

GUIDELINES

An approach to managing diabetes

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History

Classical symptom presentation:

Polyuria
Polydipsia
Thirst
Weight loss
General malaise
Fatigue
Characteristic breath
Recurrent infection

Less common presentation:

Peripheral vascular disease
Motor, sensory or autonomic
Neuropathy
Visual changes
Impotence

High risk individuals:

Women with large
birthweight babies
Overweight
Medication history:
• steroids
• thiazides
Family history
Ethnic groups:
• Aborigines
• Pacific races
• Maltese

When the blood sugar level confirms the diagnosis of diabetes mellitus, the following should be undertaken.

Examination

A full physical examination should be undertaken paying particular attention to:

Cardiovascular system:

- blood pressure lying and standing
- peripheral circulation
- heart sounds
- carotid bruits
- renal bruits
- blood pressure
- peripheral circulation

Eyes:

- fundi
- acuity
- cataracts

Neurological system:

- sensation
- autonomic function
- reflexes
- vibration sense
- proprioception

Skin:

- evidence of infection;

Feet:

- condition of skin, nails
- edema

Urine:

- albumin
- ketones
- nitrites
- glucose

Weight/height (BMI)

Investigations

As part of screening a newly diagnosed diabetic, the following baseline tests should be undertaken.

Blood screen:

- urea
- creatinine
- lipid pattern
- liver function
- ECG
- Midstream urine microscopy
 - Culture and sensitivity if infection suspected.

Treatment

Any person with this diagnosis will benefit from the involvement of other service providers (team approach). Such patients require education (often repeated) about the diagnosis, its implications, and appropriate care. When available, a diabetes educator is often the best person to fulfill this need. Referral to the following is normally beneficial:

ophthalmologist
dietitian

Referral to a podiatrist will be beneficial for those with diabetic neuropathy or peripheral vascular disease. If a diagnosis of type I diabetes is made, urgent referral to an endocrinologist or suitable general physician should occur for stabilization of blood sugar levels with insulin.

It is generally appropriate that cases of type II diabetes be managed by the treating general practitioner, **utilizing diet and hypoglycemic agents** when needed. Appropriate hypoglycaemic agents are:

- metformin (a biguanide) initial dose 500 mg twice daily increasing to 1 g. This is generally an appropriate first choice agent but because of the

risk of lactic acidosis, is relatively contraindicated in the elderly and those with significant renal, hepatic or peripheral vascular disease or with severe cardiac or respiratory failure.

- sulfonylureas may be used in combination with metformin. Alternatives include glibenclamide (2.5–20 mg per day in one or two divided doses), gliclazide (40–320 mg per day in one or two divided doses), glipizide (2.5–4.0 mg per day in one or two divided doses) and tolbutamide (500 mg–3 g per day in two or three divided doses). If the desired effect is not obtained with a sulfonylurea, it is most unlikely that changing to a different one will gain this effect.
- acarbose. This should be taken with the first mouthful of each meal. Dosage should commence at 50 mg with the first mouthful of the evening meal and increase by 50 mg per week, taken with meals, to a maximum of 100 mg three times a day.

It needs to be ensured that the benefits and use of monitoring, generally by glucometer, are understood and complied with whatever possible.

Advice

- Team approach is important.
- Better control will delay complications.
- Need for monitoring, benefits of home glucometer use.
- Information about blood sugar levels at which the patient should be concerned.
- Need for regular review.
- How to recognize hypoglycemia and what to do.

- Return early if infection occurs.
- Be very careful of feet; benefits of podiatry.
- Benefits of joining Diabetes Australia.
- Benefits of regular exercise.
- Benefits of weight control.
- Benefits of smoking cessation.
- Need to use alcohol in moderation.

Follow-up

Will need to occur weekly, or more often, until control is established and the patient is able to effectively understand, accept and manage the condition.

Diabetes – checkup

A checkup should occur three monthly for patients with diabetes mellitus.

The following should be reviewed:

History

- Medication problems
- Compliance with medication
- Home blood glucose testing and record of blood glucose
- Hypoglycemia
- Appetite
- Weight change
- Diet

- Risk factors, e.g., Smoking, alcohol.
- Feet
- Breathlessness
- Vision
- Urine
- Exercise
- Impotence
- Any other problems

	3 monthly	6 monthly	Annually
Examinations	General appearance Blood pressure Peripheral pulses Urine of albumin, nitrites Weight	Fundi	Full check up as per initial assessment But also including: <ul style="list-style-type: none"> • Neurological examination • Abdominal examination
Investigations	Glycosylated hemoglobin if poor control	Glycosylated hemoglobin if good control	Lipids (more often may be needed) Ophthalmologist Urea Creatinine Liver function ECG Urine for microalbuminuria

Note: These may only be needed 2–3 yearly depending on the particular patient.

Treatment and advice

Frequently no change will be required.
Refer as needed for care to other members of the diabetes management team.
Reinforce need for smoking cessation.
Reinforce need for moderation of alcohol intake.
Review understanding of diabetes education as required.

Adapted with permission from:
Steven ID. Patient presentations in General Practice: a comprehensive guide to diagnosis and management. McGraw Hill Australia, 1999; 379–383.