



*National Institute for  
Health and Clinical Excellence*

## Quick reference guide

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## **Type 2 diabetes**

The management of type 2 diabetes

### About this booklet

This is a quick reference guide that summarises the recommendations NICE has made to the NHS in 'Type 2 diabetes' (NICE clinical guideline 87). The guidance partially updates NICE clinical guideline 66 and replaces it. NICE clinical guideline 66 updated NICE clinical guidelines E, F, G and H (2002) and partially updated NICE technology appraisal guidance 53 (2002), 60 and 63 (2003).

This quick reference guide is for healthcare professionals and other staff who care for people with type 2 diabetes. It contains what you need to know to put the recommendations into practice.

### Who wrote the guideline?

The guideline was developed by the National Collaborating Centre for Chronic Conditions, which is based at the Royal College of Physicians. The recommendations on DPP-4 inhibitors (sitagliptin, vildagliptin), thiazolidinediones (pioglitazone, rosiglitazone), exenatide and insulin therapy were developed or updated by the Centre for Clinical Practice at NICE. The Collaborating Centre and the Centre for Clinical Practice worked with groups of healthcare professionals (including consultants, GPs and nurses), people with type 2 diabetes, and technical staff, who reviewed the evidence and drafted the recommendations. The recommendations were finalised after public consultation.

For more information on how NICE clinical guidelines are developed, go to [www.nice.org.uk](http://www.nice.org.uk)  
See page 19 for more details about this guideline.

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NICE clinical guidelines are recommendations about the treatment and care of people with specific diseases and conditions in the NHS in England and Wales.

This guidance represents the view of NICE, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. However, the guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer, and informed by the summary of product characteristics of any drugs they are considering.

Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to avoid unlawful discrimination and to have regard to promoting equality of opportunity. Nothing in this guidance should be interpreted in a way that would be inconsistent with compliance with those duties.

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## Introduction

Diabetes care is typically complex and time-consuming, drawing on many areas of healthcare management. The necessary lifestyle changes, the complexities of management, and the side effects of therapy make self-monitoring and education for people with diabetes central parts of management. This is reflected in the guideline recommendations.

## Patient-centred care

Treatment and care should take into account patients' individual needs and preferences. Good communication is essential, supported by evidence-based information, to allow patients to reach informed decisions about their care. Follow Department of Health advice on seeking consent if needed. If the patient agrees, families and carers should have the opportunity to be involved in decisions about treatment and care.

## Key priorities for implementation

### Patient education

- Offer structured education to every person and/or their carer at and around the time of diagnosis, with annual reinforcement and review. Inform people and their carers that structured education is an integral part of diabetes care.

### Dietary advice

- Provide individualised and ongoing nutritional advice from a healthcare professional with specific expertise and competencies in nutrition.

### Setting a target HbA<sub>1c</sub>

- When setting a target HbA<sub>1c</sub>:
  - involve the person in decisions about their individual HbA<sub>1c</sub> target level, which may be above that of 6.5% set for people with type 2 diabetes in general
  - encourage the person to maintain their individual target unless the resulting side effects (including hypoglycaemia) or their efforts to achieve this impair their quality of life
  - offer therapy (lifestyle and medication) to help achieve and maintain the HbA<sub>1c</sub> target level
  - inform a person with a higher HbA<sub>1c</sub> that any reduction in HbA<sub>1c</sub> towards the agreed target is advantageous to future health
  - avoid pursuing highly intensive management to levels of less than 6.5%.

### Self-monitoring

- Offer self-monitoring of plasma glucose to a person newly diagnosed with type 2 diabetes only as an integral part of his or her self-management education. Discuss its purpose and agree how it should be interpreted and acted upon.

### Starting insulin therapy

- When starting insulin therapy, use a structured programme employing active insulin dose titration that encompasses:
  - structured education
  - continuing telephone support
  - frequent self-monitoring
  - dose titration to target
  - dietary understanding
  - management of hypoglycaemia
  - management of acute changes in plasma glucose control
  - support from an appropriately trained and experienced healthcare professional.

## Patient education

Structured education is an integral part of diabetes care, and patients and carers should be informed of this. Offer it, preferably through a group education programme, to every person and/or their carer at and around the time of diagnosis, with annual reinforcement and review. Offer an alternative of equal standard to people unable or unwilling to participate in group education sessions.

### Patient education programmes

Programmes should:

- meet the quality criteria laid down by the Department of Health and Diabetes UK Patient Education Working Group (see 'Structured patient education in diabetes: report from the Patient Education Working Group'. Available from [www.dh.gov.uk](http://www.dh.gov.uk))
- meet the local cultural, linguistic, cognitive and literacy needs
- provide appropriate resources to support the educators, who should be properly trained and allowed time to develop and maintain their skills.

Ensure:

- all members of the diabetes healthcare team are familiar with local programmes
- programmes are integrated with the care pathway
- people with type 2 diabetes and their carers have the opportunity to contribute to the design and provision of local programmes.

## Dietary advice

- Provide in a form that is sensitive to the person's needs, culture and beliefs, being sensitive to their willingness to change, and effects on their quality of life.
- Integrate with diabetes management plan, including other aspects of lifestyle modification, such as increasing physical activity.
- General advice for healthy eating:
  - include high-fibre, low-glycaemic-index sources of carbohydrate
  - include low-fat dairy products and oily fish
  - control the intake of foods containing saturated fats and trans fatty acids.
- Limited substitution of sucrose-containing foods for other carbohydrate is allowable, but care should be taken to avoid excess energy intake.
- Discourage use of foods marketed specifically for people with diabetes.

### Action

- Provide individualised and ongoing nutritional advice from a healthcare professional with specific expertise and competencies in nutrition.
- Individualise recommendations for carbohydrate and alcohol intake, and meal patterns – aim to reduce risk of hypoglycaemia, particularly if using insulin or insulin secretagogues.
- Initial body weight loss target = 5–10% in an overweight person:
  - lesser amounts are still beneficial
  - losing more weight in the longer term has metabolic benefits.

### Special circumstances

- A meal-planning system providing consistency in the carbohydrate content of meals should be implemented for inpatients with type 2 diabetes.

# Assessment of blood glucose control

## HbA<sub>1c</sub>

Include in discussion	Action	Monitoring	Further investigation	Special circumstances
<p>Individual HbA<sub>1c</sub> target level, which may be above the general target of 6.5%.</p> <p>Encouragement to maintain target unless resulting side effects or efforts to achieve this impair quality of life.</p> <p>How any reduction in HbA<sub>1c</sub> towards agreed target benefits future health.</p>	<p>Offer therapy (lifestyle and medication) to help achieve and maintain HbA<sub>1c</sub> target.</p> <p>Measure using high-precision methods and report results in DCCT-aligned units.</p> <p>If HbA<sub>1c</sub> remains above target, but pre-meal self-monitoring levels remain well controlled (&lt; 7.0 mmol/litre), consider self-monitoring to detect postprandial hyperglycaemia (&gt; 8.5 mmol/litre), and manage to below this level if detected.</p>	<p>2–6 monthly (according to individual needs) until stable on unchanging therapy<sup>1</sup>.</p> <p>6-monthly once blood glucose level and blood glucose-lowering therapy are stable.</p>	<p>Seek advice from a team with specialist expertise in diabetes or clinical biochemistry if there are unexplained discrepancies between HbA<sub>1c</sub> and other glucose measurements.</p>	<p>If HbA<sub>1c</sub> result is invalid<sup>2</sup>, estimate trends in blood glucose control using one of the following:</p> <ul style="list-style-type: none"> <li>fructosamine estimation</li> <li>quality-controlled plasma glucose profiles</li> <li>total glycated haemoglobin estimation (if abnormal haemoglobins).</li> </ul>

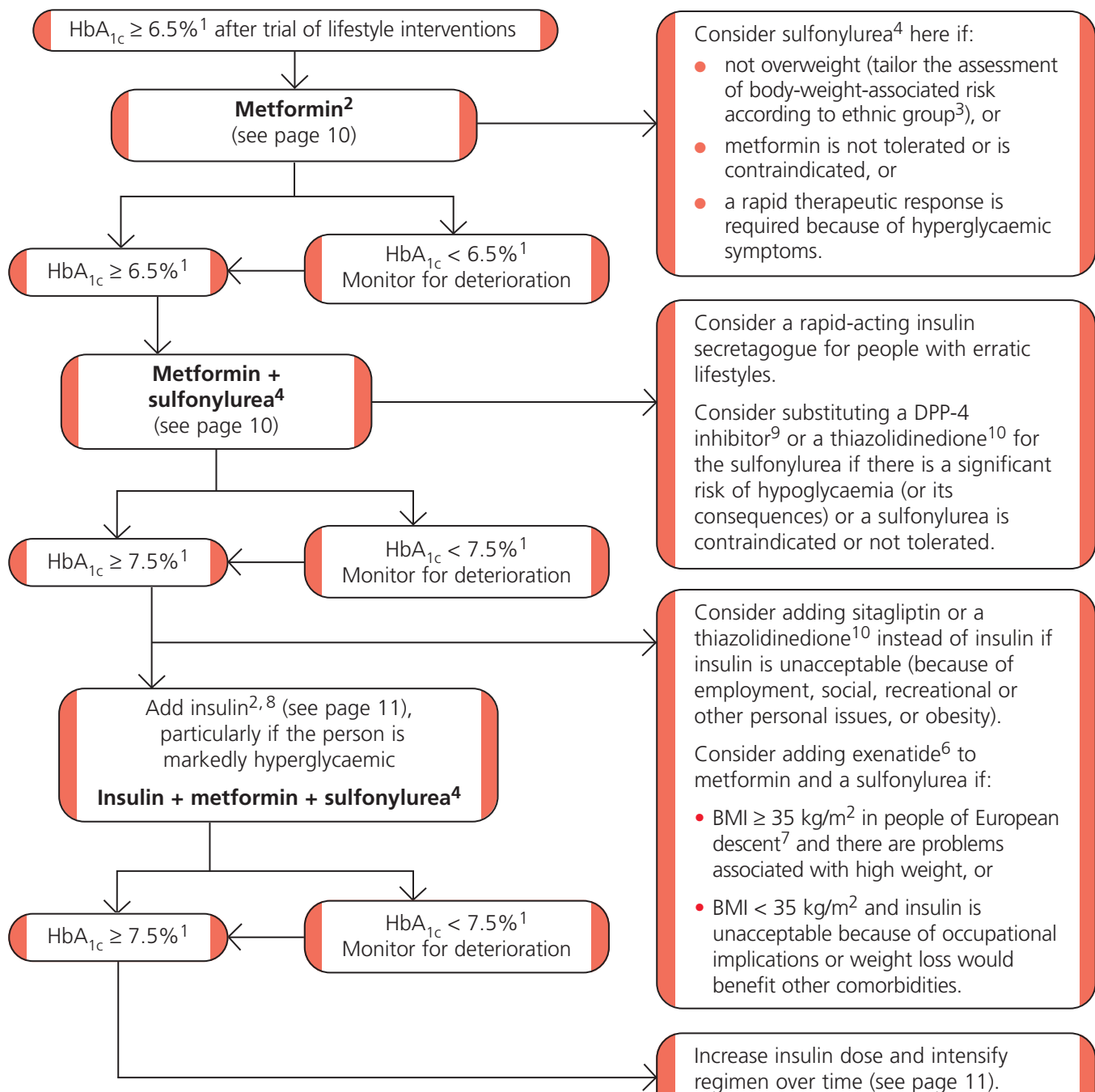
<sup>1</sup> Use measurements taken at intervals of < 3 months to indicate direction of change, rather than a new steady state.

<sup>2</sup> Disturbed erythrocyte turnover and abnormal haemoglobin type make HbA<sub>1c</sub> results invalid.

## Self-monitoring

Include in discussion	Action	Monitoring	Special circumstances
<p>Self-monitoring of plasma glucose should be available:</p> <ul style="list-style-type: none"> <li>to those on insulin treatment</li> <li>to those on oral glucose-lowering medications to provide information on hypoglycaemia</li> <li>to assess changes in glucose control resulting from medications and lifestyle change</li> <li>to monitor changes during intercurrent illness</li> <li>to ensure safety during activities, including driving.</li> </ul>	<p>The purpose of self-monitoring.</p> <p>How to interpret and act on the results.</p>	<p>Assess at least annually, and in a structured way:</p> <ul style="list-style-type: none"> <li>self-monitoring skills</li> <li>the quality and frequency of testing</li> <li>how the results are used</li> <li>the impact on quality of life</li> <li>the continued benefit</li> <li>the equipment used.</li> </ul>	<p>Discuss urine glucose monitoring if plasma monitoring is found to be unacceptable.</p>

## Blood-glucose-lowering therapy



<sup>1</sup> Or individually agreed target.

<sup>2</sup> With active dose titration.

<sup>3</sup> See the NICE clinical guideline on obesity ([www.nice.org.uk/CG43](http://www.nice.org.uk/CG43)).

<sup>4</sup> Offer once-daily sulfonylurea if adherence is a problem.

<sup>5</sup> Only continue DPP-4 inhibitor or thiazolidinedione if reduction in HbA<sub>1c</sub> of at least 0.5 percentage points in 6 months.

<sup>6</sup> Only continue exenatide if reduction in HbA<sub>1c</sub> of at least 1 percentage point and weight loss of at least 3% of initial body weight at 6 months.

Consider sulfonylurea<sup>4</sup> here if:

- not overweight (tailor the assessment of body-weight-associated risk according to ethnic group<sup>3</sup>), or
- metformin is not tolerated or is contraindicated, or
- a rapid therapeutic response is required because of hyperglycaemic symptoms.

Consider a rapid-acting insulin secretagogue for people with erratic lifestyles.

Consider substituting a DPP-4 inhibitor<sup>9</sup> or a thiazolidinedione<sup>10</sup> for the sulfonylurea if there is a significant risk of hypoglycaemia (or its consequences) or a sulfonylurea is contraindicated or not tolerated.

Consider adding sitagliptin or a thiazolidinedione<sup>10</sup> instead of insulin if insulin is unacceptable (because of employment, social, recreational or other personal issues, or obesity).

Consider adding exenatide<sup>6</sup> to metformin and a sulfonylurea if:

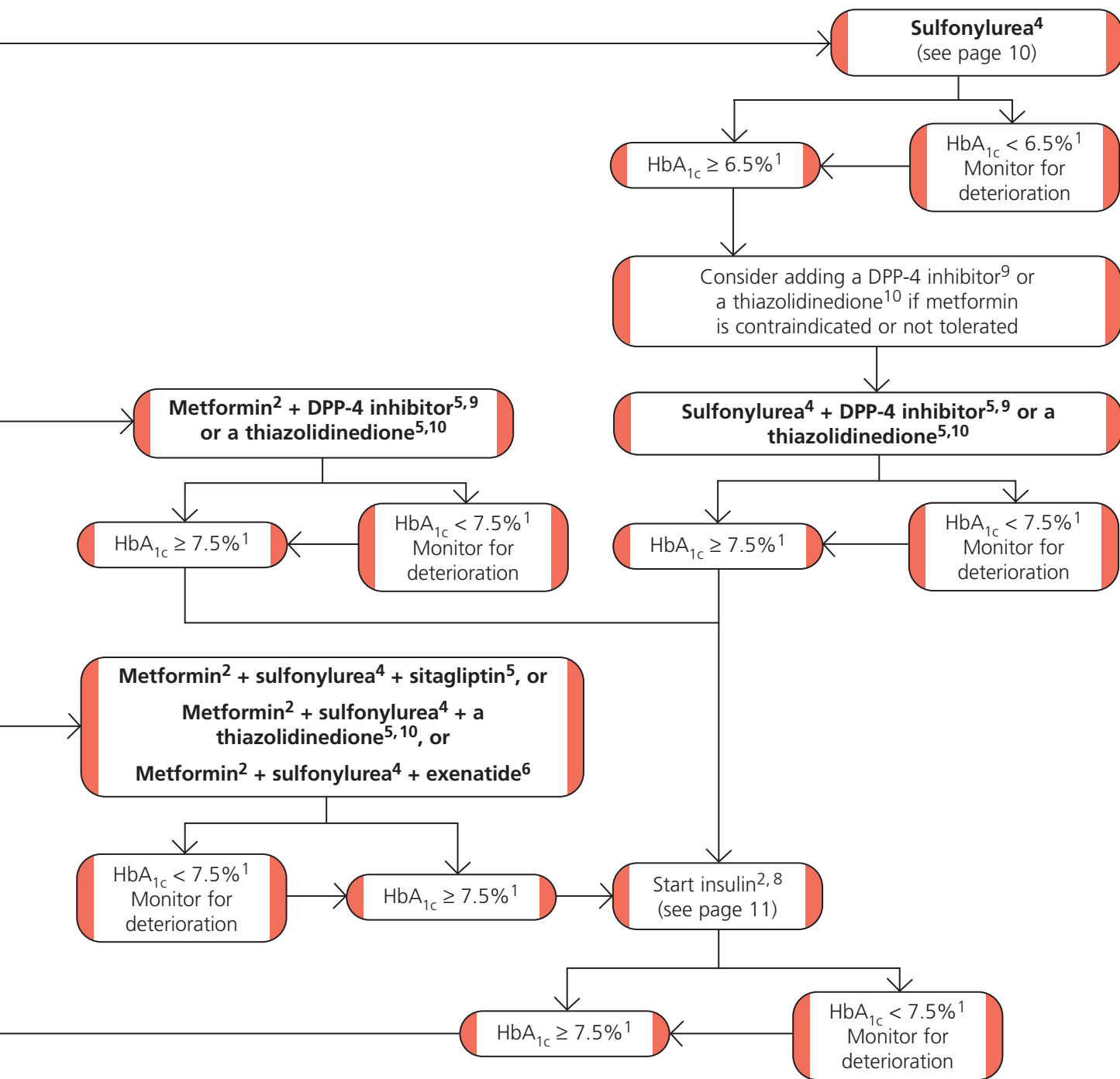
- BMI ≥ 35 kg/m<sup>2</sup> in people of European descent<sup>7</sup> and there are problems associated with high weight, or
- BMI < 35 kg/m<sup>2</sup> and insulin is unacceptable because of occupational implications or weight loss would benefit other comorbidities.

Increase insulin dose and intensify regimen over time (see page 11).

Consider pioglitazone with insulin if:

- a thiazolidinedione has previously had a marked glucose-lowering effect, or
- blood glucose control is inadequate with high-dose insulin.





<sup>7</sup> With adjustment for other ethnic groups.

<sup>8</sup> Continue with metformin and sulfonylurea (and acarbose, if used), but only continue other drugs that are licensed for use with insulin. Review the use of sulfonylurea if hypoglycaemia occurs.

<sup>9</sup> DPP-4 inhibitor refers to sitagliptin or vildagliptin.

<sup>10</sup> Thiazolidinedione refers to pioglitazone or rosiglitazone.

## Metformin

- Step up metformin over several weeks to minimise risk of gastrointestinal (GI) side effects.
- Consider trial of extended-absorption metformin if GI tolerability prevents the person continuing with metformin.
- Review metformin dose if serum creatinine > 130  $\mu\text{mol/litre}$  or estimated glomerular filtration rate (eGFR) < 45 ml/minute/1.73- $\text{m}^2$ .
- Stop metformin if serum creatinine > 150  $\mu\text{mol/litre}$  or the eGFR < 30 ml/minute/1.73- $\text{m}^2$ .
- Prescribe metformin with caution for those at risk of a sudden deterioration in kidney function, and those at risk of eGFR falling to < 45 ml/minute/1.73- $\text{m}^2$ .
- If the person has mild to moderate liver dysfunction or cardiac impairment, discuss benefits of metformin so due consideration can be given to its cardiovascular-protective effects before any decision is made to reduce the dose.

## Sulfonylureas

- Prescribe a sulfonylurea with a low acquisition cost (not glibenclamide) when an insulin secretagogue is indicated.
- Educate the person about the risk of hypoglycaemia, particularly if he or she has renal impairment.

## DPP-4 inhibitors (sitagliptin, vildagliptin)

- Continue DPP-4 inhibitor therapy only if there is a reduction of  $\geq 0.5$  percentage points in HbA<sub>1c</sub> in 6 months.
- Discuss the benefits and risks of a DPP-4 inhibitor with the person, bearing in mind that a DPP-4 inhibitor might be preferable to a thiazolidinedione if:
  - further weight gain would cause significant problems, or

- a thiazolidinedione is contraindicated, or
- the person had a poor response to or did not tolerate a thiazolidinedione in the past.

## Thiazolidinediones (pioglitazone, rosiglitazone)

- Continue thiazolidinedione therapy only if there is a reduction of  $\geq 0.5$  percentage points in HbA<sub>1c</sub> in 6 months.
- Discuss the benefits and risks of a thiazolidinedione with the person, bearing in mind that a thiazolidinedione might be preferable to a DPP-4 inhibitor if:
  - the person has marked insulin insensitivity, or
  - a DPP-4 inhibitor is contraindicated, or
  - the person had a poor response to or did not tolerate a DPP-4 inhibitor in the past.
- Do not start or continue a thiazolidinedione if the person has heart failure or is at higher risk of fracture.
- When selecting a thiazolidinedione, take into account the most up-to-date advice from regulatory authorities, cost, safety and prescribing issues.

## Exenatide

- Continue exenatide only if the person has a reduction in HbA<sub>1c</sub> of  $\geq 1.0$  percentage point and  $\geq 3\%$  of initial body weight in 6 months.
- Discuss the benefits of exenatide to allow the person to make an informed decision.

## Acarbose

- Consider acarbose for a person unable to use other oral glucose-lowering medications.

### Starting insulin therapy

- If other measures do not keep HbA<sub>1c</sub> to < 7.5% (or other agreed target), discuss benefits and risks of insulin treatment.
- Initiate with a structured programme (see detailed recommendation on page 5).
- Begin with human NPH insulin taken at bed-time or twice daily according to need.
- Alternatively, consider a once-daily long-acting insulin analogue (insulin detemir, insulin glargine) if:
  - the person needs help with injecting insulin and a long-acting insulin analogue would reduce injections from twice to once daily, or
  - the person's lifestyle is restricted by recurrent symptomatic hypoglycaemic episodes, or
  - the person would otherwise need twice-daily basal insulin injections plus oral glucose-lowering drugs, or
  - the person cannot use the device to inject NPH insulin.
- Consider twice-daily biphasic human insulin (pre-mixed) (particularly if HbA<sub>1c</sub> ≥ 9.0%). A once-daily regimen may be an option.
- Consider pre-mixed preparations of insulin analogues (including short-acting insulin analogues) rather than pre-mixed human insulin preparations if:
  - immediate injection before a meal is preferred, or
  - hypoglycaemia is a problem, or
  - blood glucose levels rise markedly after meals.
- Consider switching to a long-acting insulin analogue (insulin detemir, insulin glargine) from NPH insulin if the person:
  - does not reach target HbA<sub>1c</sub> because of hypoglycaemia, or
  - has significant hypoglycaemia with NPH insulin irrespective of HbA<sub>1c</sub> level, or

- cannot use the delivery device for NPH insulin but could administer a long-acting insulin analogue, or
- needs help to inject insulin and could reduce the number of injections with a long-acting analogue.
- Review use of sulfonylurea if hypoglycaemia occurs with insulin plus sulfonylurea.

### Intensifying the insulin regimen

- Monitor those using basal insulin regimens (NPH or a long-acting analogue [insulin detemir, insulin glargine]) for need for short-acting insulin before meals or pre-mixed insulin.
- Monitor those using pre-mixed insulin once or twice daily for need for further injection of short-acting insulin before meals or change to mealtime plus basal regimen.

### Insulin delivery devices

- Offer education to a person who requires insulin about using an injection device (usually a pen injector and cartridge or a disposable pen) that they and/or their carer find easy to use.
- If a person has a manual or visual disability and requires insulin, offer an appropriate device or adaptation that can be used successfully.
- Appropriate local arrangements should be in place for the disposal of sharps.

# Management of blood lipids

Review CV risk status annually:

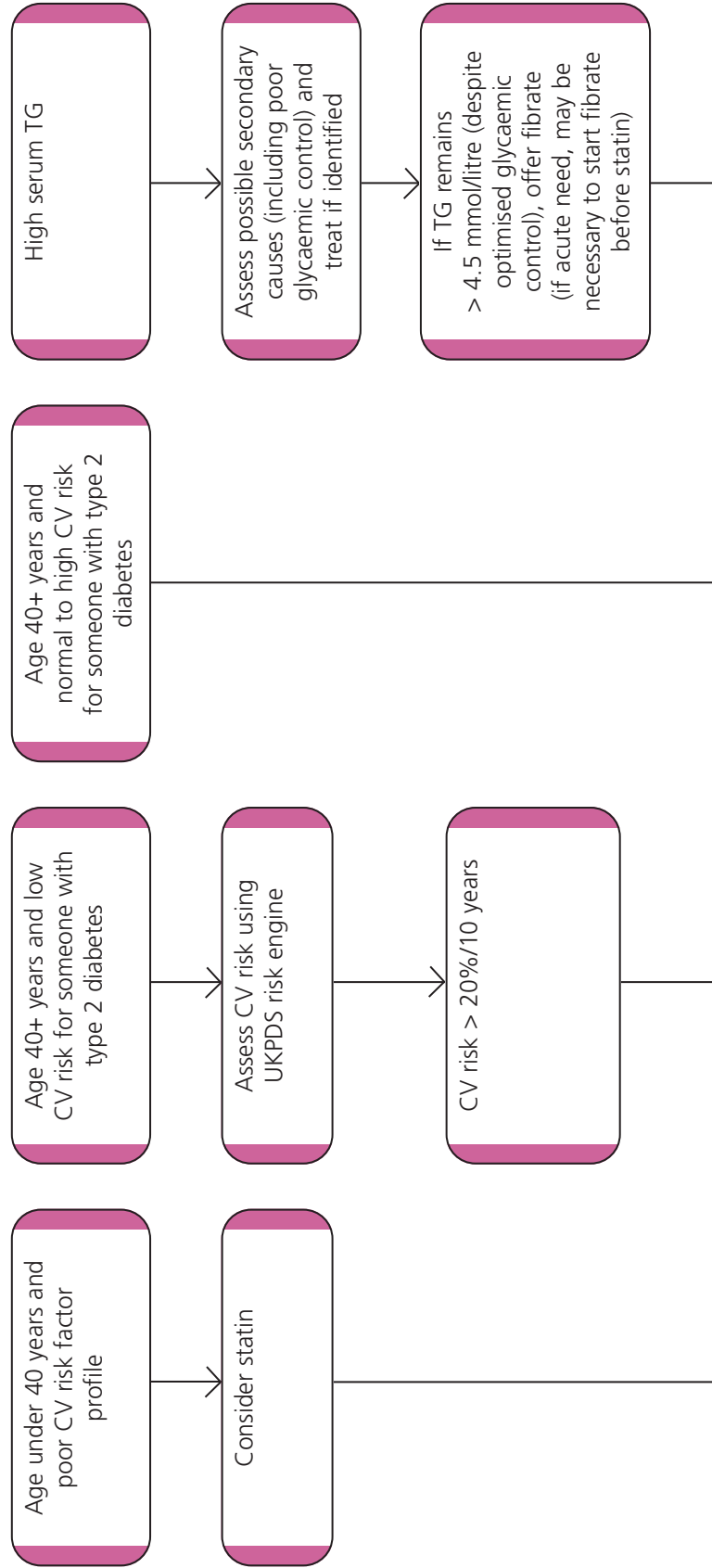
- assess risk factors, including features of metabolic syndrome and waist circumference
- note changes in personal or family CV history
- perform full lipid profile (including HDL-C and TG) – also perform after diagnosis and repeat before starting lipid-modifying therapy.

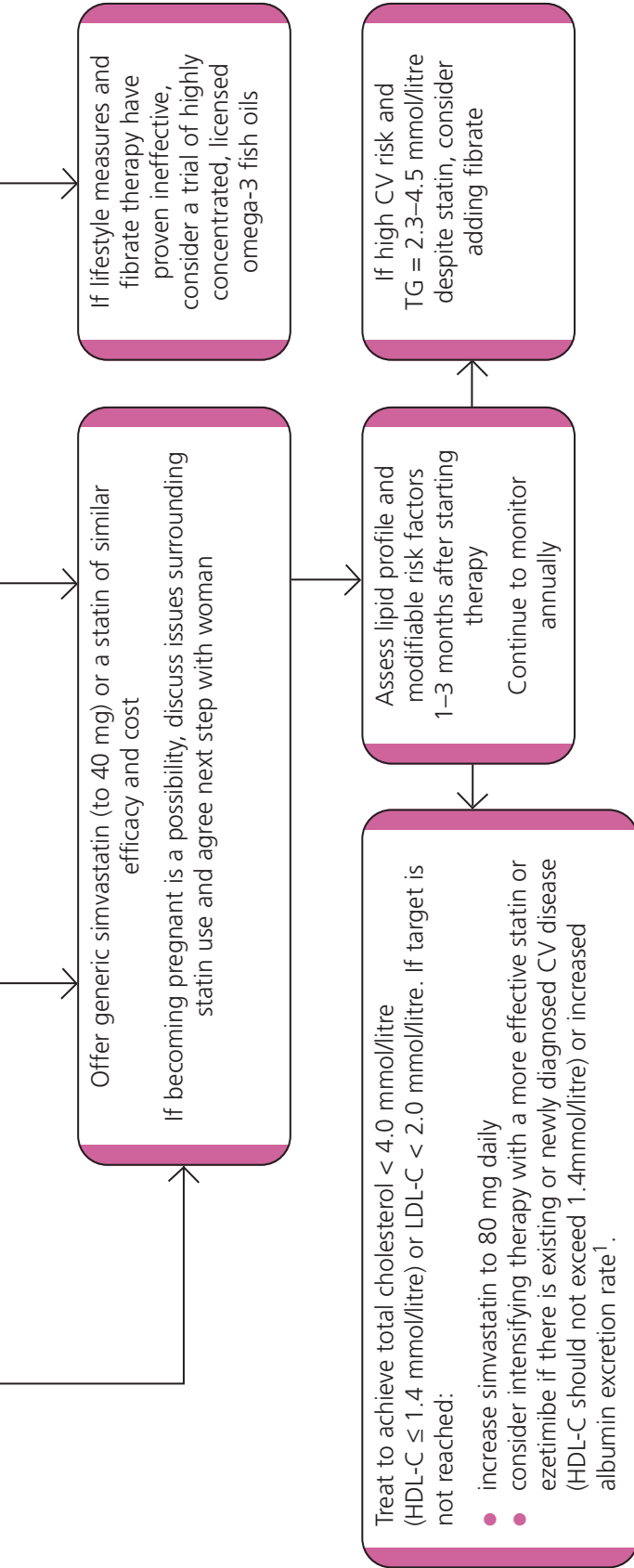
If history of elevated serum TG, perform full fasting lipid profile (including HDL-C and TG).

Consider to be at high CV risk **unless** all of the following apply:

- not overweight (tailor with body-weight-associated risk assessment according to ethnic group)
- normotensive (< 140/80 mmHg in absence of antihypertensive therapy)
- no microalbuminuria
- non-smoker
- no high-risk lipid profile
- no history of CV disease
- no family history of CV disease.

Estimate CV risk from UKPDS risk engine annually if assessed as not at high CV risk (see [www.dtu.ox.ac.uk](http://www.dtu.ox.ac.uk)).

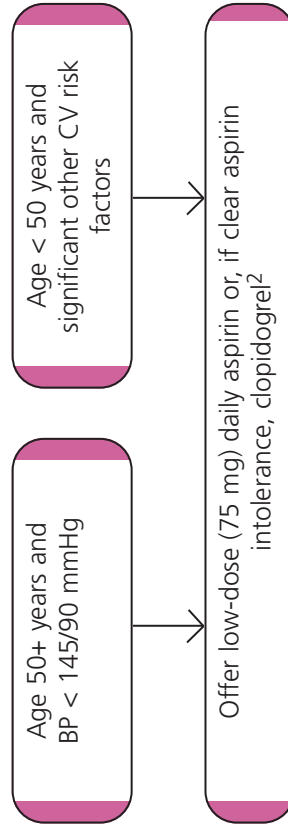




## Anti-thrombotic therapy

**Nicotinic acid**  
Do not use nicotinic acid preparations or derivatives routinely – they may have a role in those intolerant of other therapies with more extreme disorders of blood lipid metabolism when managed by a healthcare professional with specialist expertise in the area.

**Omega-3 fish oils**  
Do not prescribe fish oil preparations for primary prevention of cardiovascular disease (unless as part of specialist treatment of hypertriglyceridaemia).



CV, cardiovascular; HDL-C, high-density lipoprotein-cholesterol; LDL-C, low-density lipoprotein-cholesterol; TG, triglyceride.

<sup>1</sup> Refer to 'Statins for the prevention of cardiovascular events' (NICE technology appraisal guidance 94) and 'Ezetimibe for the treatment of primary (heterozygous familial and non-familial) hypercholesterolaemia' (NICE technology appraisal guidance 132).

BP, blood pressure; CV, cardiovascular.

<sup>2</sup> See 'Clopidogrel and modified-release dipyridamole in the prevention of occlusive vascular events' (NICE technology appraisal guidance 90).

## Blood pressure management

### Targets

- If kidney, eye or cerebrovascular damage, set a target < 130/80 mmHg.
- Others, set a target < 140/80 mmHg.

### If on antihypertensive therapy at diagnosis of diabetes

- Review BP control and medication use.
- Make changes only if BP is poorly controlled or current medications are inappropriate because of microvascular complications or metabolic problems.

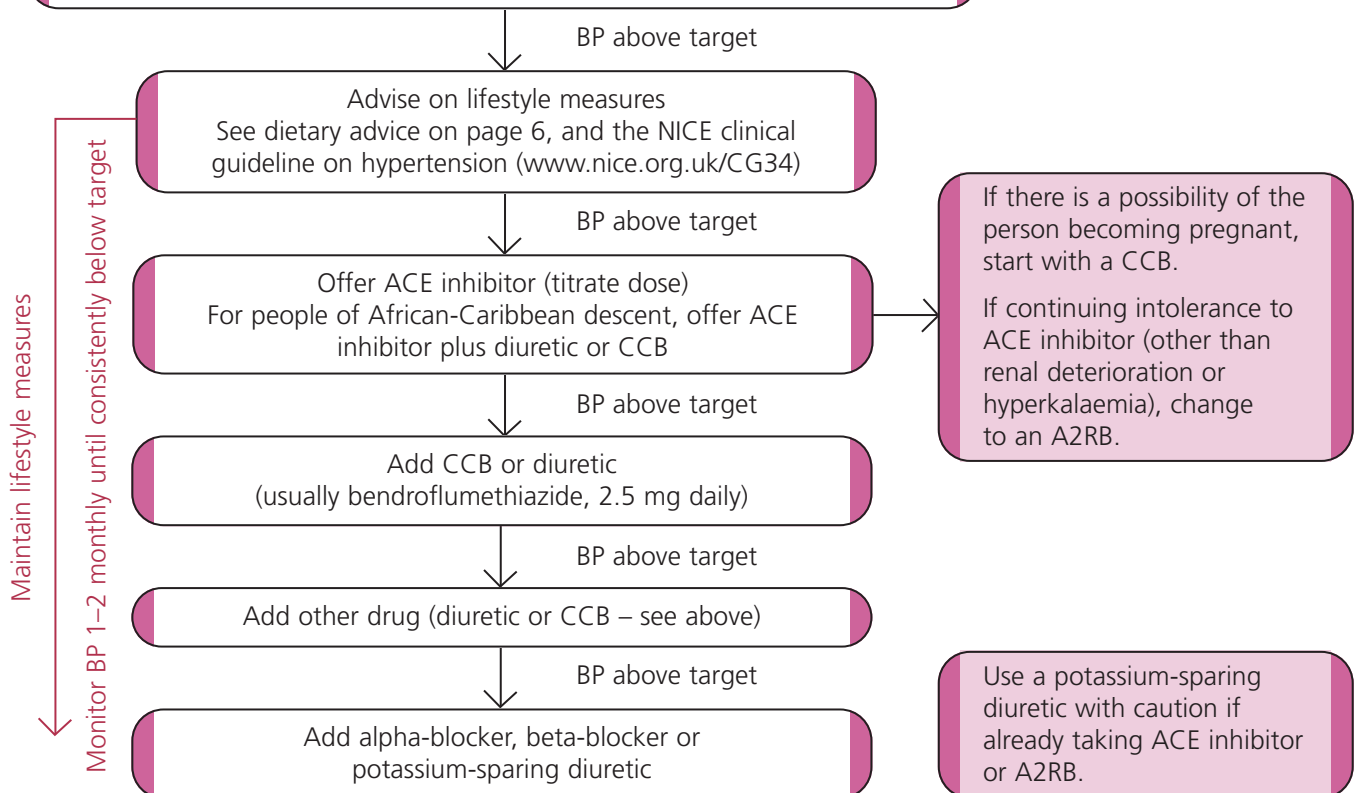
### If the person's BP reaches and consistently remains at the target

- Monitor every 4–6 months and check for possible adverse effects of antihypertensive therapy (including those from unnecessarily low blood pressure).

Measure BP annually if not hypertensive or with renal disease.

If BP > target, repeat measurement within:

- 1 month if > 150/90 mmHg
- 2 months if > 140/80 mmHg
- 2 months if > 130/80 mmHg and kidney, eye or cerebrovascular damage



Antihypertensive medications can increase the likelihood of side effects such as orthostatic hypotension in a person with autonomic neuropathy.

A2RB, angiotensin II receptor blocker; AER, albumin excretion rate; BP, blood pressure; CCB, calcium-channel blocker.

Monitoring	Further investigation	Interpretation	Action	Include in discussion
<p>Annually, regardless of presence of nephropathy:</p> <ul style="list-style-type: none"> <li>● arrange ACR estimation on first-pass urine sample (or spot sample if necessary)</li> <li>● measure serum creatinine</li> <li>● estimate GFR.</li> </ul>	<p>If abnormal ACR<sup>1</sup> (in absence of proteinuria/UTI):</p> <ul style="list-style-type: none"> <li>● repeat test at next two clinic visits and within 3–4 months</li> <li>● microalbuminuria is confirmed if at least one out of two or more results is also abnormal<sup>1</sup>.</li> </ul>	<p>Suspect renal disease other than diabetic nephropathy and consider further investigation/referral if ACR is raised and:</p> <ul style="list-style-type: none"> <li>● no significant or progressive retinopathy, or</li> <li>● BP is particularly high or resistant to treatment, or</li> <li>● heavy proteinuria (ACR &gt; 100 mg/mmol) but ACR previously documented as normal, or</li> <li>● significant haematuria, or</li> <li>● GFR has worsened rapidly, or</li> <li>● the person is systemically ill.</li> </ul>	<p>If diabetic nephropathy confirmed, offer ACE inhibitor with dose titration to maximum dose (unless not tolerated).</p> <p>Substitute an A2RB if ACE inhibitors are poorly tolerated.</p> <p>Maintain BP &lt; 130/80 mmHg if abnormal ACR (see page 14).</p>	<p>Significance of abnormal AER and trend.</p> <p>If becoming pregnant is a possibility: relative risks and benefits of ACE inhibitor so an informed decision can be made.</p>
<p>ACR, albumin:creatinine ratio; AER, albumin excretion rate; A2RB, angiotensin II receptor blocker; BP, blood pressure; GFR, glomerular filtration rate; UTI, urinary tract infection.</p> <p><sup>1</sup> Abnormal ACR = ACR &gt; 2.5 mg/mmol for men and &gt; 3.5 mg/mmol for women.</p>				

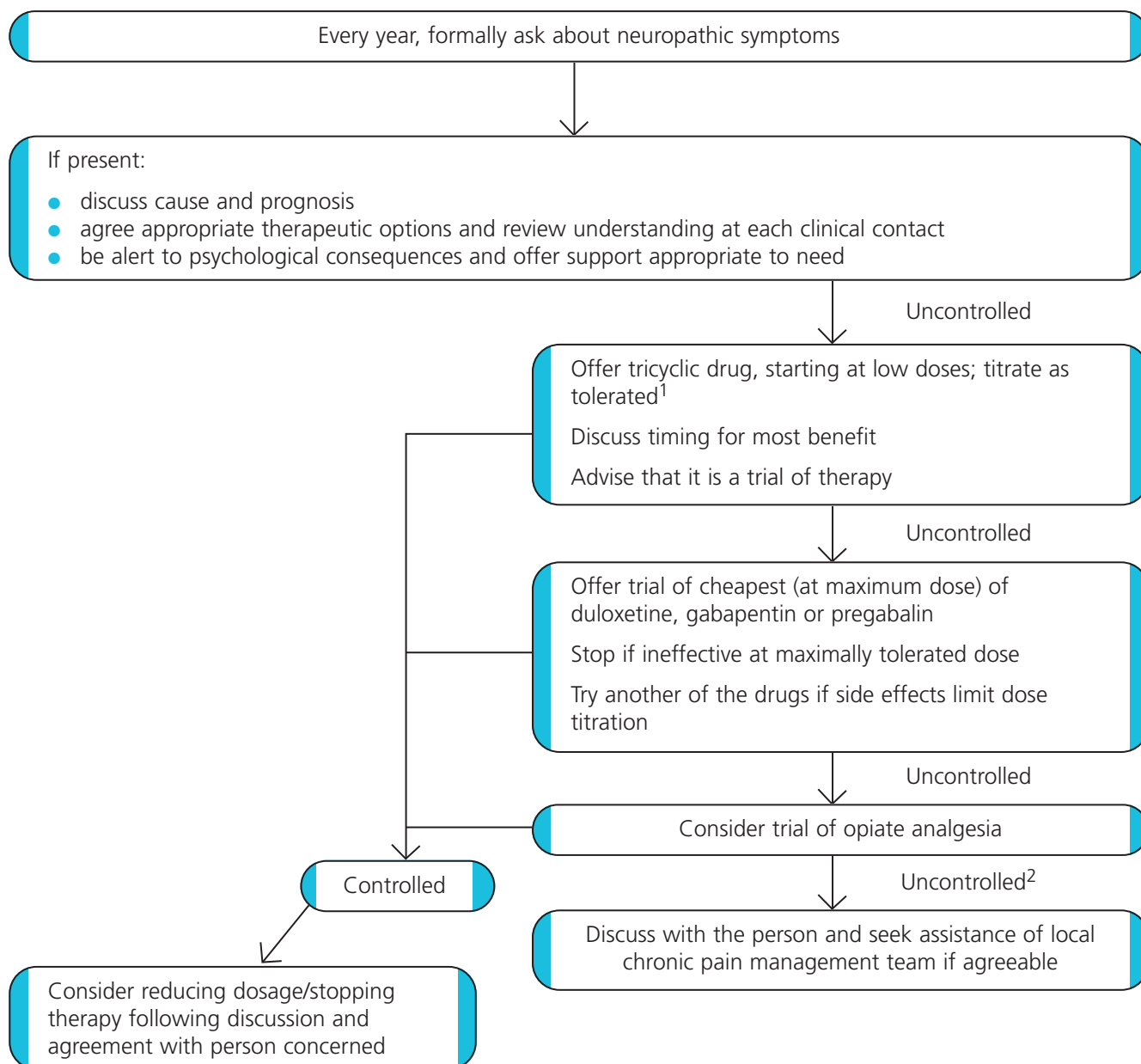
Monitoring	Include in discussion	Further investigation
<p>Arrange or perform eye screening at or around the time of diagnosis.</p> <p>Use a quality-assured digital retinal photography programme with appropriately trained staff.</p> <p>Repeat structured eye surveillance annually, unless findings require other action.</p> <p>Perform visual acuity testing as a routine part of eye surveillance programmes.</p>	<p>Reasons for and success of eye surveillance systems.</p> <p>Before appointment for eye surveillance: advantages and disadvantages of mydriasis with tropicamide for retinal photography, and precautions for driving.</p>	<p>Emergency review by ophthalmologist for:</p> <ul style="list-style-type: none"> <li>● sudden loss of vision</li> <li>● rubeosis iridis</li> <li>● pre-retinal or vitreous haemorrhage</li> <li>● retinal detachment.</li> </ul> <p>Rapid review by ophthalmologist for new vessel formation.</p> <p>Refer to ophthalmologist if:</p> <ul style="list-style-type: none"> <li>● there are features of maculopathy, including:               <ul style="list-style-type: none"> <li>– exudate or retinal thickening within one disc diameter of the centre of the fovea</li> <li>– circinate or group of exudates within the macula<sup>1</sup></li> <li>– any microaneurysm or haemorrhage within one disc diameter of the centre of the fovea, if associated with a best visual acuity of 6/12 or worse</li> </ul> </li> <li>● there are features of pre-proliferative retinopathy<sup>2</sup>, including:               <ul style="list-style-type: none"> <li>– any venous beading</li> <li>– any venous loop or reduplication</li> <li>– any intraretinal microvascular abnormalities</li> <li>– multiple deep, round or blot haemorrhages</li> </ul> </li> <li>● any unexplained drop in visual acuity.</li> </ul>

<sup>1</sup> The macula is defined here as a circle centred on the fovea, with a diameter the distance between the temporal border of the optic disc and the fovea.

<sup>2</sup> If cotton wool spots are present, look carefully for the features; cotton wool spots themselves do not define pre-proliferative retinopathy.



## Neuropathic pain management



<sup>1</sup> Tricyclic drugs can increase the likelihood of side effects such as orthostatic hypotension in a person with autonomic neuropathy.

<sup>2</sup> When neurological symptoms are not adequately controlled, it may be helpful to discuss:

- reasons for problem
- likelihood of remission in medium term
- role of improved blood glucose control.

## Other neuropathic complications

	Action	Further investigation
<p><b>Gastroparesis</b> Consider gastroparesis in adult with:</p> <ul style="list-style-type: none"> <li>erratic blood glucose control, or</li> <li>unexplained gastric bloating or vomiting.</li> </ul>	<p>Consider trial of metoclopramide, domperidone or erythromycin for an adult with gastroparesis.</p>	<p>Consider referral to specialist services if:</p> <ul style="list-style-type: none"> <li>differential diagnosis is in doubt, or</li> <li>persistent or severe vomiting occurs.</li> </ul>
<p><b>Erectile dysfunction</b> Review with men annually.</p>	<p>Provide assessment and education for a man with erectile dysfunction to address contributory factors and treatment options. If no contraindications, offer a phosphodiesterase-5 inhibitor.</p>	<p>If phosphodiesterase-5 inhibitor is ineffective, discuss next step and refer as appropriate for:</p> <ul style="list-style-type: none"> <li>medical treatment</li> <li>surgery</li> <li>psychological support.</li> </ul>
<p><b>Foot problems</b> See 'Type 2 diabetes: prevention and management of foot problems' (NICE clinical guideline 10).</p>		

## Other signs of possible autonomic neuropathy

	Sign	Consider	Action
<p>Loss of warning signs for hypoglycaemia.</p>		<p>Contributory sympathetic nervous system damage.</p>	<p>Investigate further and offer specific interventions.</p>
<p>Unexplained diarrhoea, particularly at night.</p>		<p>Autonomic neuropathy affecting gut.</p>	
<p>Unexplained bladder-emptying problems.</p>		<p>Autonomic neuropathy affecting bladder.</p>	

## Depression

Refer to the recommendations in 'Depression: management of depression in primary and secondary care' (NICE clinical guideline 23).

## Further information

### Ordering information

You can download the following documents from [www.nice.org.uk/CG87](http://www.nice.org.uk/CG87)

- The NICE guideline – all the recommendations.
- A quick reference guide (this document) – a summary of the recommendations for healthcare professionals.
- ‘Understanding NICE guidance’ – a summary for patients and carers.
- The full guidelines – all the recommendations, details of how they were developed, and reviews of the evidence they were based on.

For printed copies of the quick reference guide or ‘Understanding NICE guidance’, phone NICE publications on 0845 003 7783 or email [publications@nice.org.uk](mailto:publications@nice.org.uk) and quote:

- N1863 (quick reference guide)
- N1864 (‘Understanding NICE guidance’).

### Implementation tools

NICE has developed tools to help organisations implement this guidance (see [www.nice.org.uk/CG87](http://www.nice.org.uk/CG87)).

### Related NICE guidance

For information about NICE guidance that has been issued or is in development, see [www.nice.org.uk](http://www.nice.org.uk)

#### Published

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### Updating the guideline

This guideline will be updated as needed, and information about the progress of any update will be available at [www.nice.org.uk/CG87](http://www.nice.org.uk/CG87)

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