and drink alcohol should have an alcohol assessment using the Audit C and, if indicated, full Audit questionnaires.

The recommended daily alcohol intake is for men and women are no more than 1-2 units per day, with 2 alcohol free days (max. 14 units per week).

Alcohol is becoming an increasing problem affecting the cardiovascular system as well as the liver, this simple but detailed questionnaire will help to identify patients at risk of developing dependence.

Anyone who is not teetotal is asked the first 3 questions known as Audit C

- Add the scores from the answers together from Audit C and if the figure is ≥ 5 you will need to obtain answers to the remaining 7 questions (full Audit).
- Add the scores together from Audit C and Audit together (for the 10 questions)
- This will provide you with your full Alcohol Audit Score.
- **Score:**
 - 0-7 Low Risk
 - 8-15 Increasing Risk
 - 16-19 Higher Risk
 - 20+ Possible Dependence

Depending on the result a brief intervention or referral to the GP for alcohol support services may be required.

Patients may wish to refer themselves to alcohol support services and information should be available at the NHS Health Check.

Audit C and Audit Questionnaire can be found in Appendix 8

The online Alcohol Training will help you deliver this section with confidence and know when someone would benefit from intervention. The training can be found at: <http://www.alcohollearningcentre.org.uk/eLearning/IBA>

The programme is modular with a test at the end.

In addition, click on the link below for the E-learning for Healthcare video on Alcohol
E-Learning for Healthcare link - [Alcohol](#)



Dementia Awareness

Risk factors that increase the chances of developing vascular disease also increase the chance of developing dementia; as a result Dementia awareness is included for patients 65 years old and over having an NHS Health Check.

A leaflet provided by the PHE should be presented and briefly discussed with the patient. In order to help patients understand the link between dementia and cardiovascular disease, take action to reduce the risk of developing dementia and to learn about services available for information and support (see Appendix 9.) Dementia awareness leaflets can be ordered directly from the Department of Health (see Appendix 3)

Further information and a video example of how to speak to people about dementia can be found at: <http://www.healthcheck.nhs.uk/increasing-dementia-awareness-training-resource/>

6.3 Physiological measurements

The following measurements should be taken:

Blood Pressure (BP)

To ensure an accurate risk assessment, close attention should be made to the following:

- Measure blood pressure using the appropriate technique, **ensuring the patient has been sitting resting for at least 5 minutes**, with arm well supported.
- Follow the operating instructions of the device being used and apply correct cuff size.
- Measurement equipment should be British Hypertension Society accredited and adequately maintained.
- Perform a pulse rhythm check prior to taking BP to detect any pulse irregularities that could affect the reading.
- Interpret BP measurements to identify when further review or investigations are required.
- Give clear explanation of the results to patient.
- Maintain comprehensive records.

For further guidance on blood pressure measurement please access the British Hypertension Society Website.

If the first BP recording is $\geq 140/90$ repeat the BP two further times and use the best recording for the NHS Health Check.

Patients who have a recording of systolic BP 140 and/or diastolic 90 mmHg or more are at an increased risk of diabetes and chronic kidney disease; they also need further assessment to assess for hypertension according to practice protocol.

Radial Pulse

This is being included to help in identifying those patients with undiagnosed atrial fibrillation who are at high risk of stroke.

Those involved in recording the pulse must be able to:

- Identify and palpate a radial pulse
- Recognise if the pulse is regular or irregular
- The pulse is to be felt for a period of no less than 60 seconds to rule out Atrial Fibrillation

Fig 3. How to take a pulse



- Place your second (index) and third (middle) finger on the inside of the person's wrist. Your fingers should be right below the wrist crease and near the thumb. Press down.
- When you can feel a pulse, count the pulse beats for 60 seconds (you will need a watch or clock with a second hand), exerting pressure with your two fingers the whole time
- Note the rhythm of the pulse. A normal pulse is usually regular
- If the rhythm does not feel regular (confirm with a colleague if unsure) refer patient to the GP
- E-Learning for Healthcare video – click on the link - [Pulse rate, rhythm and blood pressure](#)

▼ Pulse Rate, Rhythm and Blood Pressure

Outlines the skills involved in measuring the pulse rate, rhythm and blood pressure of patients.

Play



Height, Weight and Calculation of Body Mass Index (BMI)

The patient should be weighed and have their height measured as part of the assessment to ensure up to date criteria are used. These measurements should then be used to calculate body mass index (BMI). When using a computer template the BMI will be calculated automatically.

The result should be explained to the patient in a sensitive way, including their risk of developing diabetes.

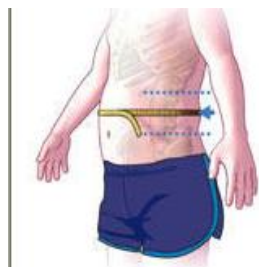
BMI ≥ 30 (27.5 Black, South Asian and Chinese population) provides one approach to identifying those at high risk of developing diabetes or who have existing undiagnosed diabetes or pre-diabetes and is required for the assessment of diabetes risk.

An online BMI calculator can be found on the NHS Choices website.

Waist circumference

This is included as an optional element, but has been included as central obesity is an indicator of increased CV risk and risk of diabetes.

Fig 4 How to measure waist circumference



Waist Circumference measurements are taken from the point mid-way between the last rib and the pelvic crest. If unable to locate these identify the navel and measure 2 finger widths above.

To view the E-Learning for Healthcare video – click on the link below

[Height, weight and waist measurement link](#)

▼ Height, Weight and Waist

Outlines the skills involved in measuring height, weight and waist of patients.

Play



Thresholds for BMI and Waist circumference

	Satisfactory	Increased Risk	High risk
Non-Asian males	Waist <94cm BMI <25 kg/m ²	Waist ≥94cm BMI ≥25-28kg/m ²	Waist >102cm BMI >28kg/m ² +comorbidities or >30 kg/m ²
Asian males	Waist <85cm BMI <23. kg/m ²	Waist ≥85cm BMI ≥ 23-26 kg/m ²	Waist >93cm BMI >26kg/m ² + comorbidities or > 28 kg/m ²
Non-Asian females	Waist <80cm BMI <25 kg/m ²	Waist ≥ 80cm BMI ≥ 25-28 kg/m ²	Waist > 88cm BMI >28kg/m ² + comorbidities or >30 kg/m ²
Asian females	Waist <80cm BMI <23 kg/m ²	Waist ≥ 80cm BMI ≥ 23-26 kg/m ²	Waist > 85cm BMI >26kg/m ² + comorbidities or >28 kg/m ²

The above thresholds are in line with the international Diabetes Federation and WHO advice on BMI and Public health Action Points for Asian Populations sited in NICE Public Health Guidance 46 July 2013

BMI's of 23.kg/m², 27.5 kg/m², 32.5 kg/m² and 37.5 kg/m² are recommended as 'public health action point' by the World Health Organisation. These are targets for health professionals to intervene to help Asian people manage their weight through, physical activity and healthy eating. The categories WHO suggest for people from Asian groups are: 18.5-22.9 kg/m² (increasing risk); and 27.5kg/m² (higher risk of developing chronic health conditions).

It is also recommended in the Public Health Guidance 46, July 2013 that the lower BMI thresholds to trigger action should also be extended to black-African and African-Caribbean populations in order to prevent type II diabetes in this population.

<https://www.nice.org.uk/guidance/ph46>

QDiabetes Risk Assessment

The QDiabetes risk assessment tool is an algorithm that calculates a patient's risk of developing type 2 diabetes within the next 10 years. The tool has been integrated into Emis Web and is now featured on the Bromley NHS Health Checks template and form part of the Bromley NHS Health Checks Programme.

The algorithm is a validated tool which calculates a patient's diabetes risk score by analysing physical, lifestyle and socio-economic factors.

A score of >5.6 indicates a need to refer the patient for an HbA1c blood test to assess for possible non-diabetic hyperglycaemia or diabetes.

To help with your explanation you can click on the view button as demonstrated below, to view the risk calculator visual which includes a comparison between the patient's risk score and the for average risk score for a healthy person in the uk with the same age, sex and ethnicity.

The screenshot shows the 'NHS Health Check Template 2017-18' in the Emis Web system. The 'Diabetes Risk Score' section is highlighted, showing a QDiabetes Type 2 Diabetes Risk of 5.72. A blue arrow points to the 'View' button next to the score. The 'Cardiovascular Risk Score' section is also visible, showing a QRISK 10 y CVD Risk of 7.23. The 'Diabetes Risk Score' section includes a note: '*If QDiabetes score is >5.6 patient requires a blood test for HbA1c to assess for diabetes (unless HbA1c has been recorded in the last 6 months). Please advise the patient to contact the practice to obtain the blood results.' The 'Cardiovascular Risk Score' section includes a note: 'A Cholesterol blood test within the last 6 months must be completed before calculating QRISK'.

The screenshot shows the NHS Health Check Template 2017-18 software interface. The main window displays the 'NHS Healthcheck' template with sections for GPPAQ, Diabetes Risk Score, and Cardiovascular Risk Score. A 'QDiabetes Detailed View' pop-up window is open, displaying patient data and calculated risk scores.

QDiabetes Detailed View

WEBDUMMY, Buzz (Mr)
Born: 05-Jun-1966 (50y)
NHS No.: Unknown

Risk of developing Type 2 Diabetes in the next 10 years = 9.7%
For a 50y old Male in the UK, the average risk is 8.4%

Data used to calculate the QDiabetes Score

Ethnicity:	Other Asian
Smoking Status:	Ex Smoker
Diabetes Category:	None
BMI:	24.5 kg/m ²
Townsend Score:	2.20
Family History of Diabetes?	No
Cardiovascular History?	No
Hypertensive on Rx?	No
Corticosteroids?	No

QDiabetes@
Calculated with QDiabetes risk engine v. 2015.0

Print Close

Cholesterol Test

The patient needs a random blood test for Total Cholesterol and HDL. The cholesterol should be performed using the LDX machine in GP Practices loaned to the GP Practice by the Public Health Department, London Borough of Bromley.

If you are unable to obtain a result from point of care testing then a lab test for cholesterol will be required.

Do not calculate the patients Qrisk or code as NHS Health Check completed until a cholesterol result is available.

NB. Results of a previous cholesterol test can be used, if not more than six months old.

Note: You should not use this equipment unless you have had validated training and have a certificate to demonstrate you have been trained. Please see Section 7 Staffing, training and competency.

See Section 4 for detail on the use and management of the Point of Care testing equipment.

6.4 Cardiovascular Risk Assessment

Having completed the initial information gathering and measurements the patient should have their percentage risk of developing a stroke or heart attack in the next 10 years calculated.

National Institute for Clinical Excellence (NICE) recommends that Risk equations should be used to calculate the 10 year Cardiovascular Disease Risk when managing patients in primary prevention to help make decisions about the future clinical management of the individual¹ QRISK or QRISK2 has been recommended by NICE in calculating CVD risk.

The QRISK tool has been developed using a cohort of UK patient records and is proposed as being more suitable to the UK population². QRISK includes the traditional cardiovascular risk factors but also includes body mass index, family history of cardiovascular disease, and social deprivation and blood pressure on treatment. The newer QRISK2 tool also includes comprehensive breakdown of ethnicity.

Calculate the Risk

The template developed for Emis Web and Vision GP systems in Bromley have QRISK2 within the programme. The QRISK2 score is calculated automatically when entering the data on the template.

What does the result mean?

The result of the risk assessment is a calculation of the percentage likelihood of developing cardiovascular disease over the next 10 years.

Percentage CV Risk Score	Level of 10 year CV Risk
Less than 10%	Low Risk
10-19.9%	Moderate Risk
Equal to or greater than 20%	High Risk

People with **10-19.9%** moderate CVD risk may be referred to the GP/PN following discussion of the results.

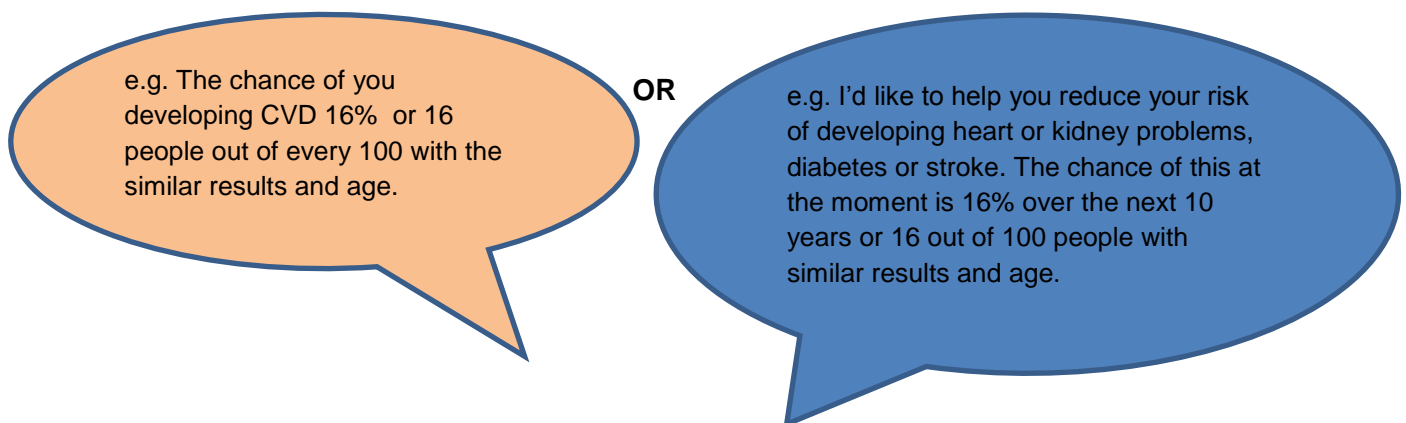
NICE now recommends offering Statin medication to this cohort to reduce their cardiovascular risk. It is suggested this consultation could be done following 6 months of implementing any lifestyle changes they are able to, the Qrisk should be re-calculated to ensure an up to date score.

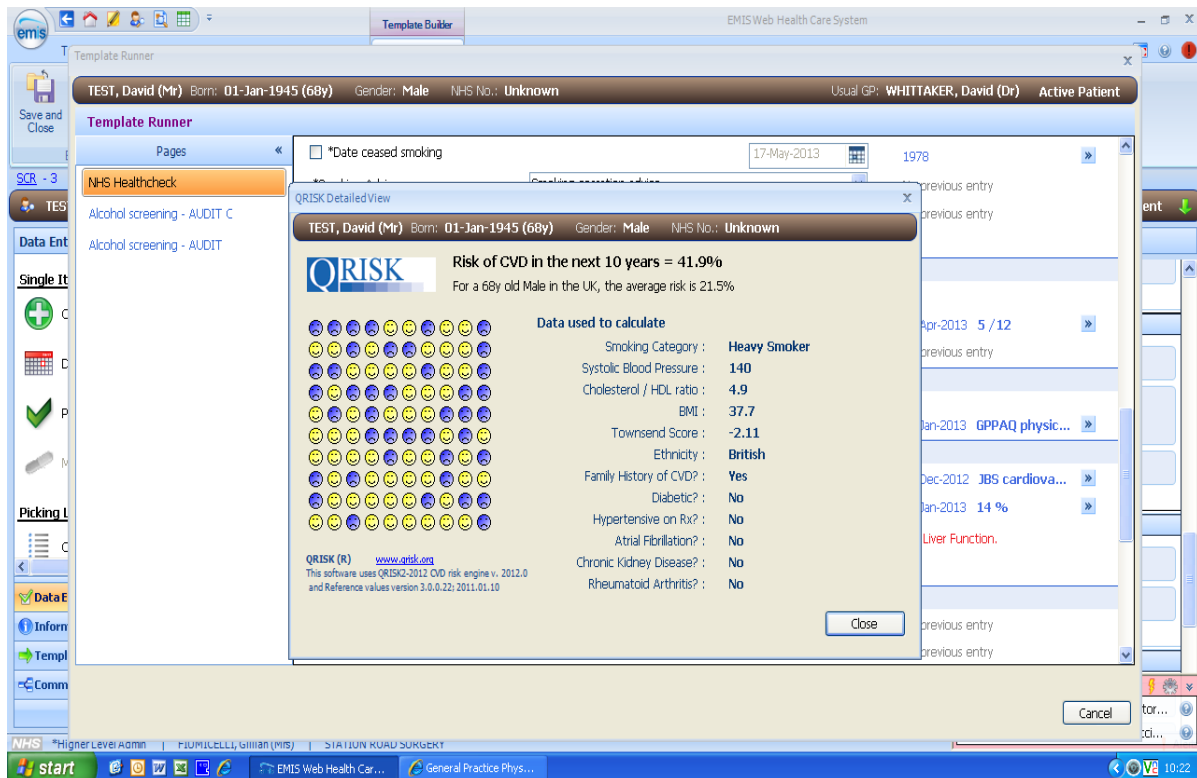
If the CVD risk score is **20% or more** patients should be referred to a GP/PN for further assessment (see Section Seven – Further investigation and Medical Management).

6.5 Communication of Vascular Risk to the Patient

Everyone who undergoes a check should have their results and their NHS Health Check assessment of vascular risk conveyed to them. Everyone will be at some level of risk which needs to be clearly explained. The communication of risk and what it means for the individual is of paramount importance to the programme meeting its objective of helping people stay well for longer.

The findings of the physiological measurements and the CVD risk score should be provided to the patient using the Bromley Public Health Record sheet which can be used with EMIS to merge the patients' data. (see Appendix 10.)





To help with your explanation you can:

Click on the link www.qrisk.org underneath the smiley faces and access the 2016 Qrisk calculator. You will then be able to demonstrate a reduced risk after lifestyle changes (particularly useful with smoking cessation) by re-entering the measurements and clicking on 'calculate' without changing the results on EMIS.

CV risk

The use of percentages may not be understood by everyone and the use other numeric comparisons may be helpful for example:

CVD risk means the risk of having a fatal or non-fatal heart attack or developing angina or having a fatal or non-fatal stroke or transient ischemic attack (mini-stroke)

- A 10% risk is a 1 in 10 chance of having a fatal or serious CVD event in the next ten years
- A 20% risk is a 1 in 5 chance of having a fatal or serious CVD event in the next ten years

Visual charts are recommended by NICE¹ as a useful tool in conveying CVD risk to patients. Examples of which can be found in the back of the British National Formulary.

QRISK 2 on Emis Web (above screen shot) or the internet has good visual representation in terms of smiley and sad faces.

Heart Age is an additional online tool which can be used to find out if your heart age is higher or lower than your actual age. This can be found at NHS Choices - <https://www.nhs.uk/Tools/Pages/heartage.aspx> Or click on the following link: [HeartAge](#)

6.6 Risk management

In addition to CV risk, patients need information about their risk of Diabetes, Chronic Kidney Disease, Hypertension, Familial Hyperlipidaemia and Atrial Fibrillation as appropriate.

Levels of risk need to be discussed alongside what each individual can do to manage their risk, such as taking regular exercise, eating a healthy diet, reducing their calorie and alcohol intake as a way of managing their weight, stopping smoking, and the link between cardiovascular disease and dementia (Refer to Section 7 – Lifestyle Management).

In order to encourage the person to participate in reducing their vascular risk, the healthcare professional should:

- Find out what, if anything, the person has already been told about their CVD risk and how they feel about it
- Explore the person's beliefs about what determines future health (this may affect their attitude to changing risk)
- Assess their readiness to make changes to their lifestyle (diet, physical activity, smoking and alcohol consumption)
- Assess their confidence in making changes to their lifestyle, undergoing investigations and taking medication if indicated
- Inform them of potential future management based on current evidence and best practice
- Using motivational interview techniques involve them in developing a shared management plan
- Ensure they understand what further investigations or follow-up care is needed and why

- Check with them that they have understood what has been discussed
- Inform the person that CVD risk equations can only provide an estimate of risk. However, the likelihood of misclassification is reduced as the estimated CVD risk increases above the threshold of 20% risk over 10 years.
- If the person's vascular disease risk is considered to be at a level that merits intervention but they decline the offer of further investigation or treatment, this should be documented and they should be advised that their vascular risk should be considered again in the future. ²

Patient Results

If the patient results are within acceptable parameters then recall for a 5 year NHS Health Check is recommended. If, however, the patient has an irregular pulse, or the CV risk score is equal to or greater than 20% or the blood pressure is $\geq 140/90$, BMI greater than 30 (27.5 Black, south Asian and Chinese population) or Cholesterol is ≥ 7.5 mmol/mol the patient will need further investigations and review by a health care professional. Also if the patient smokes, is obese or is at high risk of alcohol related complications he/she should be offered support via referral to the appropriate services (see section 7.)

6.7 Identifying the need for further investigation and review

Following their initial appointment some patients may need further investigation and/or review by Practice Nurse or GP.

The patient should be advised of the importance and the need to have further investigations and follow up. The table below outlines the parameters on which further testing or referral are recommended in order to ensure a complete NHS health check. More detail on further investigation and follow up can be found in Section 8: Acting on the results.

Table 6.1 Further investigation guidance

Reason to refer	Refer	Why	Follow up
Irregular pulse/ suspected irregular pulse	Ask PN or GP to check pulse If confirmed irregular, patient needs appointment for a12 lead ECG.	To assess for atrial fibrillation	Follow up by Practice Nurse or GP
Blood Pressure ≥140 systolic and/or ≥90mmHg diastolic	Blood test for: Urea, Electrolytes, Creatinine, eGFR and HbA1c (Fasting glucose for patients with haemoglobinopathies) – according to the most current SE London Diabetes Filter (see section 8) Referral: Ambulatory BP measurement or Home BP monitoring	To assess for hypertension To assess for chronic kidney disease To assess for diabetes	Follow up by Practice Nurse or GP
Diabetes Risk Assessment: Body Mass Index ≥ 30 Or BMI ≥27.5 (Black, South Asian and Chinese) QDiabetes Risk Score > 5.6	Blood test for: HbA1c (Fasting Glucose for patient with haemoglobinopathies) according to the most current SE London Diabetes Filter – (see Medical management section) HbA1c (Fasting glucose for patients with haemoglobinopathies)	To assess for diabetes A verified risk assessment tool to identify people at risk of developing diabetes	Follow up by Practice Nurse or GP Follow up by Practice Nurse or GP
Audit-C score greater than 5 should then prompt Full AUDIT questionnaire of 10	Refer to GP/PN if the full Audit score is 16-20 if needed. Refer to GP/PN and or alcohol services for	May need assessment for Liver damage To provide support/referral to Alcohol service as needed	Follow up by GP or PN

questions Full AUDIT score 8-15 - Increasing risk, 16-20 - Higher risk, 20+ - possible dependence.	scores 20+ and above.		
Cholesterol ≥7.5 mmol/mol	Blood test for: Fasting lipid profile Thyroid function Liver function CK	To corroborate result and exclude secondary causes of raised cholesterol Assess for familial hypercholesterolemia To provide baseline measurements prior to treatment with statins	Follow up by GP
CV risk score ≥ 10%	1. Agree timescale 3-12 months for a trial of lifestyle changes to reduce risk, where modifiable risk factors are present. 2. Blood test for: Fasting lipid profile Thyroid function Liver function 3. Reassessment of CV risk Reassessment of CV risk and any identified modifiable risk factors (3-12 months) to see if Qrisk continues to be ≥10% after lifestyle modification trial	To allow patient time to reduce their risk to <10% with lifestyle in an agreed timescale prior to: To exclude secondary causes of increased CV risk To provide baseline measurements prior to treatment with statins To be offered statin therapy to reduce CV risk where Qrisk remains ≥10%.	Follow up by GP or PN to have a discussion regarding individuals benefits and risks of taking a statin.
CV risk score ≥ 20%	1. Blood tests for Lipid Profile Thyroid Function Liver Function U & E.	To exclude secondary causes of increased CV risk and provide base measurements prior to treatment with statins To be offered Statin therapy to reduce CV risk	Follow up by GP or Nurse prescriber to discuss further management with statins.

Contact numbers and web-sites

All web-site addresses and telephone numbers are located in Appendix 11.

References

1. Department of Health (Feb 2017) NHS Health Check: Vascular Risk Assessment and Management Best Practice Guidance
http://www.healthcheck.nhs.uk/commissioners_and_providers/guidance/
2. NICE Lipid modification: Cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease. NICE clinical guideline 67. May 2008. www.nice.org.uk/CG067
3. Anderson KM, Odell PM, Wilson PWF, Kannel WB. Cardiovascular disease risk profiles.
Am Heart J, 1991;121(1 pt 2):293-8. *Cited in:* Collins, Gary S and Altman, Douglas G

An independent external validation and evaluation of QRISK cardiovascular risk prediction: a prospective open cohort study *BMJ* 2009; 339: p2584
4. Hippisley-Cox et al, Derivation and validation of QRISK, a new cardiovascular disease risk score for the United Kingdom: prospective open cohort study. *BMJ*, 2007, doi: 10.1136/bmj.39261.471806.55, accessed online at: <http://www.bmj.com/cgi/content/full/bmj.39261.471806.55v1>
5. Collins, Gary S and Altman, Douglas G An independent external validation and evaluation of QRISK cardiovascular risk prediction: a prospective open cohort study, *BMJ*;2009, 339: p2584.
6. Collins, G.S and Altman, D.G An Independent and external validation of QRISK2 cardiovascular disease risk score: a prospective open cohort study, *BMJ* 2010, 340: p1-9
7. Dalton AR, Bottle A, Soljak M, Majeed A, Millett C, Ethnic group difference in cardiovascular risk assessment scores: national cross-section study. *Ethnicity & Health* 10 May 2013 accessed online at: <http://www.ncbi.nlm.nih.gov/pubmed/2366341>

8. Lipid modification: cardiovascular risk assessment and the modification of blood lipids for the primary and secondary prevention of cardiovascular disease. NICE guidelines [CG181] Published date: July 2014