HILLINGDON CONSENSUS CARE DIABETES PROJECT

NHS HILLINGDON

Adult Diabetes Guidelines

Produced by the Hillingdon Hospital Diabetes Consultants, Hillingdon GPs with a Special Interest in Diabetes, Community Diabetes Team Leader and the PCT Medicines Management Team

3rd Edition February 2011

Hillingdon Consensus Care Diabetes Project

Hillingdon Primary Care Trust

Adult Diabetes Guidelines

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Issued Feb 2011

For annual review

Aim of Document

- To ensure patients receive a high standard of diabetic care across Hillingdon.
- To reduce the complications associated with diabetes.

These are the current guidelines for the diagnosis, treatment and referral of people with Diabetes in Primary Care across Hillingdon. Information about Impaired Fasting Glucose (IFG) and Impaired Glucose Tolerance (IGT) can be found in the appendix.

The management plans should be agreed with each patient and tailored to meet the needs of the individual and their carers.

The guidelines will be reviewed regularly to ensure they continue to reflect the latest evidence-base.

Using the Guidelines

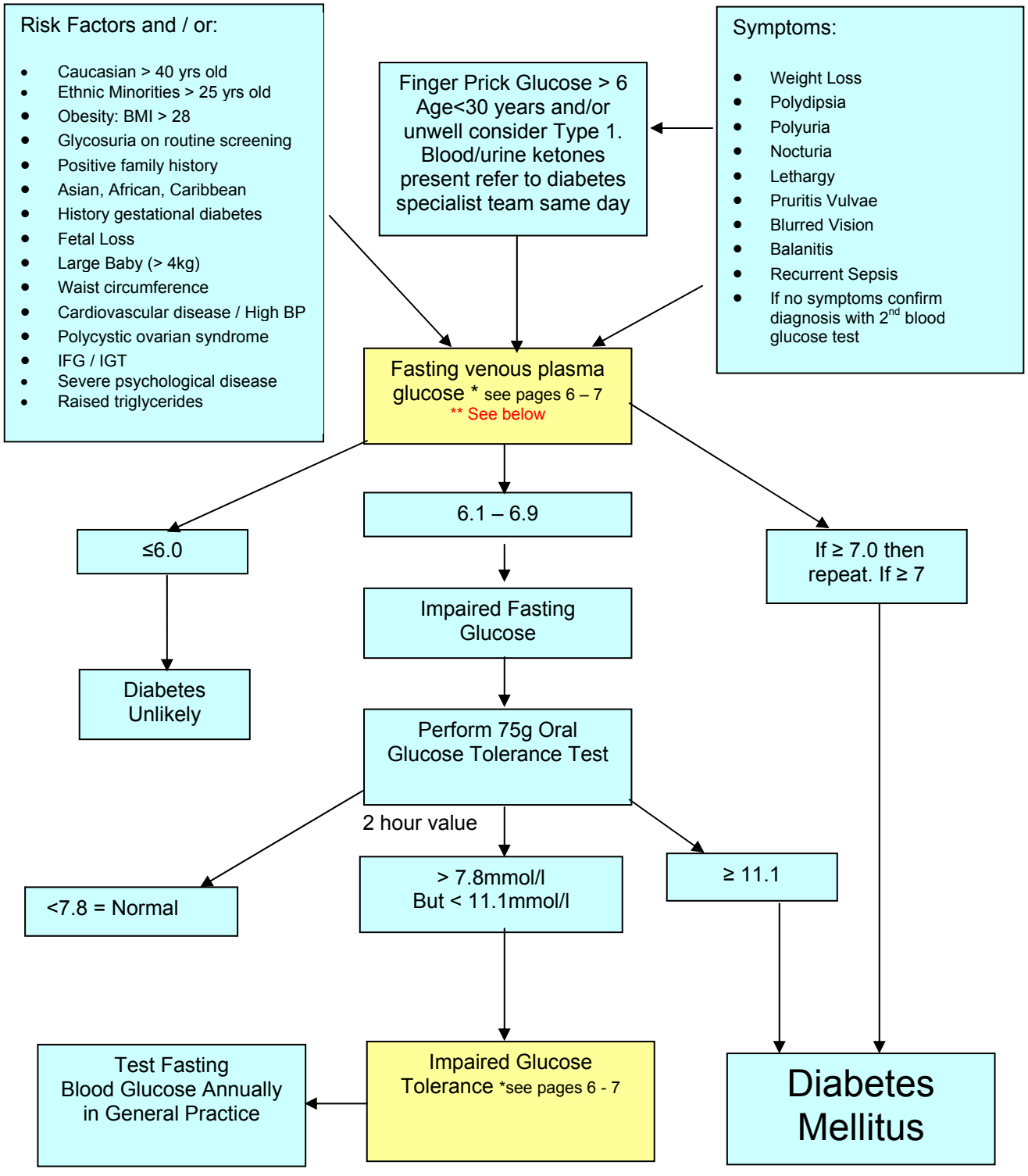
Patient Care is divided into stages. Pages can be photocopied for patient or staff use in the Hillingdon District. The guidelines provide targets and outline the care pathway for reducing risk factors and detecting and monitoring complications.

Contact Details

Hillingdon Hospital		01895 238282
Diabeticare Specialist Diabetes Centre	**Includes:** Specialist nurses Consultants Inpatient specialist nurse Wound care nurses Podiatry Dieticians	01895 279229 01895 279416
	Referral by fax	01895 279521
	Specialist diabetes midwives	01895 279678
Emergencies		01895 238282
Diabetes Registrar (Mon - Fri: 9 - 5) through switchboard		Bleep
Out of Hours Medical Registrar through switchboard		Bleep
Mount Vernon Hospital		01923 826111
NHS Hillingdon HESA Primary Care Centre		01895 452000 01895 484800
Community based Diabetes Clinic, GPwSI Diabetes & Community diabetes specialist nurses + dietitian DSN/Dietitian weight management clinic Diabetes Team Fax for referrals including DESMOND		01895 485001 01895 484776
Complex Wound Care Clinic, HESA		01895 485002
Community podiatry referrals Fax		01895 625268
Community podiatry patient line		01895 485005
Podiatry Department, Elers Road Clinic		01895 485005

Diagnosis

*Diagnostic measures in mmol/l



Important: Refer to Diagnostic Criteria: (Note: WHO currently revising these)
Web link - New diagnostic criteria for diabetes - Diabetes UK
** If patient unable to fast use HbA1c with full blood count after reading WHO guidance 2011. http://www.who.int/diabetes/publications/report-hba1c_2011.pdf HbA1c greater than or equal to 6.5% (48mmol/mol) in the absence of anaemia confirms diabetes. UK national guidance is awaited.

Diagnosis Summary

Do a fasting laboratory venous blood glucose (see pages 6 - 7).

People at Risk of Diabetes

Age: Caucasian > 40 years old, Ethnic Minorities > 25 years old
Cardiovascular / Peripheral vascular disease
Obesity : BMI > 28
Hypertension
Stroke
Glycosuria on routine screening
Positive family history
Asian, African, Caribbean
History gestational diabetes
Fetal Loss
Large baby > 4kg
Waist circumference (see page 30)
Polycystic ovary syndrome
IFG / IGT
Severe psychiatric disease
Raised triglycerides
Cigarette smoking an independent risk factor

Symptoms of Diabetes

Dry mouth
Weight Loss
Polydipsia, polyuria, nocturia
Lethargy
Pruritis vulvae, balanitis
Blurred vision
Recurrent sepsis

If no symptoms confirm diagnosis with second blood glucose test

Laboratory venous plasma glucose

Diabetes

Fasting	7.0mmol/l (x 2) or over
Random	11.1mmol/l with symptoms or 2 hours after 75g glucose

N.B: For further information on Impaired Fasting Glucose (IFG) and Impaired Glucose Tolerance (IGT) see pages 6 - 7.

Impaired Glucose Tolerance – IGT

Fasting venous plasma glucose 6.1 – 6.9mmol/l

After 2 hour OGTT:

Venous plasma glucose 7.9 – 11.0mmol/l

Not a benign condition
This condition is associated with a substantial risk of future diabetes (at least 25%). About 30% return to normal glucose tolerance. IGT is also associated with increased risk of cardiovascular disease.

Treatable condition
Vigorous weight loss (if overweight) and exercise substantially reduce the risk of progression to diabetes.

Check for cardiovascular disease
Cardiac
Cerebrovascular
Peripheral vascular

Check and treat risk factors
Smoking
Blood pressure
Fasting cholesterol (total, HDL, LDL) Triglyceride
Weight
Lack of exercise

Tell the patient
"Your body is not processing glucose fully. You do not have diabetes although this condition may lead to diabetes. Early treatment may slow the development of diabetes." Give them a copy of their results. Explain the risk of diabetes and cardiovascular disease.

Warn the patient to seek a blood glucose test if they experience thirst, increased urination, weight loss, thrush / perineal irritation, undue tiredness; or they are ill or injured or pregnant.

Recheck fasting glucose
Venous plasma glucose at OGTT < 6mmol/l, recheck it annually, repeat OGTT if 6 – 6.9mmol/l.
Venous plasma glucose at OGTT 6 – 6.9mmol/l, follow Impaired Fasting Glucose pathway.

Further help
There is no need to refer patients with Impaired Glucose Tolerance to the Diabetic Clinic. If you have any questions please telephone a diabetologist.

OGTTs can be performed in the GP surgery. Instructions can be obtained from Mr. Mike Howell, Clinical Biochemistry, The Hillingdon Hospital, UB8 3NN.

Impaired Fasting Glucose – IFG

Fasting venous plasma glucose 6.1 – 6.9mmol/l

After 2 hour OGTT:

Venous plasma glucose < 7.8mmol/l

This new category identifies people likely to develop diabetes. Patients can have both IFG and Impaired Glucose Tolerance (IGT) and such patients have a high risk of diabetes and should be followed closely.

Check for cardiovascular disease
Cardiac
Cerebrovascular
Peripheral vascular

Check and treat risk factors
Smoking
Blood pressure
Fasting Cholesterol (total, HDL, LDL) Triglyceride
Weight
Exercise lack

Give the patient a copy of their results.

Warn the patient to seek a blood glucose test if they experience thirst, increased urination, weight loss, thrush / perineal irritation, undue tiredness; or they are ill, injured, or pregnant.

Recheck fasting glucose
Recheck fasting venous plasma glucose in three months; then every 6 months.
If IFG and IGT check every 3 months long-term.
If IFG persists do an OGTT annually.

Consensus awaited
IFG is a category of glucose intolerance. The patient cannot be officially diagnosed as diabetic until he / she has a fasting glucose equal to or more than 7mmol/l or a 2 hour glucose > 11mmol/l.

Further help
There is no need to refer patients with IFG to the Diabetic Clinic. For further advice please contact a diabetologist.

OGTTs can be performed in the GP surgery. Instructions can be obtained from Mr Mike Howell, Clinical Biochemistry, The Hillingdon Hospital, UB8 3NN.

Living with Diabetes

Every person has their own version of diabetes. No single version of diabetes care will suit everyone. The Consensus Care Project is about agreeing with each patient by whom, with what, where, when and how their diabetes care will be provided. Encourage everyone to develop self-care if they wish. Respect the wishes of those who do not want to accept particular aspects of care. Involve families and other supporters as patients wish. The aim is to help people with diabetes to make informed decisions about their care that they feel comfortable with.

The Consensus Care guidelines set demanding standards. Patients who are able to attain them will have a reduced likelihood of diabetic complications. The standards will not be safe or practical for some patients, and others will opt for less rigorous personal targets.

Diabetes Education – Tell Patient and Family

- What diabetes is: Patient leaflets in different languages can be downloaded from www.diabetes.org.uk
- How it may affect you (health, family, work, leisure)
- How to stay well (reduce risk factors)
- About healthy eating and exercise (structured and sensible)
- What treatment to take and how (including hazard warnings)
- About free prescriptions (once starting medication)
- About glucose self-monitoring
- Carry diabetic card and glucose
- About driving (inform DVLA) and motor insurance
- Annual diabetic eye check (essential and free) – with optician
- Refer patient to DRSS for retinal screen – explain test to patient – give leaflet
- How to get help / advice / support
- What to do next
- Seek and answer questions
- Revise and update knowledge about immunisation, pneumococcal, influenza, tetanus
- Start structured education programme (refer to DESMOND)
- Smoking compounds the problems associated with diabetes. Cessation recommended

Emotional complications

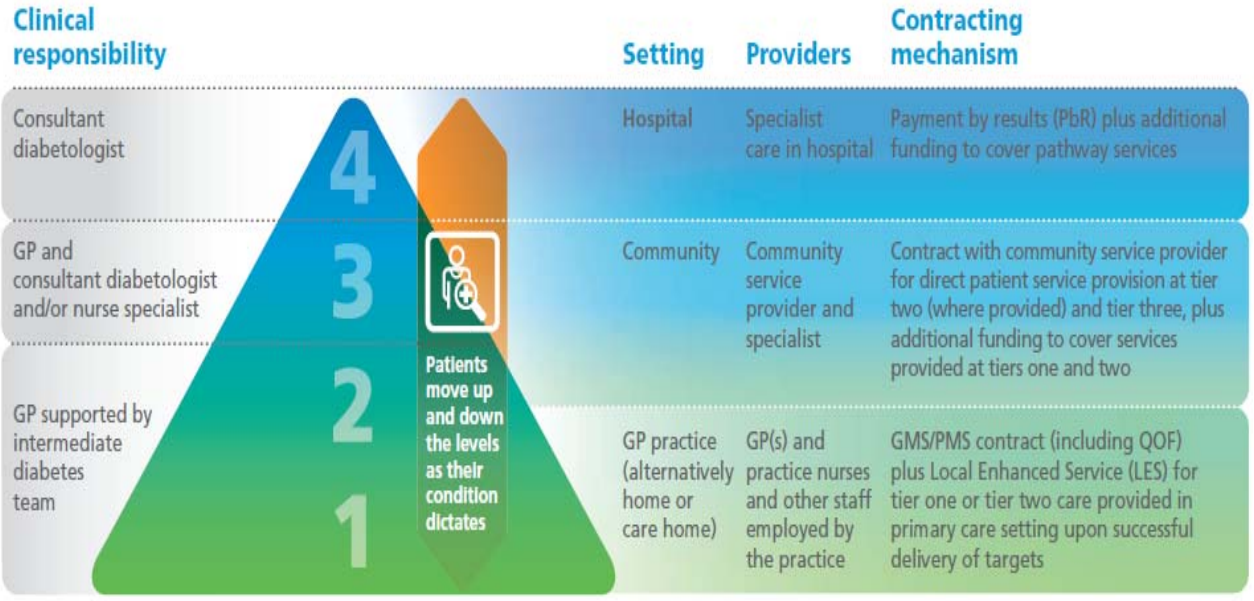
Diabetes is for life. Although many problems can be reduced or prevented, diabetes may cause serious disruption to patients' lives. Each patient has their own hopes and fears. Denial, anger, guilt, frustration and depression are common. It is usually emotional aspects which ultimately determine the success or failure of diabetes care. It is essential to treat the person as well as the diabetes.

Referral Guidelines

These are guidelines. They must be tailored to the needs and choices of each individual patient. The way in which the guidelines are used should also reflect the experience and expertise of individual healthcare professionals caring for the patient. They should also respect individual patient choice.

Referral policy

Use the following criteria to guide referral to hospital specialties and community based services. Patients may be referred back to primary/community clinics from secondary care after being seen or onwards to secondary care from community clinic after being seen.



Note: The Hillingdon PCT process is under review in order to reflect the above structure. Details will be released when available.

Patients with diabetes who should be referred to secondary care include:

- All children and adolescents < 25 years old;
- People with suspected new Type I diabetes – same day;
- Patients with complex diabetes, e.g. those with multiple complications or co-morbidities should be referred to secondary care;
- Those with renal impairment (GFR < 30). Those with micro-albuminuria alone may be managed in primary care;
- Those with active foot ulceration / infection – refer same day to Diabeticare Wound Care;
- Pregnancy - refer same day to Joint Antenatal Clinic Diabeticare;
- Any infections which fail to respond to treatment – refer such patients to a diabetologist (or medical on-call team if requiring admission);
- Significant mental health problems – refer to Diabeticare and community mental health team.

Primary Care referral into the community diabetes clinic + GPwSI

- Structured Patient Education including DESMOND;
- Assistance in insulin management in Type 2 diabetes for difficult cases or for initial insulin conversion (for non LES or Tier 1 practices);
- Assistance with housebound / residential or nursing home patients (NB annual review remain the responsibility of the GP for LES practices);
- Unstable diabetes;
- Poor control of HbA1c, blood pressure, cholesterol after 3 months against clinical targets
- Annual review required;
- Newly diagnosed Type 2 diabetics (if requested by patient refer up to secondary care, then can be referred back);
- Initiation for GLP1 therapy for non initiating practices.

To community-based podiatrist by ALL Practices

- All at risk diabetic patients;
- Presence of neuropathy, peripheral vascular disease, or skin / nail problems;
- Patient with poor eyesight or poor mobility / dexterity;
- Patients with foot arthritis or bony deformity;
- Patients with previous foot surgery (e.g. amputation or bunion operation);
- Any foot complications (refer patients with broken skin / ulcers to Diabeticare Wound Care same day);
- Podiatry Team will provide support / training for practices.

To community-based dietitian by ALL Practices

- All newly diagnosed diabetic patients;
- Those with BMI > 35 (Caucasian) or > 30 for Asian or waist circumference (see referral doc).

To Diabetic Retinal Screening Services (DRSS) by ALL Practices

- All diabetic patients at diagnosis and annually thereafter.

To hospital ophthalmologist by ALL Practices

- Confirmed presence of retinopathy as per local protocol;
- Visual impairment or abnormality;
- Visual field loss;
- Annual retinal check has detected a problem.

Cardiovascular disease

Refer to cardiologist or GPwSI cardiology / hypertension:

- Atypical signs of ischaemic heart disease e.g. atypical chest pain, unexplained breathlessness;

- Signs of right or left heart failure;
- First ischaemic symptoms;
- Worsening of existing ischaemic symptoms or unstable angina;
- Post MI;
- Consider secondary care diabetes referral.

Renal impairment

Refer to nephrologist if:

- GFR < 30ml/min;
- Difficult uncontrolled hypertension (> 3 agents);
- Diagnosis other than diabetic nephropathy suspected e.g. no eye disease + / - features to suggest alternative diagnosis;
- Refer all others to diabetologist if GFR is 30 - 60 with complications.

Neurological

- TIA - Refer to TIA clinic Hillingdon Hospital;
- CVA - Refer to on call medical team - or Stroke Physician (Dr Parry) if admission not indicated;
- Peripheral / autonomic / mono-neuropathy - refer to diabetologist.

Musculo-skeletal

- Refer through usual channels appropriate to problem - but note that the musculoskeletal problem may be due to poor glucose control.

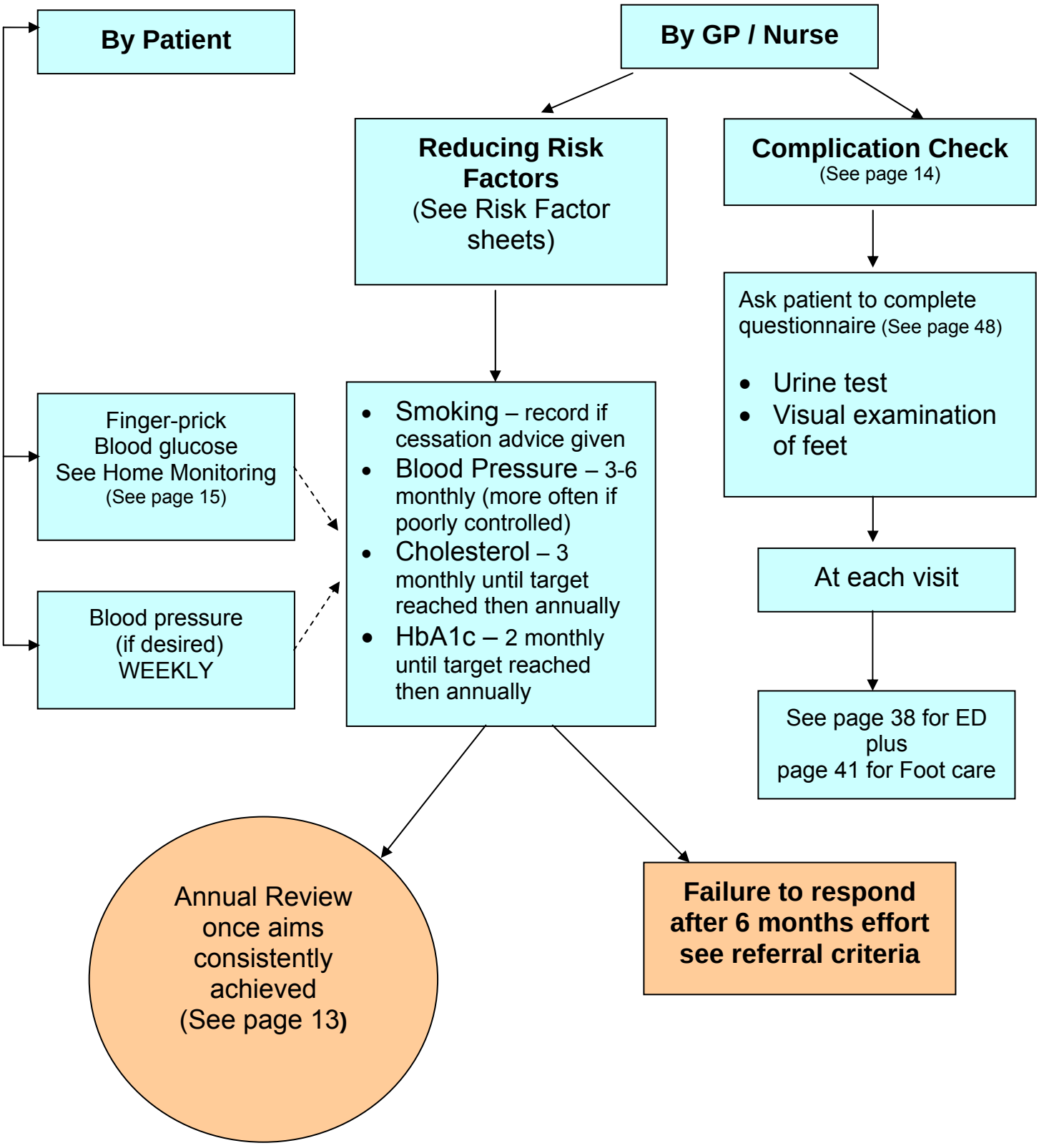
Shared Care

- Shared diabetes care between primary / community / secondary care to be determined for each individual as appropriate.

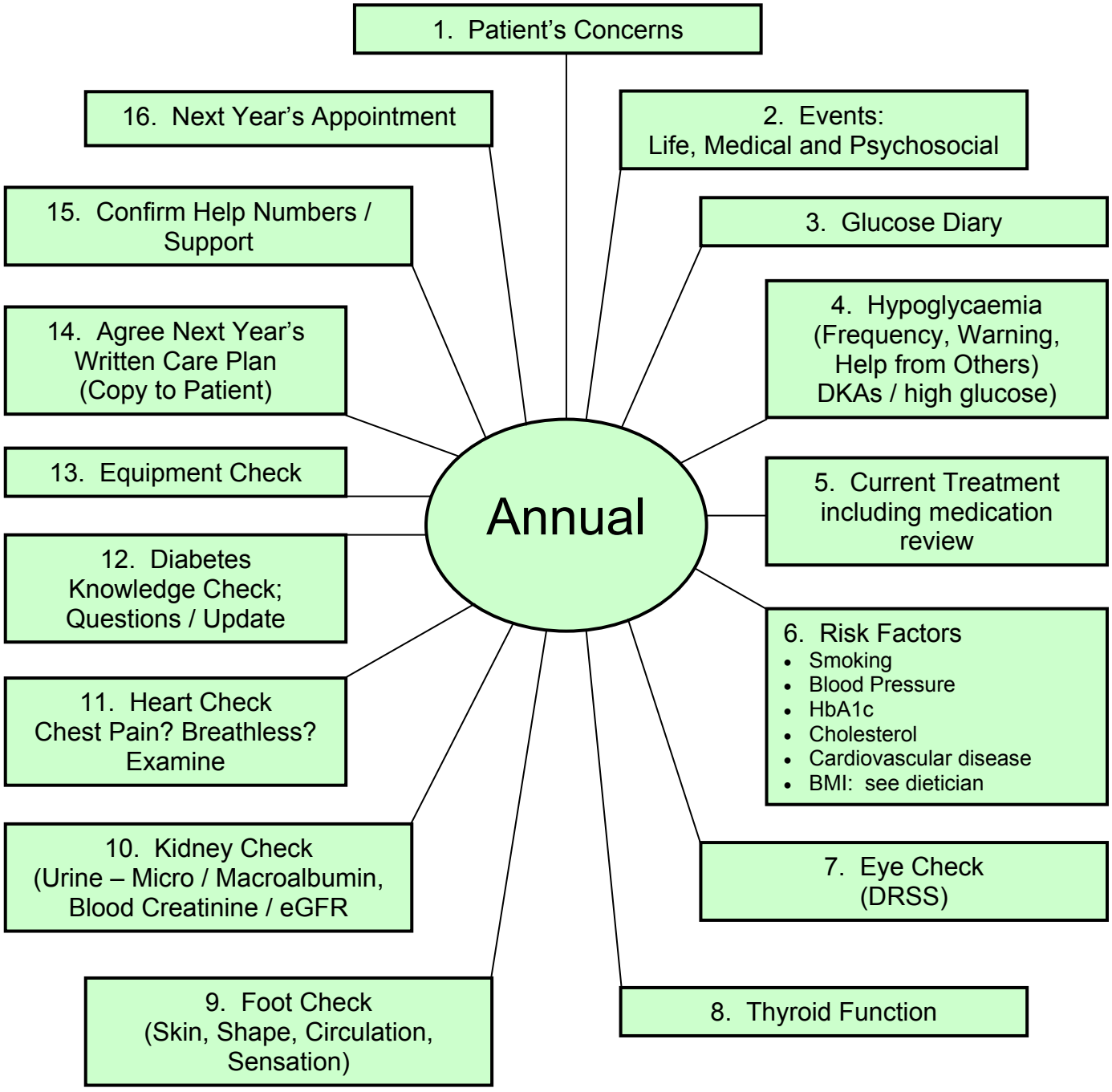
Smoking Cessation Service

- Refer to specialist stop smoking clinic for advice and support.

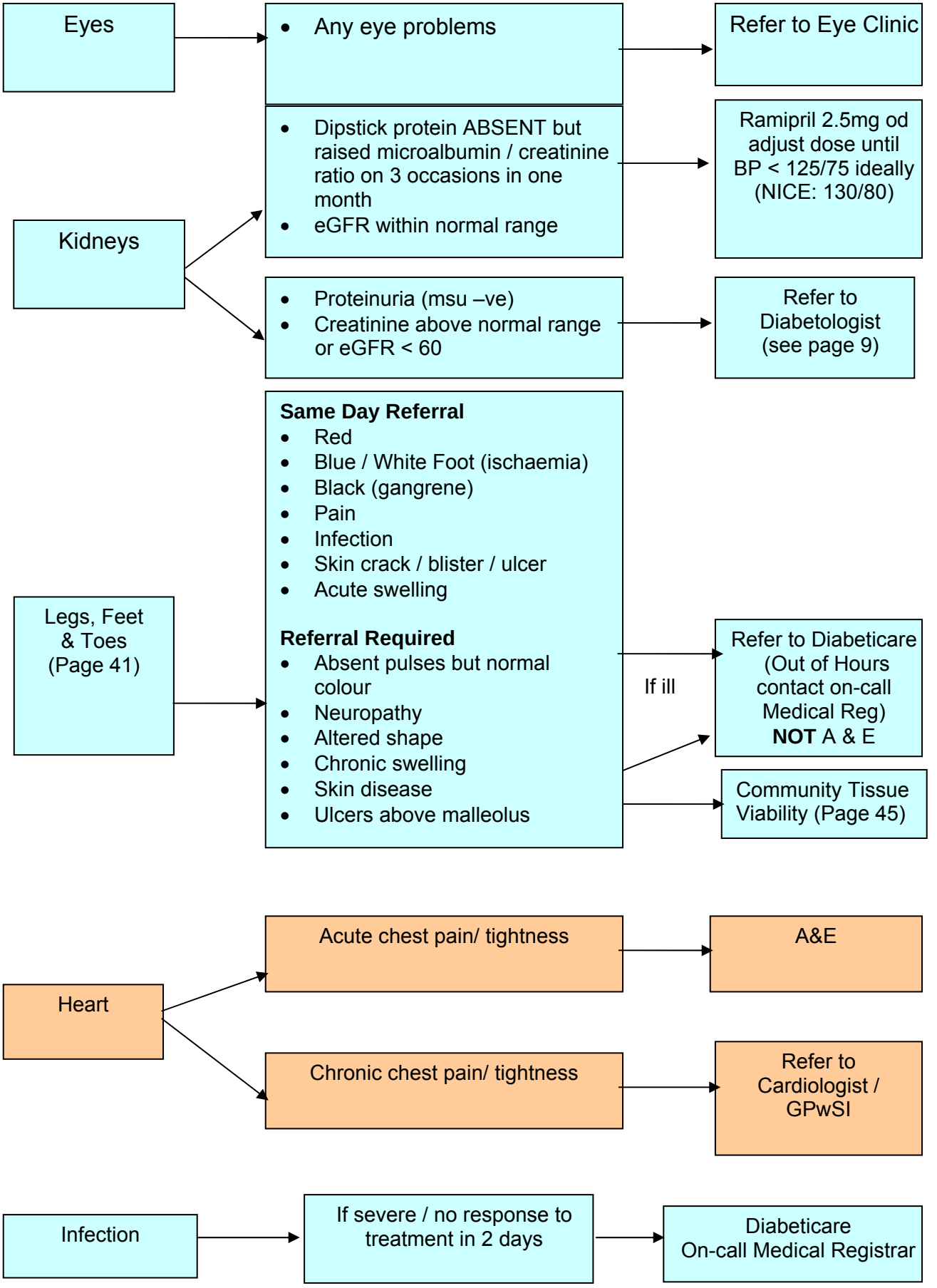
Monitoring


By Patient
By GP / Nurse
Reducing Risk Factors
(See Risk Factor sheets)
Complication Check
(See page 14)
Ask patient to complete questionnaire (See page 48)
Urine test
Visual examination of feet
At each visit
See page 38 for ED
plus
page 41 for Foot care
Finger-prick
Blood glucose
See Home Monitoring
(See page 15)
Blood pressure
(if desired)
WEEKLY
Smoking – record if cessation advice given
Blood Pressure – 3-6 monthly (more often if poorly controlled)
Cholesterol – 3 monthly until target reached then annually
HbA1c – 2 monthly until target reached then annually
Annual Review
once aims
consistently
achieved
(See page 13)
Failure to respond after 6 months effort see referral criteria

Primary Care Annual Review



Complication Check



Self Testing of Blood Glucose (SMBG)

Adapted from – Consensus Guidelines for Self Testing in Diabetes

Owens D et al. The continuing debate on self-monitoring of blood glucose in diabetes. Diabetes in Primary Care 2005; 7(1): 9 – 21

See NHS Diabetes self-monitoring of blood glucose in non-insulin treated Type 2 diabetes www.diabetes.nhs.uk/news.php?o=171

This states: Individuals with non-insulin treated diabetes who are motivated by SMBG activity and use the information to maximize the effect of lifestyle and medication should be encouraged to continue to monitor.

Type of Diabetes	Recommendation
1. Type 1 diabetes or Type 2 diabetics on basal bolus insulin or twice daily insulin + / – tablets and ALL pregnant diabetics	Monitoring minimum 4 times per day: a) Provide 2 – 3 boxes of test strips per month [1 box = 50 strips]; b) Teach patient to use the strips at different times of day to include fasting and postprandial states; c) Risk of hypoglycaemia greatest in the 1st trimester; d) Check occasionally for nocturnal hypoglycaemia.
2. Type 2 – Diet and exercise control	a) SMBG not required routinely. Provide 1 box of test strips per 6 months; b) Teach patient to use the strips at critical times e.g. illness or change of glucose lowering treatment. For these, provide 1 box of test strips per 3 or 6 months.
3. Type 2 – Oral medications of metformin (+ / - glitazone or sitagliptin)	As above 1 box of test strips per 3 months.
4. Type 2 – Sulphonylurea (+ / - other oral anti-diabetic agents)	a) SMBG 2 - 3 times a week (unless unwell then 2 - 3 x daily). Provide 1 box of test strips per 3 months; b) Teach patient on SMBG to use strips at different times of the day to check for hypoglycaemia.
5. Type 2 - Insulin therapy once daily + / – tablets	a) As clinically indicated (at least once a day); b) Teach patient on SMBG to use strips at different times of the day to check for hypoglycaemia; c) Check occasionally for nocturnal hypoglycaemia.

N.B: Consider each patient's situation individually. Some patients need to test more often e.g:

- newly diagnosed;
- unstable medical or emotion situation;
- risk of hypoglycaemia;
- occupational issue, e.g. bus driver.

Reducing Risk Factors

These guidelines recommend tight control of modifiable risk factors (**if safe and practical)**. NICE guideline targets are also given. Audits will be performed against GMS contract standards.

Risk Factor	Action	Aim (if safe and practical)
Smoking See page 36	STOP (referral to smoking cessation service)	No smoking
Obesity See page 29	Diet Exercise Orlistat	To reduce BMI to 18.5 - 25 kg/m^2
Hypertension See page 17	Treat with: ACE inhibitor or ARB (2^{nd} line) Calcium Channel Blocker Bendroflumethiazide	Below 130/80 (<125/75 if proteinuria) **Beware postural drop**
High Glucose See page 18	Treat with: Diabetic Diet Metformin Sulphonylurea GLP1 or DPP4 inhibitor Insulin	4 - 6mmol/l fasting 4 - 8mmol/l rest of time HbA1c not less than 6.5% (48mmol/mol) if on triple therapy **Avoid hypoglycaemia**
High Cholesterol See page 21	Treat with: Low fat diet Simvastatin Fibrate	Below 4mmol/l
Ischaemic Heart Disease	Treat with: Aspirin (providing BP is < 150/90) Simvastatin ACE inhibitor	No further events
Cardiovascular Risk > 15% over 10 years	Consider: Aspirin 75 mg (providing BP is < 150/90 and no risk of bleeding) Simvastatin 40mg	No further events

Reducing Hypertension in Diabetes

Aims
NICE – BP below 140/80 (130/80 if proteinuria)

Ideally BP below 130/80 (< 125/75 if proteinuria) – If safe and practical

Step 1
Lifestyle Changes
(See page 29)

Step 2
ACE inhibitor or A2RB
Titrate monthly to maximum tolerated dose
Ramipril caps 1.25mg – 10mg od
or
1st choice: Losartan 50mg – 100mg od

or another A2RB eg

Candesartan 8mg – 32mg or
Irbesartan 150mg – 300mg od

Only give A2RB if continuing intolerance to ACE inhibitor (other than renal deterioration or hyperkalaemia)

Step 2
For people of African-Caribbean descent
ACE-inhibitor plus CCB or diuretic
Titrate monthly to maximum tolerated dose

Ramipril + Amlodipine 5mg – 10mg or
Ramipril + Bendroflumethiazide 2.5mg om

Warnings for ACE or A2RB

- Check urea & electrolytes & creatinine before prescribing & in 1 week & after each dose increase, then annually
- Seek specialist help if any evidence of arteriopathy
- C/I in pregnancy: consider contraception advice or start on CCB if possibility of becoming pregnant

Step 3
Add amlodipine 5 - 10mg od

or

Step 4
Add bendroflumethiazide 2.5mg om

Step 5
Add doxazosin (not XL) 1mg – 16mg od
or
Atenolol 25mg – 50mg od
or
Spironolactone 25mg – 100mg od

Use potassium-sparing diuretic with caution if on ACE inhibitor of A2RB

Warnings for B-blocker

- Avoid in asthma / COPD
- Tell patient hypo warning may be reduced
- Only use higher doses in patients with angina
- CCB and B- blocker is better combination than thiazide diuretic and B-blocker

If < 40 years old consider secondary hypertension

Monitor annually if not hypertensive or with renal disease
If BP above target after 6 months refer to secondary care for further investigation

Based on Nice CG87

Reducing Glucose in Diabetes

Step 1
HbA1c ≥ 6.5% (48mmol/mol) (or individually agreed target) after a 3 month trial of lifestyle interventions

Step 2
Metformin (consider MR if side effects) or Gliclazide (offer once daily version if adherence is a problem)
Consider sulphonylurea 1st line **if** • Metformin contraindicated • Patient not overweight • Glucose reduction required rapidly

HbA1c ≥ 6.5% (48mmol/mol)

HbA1c ≥ 6.5%(48mmol/mol)

Step 3
Metformin + Gliclazide
Consider rapid acting secretagogue for people with erratic lifestyles
Consider exenatide or liraglutide if BMI > 35

Step 3
<u>If sulphonylurea C/I or significant risk of hypo and its consequences</u>
Metformin + gliptin or pioglitazone

Step 3
Gliclazide + gliptin or pioglitazone
Consider exenatide or liraglutide if BMI > 35

HbA1c ≥ 7.5% (59mmol/mol)

At every step in the pathway continue to reinforce lifestyle intervention and reduce CV risk factors

HbA1c ≥ 7.5% (59mmol/mol)

Step 4
If insulin is unacceptable because of social issues or obesity, consider:
Metformin + gliclazide + sitagliptin
or
Metformin + gliclazide + pioglitazone (limited role)

If BMI ≥ 35 or weight loss would be beneficial to other comorbidities, consider:

Metformin + gliclazide + exenatide/liraglutide
Reduce or stop gliclazide – If HbA1c > 9 don't reduce when initiating, only when BG is reducing

Step 4
Start insulin

Step 4
Start insulin
Insulin + metformin + gliclazide

Increase insulin dose and intensify regimen over time. Consider pioglitazone with insulin if it previously had a marked glucose lowering effect or glucose control is inadequate with high-dose insulin

Notes
- Only continue gliptin or pioglitazone if reduction in HbA1c of at least 0.5% in 6 months
- Only continue exenatide / liraglutide if reduction in HbA1c of at least 1% and weight loss of at least 3% of initial body weight at 6 months
- Only use drugs with insulin if they are licensed for that use

Refer to 2º care: trying for pregnancy, pregnant, gestational diabetes, non-healing foot ulcer, obesity BMI > 40, kidney disease (GFR < 60). other co-morbidities.

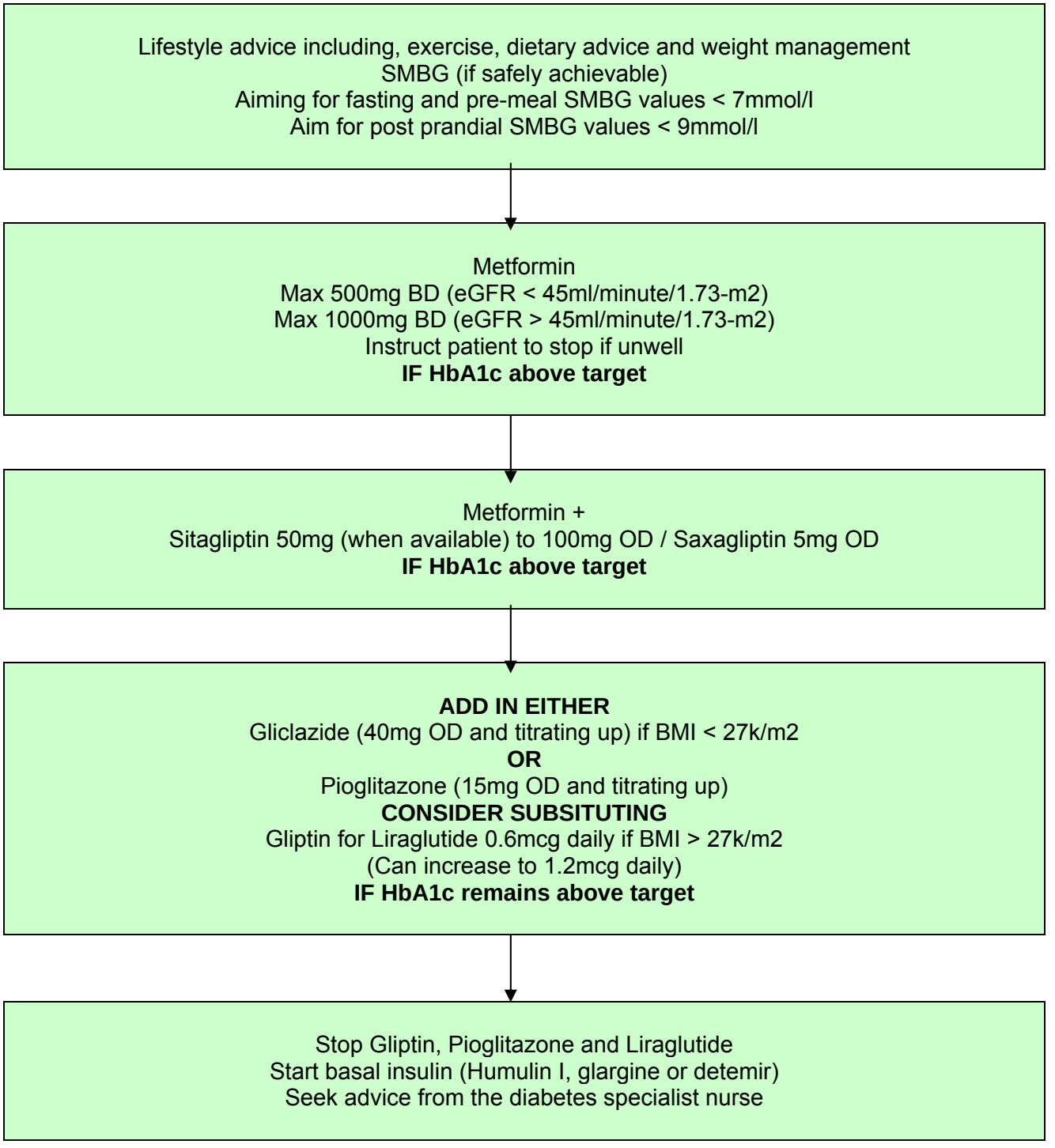
Other licensed combinations:
Sitagliptin or saxagliptin + pioglitazone
Sitagliptin monotherapy, sitagliptin + insulin with or without metformin
Sitagliptin + metformin + pioglitazone
Exenatide and liraglutide can be used in combination with just metformin or gliclazide or both
Liraglutide can also be used in combination with metformin and pioglitazone

Based on Nice CG87

ALGORITHM 1 for Renal Patients

Relatively stable eGFR 31 - 60ml/minute/1.73-m2

If patient symptomatic from hyperglycaemia or if majority of SMBG readings > 15 mmol/l, consider initial treatment with gliclazide or insulin therapy. Once condition stabilised review and consider metformin if not contraindicated.
These guidelines are for information. See referral guidelines for renal impairement on p11



ALGORITHM 2 for Renal Patients

Relatively stable eGFR 15 - 30ml/minute/1.73-m^2

If patient symptomatic from hyperglycaemia or if majority of SMBG readings > 15 mmol/l, consider gliclazide or insulin therapy (however, treatment should be reviewed when condition stabilised). These guidelines are for information. See referral guidelines for renal impairement on p11

Lifestyle advice including, exercise, dietary advice and weight management
SMBG (if safely achievable)
Aiming for fasting and pre-meal SMBG values < 7mmol/l
Aim for post prandial SMBG values < 9mmol/l

↓

IF HbA1c above target
Start Gliclazide at 40mg and increase as necessary
OR
Repaglinide – starting at 0.5mg and titrating according to meal size up to maximum 4mg pre-meal

↓

IF HbA1c above target
add basal insulin (Humulin I, glargine or detemir)
Seek advice from the diabetes specialist nurse

Reducing Lipids in Diabetes

Treat as high risk if:
Hypertension, obese, micro-albuminuria, smoker, family history of CVD, total cholesterol > 4, TG > 2.3 or LDL > 2
Use UKPDS tool for those without these risk factors. If CVD risk > 20% treat

Aim
Cholesterol < 4mmol/l
or
LDL < 2

- If TG > 4.5, re-check fasting level in 1 week and review glucose control.
- If remains above 4.5 add fibrate.
- If > 2.3 despite statin and fibrate refer
- If TG > 10 or if pain anywhere refer same day

> 40 years with normal to high risk or CVD risk > 20% / 10 years

First Line
Simvastatin 40mg
If not tolerated try simvastatin 20mg or pravastatin 20 - 40mg

If target not met

Second Line
Atorvastatin 10 - 20mg

If target not met

Third Line
Atorvastatin 40 - 80mg
or consider ezetimibe or rosuvastatin 5 - 20mg

If target not met

Refer to 2º care

Monitoring Requirements

- Total cholesterol
- Check ALT & CK pre-treatment and thereafter if clinically indicated
- Fasting cholesterol, HDL / LDL & triglycerides 1 to 3 monthly until aim achieved then annually
- Fasting glucose
- Stop drug if LFT > 5 times ULN* or CK > 3 times ULN*
- If cholesterol and / or triglyceride fail to respond after 6 months – refer
- Avoid rosuvastatin if eGFR < 30
- Renal function must be monitored when on fibrates.

*ULN = upper limit of normal

Consider low dose aspirin (75mg od) if:
- Aged over 50 years and BP < 145/90
- Aged < 50 years and significant other CV risk factors

If clear intolerance of aspirin:
Consider clopidogrel 75mg od

Based on Nice CG87

Insulin

The decision to start insulin should to be made jointly with the patient and the following considered before starting insulin:

- Is the patient taking their current medication? Claxon (2001) discovered that increasing frequency of dosing = reduction in taking. If this is an issue, suggest changing to slow release, once-daily preparations to improve concordance.
- Does HbA1c match home testing? Use blood glucose monitoring as part of a structured education package to show glycaemic control on a day by day basis.
- What is the diet like, are there big gaps between meals that could potentially lead to hypoglycaemia. Is the diet high in sugar which if, stopped may negate the need for insulin? Is the person obese? If so, would GLP 1 therapy be more appropriate (NICE CG66)?
- Lifestyle, e.g. a shift worker who has irregular meals will need an insulin regime that can cope with changes in daily patterns. LGV (large goods vehicles) and PCV (passenger carrying vehicles) licence holders may lose their licence thus their jobs if insulin is initiated (DVLA 2010) thus may refuse insulin.
- Barriers to insulin initiation include personal beliefs, ethnicity and personal experience. (Payrot 2005). Needle phobics, may need treatment before insulin can be initiated.
- Patient's dexterity and / or vision – will they be able to inject their own insulin, can they see to measure the insulin dose / blood glucose levels? If they cannot inject their own insulin who will do it for them? (NB if using district nurses timing of injection cannot be guaranteed so this needs to taken into consideration when deciding a regime).
- Does the HCP have the experience to initiate insulin? If not accredited refer the patient to the Diabetes Community Team or Diabeticare.

The decision regarding which insulin regime should be used, should be based on the following and with discussion with the patient re. lifestyle and what would suit them.

Once daily (basal) insulin	• Not suitable for the treatment of type 1 diabetes where there is an absolute lack of insulin. • In T2DM, this is the insulin regime initiated most commonly after oral medication fails to control glycaemia. [Add on to oral therapy] • Begin with human NPH insulin taken at bedtime or twice daily according to need. Only consider analogues if: 1. A patient has significant hypoglycaemia 2. Need help with injecting and one injection of insulin would be better 3. The person would otherwise need twice daily basal insulin injections plus oral glucose lowering drugs 4. The person cannot use the NPH insulin injecting device. Long acting analogue insulins currently available are glargine and detemir. These are clear insulins and do not need any shaking before use and are often best injected first thing in the morning as the duration is normally 18 - 24 hours. If using Humulin I or isophane insulin, this is injected just before bed time to control fasting hyperglycaemia as active duration is 12 - 14 hours. • If the patient is on steroids the best practice is to refer to DSN who can decide which would be the best insulin to initiate the patient on.
Twice daily insulin	Suitable for T2DM patients who: • Have very poor control e.g. HbA1c > 9% on oral medication; • Who have not achieved control with basal alone; • When OAD need stopping due to e-GFR falling – see guidance; • Patients with T1DM in whom very good control is not required or those who cannot cope with basal bolus regimes. Biphasic insulins include Humulin M3, given 30 minutes pre-breakfast and evening meal. This is a mixture of short acting insulin – duration 4 - 6 hours, and isophane insulin duration 12 - 14 hours. Biphasic analogues act immediately so given immediately pre or post breakfast /evening meal, rapid acting component acts for approx 3-4 hours the longer acting component last 12-14 hours. N.B: the patient may need a short acting bolus at lunch time if high before evening meal

Three times daily insulin	Suitable for those who: • Do not get good control on BD insulin; • Tend to forget their basal dose when on basal bolus insulin; • Refuse basal bolus therapy; • Patients have a high carbohydrate load at each meal then a mixture with a high ratio of rapid acting insulin to longer acting may control post prandial levels, e.g. Humalog Mix 50. Humalog Mix 25 and Novomix 30 can also be used depending on the amount of carbohydrates that they eat.
Basal Bolus regime	Suitable for: • T1DM, and T2DM; • Works best for those who are actively involved in their diabetes, e.g. adjust own insulin, those who carbohydrate count etc.

The following points must always be taught when starting insulin:

- The name of the insulin, its action and when to inject it. Where to store it (in-use device at room temperature, spare insulin in the fridge). An identification card should also be issued to state the person is on insulin and next of kin contact details.
- 1 needle for 1 injection, the needle should be immediately removed from the pen post injection to prevent the patient getting lipo-hypertrophy and also to stop air getting in to the pen.
- Both the main cover of the pen needle and the needle sheath needs to be removed before injection.
- Safe disposal of sharps – each patient should be issued with a sharps bin and told how to dispose of it.
- Identification of / and treatment for hypoglycaemia. This is a must for the patient and anyone who lives / works with them.
- The patient needs to inform both the DVLA + their insurers.
- Sick day rules – e.g. never stop the insulin.
- Blood glucose monitoring.
- Adjusting their own doses (this might not be taught at the initial visit but the patient will get better control faster if taught).
- Who to contact if problems.

Insulins currently on the market

Insulin	Format	Timing of injection	Onset post injection	Duration of peak activity
Rapid Acting Analogue Aspart (NovoRapid), Lispro (Humalog), Glulisine (Apidra)	Cartridge /flexpen Cartridge/kwikpen /vials Cartridge/solostar /vials	Immediately before / just after meals	10 - 15 minutes	1.5 - 3 hours 2 hours
Short Acting Human Actapid Humulin S	Vial Cartridge/kwikpen /vials	30 minutes before a meal	30 - 45 minutes, peak after 1.5 - 4 hours	2 - 6 hours
Pre-mixed Human Humulin M3	Cartridge/kwikpen /vials	30 minutes before a-meal	3 - 45 minutes	2 - 12 hours
Pre-mixed Analogues NovoMix 30 Humalog Mix 25 Humalog Mix 50	Cartridge/flexpen Cartridge/kwikpen /vials	Immediately before / just after meals	10 - 15 minutes	1 - 12 hours
NPH Insulatard Humulin I	Cartridge/vial Cartridge/kwikpen /vials	At bed time, or 12 hourly	1.5 hours	4 - 14 hours
Long acting analogues Detemir (Levemir) Glargine (Lantus)	Flexpen / Innolet Cartridge/ Solostar/Vial/ Cartridge	Once or twice daily Once daily	Max conc 4 - 5 hours post injection Onset after 4 - 5 hours, steady state 2 - 4 days	14 - 18 hours 24 hours

N.B: If prescribing a cartridge you also have to prescribe a reusable pen to go with it. Each patient should have at least 1 spare. They should also be replaced every 2 - 3 years.

Novo insulin – reusable device = Novopen 4
Lilly insulin –reusable device = Humapen Luxura, Autopen Classic
Sanofi-Aventis insulin - reusable device = Clikstar, Autopen 24
All of the above devices are prescribable on FP10

Needles
All devices work with BD 5mm (31G) Microfine+ pen needles. For patients who are very thin or take less than 40 units per injection then BD 4 mm (32G) Microfine+ pen needles may be used.

Safer insulin prescribing

Patient safety incidents

Between August 2003 and August 2009 the National Patient Safety Agency (NPSA) received 3,881 wrong dose incident reports involving insulin. These included one death and one severe harm incident due to 10-fold dosing errors from abbreviating the term ‘Unit’. Three deaths and 17 other incidents between January 2005 and July 2009 were also reported where an intravenous syringe was used to measure and administer insulin.

1. The term ‘units’ is used in all contexts. Abbreviations, such as ‘U’ or ‘IU’, are never used.

2. All regular and single insulin (bolus) doses are measured and administered using an insulin syringe or commercial insulin pen device. Intravenous syringes must never be used for insulin administration.
3. Note that some insulins have very similar names but different actions e.g. Humalog, Humalog Mix 25, Humalog Mix 50, make sure that the correct insulin is prescribed

4. A training programme should be in place for all healthcare staff (including medical staff) expected to prescribe, prepare and administer insulin. An e-learning programme is available from: www.diabetes.nhs.uk/safe_use_of_insulin_

5. This module is free to register and undertake, it take 1-2 hours to complete with a certificate on passing. It is recommended that all health care providers accredited in insulin initiation pass this course.

CHECKLIST FOR PATIENTS COMMENCING INSULIN

Addressograph:	**GP DETAILS** **Contact Details:** **Mobile No:** **Home No:** **Work No:**

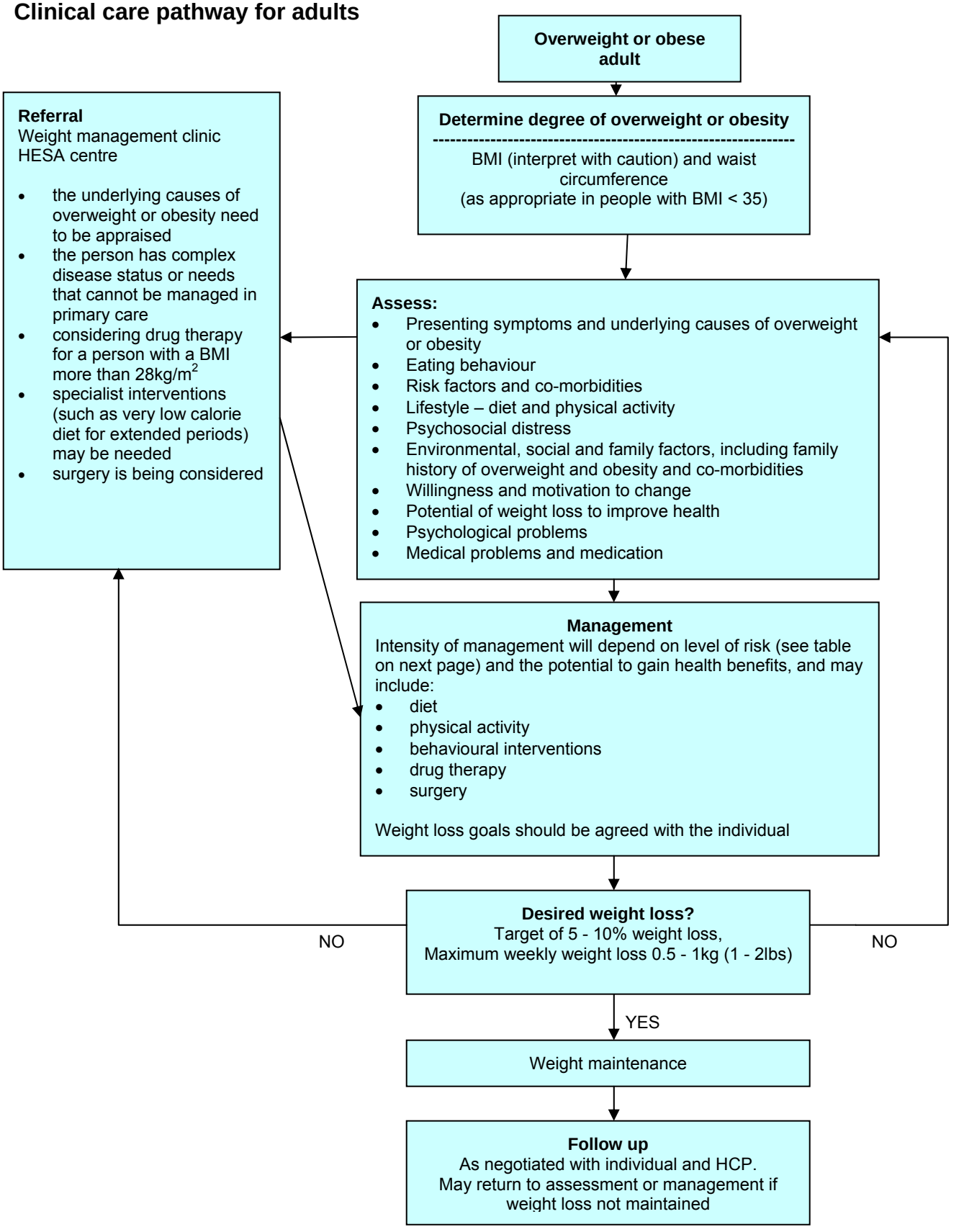
		Date Taught	Date	Comments
What is diabetes?				
Why symptoms occur?				
How do you feel?				
INSULIN				
Type / Dose				
Type/Dose				
Action of				
Storage of				
SYRINGES/PENS				
Use of				
Supplies of				
Sizes/Types of				
Injection technique				
Site rotation				
MONITORING (BLOOD)				
Use of Glucose Monitor/Type				
Use of ketostix/ Ketone monitoring				
HYPO/HYPER GLYCAEMIA				
Definition of				
Signs & symptoms of				
Cause & prevention of				
Sick day rules				
Treatment of:				

		Date Taught	Date	Comments
DIET				
Basic Principles of diet				
Alcohol				
Eating out				
COMPLICATIONS				
Eyes				
Kidneys				
Feet				
Large Vessel (CV)				
MISCELLANEOUS				
Car license & insurance				
ID				
Holidays & Travel Insurance				
Smoking				
Employment				
Shift work				
Prescription exemption				
Preconception advice				
DIABETES UK				
Local Support Group				
Website				
DSN CONTACT DETAILS				
Diabeticare on 01895-279229 or via switchboard on 01895-238282. Bleep 5730				

ADDITIONAL COMMENTS

Obesity

Clinical care pathway for adults



Measures of overweight or obesity

- BMI should be used as a measure of overweight in adults, but interpret with caution because it is not a direct measure of adiposity.
- Waist circumference may be used in addition to BMI in people with a
- BMI < 35kg/m²

Classification	BMI (kg/m²)
Healthy weight	18.5 – 24.9
Overweight	25.0 – 29.9
Obesity I	30.0 – 34.9
Obesity II	35.0 – 39.9
Obesity III	40 or more

N.B: BMI of 18 – 25kg/m² in Asians is equivalent to 20 – 25kg/m² in white patients.

- Assessment of health risks associated with overweight and obesity in adults should be based on BMI and waist circumference as follows:

BMI Classification	Waist circumference		
	Low	High	Very High
Overweight	No increased risk	Increased risk	High risk
Obesity	Increased risk	High risk	Very high risk
For men, waist circumference: < 94 cm is low (For Asian men <90cm is low) 94 – 102 cm is high > 102 cm is very high	For women, waist circumference: < 80 cm is low (Asian women < 80cm is low) 80 – 88 cm is high > 88 cm is very high		

- The level of intervention to discuss with the patient should be based as follows:

A guide to deciding the initial level of intervention to discuss

BMI classification	Waist Circumference			Co-morbidities present
	Low	High	Very high	
Overweight				
Obesity I				
Obesity II				
Obesity III				

- General advice on healthy weight and lifestyle
- Diet and physical activity
- Diet and physical activity, consider drugs
- Diet and physical activity, consider drugs, consider surgery

Drug Treatments

When to consider drug treatment
• Consider only after dietary and behavioural approaches have been started and evaluated • Consider for patients who have not reached their target weight loss or have reached a plateau on dietary, activity and behavioural changes alone

- Before deciding to start treatment, and choosing the drug, discuss with the patient the potential benefits and limitations, including the mode of action, adverse effects and monitoring requirements, and their potential impact on the patient's motivation.
- When prescribing, make arrangements for appropriate healthcare professionals to offer information, support and counseling on additional diet, physical activity and behavioural strategies.
- Give information on patient support programmes.
- Follow the drug's summary of product characteristics.

Continued prescribing and withdrawal

- Review regularly, to monitor the effect of drug treatment, and to reinforce lifestyle advice and need for adherence.
- Drug treatment may be used to help people to maintain weight loss, as well as to continue to lose weight.
- Consider withdrawing drug treatment if the person does not lose enough weight (see next page for details).
- Consider less strict goals for people with type 2 diabetes, because they may lose weight more slowly. Agree goals with the person and review regularly.
- If concerned about micronutrient intake, consider giving a supplement providing the reference nutrient intake for all vitamins and trace elements, particularly for vulnerable groups such as older people, who may be at risk of malnutrition.
- If withdrawing a person's drug treatment, offer support to maintain weight loss because their self confidence and belief in their ability to make changes may be low.

Specific advice on drugs

Orlistat

- Prescribe only as part of an overall plan for managing obesity in people with diabetes who have a BMI of 28.0 kg/m^2, or more with associated risk factors, or a BMI of 30kg/m^2 or more.
- Continue treatment for longer than 3 months only if the person has lost at least 5% of their initial body weight since starting drug treatment.
- Continue for longer for 12 months (usually for weight maintenance) only after discussing potential benefits and limitations with the patient.
- Co-prescribing with other drugs for weight reduction is not recommended.
- Check BNF for contraindications.

Specific advice on bariatric surgery

Bariatric surgery is recommended as a treatment option for adults with obesity if all of the following criteria are fulfilled.

- They have a BMI of 40 kg/m2 or more, or between 35 kg/m2 and 40 kg/m2 and other significant disease (for example, type 2 diabetes or high blood pressure) that could be improved if they lost weight.
- All appropriate non-surgical measures have been tried but have failed to achieve or maintain adequate, clinically beneficial weight loss for at least 6 months.
- The person has been receiving or will receive intensive management in a specialist obesity service, is generally fit for anaesthesia and surgery, and commits to the need for long-term follow-up.

Bariatric surgery is also recommended as a first-line option (instead of lifestyle interventions or drug treatment) for adults with a BMI of more than 50 kg/m2 in whom surgical intervention is considered appropriate.

The eatwell plate

Food Standards Agency
eatwell.gov.uk

Use the eatwell plate to help you get the balance right. It shows how much of what you eat should come from each food group.

Eating well with diabetes

Diabetes is a condition where the amount of sugar in the blood is too high. This happens because the body can no longer use sugar properly to provide energy. As sugar from the body is lost though the urine fatigue thirst and weight loss occurs. Whether diabetes is controlled by diet alone, tablets or insulin it is very important to eat a good diet and keep as physically active as possible and maintain a healthy weight.

Your diet is a very important part of treatment

Guidelines for healthy eating

- Eat regular meals evenly spaced throughout the day. Never miss a meal.
- Include a starchy food at every meal, e.g. bread, chappatis, cereals, potatoes, rice, pasta. Use high fibre varieties wherever possible.
- Choose a small portion of meat, poultry, fish, egg, cheese or pulses (lentils, peas and beans) twice daily.
- Aim for five portions of fruit and vegetables daily.
- Reduce the fat content of your diet, grilling and poaching rather than frying.
- Choose low fat dairy foods, include at least half a pint of milk daily.
- Reduce the amount of sugar in your diet.
- If your portions sizes of food are too large, make them smaller.

Ways of reducing sugar in the diet

- Try to avoid foods high in sugar, e.g. sweets, chocolate, honey, marmalade, sweet biscuits, cakes and puddings, use reduced sugar / sugar free alternatives.
- Use artificial sweeteners, e.g. Hermesetas, Sweetex or Canderel in drinks and puddings.
- Choose low calorie squashes, mixers and fizzy drinks.
- Buy tinned fruit in natural juices.

A Registered Dietitian will be able to provide more information at a consultation

An excellent source of information is www.diabetes.org.uk

Produced by The Nutrition and Diabetic Department in conjunction with Diabeticare, The Hillingdon Hospital NHS Trust. Feb 2000. Updated December 2010.

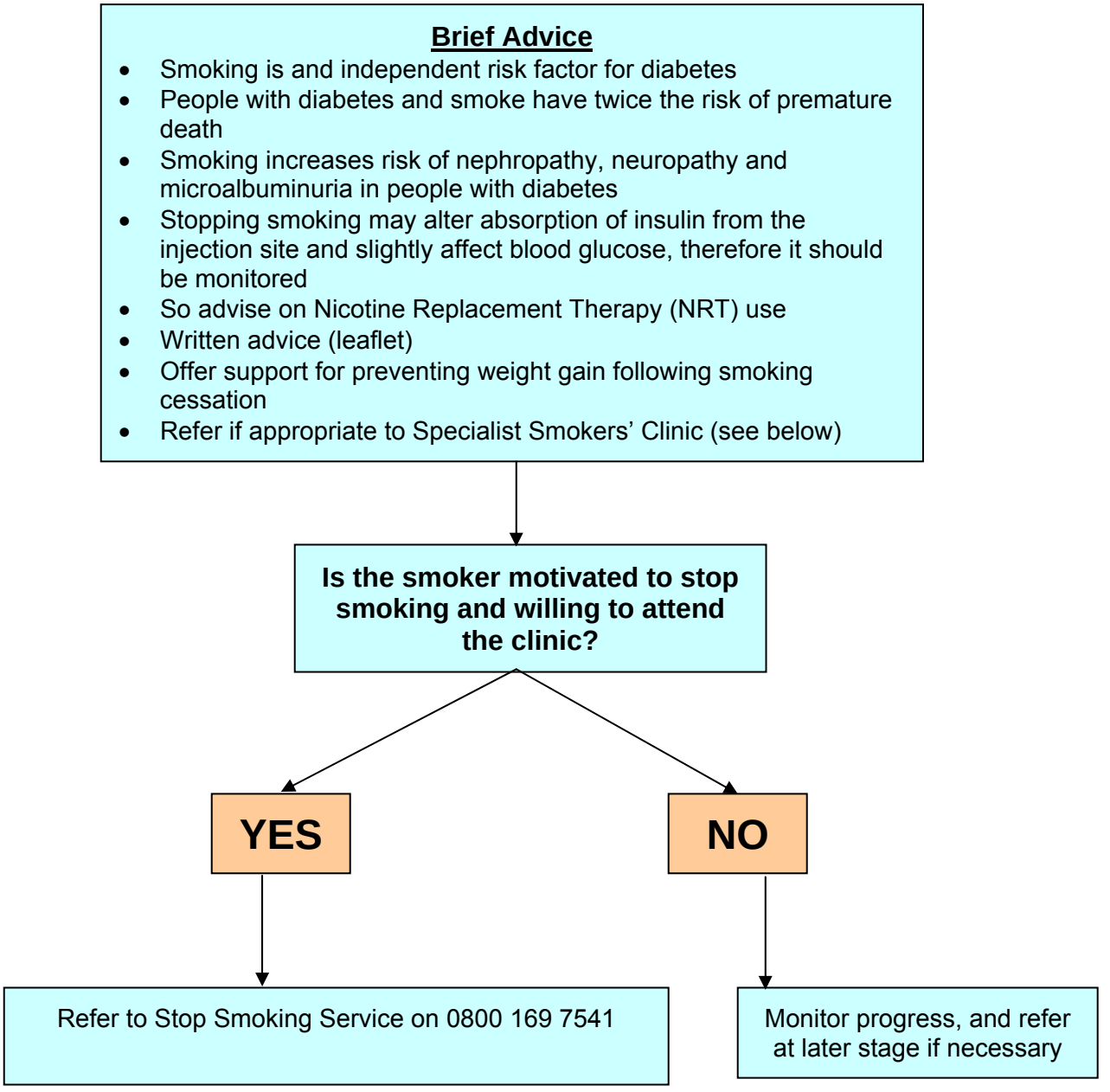
Referral Form for Dietitian's Diabetic Clinic (Please Print Clearly).This Replaces Any Previous Referral Forms.

Patients must fulfil at least one of the following criteria. Please note the special criteria for Asian patients.

1) Been newly diagnosed with type 2 diabetes within the 12 months prior to the date of the referral being made.
2) Have diabetes and a BMI of 35 or more unless an Asian diabetic adult with a BMI of 25 or more.
3) Have diabetes and a waist circumference of more than 102 cm (40 inches) for men unless an Asian diabetic man with a waist circumference of more than 90cm (35 inches).
4) Have diabetes and a waist circumference of more than 88 cm (35 inches) for women in any ethnic group.

Surname:	**Forenames:**	**Title:**	**M/F:**
Date of Birth:	**Address:**		
Telephone No: (Home) **Mobile No:**	**NHS Number:**	**Ethnic Group:**	
Diagnosis: **Date of Diagnosis:**			
Past Medical History:			
Allergies:	**Medications:**		
Weight: **Height:** **BMI:** **Waist Circumference:**			
Recent Blood Test Results: **Date of Blood Test:**			
Diet and/or Advice Needed:			
Location Where Preferred To Be Seen (please tick): ☐ **Hesa Centre in Hayes & Harlington** ☐ **Oak Farm Clinic in Hillingdon**	**Interpreter needed?** ☐ **Yes** ☐ **No** **Language Spoken:**		
Any Further Information:			
GP Details or Practice Stamp: **Practice Address:** **Telephone no:** **Referring GP/Practice Nurse:** **Signature:** **Designation:** **Date:**			
Please return form to: **Diabetic Clinic,** **Hesa Primary Care Centre,** **52 Station Road,** **Hayes, Middlesex, UB3 4DD.** **Tel: 01895 485 001** **Fax: 01895 484 776**	**For official use only:** **Date referral received:** **Date of first appointment:** **Date seen for consultation:**		

Smokers' Clinic Referral Process



About the Smokers' Clinic

- Based throughout Hillingdon Borough through GP clinics, Pharmacists, local stop smoking clinics and out of hours service. Four times more successful than going it alone
- Treatment includes nicotine replacement therapy, varenicline & group / individual support
- Sessions 1 & 2 are informative where treatment is explained and people can make up their mind if they would like to continue the treatment
- Patients will be entitled free weekly supply of NRT for the 8 week programme. Prescription charges apply.
- Health professional and self referrals can be made to the clinic by telephoning

0800 169 7541

Exercise is good for people with diabetes

Exercise improves well-being, weight loss, cardiovascular risk factors, and insulin sensitivity. It has been shown to be beneficial to people with diabetes, and may prevent or delay its onset in susceptible people. Exercise should be safe, enjoyable and practical.

General exercise – increase this for all

The aim is increase general exercise levels for all patients day-to-day. This may include getting out of the chair to change TV channels, walking round the garden, using the stairs not the lift, parking further away from the supermarket door, walking a little faster. Any increase is helpful.

More vigorous exercise

For patients who want more vigorous exercise, programmes aim to increase the heart rate to between 60% and 85% of the maximum for that patient's age (HRmax = 220 minus age in years) for 15 to 30 minutes several times a week. Increase exercise gradually. Include a warm-up and cool-down period. Exercise may include gym-based activities, swimming, jogging or many other sports. Patients unfamiliar with regular exercise should find a qualified trainer to help them.

Age	20	30	40	50	60	70 years
60% HRmax	120	114	108	102	96	84 bpm
85% HRmax	170	162	153	145	136	119 bpm

Safety factors (if in doubt seek specialist advice)

- Start gently and carefully.
- Control unstable conditions such as erratic glucose and hypertension first.
- Do not exercise vigorously alone unless very experienced. Never swim alone.
- Be careful about distance, water, heights, heat, cold, driving home afterwards.
- Away from home carry a mobile phone.
- Always carry glucose in some form and diabetic card / Medic-Alert.
- Monitor the effect of exercise upon the blood glucose.
- Learn from personal experience.
- Prevent hypoglycaemia by reducing insulin/oral hypoglycaemic dose before exercise (and perhaps after), eating glucose / sucrose if necessary. In overweight patients avoid extra food if possible.
- Severe hyperglycaemia will worsen with exercise and ketosis may occur.
- Exclude ischaemic heart disease - this may mean doing an exercise ECG. (Seek cardiology advice for patients with known ischaemic heart disease.)
- Protect feet especially if neuropathy or peripheral vascular disease.
- Avoid weight-bearing exercise if foot ulcers.
- Avoid exercise if new vessels in retinopathy.
- Seek advice if automatic neuropathy (risk of cardiac arrest)
- A very useful and informative website is www.runsweet.com

Erectile Dysfunction

Sudden erectile dysfunction is an alert for CVD. Consider doing a risk assessment.

History

If possible interview both patient and partner. In some patients there is a strong psychological element.

Drug history

Most anti-hypertensive agents and some statins are associated with a degree of erectile dysfunction. It is important to identify nitrate therapy because of interaction with phosphodiesterase inhibitors (e.g. sildenafil).

Examination

Make sure that the genitalia are normal in appearance.

Biochemical Investigation

- Testosterone
- LH / FSH
- Prolactin
- Thyroid Function
- Beta HCG
- Liver Function

These investigations may not be necessary in all patients. If abnormal, discuss with 2º care.

Treatment

- ***If the testosterone level is normal:***
  Try sildenafil 25 - 100mgs orally 1 hour before sexual activity.

- ***If testosterone is subnormal, discuss with 2º care:***
  Use androgen replacement therapy as well.
  Consider Testogel applied topically daily, or
  Sustanon 1ml by deep IM injection every 2 to 3 weeks or
  Nebido 1g every 10 - 14 weeks by deep intramuscular injection

- Advice on vacuum devices is available on the internet.

- If advice on Caverject administration is required refer to the Urology department.

- For psychological support - consider referral to the specialist psychosexual clinic at Uxbridge Health Centre.

Diabetes in Pregnancy

ALL diabetic women of child bearing age (Type 1 or Type 2)

Could they become pregnant – planned or by accident?
All women with any form of diabetes need preconception assessment and advice. Ideally, all pregnancies should be planned. Strongly advise contraception until issues have been addressed and patient and partner ready for pregnancy.

Refer all such patients to secondary care and continue there long-term until patient and consultant agree return to primary care with GP.

All women should phone Diabeticare reception 01895 279229, if they suspect they may be pregnant, for an appointment within a week.

Please check

Current contraception? Contraceptive advice needed?
Glucose control. Aim HbA1c 4.5 – 7% (26 - 53mmol/mol)
Current treatment – Diet alone? Tablets? Insulin?

Clinical review of women planning pregnancy or pregnant (in Diabeticare)

- Eyes – eye check within 3 months?
- Kidneys
- Feet – full foot screen within 3 months?
- Neuropathy
- BP
- Heart / other circulation
- Infection anywhere?
- Other medical problems
- Endocrine disease: steroid (Addison's, Cushing's, taking steroids), thyroid disease, polycystic ovarian syndrome, pituitary disease
- Validate smoking status – risk of developing pre gestational diabetes & high risk of still birth

Treatment

- Insulin for all (discuss metformin with consultant)
- All basal bolus, qds insulin. Continue glargine / detemir if on it. Start insulatard as basal if not on it, unless unable to control glucose on insulatard.
- Folic acid 5mg daily
- BP – **avoid** ACE inhibitors or A2RB's, use labetalol or methyldopa depending on obstetrician advice.
- Lipids - **avoid** statins and fibrates, use cholestyramine if essential
- Avoid aspirin unless advised by obstetrician

Investigations

- HbA1c. Fasting glucose (unless on insulin)
- U & E, LFTs, Fasting Lipids
- TFTs
- FBC
- Urine dipstick, Microalbumin: creatinine ratio (early am if possible)
- Regular review if quitting smoking

Referrals

- Preconception clinic appointment offered
- Refer to dietitian
- Refer to DSN

All pregnant smokers should have smoking status checked by midwife but refer to smoking cessation specialist midwife at Stop Smoking Service

Podiatry

Podiatry is undertaken in Community clinics and Hillingdon Hospital. Patients with acute problems such as infection, cellulitis, charcot foot or acute swelling need to be referred urgently for assessment to the Hospital based team in Diabeticare.

Patients with an increased risk of foot ulcers such as neuropathy, peripheral vascular disease, callous and abnormal foot biomechanics should be referred to Community Podiatry.

All domiciliary and nail surgery patients should be referred to the Community-based Team. Referrals can be telephoned or faxed directly to the Podiatry Team

Hospital clinics include
Diabeticare: Monday - Thursday. Tel: 01895 279229 Fax: 01895 279521
Mount Vernon Outpatients: Monday afternoon and Friday Morning

- Any foot complications (refer patients with broken skin / ulcers to Diabeticare Foot Team same day)
- Investigate vascular insufficiency and neuropathy
- Initiate wound debridement and management
- Arrange for X-ray, antibiotic cover for cellulitis or bone infection
- Arrange for effective pressure off-loading (footwear / casts and orthoses)
- Podiatry Team will provide support/ training for practices and Advice

Community based Podiatry (Refer to Podiatry Booking Office located within the Contact Centre - Elers Road Clinic) Phone number: 01895 485005 Fax: 01895 625268

- Presence of neuropathy, peripheral vascular disease, or skin / nail problems
- Patient with poor eyesight or poor mobility / dexterity
- Patients with foot arthritis or bony deformity
- Patients with previous foot surgery (e.g. amputation or bunion operation)
- Arrange for effective pressure off-loading e.g. Orthoses
- Podiatry Team will provide support / training for practices and Advice
- All patients should be referred with a copy of latest annual foot screen.

Screening for the at-risk diabetic foot in General Practice

The Podiatry Department recommends the following assessment tool in general practice. Training can be obtained by arrangement with the Podiatry Department.

Otherwise consult NICE Guidelines
Any referrals should be accompanied with a copy of your assessment.

Patients should be graded in accordance with the NICE Guidelines (January 2004):

1. Low current risk;
2. Increased risk (neuropathy or absent pulses or other risk factor);
3. High risk (neuropathy or absent pulses plus deformity or skin changes or previous ulcer);
4. Footcare emergencies and foot ulcers.

DIABETIC FOOT ASSESSMENT FORM (Page 1)

NHS	Date of Birth
Designation / Last name	
First Name	
Address	
Patient No.	Sex

Dear Dr

The above named patient was seen by a Podiatrist in the Podiatry Department at the Eastcote Health Centre on ----/ -----/-----**and received a Diabetic Foot Assessment. The results are as follows;**

SENSATION	**RIGHT**	**LEFT**
Touch (cotton wool)		
10 gm monofilaments *"+" indicates where monofilaments was felt*		
Sharp / Blunt Discrimination		
Vibration (128Hz Tuning Fork)		
Neurothesiometer (Volts)		
CIRCULATION - PULSES	**RIGHT**	**LEFT**
Anterior Tibial Artery		
Posterior Tibial		
Colour		
Temperature		
Filling Time (Secs)		

DIABETIC FOOT ASSESSMENT FORM (Page 2)

NEUROLOGICAL

Intact ☐

Reduced ☐

Neuropathy ☐

Painful Diabetic Neuropathy ☐

VASCULAR

Intact ☐

Diminished ☐

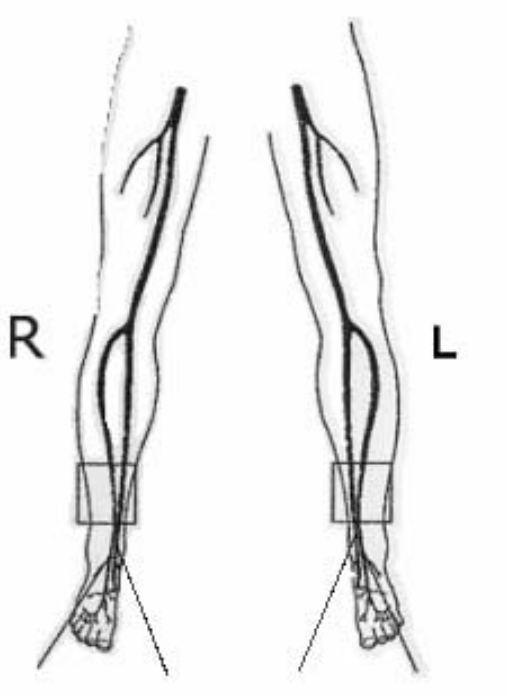
Compromised ☐

Intermittent Claudication ☐

Rest Pain ☐

DOPPLER TEST

Arm Systolic Pressure: ☐



Refer to Vascular Surgeon

Notes

Assessing Clinician:_____ Date:_____

Tissue Viability Service

Community-based Complex Wound Clinic (CWC) or Domiciliary Tissue Viability Team
Monday – Friday, 08.30 – 16.30 hours

Professional only referral
Tel: 01895 485002 Fax: 01895 484801
Patient Phone number: 01895 485002

Referral criteria

- Presence of wound above the malleolus for longer than six weeks failing to respond to treatment despite appropriate management as indicated in clinical guidelines (HHH 1998, NICE 2001, NICE 2004, NICE 2005, HPCT 2005, RCN 2006, HPCT 2009, HCH NHS Hillingdon 2010)
- Or rapidly deteriorating wound and / or uncontrolled pain.

- Patient consents to referral and must be able to stand / weight bear for CWC.

- Referral must be made on Tissue Viability Referral Form (page 36) providing information, e.g. medical history, medication, previous treatment and accompanied by copy of Health Care Professionals (HCP) assessment.

- Patients with Diabetes will be placed in a high category for response, i.e. within 5 working days.

Nature of Service Provision of Tissue Viability Service

- Holistic assessment to determine possible aetiology of wound.
- Doppler assessment to investigate vascular insufficiency.
- Referral to multidisciplinary team as necessary, i.e. Vascular Consultant, Diabeticare, Podiatry, GP.
- Outline care plan in conjunction with the patients / relative and GP.
- Total management of the patient's care is not provided but a regular review / reassessment is undertaken.
- Provide support / training advice for HCP.

References

Guidelines for Management of Patients with Leg Ulcers (HPCT 2005, NICE 2006)
Community Wound Care Guidelines (Harrow & Hillingdon Healthcare NHS Trust 1998)
NICE Guidelines in Pressure Ulcer Prevention and Management (NICE 2001)
The Management of Pressure Ulcers in Primary and Secondary Care (NICE 2005)
Type 2 Diabetes Prevention and Management of Foot Problems (NICE 2004)
Wound Management Guidelines (HCH NHS Hillingdon 2010)
Wound Dressings Formulary (HPCT 2009)

FOR OFFICE USE ONLY
Date:
Referral Accepted:
Priority: **Signed:**

Central and North West London NHS
NHS Foundation Trust

TISSUE VIABILITY REFERRAL FORM

Patient Details:					
Name		**Mr/Mrs/Miss**	**Date of Birth**		**M/F**
Address		GP/Consultant Clinic address/Ward			
Telephone No.		Telephone No.			
Named Nurse/District Nurse/Practice Nurse		H/C or GP Surgery		NHS No:	

Brief medical history	**Type of Wound (if known)**		
	Diabetic foot ulcer ❒	Pressure ulcer ❒	
	Traumatic ❒	Other (please specify)	
	Leg Ulcer ❒		
	Doppler Reading ABPi		
Medication	Right Leg **Date Taken:**	Left Leg **Date Taken**	
	Brief description of wound (position, size, etc.)		
Allergies	**Size**	**Position**	**Wound Bed**
	Duration of Wound	**Reason for Referral**	

Dressings currently used	**Level & type of compression**
Primary	
Secondary	**Current Input:** **Hospital** ❒ **Clinic** ❒ **GP Surgery** ❒
Skincare	**Professional Learning needs**
	Practitioner will attend clinic for training in future management of your patient please tick ❒

Referral for:- please tick	**Equipment used**
CLINIC ❒ DOMICILLARY ❒	e.g. pressure relieving, VAC therapy etc.

Referred by (Signature)		**Print Name**		**Date**
Designation		**Contact Tel No:**		

Transport may be available for patients seen by District Nursing Service. Yes ❒ No ❒

Tissue Viability Service, HESA Primary Care Centre, 52 Station Road, Hayes, Middlx UB3 4DD
Tel: 01895 485002 Fax: 01895 484801

Diabetes in Hillingdon
Referral Letter

Date of appointment **Date of referral**

To: Diabeticare **From:**
The Hillingdon Hospital
Uxbridge
Middlesex UB8 3NN
(T) 01895 279265 (F) 01895 279521 **(T)** **(F)**

Name Address	Date of birth NHS number Hospital number	Age
Telephone (day) Occupation	(night)	Mobile

Date of diagnosis of diabetes		**Family history**	yes / no
Symptoms thirst/polyuria/weight loss		**Other**	
Complications			
Coronary dis.	Periph. vasc. dis.	Stroke/TIA	Hypertension
Retinopathy	Cataract	Neuropathy	Nephropathy
Skin problem/ulcer	Foot problem	Infection	Ketoacidosis Hypo

Other medical history

Smoker	yes/no	Alcohol	units/week		Driver?	yes / no		
Weight		Height	BP		Urine dip			
Diagnostic glucose		Fasting	Random/2hr		HbA1c			
Chol.	Trig.	FT4	TSH		Hb	WBC	Plts	
Na	K	U	Creatinine	Bilirubin	ALT	AlkPhos	Albumin	

Treatment	**Allergies**
Signed	

Patient Questionnaire

Diabetes in Hillingdon **Your name:**

Date:

Questions for people with diabetes
Please fill in this form before you see your doctor or nurse. It is to help check how you and your diabetes are getting on.

Changes? New surname / address / phone number? Please note it here:

Do you drive? Yes / no

Have you been to hospital in the past year?
(as an in-patient or out-patient) With what?

How is your blood glucose? Don't forget to bring your record.
(OK, too high, too low?)

Have you had low sugar reactions (hypoglycaemic episode)?
Yes / no
Did you know it was happening?
Did you need help?

Have you had any of the following:

Problems with your vision	Yes / no	Soreness of vagina / penis	Yes / no
Chest pain or discomfort	Yes / no	Breathlessness	Yes / no
Problems with your feet	Yes / no	Foot rubs / blisters / cracks	Yes / no
Change in foot / toe colour	Yes / no	Foot pain	Yes / no
Tingling in hands or feet	Yes / no	Numbness in hands or feet	Yes / no
Thirst	Yes / no	Passing urine more often	Yes / no

Have you any questions you want to ask?

DESMOND REFERRAL FORM

We would like to refer the following patient to a DESMOND Course:

Practice Name	
Patient Name	
Address and Phone number	

NHS Number		**Date of Birth**	
Ethnicity/language		**Date of Diagnosis**	

Latest test results

<u>These must be filled out before referral</u>. Patient meets criteria (See below)

Glucose **or OGTT (if done) Fasting** **2 hr**
HbA1c
Total Cholesterol **HDL** **LDL**
Triglycerides

BP

BMI **or Waist Circumference**

Signed……. Date……

Please fax to Clinic Administrator Fax No. 01895 484776

Referring a Patient to DESMOND

- Confirm Diagnosis of Diabetes (2 fasting blood glucose >7 or OGTT fasting >7, 2 hour >11), NB Hba1c >6.5% is not yet an accepted form of diagnosis although this may change in the future
- Discuss with patient the benefits of attending DESMOND

If patient agrees then

- Fill out the DESMOND referral form ensuring that all the boxes are filled out (this information is used in the course)
- Please note this referral must be made within 1 year of diagnosis.
- Fax to Diabetes Clinic on 01895 484776

Hillingdon Community Health

Central and North West London NHS
NHS Foundation Trust

DIABETES NURSES REFERRAL FORM

PLEASE ENCLOSE ANY FURTHER INFORMATION IF APPROPRIATE	**Primary Care**		**Secondary Care**		**Shared Care**				
Name Mr /Mrs/ Ms		**Ethnicity**	**Date of Birth**		**M / F**				
Address			**GP/Consultant Clinic Address** **Telephone No:**						
Telephone No.		**Mobile No.**		**NHS Number**					
Brief Medical History			**Medications**						
Date Diagnosed		**Type 1 /Type 2**							
Known Allergies		**Feet /Eyes**							
Height		**Weight**		**B P**		**HbA1c**		**Chol**	
HDL		**LDL**		**eGFR**		**Smokes Day**		**Units Alcohol**	
Complications									
Reason for Referral **Home Visit Needed Yes / No Please state why** _____									
Referred By		**Print Name**		**Date**					
Designation		**Contact Tel No.**							

Diabetes Specialist Nurses – Hesa Primary Care Centre 52 Station Road Hayes Middlesex UB3 4DD
Tel: 01895 485001 Fax No. 01895 484776 (NB new number)

PATIENT REFERRAL AND UPDATE FORM

PLEASE COMPLETE FULLY IN BLOCK CAPITALS / PRINT ONLY (fax or email to address below)

<table>
<tr><td colspan="2">GP NAME:

SIGNED:

DATE COMPLETED:</td><td colspan="2">FROM: (PRACTICE STAMP/full details)

PRACTICE CODE:</td></tr>
<tr><td colspan="2">PATIENT DETAILS (COMPLETE IN FULL):</td><td colspan="2" rowspan="2">CHANGE OF CIRCUMSTANCE:
(PLEASE TICK AT LEAST ONE BOX)</td></tr>
<tr><td>NHS No.:</td><td></td></tr>
<tr><td>TITLE:</td><td></td><td rowspan="4">NEW PATIENT
(Please tick to confirm that the patient has given consent to be referred into this service and for their details to be held on the secure screening register)

DATE DIAGNOSED:</td><td rowspan="4">☐</td></tr>
<tr><td>FORENAME:</td><td></td></tr>
<tr><td>SURNAME:</td><td></td></tr>
<tr><td>DOB:</td><td></td></tr>
<tr><td>ADDRESS 1:</td><td></td><td>DECEASED</td><td>☐</td></tr>
<tr><td>ADDRESS 2:</td><td></td><td rowspan="2">NO LONGER REGISTERED WITH PRACTICE</td><td rowspan="2">☐</td></tr>
<tr><td>ADDRESS 3:</td><td></td></tr>
<tr><td>TOWN:</td><td></td><td rowspan="2">NO LONGER DIABETIC</td><td rowspan="2">☐</td></tr>
<tr><td>POSTCODE:</td><td></td></tr>
<tr><td>TEL (home):</td><td></td><td rowspan="2">HOUSEBOUND</td><td rowspan="2">☐</td></tr>
<tr><td>TEL (mobile):</td><td></td></tr>
<tr><td rowspan="2">FOR DRSS USE ONLY</td><td colspan="3">DATE RECEIVED BY DRSS:</td></tr>
<tr><td colspan="3">COMMENTS:</td></tr>
</table>

DRSS ◦ Hillingdon PCT ◦ Kirk House ◦ 97-109 High St ◦ Yiewsley ◦ Middlesex ◦ UB7 7HJ
Telephone: 01895-488-400 Fax: 01895-488-398
Email: hil-pct.drss@nhs.net
Website: www.medicalimaging.co.uk

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Websites

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www.diabetes.org.uk
NICE:
www.nice.org.uk
National Diabetes Support Team:
www.diabetes.nhs.uk

Diabetes Guidelines Update 2011 produced by:
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GP – Dr. Patricia Hurton
Community Diabetes Team Leader – Veronica Green
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