



KEY MESSAGES

1. Significance of prediabetes

- Prediabetes is a condition in which glucose levels are elevated but not in the range of diabetes. It can be
 - **Impaired fasting glucose (IFG):**
 - Fasting plasma glucose is 6.1 to 6.9 mmol/L
 - or
 - **Impaired glucose tolerance (IGT):**
 - In a 75g oral glucose tolerance test
 - Fasting plasma glucose is ≤ 6.9 mmol/L and
 - 2 hour plasma glucose is 7.8 to 11.0 mmol/L
 - IGT can be diagnosed **only** with an OGTT.
- Both IFG and IGT are associated with an increased risk of developing diabetes. The association between IFG and IGT and developing cardiovascular disease is less certain.
- Recommendations for screening and testing are based on consensus and decisions require clinical judgement.

2. Management of prediabetes

- **Lifestyle counselling** is the first line therapy and should aim for
 - Weight loss of 5% to 7%
 - Approximately 30 minutes of moderate physical activity per day.
- The Diabetes Care Program of Nova Scotia offers group sessions in lifestyle counselling for patients with prediabetes.
- Medication is usually reserved for patients with **IGT** who have other risk factors and who have not responded to lifestyle counselling after 6 to 12 months.
 - Metformin is the drug of first choice, especially for patients < 60 years old and obese.

3. Safety of the thiazolidinediones (TZDs)

- Rosiglitazone has **not** been shown to **improve** cardiovascular outcomes and **may increase** the risk of myocardial infarction.
- One meta-analysis has found that pioglitazone **may** improve the composite cardiovascular outcome of death, MI or stroke. However when the increased risk of serious heart failure is added, the result is **not** statistically significant. Thus, the benefit/risk ratio of pioglitazone remains **unclear**.
- Both drugs have been associated with edema, weight gain, heart failure, and increased risk of fractures in women.
- Cochrane reviews have found that rosiglitazone and pioglitazone do **not** provide clinically relevant differences in **glycemic control** as measured by A1c compared to other oral agents.

FPG = fasting plasma glucose

2hPG = 2 hr plasma glucose on OGTT

IFG = impaired fasting glucose

IGT = impaired glucose tolerance