SCREEning & DiagnoSiS

Who to screen and what do you screen with?

Screen every 3 years in individuals ≥40 years of age or in individuals at high risk using a risk calculator.

Screen earlier and/or more frequently in people with additional risk factors for diabetes or for those at very high risk using a risk calculator.

BlooD GlUcoSe-loWeRing tHeRaPieS (tYPe 2 DiaBeteS)

Start metformin immediately

Consider initial combination

Start/Increase metformin

Initiate insulin +/- metformin

Make timely adjustments to attain target A1C within 3 to 6 months

At diagnosis of type 2 diabetes

Start lifestyle intervention (nutrition therapy and physical activity) +/- Metformin

A1C <8.5% A1C ≥8.5%

Symptomatic hyperglycemia with metabolic decompensation

Add an agent best suited to the individual:

Patient Characteristics

• Degree of hyperglycemia

• Risk of hypoglycemia

• Overweight or obese

• Comorbidities (renal, cardiac, hepatic)

• Preferences and access to treatment

• Other

Agent Characteristics

• BG lowering efficacy and durability

• Risk of inducing hypoglycemia

• Effect on weight

• Contraindications and side effects

• Cost and coverage

• Other

If not at target (2-3 mos)

If not at glycemic target

Add an agent best suited to the individual (agents listed in alphabetical order):

Class A1C Hypo- Weight Other Cost

lowering glycemia considerations

Alpha-glucosidase

Rare neutral to improved$$

inhibitor to postprandial control, GI side effects

Incretin agents:

DPP-4 Inhibitors

 Rare neutral to $$$

GLP-1 receptor $$

agonists

Insulin

Yes $$

Flexi- to $$

c regimens

Insulin

secretagogue:

Meglitinide

Yes $$

Less hypoglycemia in $$

context of missed meals

Requires TID to QID dosing

Sulfonylurea

Yes $$

Gliclazide and glimepiride associated with less hypoglycemia than glyburide

Thiazolidinedione

Rare $$

CHF, edema, fractures, $$$

rare bladder cancer (pioglitazone), cardiovascular controversy (rosiglitazone), 6-12 weeks required for maximal effect

Weight loss

None $$

GI side effects $$$

agent (orlistat)

What A1C Should I Target?

≤ 7%

Most patients with type 1 and type 2 diabetes

6.0%

> 7%

Consider 7.1-8.5% if:

• Limited life expectancy

• High level of functional dependency

• Extensive coronary artery disease at high risk of ischemic events

• Multiple co-morbidities

• History of recurrent severe hypoglycemia

• Hypoglycemia unawareness

• Longstanding diabetes for whom it is difficult to achieve an A1C ≤7%, despite effective doses of multiple antihyperglycemic agents, including intensified basal-bolus insulin therapy

A target A1C ≤6.5% may be considered in some patients with type 2 diabetes to further lower the risk of nephropathy and retinopathy which must be balanced against the risk of hypoglycemia

The ABCDEs

A – ACEi or ARB

S – Statin

A – ASA if indicated

E – Exercise – regular physical activity, healthy diet, achievement and maintenance of healthy body weight

S – Smoking cessation

See next panel for algorithm

Diagnosis of Prediabetes & Diabetes

Test FPG (mmol/L) Result

No caloric intake for at least 8 hours

6.1 – 6.9 IFG

≥7.0 Diabetes

2hPG in a 75 g OGTT (mmol/L)

7.8 – 11.0 IGT

≥11.1 Diabetes

A1C (%) Standardised, validated assay, in the absence of factors that affect the accuracy of A1C and not for suspected type 1 diabetes

6.0 – 6.4 Prediabetes

≥6.5 Diabetes

Random PG (mmol/L)

≥11.1 Diabetes

If asymptomatic, a repeat confirmatory test (FPG, A1C, or a 2hPG in a 75 g OGTT) must be done. If symptomatic, diagnosis made, and begin treatment.

Recommendations for Vascular Protection for all patients with diabetes:

A – A1C – optimal glycemic control (usually ≤7%)

B – BP – optimal blood pressure control (<130/80 mmHg)

C – Cholesterol – LDL-C ≤2.0 mmol/L if decision made to treat

D – Drugs to protect the heart (see algorithm)

E – Exercise – regular physical activity, healthy diet, achievement and maintenance of healthy body weight

S – Smoking cessation