

# Canadian Diabetes Association Clinical Practice Guidelines 2013 Updates

*These are some changes to the CDA Clinical Practice Guidelines that we thought were interesting. Naturally, this is not comprehensive.*



*All our information is from [guidelines.diabetes.ca](http://guidelines.diabetes.ca). Head there for more comprehensive information and to see their handy tools, which we'll point out along the way!*

## Changes to Diagnoses

Diagnostic Test	Positive Result for Diabetes	Notes
FPG	$\geq 7.0$ mmol/L	No caloric intake for $\geq 8$ hours
2hPG in a 75 g OGTT	$\geq 11.1$ mmol/L	
Random PG	$\geq 11.1$ mmol/L	If used for diagnosis, must use other test for confirmation
A1C	$\geq 6.5\%$	Not valid: <ul style="list-style-type: none"> <li>In non-elderly adults</li> <li>Patients with hemoglobinopathies, iron deficiencies, hemolytic anemia, severe renal/hepatic disease</li> <li>Patients of Asian, Hispanic, or Native American descent</li> </ul>

### Confirmed Diagnosis of Diabetes

- One positive test in presence of diabetic symptoms
- Two positive tests
  - Different test on the same day
  - Same test on different days

*Head to the **Screening & Diagnosis** > **Screening for and Diagnosing Diabetes** for a handy tool (...coming soon!)*

*The big change here is the addition of A1C!*



### Diagnosis of Prediabetes

FPG	6.1-6.9 mmol/L
2hPG in a 75 g OGTT	7.8-11.0 mmol/L
A1C	6.0-6.4 mmol/L

### Diagnosis of Nephropathy Both Genders

Microalbuminuria	ACR $\geq 2.0$ mg/mmol
Macroalbuminuria	ACR $\geq 20$ mg/mmol

# Changes to A1C Targets

$\leq 6.5\%$

- Some T2DM patients who require further risk reduction of nephropathy and retinopathy

$\leq 7.0\%$

- Most patients (over the age of 13 years old)

7.1-8.5 %

- 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  $\leq 7\%$  despite effective doses of multiple antihyperglycemic agents, **including** intensified basal-bolus insulin therapy

*You'll notice that not everyone is shooting for an A1C of 7.0% now! When aiming for a target lower than 7.0%, consider the risk of hypoglycemia!*



*See **Blood Glucose Lowering** > Individualizing your Patient's A1C Target for a tool to visualize your patient's target!*

# Changes to Treatment

*This is much easier now! Pretty much everyone will start lifestyle and metformin. After that anything is valid.*

*See **Blood Glucose Lowering** > Pharmacotherapy for Type 2 Diabetes for a tool that highlights appropriate options for your patient!*



Diagnosis of Diabetes

Lifestyle Modifications

A1C  $\geq 8.5\%$

Start metformin

A1C  $< 8.5\%$

Consider individually whether to start metformin

Further Reductions Required

Any agent may be considered based on evidence for efficacy, A1C reductions, patient co-morbidities, etc.

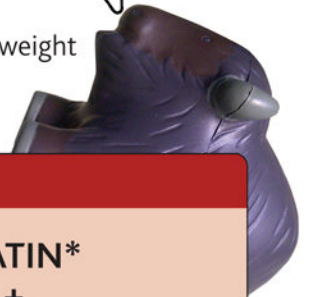


# Changes to Vascular Protection

## 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 – Regular physical activity, healthy diet, achievement and maintenance of healthy body weight
- ☐ **S** Smoking cessation

*This is an modified 1 page tool by the CDA. You can find the unedited version at **Vascular Protection > For All Patients with Diabetes: ABCDEs and Reducing Vascular Risk.***



## 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

OR

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

**NO**

YES

YES

**STATIN\***  
+  
**ACEi or ARB<sup>#</sup>**  
+  
**ASA**

Clopidogrel if ASA-intolerant

**STATIN\***  
+  
**ACEi or ARB<sup>#</sup>**

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

- ☐  $\geq 55$  years

OR

- ☐ 40-54 years

**NO**

YES

YES

### 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

**STATIN\***

The above vascular protective medications have the potential to cause **embryopathy**: ACEi/ARBs in the 2<sup>nd</sup> trimester and beyond (controversial effects in the 1<sup>st</sup> trimester), Statins throughout pregnancy. Therefore, these medications should **only be used in the presence of proper preconception counseling** and **reliable contraception** in women of childbearing age. A woman's pregnancy plans should be discussed at every visit.

- **Statins** should be stopped **prior to conception**
- **ACEi or ARBs** should be stopped **either prior to conception or immediately upon detection** of pregnancy

\* 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 (ie. 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.

ACR = albumin-creatinine ratio ASA = acetylsalicylic acid ACEi = angiotensin converting enzyme inhibitor

ARB = angiotensin receptor blocker LDL = low density lipoprotein

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