# Managing patients with type 2 diabetes: from lifestyle to insulin

***Peer group discussion based on the article published in BPJ 72, December, 2015***

Approximately 5 000 people in New Zealand die each year A healthy lifestyle is the foundation of treatment for all people with type 2 diabetes. If agreed lifestyle goals are not achieved discussions to help overcome barriers to change should be initiated. Structured diabetes education is recognised in New Zealand as a critical aspect of diabetes treatment to enable the patient to take an active role in their own care.

In general, an $HbA_{1c}$ target of 50 – 55 mmol/mol is appropriate for patients with diabetes. However, glycaemic targets need to take into account diabetes duration, the presence of co-morbidities, life expectancy, social circumstances and the personal beliefs and priorities of the patient. Regular review is essential for improving or at least maintaining glycaemic control. Treatment adherence should be assessed in patients who are unable to meet glycaemic targets. In general, intensification is appropriate if the patient's $HbA_{1c}$ levels do not meet, or closely approach, an agreed target within three months.

General guidance for the pharmacological management of patients with type 2 diabetes is that:

- Metformin remains the first-line pharmacological treatment for patients with type 2 diabetes. There is a low threshold for initiation and this should be added at, or soon after, diagnosis, unless there are contraindications.
- A sulfonylurea can be added to metformin for patients who have not reached an agreed $HbA_{1c}$ target with metformin alone
- Acarbose or pioglitazone may be appropriate when treatment with metformin and a sulfonylurea is not tolerated or contraindicated, although acarbose is only mildly effective and is associated with significant gastrointestinal adverse effects.
- Pioglitazone can also be used in combination with metformin and a sulfonylurea, or as an adjunctive treatment with metformin in patients who require escalating doses of insulin
- Initiation of insulin in primary care should be considered for any patients with $HbA_{1c}$ persistently greater than their individualised target (especially $HbA_{1c} > 65$ mmol/mol)
- Isophane is the first-line insulin taken either once daily at night or before breakfast, or twice daily

Glycaemic control is part of a wider suite of interventions for patients with type 2 diabetes, including smoking cessation, blood pressure control, lipid management and, if appropriate, antiplatelet treatment. Pharmacological treatment is recommended for all patients with type 2 diabetes with a blood pressure consistently > 130/80 mmHg, for three months, despite changes in lifestyle. An ACE inhibitor is the preferred antihypertensive for patients with type 2 diabetes; an angiotensin II receptor blocker (ARB) is recommended if an ACE inhibitor is not tolerated. The albumin:creatinine ratio (ACR) of all patients with type 2 diabetes should be measured at least annually and more frequently for Māori, Pacific and South Asian peoples. Microalbuminuria is the earliest sign of chronic kidney disease (CKD) in people with diabetes and requires prompt treatment. Consider initiating a statin for patients with a five-year cardiovascular risk of >10%. The patient's feet should be assessed at least once a year, or every three months if they are at high risk of foot complications. Patients with type 2 diabetes require retinal testing at least every two years (and more frequently if retinopathy is present). Health professionals should be vigilant for mental health problems in patients with type 2 diabetes.

## Peer group discussion points:

1. Diabetes education is an important part of treatment: in your experience which concepts do patients find the most difficult to accept or understand?
2. Primary care clinicians are sometimes said to have clinical inertia regarding treatment escalation for patients with diabetes. Do you consider your approach to diabetes management to be proactive, and if not, what are the challenges to this?
3. Metformin, sulfonylureas and insulin are frequently prescribed in primary care; acarbose and pioglitazone perhaps less so. What is your experience with these less common anti-diabetic medicines?
4. What are some of the concerns patients have when discussing insulin initiation and how do you address these?
5. Good glycaemic control does not improve cardiovascular outcomes in people with type 2 diabetes to the same extent as well-controlled blood pressure. Do you think patients with type 2 diabetes under your care have their blood pressure adequately managed?