Department of Health

Public Health England

NHS Health Check Programme

Best Practice Guidance

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Contents

Chapter 1: Introduction

1.1 Background

From 1 April 2013, local authorities took over responsibility for the national NHS Health Check programme, previously the responsibility of Primary Care Trusts (PCTs). The provision of NHS Health Check risk assessments is a mandatory requirement for local authorities as set out in regulations 4 and 5 of the Local Authorities (Public Health Functions and Entry to Premises by Local Healthwatch Representatives) Regulations 2013, S.I. 2013/351. This guidance aims to support local authorities in understanding their legal duties as well as where there is scope for local flexibility and innovation, so they can best meet the needs of their population.

The guidance is also intended to support close working between local authorities and their partners across the health care system, including primary care. This will help ensure any additional testing and clinical follow up is undertaken, for example, where someone is identified in the risk assessment as being at high risk of having or developing a vascular disease. This is paramount if the different elements of the programme are to link together and for the delivery of a safe, quality service.

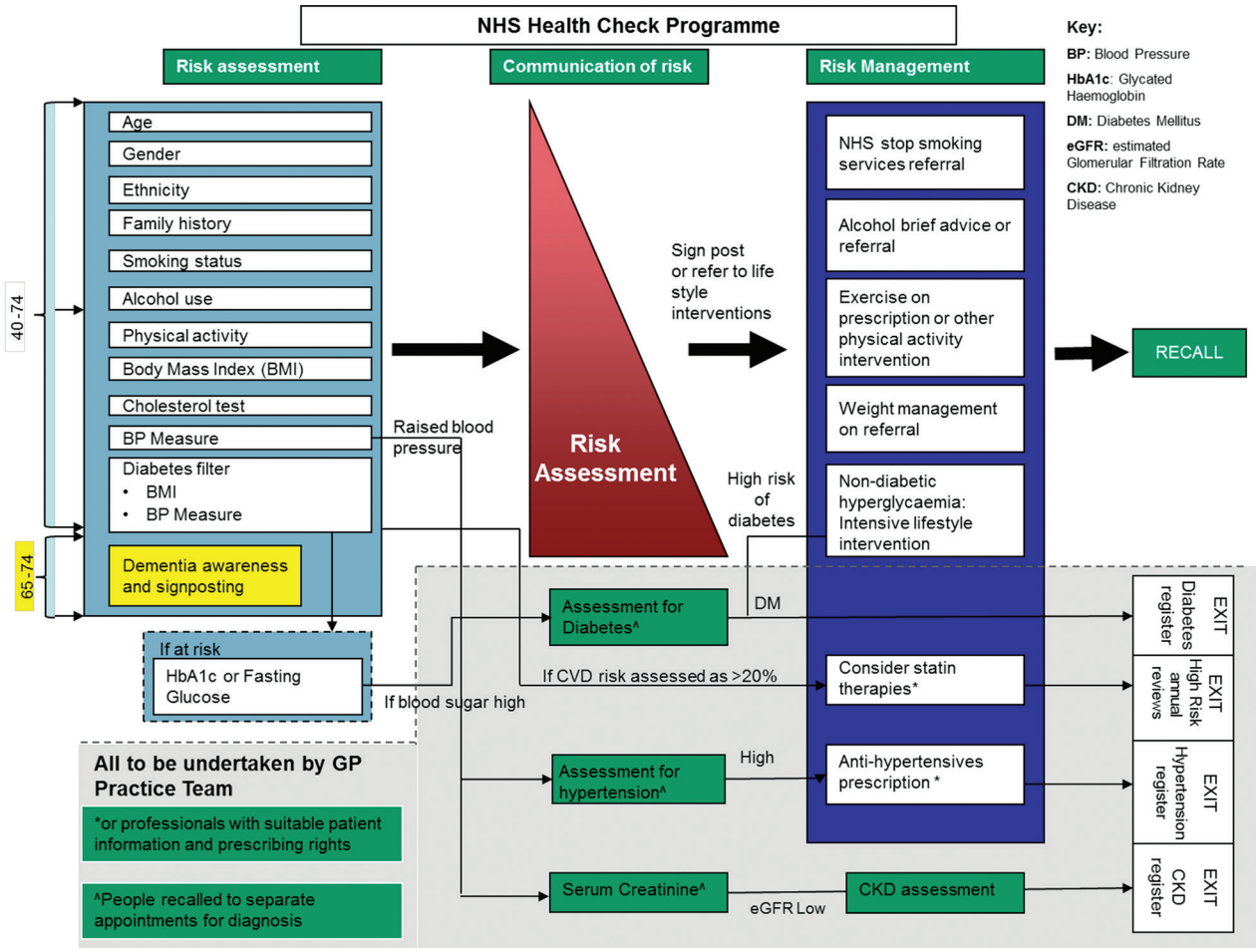
This guidance updates and replaces the previous NHS Health Check Best Practice Guidance[1] published in 2009.

1.2 The NHS Health Check programme

The NHS Health Check programme is a public health programme in England for people aged 40-74 which aims to keep people well for longer. It is a risk assessment and management programme to prevent or delay the onset of diabetes, heart and kidney disease and stroke. A diagrammatic overview of the programme is provided at *Figure 1*.

1 Putting Prevention First. NHS Health Check: Vascular Risk Assessment and Management. Best Practice Guidance. Department of Health. 3 April 2009. Gateway reference: 11473

Figure 1: Diagrammatic overview of the vascular risk assessment and management programme



Reducing avoidable premature mortality is a Government priority. Through early identification and management of risk factors and early detection of disease the NHS Health Check will help achieve the ambitions set out in two key documents: A Call to Action to Reduce Premature Mortality[2], and the Cardiovascular Disease Outcome Strategy[3].

Together diabetes, heart, kidney disease and stroke make up a third of the difference in life expectancy between the most deprived areas and the rest of the country. Addressing these differences is a key aim of the programme. With the rise in levels of obesity, type 2 diabetes, and the associated costs to the NHS and social care, prevention of this disease is also a key driver.

2 Living Well for Longer: a call to action to reduce premature mortality. Department of Health. 5 March 2013. Gateway reference: 18716

3 Cardiovascular Disease Outcomes Strategy: Improving outcomes for people with or at risk of cardiovascular disease. Department of Health. 5 March. Gateway reference: 18747.

The programme also aims to reduce levels of alcohol related harm and to raise awareness of the signs of dementia and where people can go for help.

Everyone attending a NHS Health Check will have their alcohol consumption risk assessed. In addition, people aged 65-74 will be informed of the signs and symptoms of dementia and sign posted to memory clinics if needed.

1.3 Funding and working across the health care system

From 1 April 2013, local authorities became responsible for the risk assessment and life style interventions for the programme, which will be funded through the public health ring fenced budget. The risk assessment element of the check is a mandatory function which local authorities are required to commission or provide.

Where additional testing and follow up is required, for example, where someone is identified as being at high risk of having or developing vascular disease, this remains the responsibility of primary care and will be funded through NHS England. Local authorities will need to work closely with their partners across the health care system, including through Health and Wellbeing Boards, to ensure these different elements of the programme link together.

1.4 Quality controls and using the NHS Health Check brand

The NHS Health Check programme is a national programme, delivered locally in a way that best suit the needs of local populations. This allows local authorities flexibility on who to commission to provide the service and what locations are used. It is important, however, that the tests and measurements themselves are standardised to help ensure the safety, quality and effectiveness of the programme. Equally, it is key that the actions taken at certain thresholds are the same, to assure a systematic and uniform offer across England and to maximise the public health impact of the programme.

Local areas will need to build quality controls and standardisation into their commissioning and contract management arrangements. This will be required if areas wish to use the NHS Health Check brand, which represents a free, uniform and quality service regardless of which local authorities are commissioning it.

1.5 Equality and the NHS Health Check programme

One of the main aims of the NHS Health Check programme is to help narrow health inequalities from the conditions covered by it. The programme has been designed so that the majority of the check – including the tests and measurements required for the risk assessment part - can be delivered in different settings. This will help ensure the programme is as accessible to as wide a range of people as possible. It is up to local authorities to decide which settings to use and who to commission to provide the service, and this will be informed by their own assessments of need of their local population.

In addition, local areas will wish to ensure that the NHS Health Check programme they offer is in keeping with the Equality Act 2010. A quick start guide is available which is intended to help public sector organisations understand a key measure in the Equality Act – the public sector Equality Duty, which came into force on 5 April 2011. Local areas will be

familiar with the purpose and provisions of the Act and understand, for example, that reasonable adjustments need to be made for disabled people when providing services and exercising public functions. This duty recognises that equality of opportunity for disabled people cannot be achieved simply by treating disabled and non-disabled people alike. This needs to be given active consideration locally in terms of accessibility of the service but also in terms of how the NHS Health Check is conducted. For example, the way that wheelchair users access their NHS Health Check, as well as how their risk assessment is undertaken and how they are supported to improve their lifestyles will require local consideration and action.

References

Public sector: quick start guide to the public sector Equality Duty. http://www.gov.uk/government/publications/public-sector-quick-start-guide-to-the-public-sector-equality-duty

Chapter 2: Guidance on legal requirements for Local Authorities

2.1 Summary of statutory requirements

The Local Authorities (Public Health Functions and Entry to Premises by Local Healthwatch Representatives) Regulations 2013 S.I. 2013/351 set out a number of mandatory public health functions for local authorities from 1 April 2013. These Regulations have been made by the Secretary of State under powers conferred by the National Health Service Act 2006[4] and the Local Government and Public Involvement in Health Act 2007[5].

This document provides guidance on what local authorities need to do to comply with the Regulations and where local areas have flexibility. Legal duties exist about the offering of NHS Health Checks (referred to as health checks in the Regulations), the content of the risk assessment, communication of results, data recording and transfer and take up rates. This is guidance only and local authorities will wish to satisfy themselves that they are fulfilling their legal obligations.

Legal duties exist for local authorities to make arrangements:

- for each eligible person aged 40-74 to be offered a NHS Health Check once in every five years and for each person to be recalled every five years if they remain eligible
- so that the risk assessment includes specific tests and measurements
- to ensure the person having their health check is told their cardiovascular risk score, and other results are communicated to them
- for specific information and data to be recorded and, where the risk assessment is conducted outside the person's GP practice, for that information to be forwarded to the person's GP.

Local authorities are also required to seek continuous improvement in the percentage of eligible individuals taking up their offer of a NHS Health Check. Further information on these provisions is provided in this document.

4 Sections 6C(1) to (3), 186A(4)(b) and 272(7) and (8) of the National Health Service Act 2006.

5 Sections 225(1) to (3) and (7)(e), 229(2) and 240(10) of the Local Government and Public Involvement in Health Act 2007.

2.2 Offering NHS Health Checks to those eligible

Local authorities have a statutory obligation to make arrangements for everyone eligible aged 40 to 74 to be offered a NHS Health Check once in every five years and, where people remain eligible, for them to be recalled for another check every five years after that.

As the programme is a public health programme aimed at preventing disease, people with previously diagnosed vascular disease or meeting the certain criteria set out below are excluded from the programme. These individuals should already be being managed and monitored through existing care pathways.

Local authorities have the flexibility to extend their programmes to cover a wider age range or include everyone aged 40 to 74 years old but they will need to consider the cost and benefits of doing so.

Specifically people diagnosed with the following are excluded from the programme:

- coronary heart disease
- chronic kidney disease (CKD)[6]
- diabetes
- hypertension
- atrial fibrillation
- transient ischaemic attack
- hypercholesterolaemia
- heart failure
- peripheral arterial disease
- stroke.

Also excluded are people:

- being prescribed statins
- who have previously had an NHS Health Check, or any other check undertaken through the health service in England, and found to have a 20% or higher risk of developing cardiovascular disease over the next 10-years.

2.3 The risk assessment

Everyone having a NHS Health Check will have a risk assessment which will look at the level of risk associated with their alcohol consumption as well as their risk of having, or developing, vascular disease in the next 10 years. Local authorities can decide where these take place and, as long as the staff who carry them out are appropriately trained and qualified. For example, they may wish to use a combination of pharmacies and other community settings, as well as GP practices to help ensure the programme is as accessible to as many people as possible. The tests, measurements and risk calculations that make up the risk assessment part of the NHS Health Check are however stipulated in legislation because of the importance of a uniform, quality offer and guidance is provided below to support local commissioning.

6 Stage 3, 4 or 5 of CKD within the meaning of the National Institute for Health and Clinical Excellence clinical guideline 73 on Chronic Kidney Disease, published in September 2008.

The risk assessment requires a number of tests and measures to be carried out, and information collected as set out below. Where the risk assessment is conducted outside the person's GP practice, there is also a legal duty for the following information to be forwarded to the person's GP:

- age
- gender
- smoking status
- family history of coronary heart disease
- ethnicity
- body mass index (BMI)
- cholesterol level
- blood pressure
- physical activity level - inactive, moderately inactive, moderately active or active
- cardiovascular risk score
- Alcohol Use Disorders Identification Test (AUDIT) score.

In addition, those aged 65-74 should be made aware of the signs and symptoms of dementia and sign posted to memory services if this is appropriate.

Communication of results

The use of a risk engine to calculate the individuals' risk of developing cardiovascular disease in the next ten years is required, and everyone who undergoes a NHS Health Check must have their cardiovascular risk score communicated to them. The person having their check should also be told their BMI, cholesterol level, blood pressure and AUDIT score.

A note on safety and quality

Whilst local areas can determine where the risk assessment is conducted and what work force model delivers it, local authorities will wish to consider how the tests and measurements are standardised and quality assured. This is not a legal requirement of the Regulations but equally this is key to providing a safe service.

For example, it is pivotal that the actions taken at certain thresholds are the same and in line with national guidelines, including those issued by the National Institute for Health and Care Excellence (NICE), so that people receive the necessary and appropriate care.

2.4 Continuous improvement in take up rates

Local authorities have a legal duty to seek continuous improvement in the percentage of eligible individuals taking up their offer of a NHS Health Check as part of their statutory duties.

Ensuring a high percentage of those offered a NHS Health Check actually receive one is key to optimising the clinical and cost effectiveness of the programme. This is especially important for populations with the greatest health needs and will impact on the programme's and local area's abilities to narrow health inequalities.

Local authorities have the flexibility to decide how best to approach this and are well placed to understand the needs of their population and how best to achieve this. Which could be through social marketing, use of local champions, convenient locations and opening times or a combination of these.

Whilst a take up rate of 100% is unlikely to be achieved, local areas are expected to maximise participation in the programme and secure continuous improvements. There are no targets but areas may wish to aspire over time to take up rates comparable with screening programmes which achieve take up rates in the region of 75%. The higher the take up rates for the programme, the greater the reach and impact of the programme and the more likely the programme is to tackle health inequalities.

Local authorities will need to make their own decisions on further improvements in this area bearing in mind that the take up rate for the NHS Health Check programme is an indicator in the Public Health Outcomes Framework [7]. Local authorities will be required to provide data returns which will be published allowing national and local comparisons of achievement.

7 Public Health Outcomes Framework for England, 2013-2016. Department of Health. January 2012. Gateway reference: 16891. https://www.gov.uk/government/publications/healthy-lives-healthy-people-improving-outcomes-and-supporting-transparency

Chapter 3: Best Practice Guidance on the risk assessment

This section aims to provide support for local authorities on how a NHS Health Check risk assessment can best be undertaken. This is guidance only but is intended to support local authorities in the delivery of their legal duties set out in Section 2.

3.1 Cardiovascular risk assessment

The following explains how to assess someone's cardiovascular risk and defines what information and measurements are required to do this.

The NHS Health Check risk assessment requires the use of a risk engine to calculate the individuals' risk of developing cardiovascular disease in the next ten years. There are a number of risk engines available. The National Institute for Health and Care Excellence (NICE) advices that local areas choose a risk engine which best represents their local needs. The following information explains what data is required for the risk engines QRISK® 2[8] and Framingham, and the best practice for obtaining associated data. Where the risk assessment is not conducted in the person's GP practice, local authorities have a legal duty to arrange for the data set out in Section 2.3 to be sent to the person's GP. This includes much of the information below.

Age

Data required: Age is required for Framingham and QRISK® 2. It should be recorded in years.

Thresholds: The age of the person should be between 40 and 74 years (inclusive).

Gender

Data required: The individual's reported gender should be recorded as male or female.

Smoking status

Data required: The Framingham 1991 model defines smoking status as:

- cigarette smoking or quit within the past year
- otherwise (i.e. not smoking currently and/or quit over a year ago).

QRISK® 2 requires data on smoking status as follows:

- current smoker or
- non-smoker (including ex-smoker).

8 QRISK® is a UK registered trademark No.2454356 owned by Egton Medical Information Systems Limited and the University of Nottingham

Related stages of the check: Local authorities may wish to ensure processes are in place so a smoker who wants to quit can be offered a referral for the support of a local Stop Smoking Service.

Physical activity levels

Data required: The 2006 NICE guidance on physical activity interventions recommends that primary care practitioners should take the opportunity, whenever possible, to identify inactive adults. The UK Chief Medical Officers recommended that all adults should be physically active daily. Over a week, activity should add up to at least 150 minutes. A validated tool is recommended, such as the Department of Health's General Practitioner Physical Activity Questionnaire (GPPAQ) to measure the activity levels of individuals.

Key points: GPPAQ as a screening tool is part of Let's Get Moving (LGM), which is a physical activity care pathway. GPPAQ has been tested and validated for self-completion. It provides a measure of an individual's physical activity levels, which have been shown to correlate with cardiovascular risk, classifying people as inactive, moderately inactive, moderately active, and active.

Thresholds: A brief intervention on physical activity will help support people to become and remain active and will be appropriate for the majority of people who fall into all GPPAQ classifications other than active. Individuals who are identified as inactive could be considered for exercise referral where local services exist.

References

Four commonly used methods to increase physical activity: brief interventions in primary care, exercise referral schemes, pedometers and community-based exercise programmes for walking and cycling.

NICE Public Health Intervention Guidance 2. March 2006. http://guidance.nice.org.uk/PH2/Guidance

Physical activity: brief advice for adults in primary care. NICE public health guidance 44. May 2013. The recommendations supersede recommendations 1-4 in Four commonly used methods to increase physical activity, NICE Public Health Guidance 2.

Start Active, Stay Active. A report on physical activity for health from the four home countries' Chief Medical Officers. Department of Health. July 2011. http://www.dh.gov.uk/government/publications/start-active-stay-active-a-report-on-physical-activity-from-the-four-home-countries-chief-medical-officers.

Let's Get Moving: Commissioning Guidance - A physical activity care pathway. Department of Health. March 2012. http://www.gov.uk/government/publications/let-s-get-moving-revised-commissioning-guidance.

Family history of coronary heart disease

Data required: Family history of coronary heart disease in first-degree relative under 60 years (this information is required for QRISK® 2 but not for Framingham).

Key points: First-degree relative means father, mother, brother or sister. Please also refer to NICE Clinical Guideline 67 (2010) Annex D on recommendations relating specifically to use and modification of the Framingham risk equation for the assessment of CVD risk.

Ethnicity

Data required: Self-assigned ethnicity is recorded in QRISK® 2 (white/not recorded, Indian, Pakistani, Bangladeshi, Other Asian, black African, black Caribbean, Chinese, other including mixed). The information is required for QRISK® 2 and for the 1991 Framingham equation.

Key points: Ethnicity is needed for the diabetes risk assessment. Ethnicity should be recorded using the codes used in Office for National Statistics 2001 census.

Body Mass Index

Data required: Body Mass Index (BMI) is required for the CVD risk calculation. It also provides one approach to identifying those at high risk of developing diabetes, or those who have existing undiagnosed diabetes, and is required for the diabetes risk assessment (covered later in this section).

Thresholds: where the individual's BMI is in the obese range as follows then a blood sugar test is required:

- BMI is 27.5 or over in individuals from the Indian, Pakistani, Bangladeshi, Other Asian and Chinese ethnicity categories.
- BMI is 30 or over in individuals from other ethnicity categories.

Cholesterol test

Data required:

- The Framingham 1991 model specifies cholesterol to be measured as total serum cholesterol and high density lipid cholesterol.
- QRISK® 2 specifies cholesterol to be measured as the ratio of total serum cholesterol to high density lipoprotein cholesterol.

Related stages of the check: Cholesterol is a major modifiable risk factor of vascular disease, and can be reduced by dietary change, physical activity and drugs, and local areas will wish to consider what support to offer individuals. The specific reduction measures taken will depend on the overall risk score of the individual. If the 10-year risk is 20% or greater, and the NHS Health Check is undertaken outside of general practice the individual should be referred to their GP for further assessment and management.

Key points: A random (not fasting) cholesterol test can be used under the NHS Health Check programme to help ensure maximum take-up.

References

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 (reissued March 2010). www.nice.org.uk/CG067

Statins for the prevention of cardiovascular events. NICE Technology Appraisal 94. January 2006. www.nice.org.uk/page.aspx?o=TA094guidance

Systolic and diastolic blood pressure

Data required: Both systolic (SBP) and diastolic blood pressure (DBP) are required for the diabetes filter and for assessment for chronic kidney disease and hypertension within primary care.

Threshold: If the individual has a blood pressure at, or above, 140/90mmHg, or where the SBP or DBP exceeds 140mmHg or 90mmHg respectively, the individual requires:

- a fasting plasma glucose (FPG) or HbA1c test (see section on diabetes risk assessment). This is part of the risk assessment element of the NHS Health Check and local authorities will need to consider its provision.
- an assessment for hypertension (see the section on additional testing and clinical follow up). This will take place in primary care and will mean local authorities will need to work closely with their partners to ensure people are clinically followed up as appropriately.
- an assessment for chronic kidney disease (see the section on additional testing and clinical follow up). Again this will take place within a GP practice setting and links across the system are essential.

Key points: Where possible, follow the relevant key points and best practice set out in NICE clinical guideline 127 (2011) on management of hypertension and the supporting quick reference guide. This guidance partially updates and replaces NICE clinical guideline 34. As blood pressure is one of the top modifiable risk factors for preventing premature mortality, commissioners and providers will wish to familiarise themselves with the latest document. It covers, for example, the measurement of blood pressure and diagnosis of hypertension by taking the blood pressure in both arms, ambulatory blood pressure monitoring, assessing cardiovascular risk and the provision of lifestyle interventions.

References

Hypertension: clinical management of primary hypertension in adults. NICE clinical guideline 127. August 2011. www.nice.org.uk/nicemedia/live/13561/56008/56008.pdf

Quick reference guide. Hypertension: clinical management of primary hypertension in adults. NICE. August 2011. www.nice.org.uk/nicemedialive/13561/56015/56015.pdf

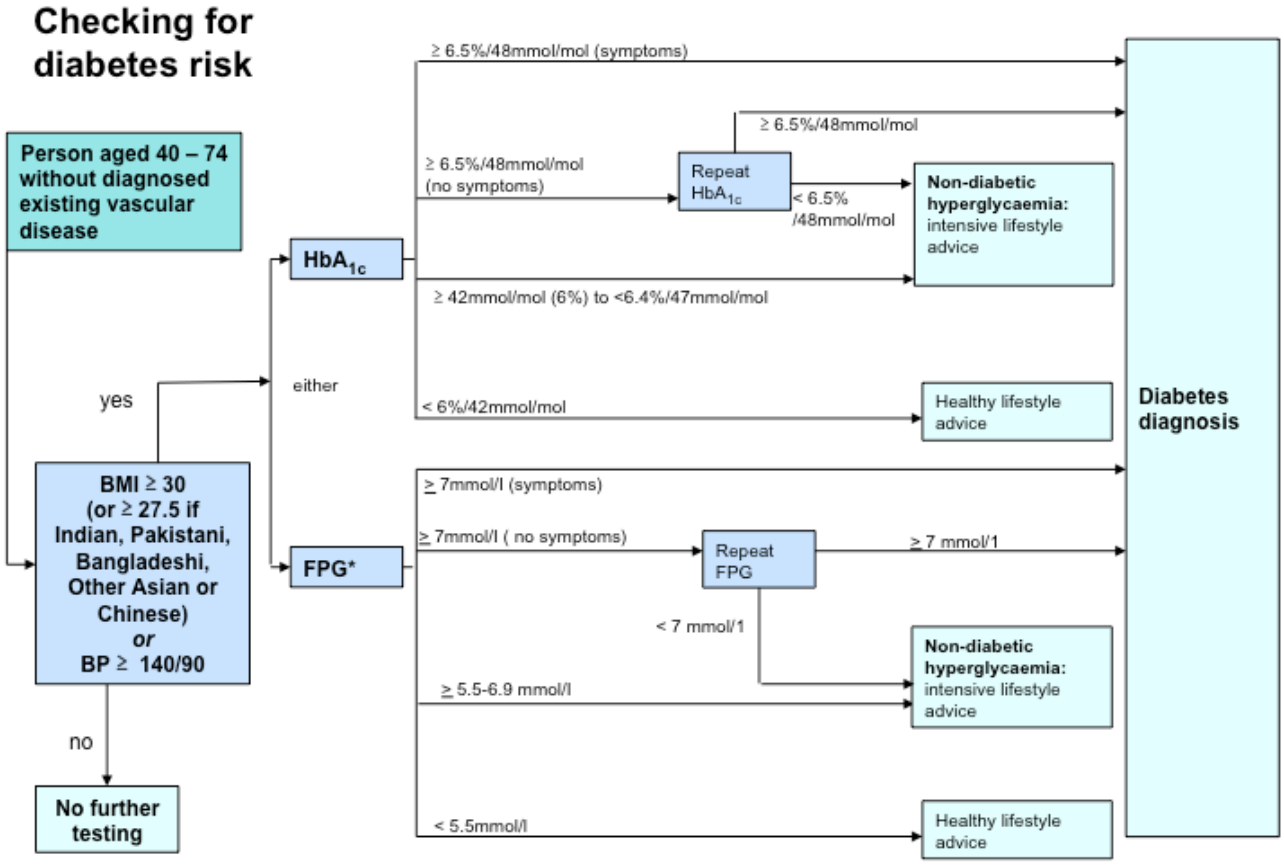
3.2 Diabetes risk assessment

Identifying those at higher risk of diabetes

This section provides guidance on how to identify those at high risk of developing and having undiagnosed diabetes, and undertake the necessary blood glucose test – either an HbA1c which is recommended, or a fasting blood glucose test. Only those identified as at higher risk should have a blood glucose test as part of their NHS Health Check risk assessment and it is not considered clinically effective or cost effective to test everyone.

There is no single accepted way of identifying people who are at risk of diabetes or who have existing undiagnosed diabetes. There are a number of ways of determining who is at high risk and this guidance describes approaches using BMI (adjusted for ethnicity) and blood pressure to identify people at high risk. Using these factors as a filter, those at higher risk can be identified and these should go on to receive a blood glucose test. Making arrangements for the blood glucose test is a local authority responsibility. The outcome of the test will establish how best they can be managed. Figure 2 provides a

Figure 2: Checking for diabetes risk



diagrammatic overview of these approaches as well as additional testing and treatment pathways.

The thresholds specified below will not pick up everyone at risk of diabetes, but this approach achieves a balance between sensitivity (i.e. finding as accurately as possible those people at risk of diabetes) and feasibility (i.e. the practicalities involved in delivering the check). It means that just under half of people put through the filter nationally will go on to have a blood glucose test.

Key points: Only individuals identified as at high risk of diabetes using BMI or blood pressure as a filter should have a blood glucose test. It is not clinically effective or cost effective to test everyone. It is also important to note that only HbA1c or a *fasting* plasma glucose test is recommended.

Random (non-fasting) plasma glucose tests should *not* be used as the results will vary markedly depending on what the person has consumed – false positives and negatives may result.

Data required: Ethnicity, BMI and blood pressure are required for the diabetes risk assessment.

Thresholds: Where the individual's BMI is in the obese range as follows or their blood pressure is at or above 140/90mmHg, the individual requires a blood glucose test.

The diabetes filter

Blood glucose test if:

BMI is in the obese range (**30** or over, or **27.5** or over in individuals from the Indian, Pakistani, Bangladeshi, Other Asian and Chinese ethnicity categories)

Or

Blood pressure is at or above **140/90mmHg**, or where the SBP or DBP exceeds 140mmHG or 90mmHg respectively

Blood glucose testing

Related stages of the check: Individuals who have a BMI in the obese range (30 or over, or 27.5 or over in individuals from the Indian, Pakistani, Bangladeshi, Other Asian and Chinese ethnicity categories) or with a blood pressure at or above 140/90mmHg, or where the SBP or DPB exceeds 140mmHg or 90mmHG respectively, should have a blood glucose test as described below.

It is important to consider the situation of the individual person, as some people who do not fall into the categories above will still be at significant risk. This includes:

- people with first-degree relatives with type 2 diabetes or heart disease
- people with tissue damage known to be associated with diabetes, such as retinopathy, kidney disease or neuropathy
- women with past gestational diabetes
- those with conditions or illnesses known to be associated with diabetes (e.g. polycystic ovarian syndrome or severe mental health disorders)
- those on current medication known to be associated with diabetes (e.g. oral corticosteroids).

Key points: As with the other tests in the check, it is important that those people who do not go on for further testing understand that everyone has some level of risk. They should also be made aware of the risk factors for diabetes as part of the general lifestyle advice that should be offered to everyone having a check regardless of their risk.

There is no single universally recognised way of testing blood for high risk of diabetes or for diabetes itself. Random (non-fasting) blood glucose tests are so influenced by food they are not recommended. Fasting blood glucose tests, while less convenient, are a better method. An HbA1c test can also be used. These two main approaches for testing blood glucose – fasting plasma glucose and HbA1c – are set out below.

Fasting plasma glucose (FPG)

Key points: An FPG test is recognised as an acceptable first test to identify those with potential diabetes or at high risk. To undertake an FPG test, the person being tested should be informed of the fasting requirement in writing or over the phone and if possible the appointment should be scheduled for 11am or earlier to make fasting easier.

HbA1c (glycated haemoglobin)

Key points: HbA1c testing does not require fasting so can be more convenient. Blood can be taken venously. HbA1c is formed when glucose binds to haemoglobin in red blood cells. The higher the blood glucose over the past two or three months, the higher the HbA1c. Even within the non-diabetic range, HbA1c has been shown to be a risk

marker for vascular events and can be used to assess the risk of diabetes.

In 2011, the World Health Organization accepted HbA1c as an alternative method in the diagnosis of diabetes provided:

- stringent quality assurance methods are in place.
- measurements are standardised.
- no conditions exist which preclude HbA1c's accurate measurement such as haemolytic anaemia, iron-deficiency anaemia and some variant haemoglobins. HbA1c is not recommended for the diagnosis of diabetes in pregnancy when an oral glucose tolerance test is still required. HbA1c reflects glycaemia over the preceding 2–3 months so may not be raised if blood glucose levels have risen rapidly.
- Situations where blood glucose levels have risen rapidly require urgent/same day assessment by a GP, diabetologist or Accident & Emergency. Examples include:
  - ALL symptomatic children and young people
  - symptoms suggesting type 1 diabetes (any age)
  - short duration diabetes symptoms
  - patients at high risk of diabetes who are acutely ill
  - patients taking medication that may cause rapid glucose rise, e.g. corticosteroids, anti-psychotics
  - acute pancreatic damage/ pancreatic surgery.

WHO did not provide specific guidance on HbA1c criteria for people at increased risk of type 2 diabetes. However, a UK expert group on the implementation of the WHO guidance recommends using HbA1c values between 42 and 47mmol/mol (6.0-6.4%) to indicate that the person is at high risk of type 2 diabetes. NICE public health guidance 38: Preventing type 2 diabetes: risk identification and interventions for individuals at high risk, supports this recommendation.

References

The Handbook for Vascular Risk Assessment, Risk Reduction and Risk Management. A report prepared for the UK National Screening Committee. University of Leicester. March 2008. (updated 2012). Pages 120-122. www.screening.nhs.uk/vascular/VascularRiskAssessment.pdf. Provides additional advice on how to measure blood pressure using a standard sphygmomanometer, or a semi-automated device and electronic device.

Use of Glycated Haemoglobin (HbA1c) in the Diagnosis of Diabetes Mellitus

World Health Organization. 2011. Abbreviated Report of a WHO Consultation. WHO/NMH/CHP/CPM/11.1. http://www.who.int/diabetes/publications/report-hba1c_2011.pdf

Use of glycated haemoglobin (HbA1c) in the diagnosis of diabetes mellitus abbreviated report of a WHO consultation, 2011

Consensus statement: Use of haemoglobin A1c (HbA1c) in the diagnosis of diabetes mellitus. The implementation of World Health Organisation (WHO) guidance 2011, Practical Diabetes, 2011, 1, 12a

NICE public health guidance 38: Preventing type 2 diabetes: risk identification and interventions for individuals at high risk. July, 2012.

3.3 Alcohol risk assessment

Local authorities need to ensure that everyone having a NHS Health Check has their alcohol consumption risk assessed.

Key points: To identify alcohol risk, the World Health Organisation (WHO) Alcohol Use Disorder Identification Test (AUDIT) questionnaire should be used. This questionnaire is well validated, has been used all over the world and is considered to be the 'Gold Standard' alcohol risk questionnaire.

The AUDIT questionnaire is ten questions long and will take approximately three minutes to complete. Not everybody will need to be asked all ten questions.

The assessment can be split into two phases:

- an initial screen to identify those who may be at risk, and
- a second phase to identify the level of risk.

Figure 3 presents the care pathway for alcohol risk assessment.

Initial screening: The initial assessment can be undertaken by using a brief initial screening questionnaire; a sub-set of the full AUDIT.

The two recommended initial screening questionnaires, AUDIT-C and the Fast Alcohol Screening Test (FAST), are both well-validated questionnaires and widely used in England. Both can be self-completed by the individual or the questions can be verbally asked of the person and their response recorded. AUDIT-C consists of the first three questions of AUDIT- the consumption questions. FAST consists of four of the ten questions from AUDIT.

These initial screening tests are about 80% as accurate as the full AUDIT and are enough to rule someone in or out for further investigation concerning their alcohol risk.

Initial screening threshold: (AUDIT-C >5; FAST >3) If the patient scores above five using AUDIT-C, or above three using FAST this indicates the individual is positive on the initial screening questionnaire and the second phase should be undertaken.

Full AUDIT: If the patient scores above the threshold above on the initial screening questionnaire, the second phase is to complete the remaining questions of the full AUDIT. It is this full AUDIT score that can identify the risk level of the person.

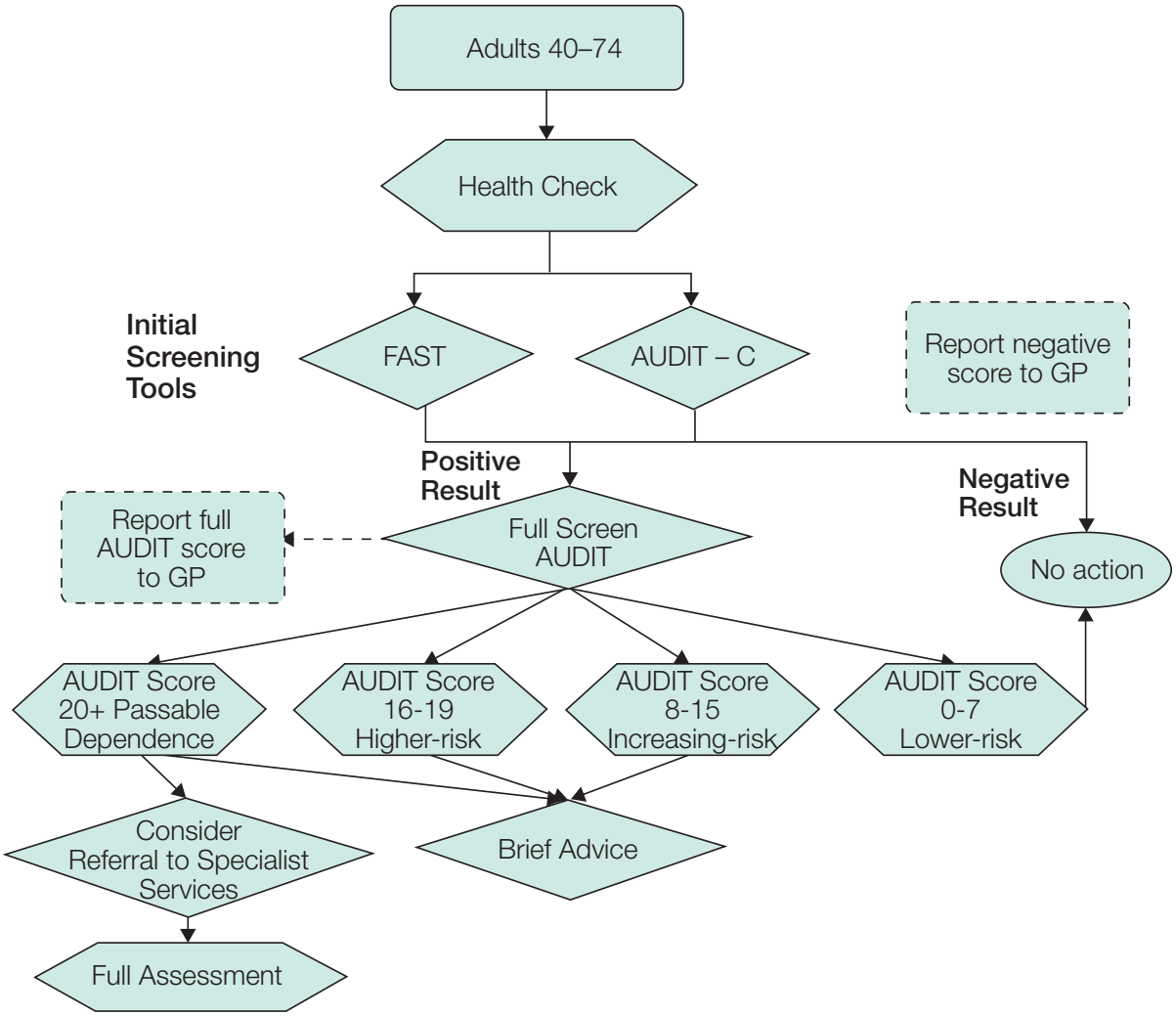
AUDIT threshold: > 8. If the total AUDIT score from the full ten questions is eight or more, this indicates the person's consumption of alcohol might be placing their health at increasing or higher risk of harm.

The AUDIT score should be recorded and fed back to both the individual and, where the risk assessment is carried out outside the person's GP practice, to the person's GP.

Related stages of the check: Although this is not a mandated requirement, if the individual meets or exceeds the AUDIT threshold of eight, the individual should be given brief alcohol advice to reduce their health risk and to help reduce alcohol related harm. A referral to alcohol services should be considered for those individuals scoring 20 or more on AUDIT. Further guidance on this is provided in Section 4.

Data required: AUDIT score

Figure 3: Health Check – Alcohol Care Pathway



References:

Alcohol-use disorders: preventing harmful drinking. NICE public health guideline 24. June 2010 http://www.nice.org.uk/ph24

3.4 Raising awareness of dementia

Everyone aged 65-74 who has a NHS Health Check should be made aware of the signs and symptoms of dementia and be sign posted to memory services if this is appropriate. A leaflet for individuals having their check, and training materials for those carrying out the check have been produced to support this element.

http://www.healthcheck.nhs.uk/commissioners_and_healthcare_professionals/national_resources/dementia_resources/

The dementia component of the NHS Health Check does not require any formal assessment or testing of memory. The purpose of the intervention is to raise awareness of dementia and the availability of memory services which offer further advice and assistance to people who may be experiencing memory difficulties, including making a diagnosis of dementia.

In addition to raising awareness of dementia, which is a mandatory requirement, providers may wish to highlight the relationship

between cardiovascular risk factors and those risk factors associated with certain types of dementia.

3.5 Near patient testing and quality control

This section provides guidance and advice on the use of point of care testing (POCT) or near patient testing (NPT) for the blood tests required for the NHS Health Check. It provides advice on training and quality assurance to support the safe use of POCT.

Fasting blood glucose or *HbA1C* POCT may be suitable for initially filtering out those who are unlikely to have diabetes or non-diabetic hyperglycaemia. However, diagnosis of diabetes or of non-diabetic hyperglycaemia requires a venous blood sample to be tested in the laboratory. See the diagrammatic overview of the testing pathways set out in Figure 2 for further information on this specific aspect.

The guidance document Management and Use of IVD Point of Care Test Devices aims to provide advice and guidance on the management and use of POCT *in vitro* diagnostic devices (IVDs). Broadly, an IVD is a device the manufacturer has intended to be used for the examination of specimens derived from the human body including blood and urine and this guidance may provide a useful resource on:

- the importance of identifying a clinical need before a decision is made to introduce POCT.
- clinical governance issues relating to the setting up and management of POCT.
- the need for local hospital pathology laboratory involvement in all aspects of a POCT service.
- the need for training, updating and monitoring of all staff involved in the POCT service.
- quality issues, including:
  - accreditation by an external certification body
  - the need for an appropriate quality control procedure
  - membership of an external quality assessment scheme (where available).
- the importance of health and safety.
- the need for standard operating procedures and for regular reviews and updates when necessary.

NPT should only be used by healthcare professionals and staff who have been trained (by a competent trainer) to use the equipment. Safety, both of those taking blood and carrying out the tests, and of the individual who is having their NHS Health Check, is paramount. There is a need for clearly defined procedures for infection control, storage and disposal of clinical waste, needle stick injuries and spillages. As part of this, appropriate hand washing facilities nearby or within any room where blood is taken or handled is required.

References

Management and Use of IVD Point of Care Test Devices. Device Bulletin 2002(03). Medical Devices Agency. March 2002. www.mhra.gov.uk/Publications/Safewtyguidance/DeviceBulletins?CON007333. The bulletin provides extensive guidance, including advice on clinical governance issues relating to the setting up and management of POCT, pathology and laboratory involvement, staff training, health and safety, standard operating procedures and quality issues.

Buyers' guide: Blood glucose systems. Purchasing and Supply Agency, Centre for Evidence-based Purchasing. May 2008. www.pasa.nhs.uk/pasa/Doc.aspx?Path=%5BMN%5D%5BSP%5D/NHSprocurement/CEP/Biochemistry/CEP08008.pdf.

Chapter 4: Guidance on risk management and lifestyle interventions

The NHS Health Check programme is a preventative programme which is intended to help people stay healthy for longer. Although the risk management element of the programme, through the provision of lifestyle interventions, is not a legal responsibility for local authorities it is important if the programme is to benefit public health.

In order to maximise these benefits, everyone who has a NHS Health Check, regardless of their risk score, should be given clinically appropriate lifestyle advice, to help them manage and reduce their risk. That means unless it is deemed clinically unsafe to do so, everyone having the check should be provided with individually tailored advice that will help motivate them and support the necessary lifestyle changes to help them manage their risk.

Depending on the workforce model in place, those providing this advice may not be the same as those who have undertaken the risk assessment part of the check. It is therefore important that information such as smoking status, blood pressure, levels of activity and history of vascular disease in the family is transferred in written form between individuals and within the team as necessary. This will help ensure continuity of care and that the overall experience for the person having the check is a positive one.

4.1 Local Stop Smoking Services referral

Key points As with all of the lifestyle interventions, which form part of the NHS Health Check, the provision of stop smoking services, for those who smoke and wish to quit, as part of the NHS Health Check are funded through the public health ring fenced budget. Although offering these services as part of the programme is not mandated, they provide an essential contribution to its ultimate objective by helping people who smoke manage or reduce their risk of developing future disease. Local authorities may therefore like to consider how anyone who smokes, and who wants to stop, is offered the support of a local Stop Smoking Service.

NICE Public Health Intervention Guidance no. 1 *Brief interventions and referral for smoking cessation in primary care and other settings* makes a number of practical recommendations on who should receive advice, as well as on who should advise smokers and how.

The Department of Health's Local Stop Smoking Service Monitoring and Delivery Guidance 2012/13 illustrates the importance of using every opportunity to systematically identify people who smoke, deliver very brief advice (VBA) and follow up, where

appropriate, with a referral into effective support.

This very brief advice consists of three steps:

- establishing and recording smoking status (ASK)
- advising on how to stop (ADVISE)
- offering help (ACT)

A free training module on the delivery of Very Brief Advice is available on the National Centre for Smoking Cessation and Training's website www.ncsct.co.uk/vba

References

Brief interventions and referral for smoking cessation in primary care and other settings. NICE Public Health Intervention Guidance no. 1. March 2006. www.nice.org.uk/PHI001

Local Stop Smoking Services service and monitoring guidance – 2012/13. September 2012. DH. Gateway reference: 17904. http://www.gov.uk/government/publications/stop-smoking-service-monitoring-and-guidance-update-published

4.2 Physical activity interventions

The UK Chief Medical Officers recommend that all adults should aim to be active daily. Activity should add up to at least 150 minutes of moderate intensity activity in bouts of 10 minutes or more over a week. One way to approach this is to do 30 minutes on at least 5 days a week. Alternatively, comparable benefits can be achieved through 75 minutes of vigorous intensive activity spread across the week, or a combination of moderate and vigorous intensity activity.

Key points: If a person is identified as not achieving these levels, practitioners should offer a brief intervention to increase physical activity as follows:

- provide physical activity advice, taking into account the individual's needs, preferences and circumstances
- provide written information about the various types of activities and the local opportunities to be active
- offer a referral to an exercise referral programme, where appropriate
- follow up at appropriate intervals over a three to six-month period.

References

Four commonly used methods to increase physical activity: brief interventions in primary care, exercise referral schemes, pedometers and community-based exercise programmes for walking and cycling. NICE Public Health Intervention Guidance 2. March 2006.

http://guidance.nice.org.uk/PH2/Guidance

Physical activity: brief advice for adults in primary care. NICE public health guidance 44. May 2013. The recommendations supersede recommendations 1-4 in Four commonly used methods to increase physical activity, NICE Public Health Guidance 2.

Start Active, Stay Active. A report on physical activity for health from the four home countries' Chief Medical Officers. Department of Health. July 2011.

http://www.dh.gov.uk/government/publications/start-active-stay-active-a-report-on-physical-activity-from-the-four-home-countries-chief-medical-officers.

Let's Get Moving. A physical activity care pathway Commissioning Guidance. March 2012.

http://www.gov.uk/government/publications/let-s-get-moving-revised-commissioning-guidance.

4.3 Weight management

Preventing and managing overweight and obesity are complex problems, with no easy answers. Where an individual's weight status is a key risk factor, advice or onward referral should be provided in line with the NICE clinical guideline CG43 on the prevention, identification, assessment and management of overweight and obesity in adults and children. Where the individual's weight status is not a risk factor, it is still an opportunity to reinforce the benefits of healthy eating and being physically active.

When providing advice around weight management or referring individuals on to more sustained interventions, it will be important to take a personalised approach. This may require consideration of factors including the individual's:

- willingness and motivation to change
- particular barriers to lifestyle change (for example, lack of time or knowledge)
- self-esteem
- current levels of fitness
- the views of family and community members.

Local areas may have their own care pathway for overweight and obesity in adults, involving different tiers of services, in line with NICE guidance.

Any advice or more sustained interventions around weight management provided as part of the risk management element of the check should comply with the NICE guidance.

In addition, the individual's alcohol intake could be considered as part of any discussion about energy intake, and the opportunity used to highlight links between alcohol intake and obesity with liver disease.

References

Obesity: guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. NICE guideline CG43. December 2006

www.nice.org.uk/nicemedia/pdf/CG43NICEGuideline.pdf

Obesity: Guidance on the prevention, identification, assessment and management of overweight and obesity in adults and children. Quick reference guide 2 for the NHS. NICE guideline CG43. December 2006.

www.nice.org.uk/nicemedia/pdf/CG43quickrefguide2.pdf

Healthy Weight, Healthy Lives: A toolkit for developing local strategies. National Heart Forum et al. October 2008. This toolkit was produced to help PCTs and local authorities plan, coordinate and implement comprehensive strategies to prevent and manage overweight and obesity.

http://webarchive.nationalarchives.gov.uk/20130107105354/http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_088968

4.4 Alcohol use interventions

The UK Chief Medical Officers recommend for lower-risk drinking that men should not

drink on a regular basis more than three to four units per day, and that women should not drink on a regular basis more than two to three units a day (with 'regular' here meaning most days or every day of the week).

Key points:

Local authorities may wish to consider how individuals identified through the NHS Health Check risk assessment as drinking alcohol above lower risk levels (an AUDIT score at or above eight) can be offered advice to reduce their alcohol use. This would be considered an appropriate measure to improve the health of the people in its area and a way to discharge its general duty to take steps to improve public health.

Advice to reduce alcohol use is an essential part of helping people manage the risk alcohol poses to their health and the risk of developing disease in the future. Evidence suggests this advice is most effective when delivered immediately or as soon as possible after the AUDIT screening – the 'teachable moment'. This advice can take as little as five minutes and consists of:

- Understanding alcohol units – ensuring the person understands how much they are drinking
- Understanding risk levels – explaining the lower-risk guidance and how the health risk rises above this level
- Informing them of their level of risk – informing the person of their AUDIT score (a mandatory requirement), what risk level this indicates and where their risk level compares to the rest of the population
- Benefits of cutting down – explain some of the benefits that could come from reducing their alcohol consumption.
- Tips for cutting down – providing the person with a menu of things they could try to cut back on their alcohol consumption.

This brief advice could be supported by an information leaflet or booklet given to the person to reinforce the brief advice given and for future use.

Providing information and brief advice on lower risk drinking is also recommended as part of the guidance on lifestyle interventions within the NICE clinical guideline on hypertension and NICE public health guidance on preventing harmful drinking. It is also a topic likely to be raised in discussing lifestyle issues as part of this programme.

If the person's AUDIT score is 20 or more, this may indicate alcohol dependence and consideration can be given to referring the person to more structured alcohol treatment services for a full assessment and any needed treatment. Those wanting to stop drinking who are experiencing difficulty should be considered for referral to specialist services using locally agreed referral methods. This referral can be made from the NHS Heath Check team or from the person's GP.

References

Hypertension: clinical management of primary hypertension in adults. NICE clinical guideline 127. August 2011. www.nice.org.uk/nicemedia/live/13561/56008/56008.pdf

Quick reference guide. Hypertension: clinical management of primary hypertension in adults. NICE. August 2011. www.nice.org.uk/nicemedialive/13561/56015/56015.pdf

Alcohol-use disorders - preventing harmful drinking (PH24). NICE Public Health Guidance PH24, June 2010. http://guidance.nice.org.uk/PH24

Alcohol Identification and Brief Advice e-Learning course: http://www.alcohollearningcentre.org.uk/eLearning/

Primary Care Service Framework: Alcohol Services in Primary Care. NHS. May 2009. http://www.pcc.nhs.uk/alcohol

Chapter 5: Additional testing and clinical follow-up

The NHS Health Check programme is primarily a public health programme aimed at preventing disease but it will also identify individuals at high risk of developing or having disease who will require some additional clinical testing and follow-up. There is therefore a need for different parts of the system to work closely together to ensure this happens, with Health and Wellbeing Boards being pivotal to this.

This section relates to additional testing and clinical follow-up triggered by the initial risk assessment. As set out in Figure 1, this is likely to be undertaken by a GP practice team, or by health professionals with suitable patient information and prescribing responsibilities. The following sections are advice and best practice only that local authorities and primary care staff may wish to consider.

5.1 Assessment for hypertension

Threshold: ≥140/90mmHg: If the individual has a blood pressure at, or above,140/90mmHg, or where the SBP or DBP exceeds 140mmHg or 90mmHg respectively, the individual requires an assessment for hypertension by the GP practice team.

Related stages of the check: Individuals diagnosed with hypertension can be added to the hypertension register and treated through existing care pathways. They should be reviewed in line with existing NICE clinical guidelines and should not be recalled as part of the NHS Health Check programme.

Discussions with these people about possible hypertension diagnosis and management may raise questions about the relationship between lifestyle and blood pressure management. Such discussion will normally take place as part of the further hypertension assessment or once a patient is placed on the hypertension register. It will however be useful for practitioners to be aware of the lifestyle interventions recommended in the NICE guideline on hypertension:

- Ask people about their diet and exercise patterns, and offer guidance and written or audiovisual materials to promote lifestyle changes.
- Ask people about their alcohol consumption and encourage them to cut down if they drink excessively.
- Discourage excessive consumption of coffee and other caffeine-rich products.
- Encourage people to keep their salt intake low or substitute sodium salt.

- Offer people who smoke advice and help to stop smoking.
- Tell people about local initiatives (for example, run by healthcare teams or patient organisations) that provide support and promote lifestyle change.
- Do not offer calcium, magnesium or potassium supplements as a method of reducing blood pressure.
- Relaxation therapies can reduce blood pressure and people may wish to try them. However it is not recommended that primary care teams provide them routinely.

References

Hypertension: clinical management of primary hypertension in adults. NICE clinical guideline 127. August 2011. www.nice.org.uk/nicemedia/live/13561/56008/56008.pdf

5.2 Assessment for Chronic Kidney Disease

Risk filter for chronic kidney disease

Data required: SBP and DBP.

Threshold: ≥140/90mmHg.

If the individual has a blood pressure at or above 140/90mmHg, or where the SBP or DBP exceeds 140mmHg or 90mmHg respectively, the individual requires an assessment for chronic kidney disease by a GP.

Assessment for chronic kidney disease

Data required: The results of a serum creatinine test should be used to calculate the estimated glomerular filtration rate (eGFR) in order to assess the level of kidney function, and recorded on the individual's patient record.

Threshold: eGFR<60ml/min/1.73m^2

≥60ml/min/1.73m^2

Where eGFR is **above or equal to 60ml/min/1.73m^2**, no further assessment is required, unless the individual is diagnosed with hypertension or diabetes mellitus. In this case, their risk of kidney disease will be monitored as part of the management of their hypertension and/or diabetes.

<60ml/min/1.73m^2

Where eGFR is **below 60ml/min/1.73m^2**, management and assessment for chronic kidney disease is required in line with NICE clinical guideline 73 on chronic kidney disease. This will include an assessment of the urine albumin:creatinine ratio (ACR) to identify and detect proteinuria. In people with a new finding of reduced eGFR, repeat the eGFR within two weeks to exclude causes of acute deterioration of GFR – for example, acute kidney injury or initiation of ACE inhibitor/ ARB therapy. Define progression as a decline in eGFR of >5ml/min/1.73 m^2 within one year, or >10 ml/min/1.73 m^2 within five years. Focus particularly on those in whom a decline of GFR continuing at the observed rate would lead to the need for renal replacement therapy within their lifetime by extrapolating the current rate of decline.

Key points: A venous blood sample is required for this test. NPT is not considered appropriate. A serum creatinine test should be requested from the laboratory. This can be requested at the same time as a cholesterol test from the laboratory (if NPT is not used to assess cholesterol). In people with chronic kidney disease aim to keep the systolic blood pressure below 140 mmHg (target range 120-139 mmHg) and the diastolic blood pressure below 90 mmHg.

References

Chronic kidney disease: National clinical guideline for early identification and management in adults in primary and secondary care. NICE clinical guideline 73. 24 September 2008. www.nice.org.uk/Guidance/CG73/Guidance/pdf/English

Hypertension: management of hypertension in adults in primary care. NICE clinical guideline CG34: quick reference guide.June 2006. www.nice.org.uk/nicemedia/pdf/cg034quickrefguide.pdf

Hypertension: Management of hypertension in adults in primary care. NICE clinical guideline 34. June 2006. www.nice.org.uk/CG034

Annex A: Treatment of people diagnosed with diabetes

Key points: Although the aim of the NHS Health Check programme is not to find existing disease, we do expect that the checks will identify some people who have undiagnosed vascular disease, particularly diabetes. Those diagnosed with diabetes will have microvascular disease risks such as blindness and renal failure. It is therefore vital that those people who are diagnosed with diabetes by a GP or general practice team through the NHS Health Check programme are given the best possible advice and treatment to help them manage the condition. This is probably best to be given by staff working in primary care and this is not a statutory function for local authorities. This should include:

- a structured educational programme that fulfils the nationally agreed criteria
- personalised advice on nutrition and physical activity
- an annual care plan
- an agreed personalised HbA1c target
- an annual assessment for the risk and presence of the complications including all of the NICE recommended nine care processes. These include measurements of weight, blood pressure, smoking status, HbA1c, urinary albumin, serum creatinine, cholesterol, and retinal and foot examinations.
- care in accordance with NICE clinical guideline 66 The management of type 2 diabetes.
- contact details for patient groups such as Diabetes UK, and a copy of its leaflet What diabetes care to expect (https://www.diabetes.org.uk/ OnlineShop/New-to-Diabetes/What- diabetes-care-to-expect/)

References

Type 2 diabetes: The management of type 2 diabetes. NICE clinical guideline 66. December 2008. www.nice.org.uk/nicemedia/pdf/CG066NICEGuidelineCorrectedDec08.pdf

NICE QS6 Diabetes in adults quality standard http://publications.nice.org.uk/diabetes-in-adults-quality-standard-qs6

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