



2013 CDA GUIDELINES— INITIATING THERAPY

The recently published 2013 Clinical Practice Guidelines of the Canadian Diabetes Association provide a number of online tools to help healthcare providers find the therapeutic information they need. With respect to pharmacologic management of type 2 diabetes, the following principles for initiation of therapy in newly diagnosed type 2 diabetes patients are cited:

- If glycemic targets are not achieved within two to three months of lifestyle management, antihyperglycemic pharmacotherapy should be initiated.
- Timely adjustments to, and/or additions of, antihyperglycemic agents should be made to attain target glycated hemoglobin (A1C) within three to six months.
- In patients with marked hyperglycemia (A1C \geq 8.5%), antihyperglycemic agents should be initiated concomitantly with lifestyle management, and consideration should be given to initiating combination therapy with two agents, one of which may be insulin.
- Unless contraindicated, metformin should be the initial agent of choice, with additional antihyperglycemic agents selected on the basis of clinically relevant issues, such as contraindication to drug, glucose lowering effectiveness, risk of hypoglycemia, and effect on body weight.

WHY IS METFORMIN THE INITIAL DRUG OF CHOICE?

A number of factors contribute to metformin being named as the first pharmacological choice for glucose lowering in type 2 diabetes:

- Effectiveness in lowering blood glucose (expected decrease in A1C of 1.0% to 1.5%)
- Relatively mild side effect profile
- Long-term record of safety

- Negligible risk of hypoglycemia
- Lack of potential to cause weight gain
- Potential for cardiovascular benefit in overweight patients

Metformin is contraindicated if creatinine clearance (CrCl) is \leq 30 mL/min and in patients with liver failure. It is relatively contraindicated in patients with CrCl \leq 60 mL/min. Adverse effects associated with metformin use include gastrointestinal side effects and potential for vitamin B₁₂ deficiency.

CHANGES FROM 2008 CDA GUIDELINES

The CDA now recommends starting metformin at time of diagnosis if A1C is 8.5% or above (down from 9.0% or above). If A1C is below 8.5% at diagnosis, recommendations are to initiate lifestyle intervention (nutritional therapy and physical activity) immediately. If blood glucose targets have not been met within two to three months, then it is recommended that metformin treatment be initiated.

INSULIN AT TIME OF DIAGNOSIS?

As per the 2013 CDA guidelines, insulin treatment (\pm metformin) is indicated at time of type 2 diagnosis if the patient has symptomatic hyperglycemia with metabolic decompensation.

Intensive insulin therapy (e.g., basal/bolus insulin used with continuous subcutaneous insulin infusion pump) has been studied in individuals at time of diagnosis or early in the disease. It has been utilized for a period of two to three weeks and has been shown to induce diabetes remission, although this state is usually temporary. This strategy has only been tested in patients where the degree of beta cell function is relatively preserved and requires further investigation. [MPT](#)

Myrbetriq® (mirabegron) 25 mg and 50 mg extended release tablets

Astellas

Myrbetriq® is a beta-3 adrenoceptor agonist and is indicated for the treatment of overactive bladder (OAB). It may be most useful for those patients who don't tolerate or respond to antimuscarinics such as oxybutynin.

Dose & Administration

The recommended initial dose and usual therapeutic dose of Myrbetriq® is 25 mg administered once daily with or without food. No dose adjustment is required in the elderly. The drug is effective within eight weeks. This dose may be increased to a maximum of 50 mg once daily based on individual patient efficacy and tolerability.

The dose of Myrbetriq® 25 mg should not be exceeded in patients with severe renal impairment, moderate hepatic impairment, or in those patients taking drugs metabolized by CYP2D6 with a narrow therapeutic index (e.g., flecainide and propafenone). Myrbetriq® also increases levels of drugs such as metoprolol, desipramine, and digoxin.

Adverse effects: Myrbetriq® may slightly increase blood pressure and heart rate, and these should be monitored. Myrbetriq® is contraindicated in patients with severe uncontrolled hypertension (systolic blood pressure \geq 180 mm Hg and/or diastolic blood pressure \geq 110 mm Hg), patients who are pregnant, and patients who are hypersensitive to the drug or any component of the tablet. **DN**

Picato® (ingenol mebutate) Topical gel 0.015% and 0.05%

Leo Pharma

Picato® topical gel is indicated for the treatment of non-hyperkeratotic, non-hypertrophic actinic keratosis (AK) in adults. Picato® is applied for only two or three days. This is in comparison to other topical agents used to treat AK such as 5-fluorouracil (Efudex®) and imiquimod (Aldara®), which are applied for several weeks to months. All agents have similar efficacy and all can cause considerable skin inflammation.

Dose & Administration

For treatment of AK on the face and scalp, one unit dose tube of 0.015% gel once daily for three days in a row is utilized. For treatment of AK on the body, arms, hands, and legs, one unit dose tube of 0.05% gel once daily is used for two days in a row. For complete application instructions, please see product monograph.

Warnings and Precautions

- Picato® gel should not be applied near the eyes. If accidental application to the eye occurs, the area should be flushed with plenty of water, and medical care should be sought immediately.
- The gel should not be applied on the inside of the nostrils, the ears, the lips, or on the skin outside the defined treatment area.
- Picato® gel should not be applied to skin that has not healed from other treatments or surgery.
- If the gel is accidentally swallowed, the patient should drink plenty of water and seek medical care immediately. **DN**

(Refer to the product monographs for complete information.)