

# Barns Medical Practice Service Specification: Diabetes

**DEVELOPED June 2019**

**REVIEWED November 2021      Next Review - November 2023**

## **Introduction**

Diabetes mellitus is a life-long progressive condition that can be controlled but not cured. The International Diabetes Federation (IDF) in 2019 reported that 1:10 adults were diagnosed with diabetes worldwide (463 million) and this will rise to 700 million by 2045 with type two diabetes being the most prevalent. In the United Kingdom approximately 4.7 million people are living with diabetes and a 1.1million are undiagnosed (Diabetes UK, 2019). In Scotland 312,390 people were living with diabetes in 2019 with 25,012 people in Ayrshire and Arran (Scottish Diabetes Survey, 2019).

Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. Insulin is a hormone that regulates blood sugar. Hyperglycaemia, or raised blood sugar, is a common effect of uncontrolled diabetes and over time leads to serious damage to many of the body's systems, especially the nerves and blood vessels. Evidence shows that controlling blood glucose and blood pressure to near normal levels reduces and /or delays long term complications. It is also very important to modify lifestyle to help manage this condition; this includes weight management, smoking cessation and attention to alcohol consumption. Diabetes can largely be self-managed with the correct education, understanding and support. Barns Medical Practice offers services to diagnose, treat, support and monitor diabetic patients as explained below. The clinicians also work with the wider multidisciplinary team. This includes podiatrists, dieticians and specialists in diabetes within secondary care. Staff at Barns Medical Practice refer patients to these services if indicated.

# Diagnosis

## **Type 1 diabetes**

Type 1 diabetes (previously known as insulin-dependent, juvenile or childhood-onset) is characterized by deficient insulin production and requires daily administration of insulin. The cause of type 1 diabetes is often not known and it is not preventable with current knowledge. Symptoms include excessive excretion of urine (polyuria), thirst (polydipsia), constant hunger, weight loss, vision changes and fatigue. These symptoms may occur suddenly.

## **Type 2 diabetes**

Type 2 diabetes (formerly called non-insulin-dependent or adult-onset) results from the body's ineffective use of insulin. Type 2 diabetes is largely but not always the result of excess body weight and physical inactivity. Symptoms may be similar to those of Type 1 diabetes, but are often less marked. As a result, the disease may be diagnosed several years after onset, once complications have already arisen. It is often picked up during routine screening and annual blood reviews in people who have other conditions such as hypertension, hypothyroidism and cardiovascular disease. Until recently, this type of diabetes was seen only in adults but it is now also occurring in children who are overweight.

## **Gestational diabetes**

Gestational diabetes is hyperglycaemia with blood glucose values above normal but below those diagnostic of diabetes, occurring during pregnancy. Women with gestational diabetes are at an increased risk of complications during pregnancy and at delivery. They are also at increased risk of type 2 diabetes in the future. These women should therefore be advised at diagnosis to attend for repeat fasted glucose 6-13 weeks postnatal and yearly HbA1c blood tests (NICE, 2015). This group of patients do not receive a letter to attend for review. Gestational diabetes is diagnosed through prenatal screening, rather than reported symptoms.

## **Impaired glucose tolerance (IGT) and impaired fasting glycaemia (IFG)**

Impaired glucose tolerance (IGT) and impaired fasting glycaemia (IFG) are intermediate conditions in the transition between normality and diabetes. People with IGT or IFG are at high risk of progressing to type 2 diabetes, although this is not inevitable. Lifestyle modification can often be beneficial in delaying/preventing the progression to diabetes.

## **Methods and criteria for diagnosing diabetes**

At diagnosis individuals often complain of the symptoms listed above but can occasionally be asymptomatic. Diagnosis is always confirmed by blood sampling which is done by one of the clinicians in the surgery. The current World Health Organisation (WHO) diagnostic criteria for diabetes are used widely within the U.K.

Fasting plasma glucose  $\geq 7.0$ mmol/l or 2-h plasma glucose  $\geq 11.1$ mmol/l.

In 2011 there was a decision by the WHO to accept the use of glycosylated haemoglobin (HbA1c)

testing in diagnosing diabetes. HbA1c is a blood test that reflects the blood glucose of an individual over the preceding 6-8 weeks and is widely used in routine monitoring and diagnosis. Both these diagnostic methods are used within Barns Medical Practice:

1. Diabetes symptoms (e.g. polyuria, polydipsia and unexplained weight loss for Type 1) plus:

- a random venous plasma glucose concentration  $\geq 11.1$  mmol/l or
- a fasting plasma glucose concentration  $\geq 7.0$  mmol/l or
- Two hour plasma glucose concentration  $\geq 11.1$  mmol/l two hours after 75g anhydrous glucose in an oral glucose tolerance test (OGTT ). OGTT are not performed in the surgery as part of diabetes diagnosis or
- HbA1c  $> 6.5\%$  ( $>48$ mmol/mol)

2. With no symptoms diagnosis should not be based on a single glucose determination but requires confirmatory plasma venous determination. At least one additional glucose test result on another day with a value in the diabetic range is essential, either fasting, or HbA1c from a random sample or in some circumstances from the two hour post glucose load.

### **Haemoglobin A1C (HbA1c) testing to diagnose diabetes**

An HbA1c of 48mmol/mol (6.5%) is recommended as the cut off point for diagnosing diabetes. A value of less than 48mmol/mol (6.5%) does not exclude diabetes diagnosed using glucose tests. In patients without symptoms of diabetes the laboratory venous HbA1c should be repeated. If the second sample is  $<48$ mmol/mol (6.5%) the person should be treated as at high risk of diabetes and the test should be repeated in 6 months or sooner if symptoms develop ( Diabetes Uk, 2021).

### **What is impaired fasting glycaemia? The WHO has also said that someone has impaired fasting glycaemia if they have:**

- a fasting blood glucose between 6.1 to 6.9 mmol/L, AND.
- a blood glucose of less than 7.8 mmol/L after a two-hour oral glucose tolerance test (see appendix 1)

### **What is impaired glucose tolerance?**

If you have impaired glucose tolerance, your blood glucose is raised beyond the normal range but it is not so high that you have diabetes. However, if you have impaired glucose tolerance you are at risk of developing type 2 diabetes. Impaired glucose tolerance is sometimes referred to as pre diabetes.

Between 1 to 3 out of 4 people with impaired glucose tolerance will develop diabetes within ten years.

It is also thought that having impaired glucose tolerance increases your risk of developing cardiovascular disease (that is, heart disease, peripheral vascular disease and stroke). Also, people who have impaired glucose tolerance are more likely to have other risk factors for cardiovascular

disease, including high blood pressure, raised cholesterol levels, being overweight, etc. If diagnosed with this condition the individual is eligible for an annual review which is usually carried out by the Health Care Assistant and the results are assessed by a GP or nurse with a special interest in diabetes. These patients are not lettered annually to come in but will have a yellow reminder flagged in their notes and will be asked at diagnosis to attend on an annual basis. For the protocol see appendix 2. At diagnosis they will be offered an NHS course called "Let's Prevent Diabetes" This is a national programme and all areas will have a local coordinator. For further reading and management see

<http://www.patient.co.uk/health/impaired-glucose-tolerance>

## Administration

### Diagnostic codes

- Type 1 Diabetes is #C10E and should be coded priority 1 and a problem created.
- Type 2 Diabetes is #C10F and should be coded priority 1 and a problem created.
- Impaired fasting glycaemia is #C11y300 and should be coded priority 1 and problem created.
- Impaired glucose tolerance is # R10E and should be coded priority 1 and a problem created

## Treatment

### Treating type 2 diabetes

There's no cure for diabetes, so treatment aims to keep your blood glucose levels as normal as possible and to control your symptoms, to prevent health problems developing later in life.

### Making lifestyle changes

After being diagnosed with type 2 diabetes, or if you're at risk of developing the condition, the first step is to look at your diet and lifestyle, and make any necessary changes.

By eating healthy and losing weight (if you're overweight) and exercising regularly you may be able to keep your blood glucose at a safe and healthy level without the need for other types of treatment.

### Diet

Increasing the amount of fibre in your diet and reducing your calorie and fat intake (particularly saturated fat), can help prevent type 2 diabetes, as well as manage the condition if you already have it. The Diabetes UK website has more information and advice about healthy eating.

### Weight

If you're overweight or obese (you have a body mass index (BMI) of 30 or over), you should lose weight, by gradually by reducing your calorie intake and becoming more physically active (see below). To help you achieve these changes you may be referred to a dietician for a personal assessment and tailored advice about diet and physical activity. Currently South Ayrshire Council are working in partnership with NHS Ayrshire and Arran Health Board to allow us to offer various exercise programmes coordinated via the Citadel leisure centre such as "Weigh to Go" "Invigorate" and "Activity for Health". See appendix 3. The Diabetes UK website has more information and

advice about getting active and staying active.

## **Driving**

The websites listed below give details of the implications for driving with diabetes or ask the clinician at a review appointment and patient information leaflets may be supplied.

<http://www.patient.co.uk/doctor/3-diabetes-mellitus-dvla-guide>

<https://www.gov.uk/diabetes-driving>

## **Medicines for type 2 diabetes**

### **Metformin**

Metformin is usually the first medicine that's used to treat type 2 diabetes. It works by reducing the amount of glucose that your liver releases into your bloodstream. It also makes your body's cells more responsive to insulin. If you're overweight, it's also likely you'll be prescribed metformin. Unlike some other medicines used to treat type 2 diabetes, metformin shouldn't cause additional weight gain. However, it can sometimes cause mild side effects, such as nausea and diarrhoea and you may not be able to take it if you have kidney damage. There is a slow release version of this drug which may be used if side effects are troublesome.

### **Sulphonylureas**

Sulphonylureas increase the amount of insulin that's produced by your pancreas. An example of a sulphonylurea commonly used in Barns Medical Practice is gliclazide. You may be prescribed one of these medicines if you can't take metformin, or if you aren't overweight. Alternatively, you may be prescribed sulphonylureas and metformin if metformin doesn't control blood glucose on its own. Sulphonylureas can increase the risk of hypoglycaemia (low blood sugar) because they increase the amount of insulin in your body. They can also sometimes cause side effects including weight gain, nausea and diarrhoea.

### **Glitazones (thiazolidinediones, TZDs)**

Thiazolidinedione medicines (pioglitazone) make your body's cells more sensitive to insulin so that more glucose is taken from your blood. They're usually used in combination with metformin or sulphonylureas, or both. They may cause weight gain and ankle swelling (oedema) you shouldn't take pioglitazone if you have heart failure or a high risk of bone fracture.

### **Gliptins (DPP-4 inhibitors)**

Gliptins work by preventing the breakdown of a naturally occurring hormone called GLP-1. GLP-1 helps the body produce insulin in response to high blood glucose levels, but is rapidly broken down. By preventing this breakdown, the gliptins (linagliptin, saxagliptin, sitagliptin) prevent high blood glucose levels, but don't result in episodes of hypoglycaemia. You may be prescribed a gliptin if you're unable to take sulphonylureas or glitazones, or in combination with them. They're not associated with weight gain.

### **GLP-1 agonists**

Exentide is a GLP-1 agonist, an injectable treatment that acts in a similar way to the natural hormone

GLP-1 (see the section on gliptins, above). It's injected twice daily and boosts insulin production when there are high blood glucose levels, reducing blood glucose without the risk of hypoglycaemia episodes ("hypos"). It also leads to modest weight loss in many people who take it. It's mainly used in people on metformin plus sulphonylurea, who are obese. Another GLP-1 agonist called liraglutide is a once-daily injection (exenatide is given twice a day). Like exenatide, liraglutide is mainly used for people on metformin plus sulphonylurea, who are obese, and in clinical trials it has been shown to cause modest weight loss. A once-weekly injectable medication in this class of drug is available and is called Trulicity.

### **SGLT2 Inhibitors**

These are tablets. SGLT2 Inhibitors work by reducing the amount of glucose being absorbed in the kidneys so that it is passed out in the urine and reducing the amount of glucose in your blood. There are different varieties but are usually taken once a day. Because of the way they work, your urine will test positive for glucose while you are on this medication. How effective it is depends on your kidney function. There is a risk of genital infections and urinary tract infections.

### **Acarbose**

Acarbose helps prevent your blood glucose level from increasing too much after you eat a meal. It slows down the rate at which your digestive system breaks carbohydrates down into glucose. Acarbose isn't often used to treat type 2 diabetes because it usually causes side effects, such as bloating and diarrhoea. However, it may be prescribed if you can't take other types of medicine for type 2 diabetes.

### **Insulin treatment**

If glucose-lowering tablets aren't effective in controlling your blood glucose levels, you may need to have insulin treatment. This can be taken instead of or alongside your tablets, depending on the dose and the way that you take it. Insulin comes in several different preparations, and each works slightly differently. For example, some last up to a whole day (long-acting), some last up to eight hours (short-acting) and some work quickly but don't last very long (rapid-acting). Your treatment may include a combination of these different insulin preparations. Insulin must be injected because if it were taken as a tablet, it would be broken down in your stomach like food and unable to enter your bloodstream. If you have type two diabetes and require to progress to insulin there are clinicians within the surgery who can assist with its initiation and support you as you develop the skills required to manage this. We offer frequent appointments and telephone consultations to ensure that you have the necessary support.

### **Other treatments**

If you have type 2 diabetes, your risk of developing heart disease stroke and kidney disease is increased. To reduce your risk of developing other serious health conditions, you may be advised to take other medicines, including:

- Anti-hypertensive medicines to control high blood pressure
- a statin such as simvastatin or atorvastatin, to reduce high cholesterol
- an angiotensin-converting enzyme (ACE) inhibitor, such as lisinopril or ramipril, if you have

- the early signs of diabetic kidney disease
- aspirin should be offered to patients who have existing cardiovascular disease and diabetes (NICE,2017)

Diabetic kidney disease is identified by the presence of small amounts of albumin (a protein) in your urine. If treated early enough, it may be reversible.

## Regular Review

Effective diabetes care can be achieved through working closely with your diabetes healthcare team – they are there to support you in self-managing your diabetes. Barns Medical Practice adopts a multidisciplinary team approach to diabetes management. Once diagnosed and stabilised on treatment you are offered a biannual review with a nurse and/or GP who have a special interest in diabetes. These reviews may be face to face, or via the telephone depending on the needs of the individual. There is also access to the dietician, the optician and podiatry where indicated. The most important person in the team is you – because the decisions made will affect you. Taking responsibility for your diabetes will enable you to manage your diabetes more effectively. Ask questions and request more information if you need to. Prior to each 6 monthly review you are asked to attend the Health Care Assistant (HCA) to complete a review including blood sampling. For protocol see appendix 4. The nurse and/or GP will be available to discuss the blood results and answer any questions you have regarding the progression of your condition. Efforts will be made to motivate you and encourage you to make any recommended lifestyle changes. There is robust screening for the potential complications of diabetes and particular attention is paid to cardiovascular screening such as BP and cholesterol to try to minimise the risk of heart attacks and strokes in the future. All the potential problems, complications and treatments are considered at your review. The management broadly follows the guidance as recommended by the Scottish Intercollegiate Guidelines Network (SIGN), ie. SIGN 116, 2018

### Monitoring blood glucose levels

If you have type 2 diabetes, the diabetes care team will need to take a reading of your blood glucose level about every six months. This will show how stable your glucose levels have been in the recent past and how well your treatment plan is working. The HbA1c test is used to measure blood glucose levels over the previous two to three months. HbA1c is a form of haemoglobin, the chemical that carries oxygen in red blood cells, which also has glucose attached to it. A high HbA1c level means that your blood glucose level has been consistently high over recent weeks, and your diabetes treatment plan may need to be changed. Your diabetes care team can help you set a target HbA1c level to aim for. This will usually be less than 60mmol/mol (7.5%).

### Monitoring your own blood glucose

If you have type 2 diabetes, as well as having your blood glucose level checked by a healthcare professional every six months, you may be advised to monitor your own blood glucose levels at home depending on drug treatment you require. Even if you have a healthy diet and are taking tablets or using insulin therapy, exercise, illness and stress can affect your blood glucose levels. Other factors that may affect your blood glucose levels include drinking alcohol, taking other medicines and, for women, hormonal changes during the menstrual cycle. A blood glucose meter is a small device that measures the concentration of glucose in your blood. It can be useful in detecting high blood sugar (hyperglycaemia) or low blood sugar (hypoglycaemia). If blood glucose monitoring

is recommended, you should be trained in how to use a blood glucose meter and what you should do if the reading is too high or too low. Ask a member of Barns Medical Practice diabetes care team prior to purchasing one as this can be supplied by the surgery if indicated.

## Resources for Staff and or Patients

The Diabetes Clinical Advice Service provided via the Diabetes Clinical Mailboxes for Ayr  
**Clinical\_Specialty\_DiabetesClinicalAdviceService\_Ayr**

Practice specific information: See attached appendices

## Internet information

[www.diabetes.org.uk](http://www.diabetes.org.uk)

DVLA <https://www.gov.uk/diabetes-driving>

<https://cks.nice.org.uk/diabetes-type-2>

<https://www.diabetes.co.uk/pre-diabetes.html>

My Diabetes My Way - <http://www.mydiabetesmyway.scot.nhs.uk/default.asp> Stop

Smoking Guidance <https://www.communitypharmacy.scot.nhs.uk/media/1709/adtc20.pdf>

## Staff involved and training required

HCA: blood sampling, annual review procedure, BP monitoring, onward referral and booking review appointments.

GPs and Nursing staff with a special interest in diabetes: There should be a commitment to ongoing personal development and updating with regard to the management of diabetes and treatment choices. They should commit to auditing the service that is established and improve if indicated. There is 3 years of audit data available for the service received by newly diagnosed diabetics and the audit criteria is shown in appendix 4.

## Advertising of service to patients

Details of this service will be available on the practice website.

Patients will be advised of the service at the point of diagnosis.



## References

Diabetes UK (2010) Facts and Stats Prevalence of Diabetes (online)

Available : <https://www.diabetes.org.uk/professionals/position-statements-reports/statistics>

International Diabetes Federation (2019) IDF Diabetes Atlas 9th Edition (online)

Available: <https://www.diabetes.org.uk/professionals/position-statements-reports/statistics>

Scottish Diabetes Survey 2019

Available: <https://www.diabetes.org.uk/professionals/position-statements-reports/statistics>

National institute for Health and Care Excellence (NICE) (2015) Diabetes in Pregnancy: management from conception to the post natal period Available:

<https://www.nice.org.uk/guidance/ng3>

National Institute for Health Care Excellence (NICE) (2017) Type Two diabetes Guideline

Available: <https://www.guidelinesfornurses.co.uk/diabetes/nice-type-2-diabetes-guideline/452890.article>

Scottish Executive (2006) Scottish Diabetes Framework Action Plan (online)

Available: <https://www.diabetes.org.uk/resources-s3/2017-09/ScotlandActionPlan%200.pdf>

Scottish Intercollegiate Guideline Network (2018) Management of diabetes a national clinical guideline 116 Available: <https://www.sign.ac.uk/assets/sign116.pdf>

World Health Organisation (2006) Definition and Diagnosis of Diabetes Mellitus and Intermediate Hyperglycaemia. Report of Who/IDf consultation (online)

Available:

[https://diabetes.org.uk/professionals/position-statements-reports/diagnosis-ongoing-management-monitoring/new\\_diagnostic\\_criteria\\_for\\_diabetes](https://diabetes.org.uk/professionals/position-statements-reports/diagnosis-ongoing-management-monitoring/new_diagnostic_criteria_for_diabetes)

And

<https://www.who.int/news-room/fact-sheets/detail/diabetes>

## APPENDIX 1

### PROTOCOL FOR ANNUAL REVIEW OF PATIENTS DIAGNOSED WITH IMPAIRED FASTING GLYCAEMIA OR IMPAIRED GLUCOSE TOLERANCE BY THE HEALTH CARE ASSISTANT

#### Aim

1. To reinforce advice regarding health education.
2. To monitor improvements or deterioration regarding diet, exercise, smoking status and cholesterol.
3. To detect early those patients who have become diabetic and plan care.

#### Eligible Patients

· All patients diagnosed with IFG and IGT in accordance with WHO guidelines. · Women who have had gestational diabetes and have tested normally following delivery at year post-partum, then 3 yearly.

#### Eligible Staff to Undertake Review of This Group Of Patients

Any nurse who is working within her sphere of competence or Health Care Assistant (HCA) who has undergone a period of supervised training and assessed as competent in the management of this condition as per this set protocol.

#### Conditions under Which Care Will Be Provided

1. Patients with IFG and IGT will be coded through the computer system and advised at diagnosis to attend annually for review. A yellow reminder is added to the computerised record
2. The computerised patient record will be available within Vision's consultation management programme.
3. The privacy of a consulting room will be available.
4. A 10-minute appointment will be given.
5. Referral to other agencies such as dietician, smoking cessation clinics and exercise referral will be considered.

#### The Annual Review

1. Bloodletting will be carried out checking U&E's Hba1c and fasting glucose and lipids. 2. Height, weight and BMI will be checked and recorded.
3. Cardiovascular risk factors will be addressed – BP, smoking and lipids in accordance with diabetic protocols.
4. Health education and lifestyle advice will be offered. Health promotion literature will be made available.
5. Referral to other agencies as appropriate eg dietician.

NB diabetes prevention programme available via NHS Ayrshire and Arran:

<https://www.nhsaaa.net/allied-health-professionals-ahps/nutrition-and-diet/weight-management/>

## MINIMUM HCA TRAINING REQUIREMENTS

1. The Practice Nurse will offer training on the use of the computer recording system. The protocol will be studied and signed.
2. Phlebotomy training will be offered where necessary.
3. The HCA will commit to ongoing Continuing Professional Development and update regularly on all areas of diabetic care and lifestyle management.

## **APPENDIX 2**

### **Activity for health**

This is a scheme established in conjunction NHS Ayrshire and Arran and South Ayrshire Council. The scheme assists people to become more active and promotes the benefits of an active lifestyle. Find out about [Weigh To Go Ayrshire](#) or [Invigor8](#)

· [Activity for Health Leaflet](#)

Who is the scheme aimed at?

In general terms, increased activity levels will benefit any individual falling into one or more of the following categories:

- sedentary lifestyle (inactive)
- Obese/overweight
- High cholesterol level
- Smoker
- Hypertension (high blood pressure)
- Musculo/skeletal disorders (e.g. arthritis, osteoporosis, back pain)
- Coronary Heart Disease/Angina
- Family history of Coronary Heart Disease
- Anxiety/mild depression/stress/low self esteem
- Diabetes

How do I become involved in the scheme?

Contact your local health professional GP, Practice Nurse, Physiotherapist, Cardiac Nurse, Dietician, Occupational Health Nurse, Health Visitor, Community Pharmacist (local chemist) or Mental Health Team and ask about the scheme.

Alternatively you can contact the Activity for Health Officer on 01292 269793.

What happens when I am referred to the scheme?

A member of our Health and Fitness Team will arrange an appointment for you to come and have a relaxed, informal chat about your activity levels and life style. We will also have a chat about what type of activities might be suitable for you e.g. Aquatrim, Cardiac Rehabilitation Classes, Keep Fit for Beginners, Pilates, Swimming, Tai-Chi, Walking, simple home based exercise or one of our many other activities.

We will keep in contact with you throughout your membership to provide you with assistance, advice and support.

How much does it cost to join the scheme?

Nothing - membership of the scheme is absolutely free.

Scheme benefits

As a member of the Scheme you will receive discounted access to most South Ayrshire

Leisure activities:

Prices £3 per class or £20 a month for all classes

If you have any other questions about the scheme please give us a call on: 01292 269793.

## **Weigh to go Ayrshire**

Weigh to go Ayrshire is a new weight management programme, created by [NHS Ayrshire & Arran](#), delivered in local communities by local authority staff.

If you are aged 16 or over and have a body mass index (BMI) of more than 28 then you may be eligible for this programme. [Find out more](#) or see when [classes are on](#). For information see- <https://www.nhs.uk/allied-health-professionals-ahps/nutrition-and-diet/weight-management/>

## **invigor8**

Invigor8 is a programme of exercise classes for the over 60s. It supports participants at risk of falls to exercise at a level suitable to their ability. **Invigor8 is suitable for people:**

- Feeling fearful of falls
- Feeling unstable on their feet
- Who have had a previous fall
- Osteoporosis

The classes are designed to help build and maintain 8 core components

- Balance
- osteoporosis
- Strength
- Flexibility
- Endurance
- Floor work
- Getting down to the floor and back up
- Tai Chi
- Confidence building

## **APPENDIX 3**

### **PROTOCOL FOR THE MANAGEMENT OF TYPE II DIABETIC PATIENT'S PREVIEW APPOINTMENT**

#### **Aim**

To complete the computerised template in Vision plus for Diabetes and obtain the necessary blood samples in order that a full review can be discussed with the diabetic patient at the review appointment as planned by the HCA at this visit.

### Eligible Patient

All Barns Medical Practice Patients who have been identified as diabetic and wish to attend a review appointment with the GP or nurse who has a special interest in diabetes.

### Staff Eligible to Undertake the Diabetic Clinic Preview Appointment

Any nurse who is working within her sphere of competence or Health Care Assistant (HCA) who has undergone a period of supervised training and assessed as competent in the management of this condition as per this set protocol.

### Conditions under Which Care Will Be Provided

1. The computerised notes will be available via Vision.
2. The privacy of a consulting room will be available.
3. A 20-minute visit will be offered
4. The Practice Diabetic Clinic template will be completed by a suitably trained nurse or HCA.
5. The Diabetic Clinic appointment will be scheduled in the surgery with the GP and or nurse with a special interest in diabetes.

### Pre-Diabetic Clinic Review Management

- a) Question thirst and urinary frequency.
- b) Record weight and BMI and report rise or fall.
- c) Ask about any problems with feet.
- d) Ask patient to report any problems with vision.
- e) Encourage patient to report any vulval itch, balanitis, or impotence.
- f) Record current alcohol and smoking status. Smoking cessation advice and support.  
Advise on NRT or drugs.
- g) Measure and record blood pressure.
- h) Obtain and record urinalysis and send for albumin creatinine ratio. MSSU sent in those patients with proteinuria at urinalysis.
- i) Ask patient to report on home monitoring of blood or urine and current trends.
- j) Send venous blood to biochemistry for U+Es, glucose, HBA1, and fasting cholesterol. GP will treat hyperglycaemia to a target HBA1 of 60 mmol/mol, cholesterol will be treated if risk is 20% or above. A FBC should be sent routinely in those patients over age 75 yrs.
- k) Arrange review within 1 month at Diabetic Clinic.
- l) Ongoing assessment of patient's understanding lifestyle advice and health promotion.
- m) Annual flu vaccinations will be offered
- n) Pneumococcal vaccination will be offered at diagnosis.

### Home Visiting

Housebound patients will be visited at home by Health Visiting or District Nursing Staff. Results will be reviewed by GP at next Diabetic Clinic and appropriate management planned.

## **APPENDIX 4**

The audit for newly diagnosed diabetics will consider 4 separate criteria. On diagnosis a task is sent to the computer supervisor who will ensure relevant written information is sent to the patient and necessary follow up appointments are made. Following on from this:

1. All newly diagnosed diabetics will be given written information at diagnosis via DXS and recorded through vision
2. All newly diagnosed diabetics will be reviewed by the dietician within 28 days of diagnosis and an entry made through vision
3. All newly diagnosed diabetics will be seen within 28 days of diagnosis for a first contact (excluding telephone consultation). This would usually take the form of the diabetic preview.
4. All newly diagnosed diabetics are seen within 28 days of preview appointment at the diabetic clinic

## **APPENDIX 5**

### **PROTOCOL FOR DIABETIC FOOT EXAMINATION AT CLINIC APPOINTMENT**

#### Rationale

**Diabetic foot:** foot problems can happen when diabetes affects the circulation and nerves to the feet. The risk is reduced with careful daily foot care. The diabetic patient is offered a 6 monthly assessment of their feet and encouraged to attend if they have any non-healing wounds of concerns.

#### Aim

To carry out a comprehensive examination of feet using the 10gm monofilament for test of sensation, checking both pedal pulses are present and complete the computerised template in vision plus

#### Eligible Patient

All Barns Medical Practice Patients who have been identified as diabetic

#### Staff Eligible to Undertake the Diabetic Clinic Preview Appointment

Any nurse who is working within her sphere of competence or Health Care Assistant (HCA) who has undergone a period of supervised training and assessed as competent in the management of diabetic foot examination as per this set protocol.

#### Conditions Under Which Care Will Be Provided

1. The computerised notes will be available via Vision.
2. The privacy of a consulting room will be available.
3. Foot assessments will be carried out as part of the diabetic clinic appointment

#### Training for Foot Examination

1. The HCA/nurse will attend the NHS Ayrshire and Arran Diabetic foot care training.
2. The HCA/nurse will undergo a period of supervised practice and a competency check sheet will be completed.
3. The HCA/nurse will be aware of the diabetic foot risk stratification and will record results of pulse check and 10 gm monofilament check in the computerised record.
4. Any concerning findings will be discussed immediately with a GP or nurse with a special interest in diabetes. Promotion of the 3<sup>rd</sup> sector foot care service will be done and Patient Information Leaflet will be supplied if necessary.

## **APPENDIX 6**

### **PROTOCOL FOR THE MANAGEMENT OF TYPE II DIABETIC PATIENTS AT HOME**

#### Aim

1. To improve morbidity and mortality rates of housebound diabetic patients within our surgery population.
2. to increase patient's awareness and understanding of their condition in order to improve control.
3. To reduce the incidence of macrovascular and microvascular complications within this at risk group.

#### Eligible Patient

The Type II diabetic patient, who is unable to attend the surgery for review.

#### Nurse Eligible to Undertake Diabetic Review at Home

Any 1<sup>st</sup> level nurse who is committed to ongoing training and update sessions on diabetes care, and is working within her sphere of competence.

#### Conditions Under Which Care Will Be Provided

The computer notes will be available.

The Community Nurse will inform the patient in advance of her visit. Planning to attend in the morning to allow fasting bloods to be sent where appropriate. 20-30 minutes should be allocated.

The Vision diabetic template will be employed.

The Diabetic template will be completed on return to the surgery by the administration staff. Domiciliary optician, podiatrist and dietician referrals will be made where appropriate. The Nurse will liaise with the GP to co-ordinate the medical management once the blood results are available.

### **Management at 1<sup>st</sup> Visit – Newly Diagnosed**

1. Date of diagnosis, explore acceptance – stress importance of diagnosis
2. Smoking history, stopping
3. Alcohol consumption
4. Related conditions
5. Current medication
6. Home monitoring situation
7. Record other agency involvement
8. Demonstrate where appropriate blood or urine monitoring
9. Commence education programme as supported with health promotion leaflets
10. Discuss insurance issues
11. Any onward referrals
12. Send U+Es, HBA1 and fasting glucose and urine to lab for A/C ratio – optimise blood glucose control. Liaise with GP and arrange introduction of oral therapies.
13. Give written dietary advice and general diabetes care leaflet
14. Offer psychological support.
15. Agree continuing plan of care.

### **Domiciliary Diabetic Review**

1. Question thirst and urinary frequency.
2. Record weight and report rise or fall – refer to dietitian as appropriate
3. Ask about any problems with feet – refer to podiatrist as appropriate Ask patient to report any problems with vision – advise fundoscope
4. Encourage patient to report any vulval itch, balanitis, or impotence.
5. Record current alcohol and smoking status. Advise on NRT or drugs. Advise on healthy lifestyle choices
6. Measure and record blood pressure. GP will treat blood pressure to target 140/80.
7. Obtain and record urinalysis and send for albumin creatinine ratio.
8. Ask patient to report on home monitoring of blood or urine and current trends.



9. Record current medication and doses. Ask about compliance.
10. Send venous blood to biochemistry for U+Es, glucose, HBA1, and fasting cholesterol. GP will treat hyperglycaemia to a target HBA1 of 7 (53mmol), cholesterol will be treated if risk is 20% or above.
11. Examine feet, check skin, peripheral pulses and sensation and record same. Use 10g nylon monofilament.
12. Ongoing assessment of patient's understanding, lifestyle and health promotion issues.
13. Explore any concerns, provide support and counselling as appropriate
14. Surveillance for long term complications (diabetic retinopathy, microvascular complications, renal disease, neuropathy, CV risk factors, hyperlipidaemia, hypertension)

### GP and Admin Review

1. The patient's notes will be reviewed by the GP when all clinical results and laboratory results have been received and documented.
2. All test results will be recorded on the diabetic template within Vision
3. The GP will arrange to discuss diabetes management at home or via telephone and future management will be planned.
4. Follow up will be arranged and annual review will be planned.