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## Intensive Glycaemic Control in Patients with Type 2 Diabetes



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Type 2 diabetes is very common not only in North America, but globally. The disorder can lead to severe limb and life-threatening complications if the blood glucose is not adequately controlled. When blood glucose levels remain elevated, it can lead to renal failure requiring dialysis, blindness, amputation of the lower extremity, peripheral neuropathy and premature atherosclerotic heart disease. Once these complications develop, they usually cannot be reversed and the quality of life is diminished.

There more than 400 million people with Type 2 diabetes worldwide and its prevalence is expected to increase by at least 50% within the next 25 years. For the patient, the cost of managing diabetes is enormous, ranging from \$9,000-\$16,000 a year.

Type 2 diabetes is typically managed with changes in diet, increased physical activity, and maintaining a healthy body weight. If these conservative methods fail, the patient is started on a variety of oral hypoglycaemic medications and/or insulin. The major focus of the treatment of type 2 diabetes has centred on lowering blood glucose. Early clinical trials revealed that moderate control of blood glucose was known to reduce the risk of diabetic complications.

However, over the last few years, some experts have been advocating tighter control of blood glucose. These experts claim that the tighter the blood glucose control, the lower the risk of developing complication. Many studies also show that intensive control of blood glucose can reduce the risk of nonfatal myocardial events, but whether this method of glucose control reduces the macro and microvascular complications of diabetes on other organs remains debatable.

What we do know is that intense control of blood glucose also increases the risk of hypoglycaemia which can be severe and lead to hospitalisation. In addition, tighter control of blood glucose is also more expensive as the patient requires more supplies to check the blood glucose more frequently. To complicate matters further, there is new data which suggest that renal and cardiac outcomes may be improved with the use of specific classes of hypoglycaemic agents, but the benefits may be independent of blood glucose-lowering effects.

The management of patients with type 2 diabetes thus continues to take on a novel approach. While there is no question that lowering of blood glucose is important, there is a departure from this dogma. Instead of making glycaemic control the only priority, the focus is now to ensure that the patient first has adequate access to diabetes care and is compliant with diet and exercise. The healthcare provider has to set glycaemic goals to target patient preferences and situations and there should be close follow up with a diabetic specialist. Patients should be screened regularly for diabetic complications.

In general, it is recommended that the HbA1c should be below 7%. At the same time, non-drug therapies like exercise and a healthy diet are highly recommended. The eventual aim is to decrease the short and long diabetic complications, lower the burden of treatment and enhance the quality of life.

Source: [BMJ](#)

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Published on : Thu, 14 Nov 2019