

## Does this patient require vascular protective medications?

### STEP 1: Does the patient have end organ damage?

- Macrovascular disease
- Cardiac ischemia (silent or overt)
  - Peripheral arterial disease
  - Cerebrovascular/Carotid disease

YES

OR

- Microvascular disease
- Retinopathy
  - Nephropathy (ACR  $\geq 2.0$ )
  - Neuropathy

YES

NO

### STEP 2: What is the patient's age?

- $\geq 55$  years

YES

OR

- 40-54 years

YES

NO

### STEP 3: Does the patient...

- Have diabetes >15 years AND age >30 years
- Warrant statin therapy based on the 2012 Canadian Cardiovascular Society Lipid Guidelines

YES



See next panels for recommendations on vascular protection, women of childbearing age, and the frail elderly.

\* Dose adjustments or additional lipid therapy warranted if lipid target (LDL-C  $\leq 2.0$  mmol/L) not being met.  
 # ACE-inhibitor or ARB (angiotensin receptor blocker) should be given at doses that have demonstrated vascular protection [eg. perindopril 8 mg once daily (EUROPA trial), ramipril 10 mg once daily (HOPE trial), telmisartan 80 mg once daily (ONTARGET trial)].  
 ASA should not be used for the primary prevention of cardiovascular disease in people with diabetes. ASA may be used for secondary prevention.

## In women of childbearing age (type 1 or type 2 diabetes)...

- Discuss pregnancy plans at **every visit**
- Pregnancies **should be planned**
- **Prior to conception**
  - **A1C  $\leq 7.0\%$**
  - **Start...**
    - **Folic acid** 5 mg per day x 3 months preconception
  - **Stop...**
    - **Non-insulin antihyperglycemic agents** (except metformin in women with polycystic ovarian syndrome)
    - **Statins**
    - **ACEi or ARB** either prior to or upon detection of pregnancy
- **Screen for complications** (eye appointment, urine ACR)

## In the frail elderly or those with limited life expectancy...

- Potential benefits of treatment must be balanced against the potential risks of harm (eg. hypoglycemia, hypotension, falls)
- Target A1C  $\leq 8.5\%$

## PROMOTE SELF-MANAGEMENT

Self-Management Education (SME) should be discussed at every diabetes-focused visit and individualized according to type of diabetes, patient ability, and motivation for learning and change

### Set S.M.A.R.T. Goals

Specific Measurable Achievable Realistic Timely

Self-Management Areas of Focus	Collaborate with your patient to create an action plan on their identified area of focus
<b>Diabetes Education</b>	Enable timely, culturally and literacy appropriate diabetes education and resources
<b>Nutrition</b>	Encourage to follow <i>Eating Well with Canada's Food Guide</i> and refer for dietary counseling
<b>Physical Activity</b>	Minimum 150 minutes aerobic activity per week and resistance exercise 2-3 times per week
<b>Weight loss (5-10% of initial weight)</b>	Can substantially improve glycemic control and cardiovascular disease risk factors in overweight patients
<b>Medication</b>	Counsel about adherence (dose, timing, frequency), anticipated effects, and mechanism of action
<b>Hypoglycemia</b>	Counsel about the prevention, recognition, and treatment of drug-induced hypoglycemia
<b>Self-Monitoring Blood Glucose (SMBG)</b>	<b>Not on insulin:</b> Individualized to type of antihyperglycemic agents, level of control, and risk of hypoglycemia <b>On insulin only once a day:</b> SMBG $\geq$ once a day at variable times <b>On insulin &gt; once a day:</b> SMBG $\geq$ 3 times per day including pre- and post-prandial values
<b>Foot Care</b>	Educate on proper foot care including daily foot inspection
<b>Mental Health &amp; Mood Disorders</b>	Screen for depressive and anxious symptoms by interview or a standardized questionnaire (eg. PHQ-9) <a href="http://www.phqscreeners.com">www.phqscreeners.com</a>
<b>Smoking Cessation</b>	Include formal smoking prevention and cessation counseling

## PATIENT SME ACTION PLAN

- **Date:**
- **The change I want to make happen is:**
- **My goal for the next month is:**
- **Action Plan:** The specific steps I will take to reach my goal (what, when, where, how often):
- **Things that could make it difficult to achieve my goal:**
- **My plan for overcoming these challenges are:**
- **Support and resources I will need:**
- **How important is it to me that I achieve my goal?** (scale of 0 to 10, with 0 being not important at all and 10 being extremely important):
- **How confident am I that I can achieve my goal?** (scale of 0 to 10, with 0 being not confident at all and 10 being extremely confident):
- **Review date:**

## TEAM CARE & ORGANIZATION OF CARE

### The Five 'Rs'

#### Recognize:

Consider diabetes risk factors for all of your patients and screen appropriately for diabetes.

#### Register:

Develop a registry or a method of tracking all your patients with diabetes.

#### Resource:

Support self-management through the use of interprofessional teams which could include the primary care provider, diabetes educator nurse, pharmacist, dietitian, and other specialists.

#### Relay:

Facilitate information sharing between the person with diabetes and team members for coordinated care and timely management change.

#### Recall:

Develop a system to remind your patients and caregivers of timely review and reassessment of targets and risk of complications.

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# 2013 Clinical Practice Guidelines Quick Reference Guide

(Updated November 2016)



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Canadian Diabetes Association

[guidelines.diabetes.ca](http://guidelines.diabetes.ca)  
[diabetes.ca](http://diabetes.ca) | 1-800-BANTING (226-8464)

## SCREENING & DIAGNOSIS

### Who to screen and what do you screen with?

Screen every 3 years in individuals  $\geq 40$  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.

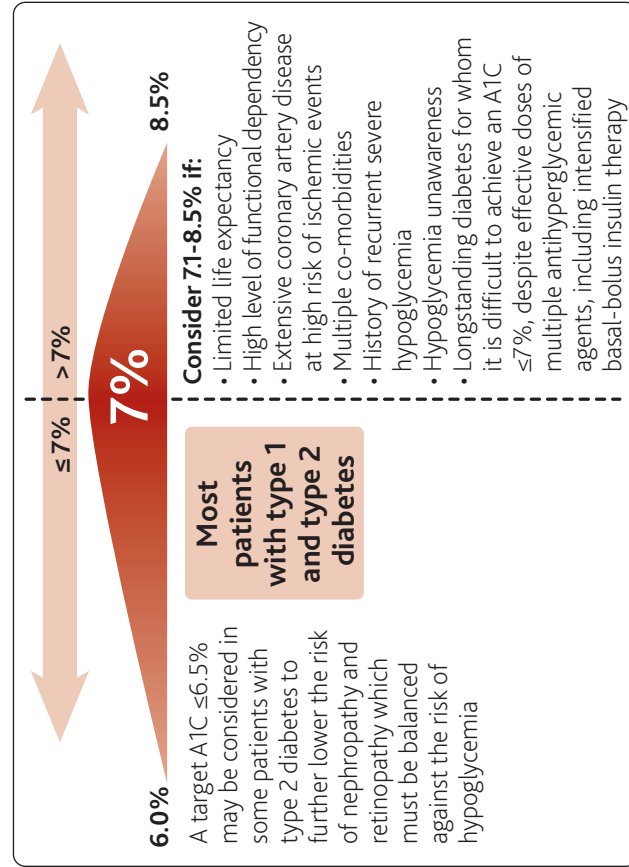
## DIAGNOSIS OF PREDIABETES & DIABETES

Test	Result	Dysglycemia category
FPG (mmol/L) No caloric intake for at least 8 hours	6.1 – 6.9	IFG
	$\geq 7.0$	Diabetes
2hPG in a 75 g OGTT (mmol/L)	7.8 – 11.0	IGT
	$\geq 11.1$	Diabetes
A1C (%) Standardized, 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
	$\geq 6.5$	Diabetes
Random PG (mmol/L)	$\geq 11.1$	Diabetes

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

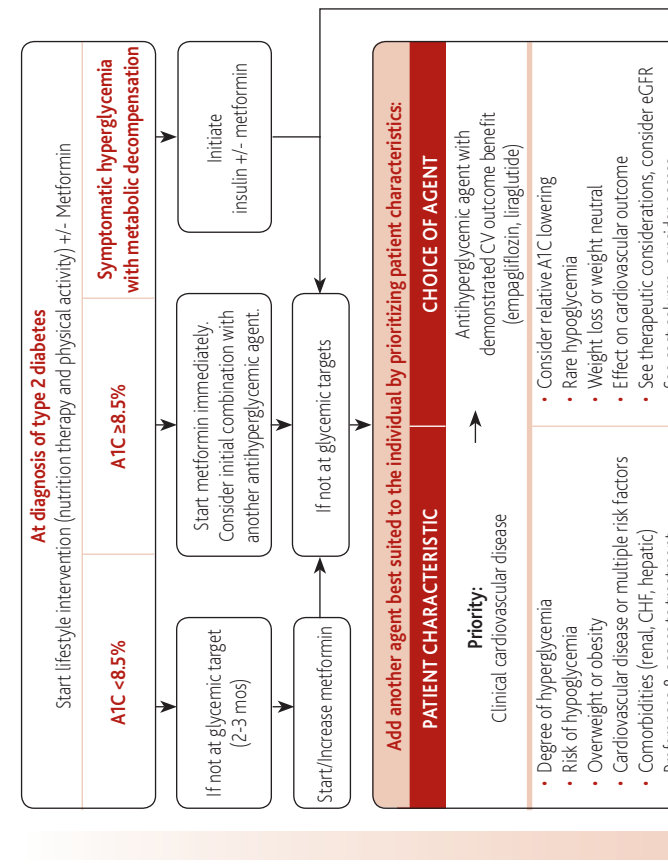
Panel 1

## WHAT A1C SHOULD I TARGET?



Panel 2

## BLOOD GLUCOSE-LOWERING THERAPIES (TYPE 2 DIABETES)



Panel 3

**Add another class of agent best suited to the individual (classes listed in alphabetical order):**

Class	Relative A1C Lowering	Hypo-glycemia	Weight	Effect in Cardiovascular Outcome Trial	Other therapeutic considerations	Cost
Alpha-glucosidase inhibitor (acarbose)	↓	Rare	Neutral to ↓		Improved postprandial control, GI side-effects	\$\$
DPP-4 Inhibitors	↓↓	Rare	Neutral to ↓	alo, saxa, sita: Neutral	Caution with saxagliptin in heart failure	\$\$\$
GLP-1R agonists	↓↓ to ↓↓↓	Rare	↓↓	lira: Superiority in TZDM patients with clinical CVD lixi: Neutral	GI side-effects	\$\$\$\$
Insulin	↓↓↓	Yes	↑↑	glar: Neutral	No dose ceiling, flexible regimens	-\$-\$\$\$\$
<b>Insulin secretagogue:</b> Meglitinide	↓↓	Yes	↑		Less hypoglycemia in context of missed meals but usually requires TID to QID dosing	\$\$
Sulfonylurea	↓↓	Yes	↑		Gliclazide and glibenclamide associated with less hypoglycemia than glyburide	\$
SGLT2 inhibitors	↓↓ to ↓↓↓	Rare	↓↓	empa: Superiority in TZDM patients with clinical CVD	Genital infections, UTI, hypotension, dose-related changes in LDL-C, caution with renal dysfunction and loop diuretics; dapagliflozin not to be used if bladder cancer, rare diabetic ketoacidosis (may occur with no hyperglycemia)	\$\$\$
Thiazolidinediones	↓↓	Rare	↑↑	Neutral	CHF, edema, fractures, rare bladder cancer (pioglitazone), cardiovascular controversy (rosiglitazone), 6-12 weeks required for maximal effect	\$\$
Weight loss agent (orlistat)	↓	None	→		GI side-effects	\$\$\$

alo=alogliptin; empa=empagliflozin; glar=glargine; lira=liraglutide; lixi=lixisenatide; saxa=saxagliptin; sita=sitagliptin

If not at glycemic targets

• Add another agent from a different class • Add/intensify insulin regimen

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

Panel 4

Panel 5

## RECOMMENDATIONS FOR VASCULAR PROTECTION

### For all patients with diabetes:

#### The ABCDEs

**A A1C** – optimal glycemic control (usually  $\leq 7\%$ )

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

**C Cholesterol** – LDL-C  $\leq 2.0$  mmol/L if decision made to treat

**D Drugs** to protect the heart (see algorithm)

A – ACEi or ARB  
S – Statin  
A – ASA if indicated

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

**S Smoking** cessation

See next panel for algorithm.

Panel 6