Diabetes and Ramadan

Ramadan is a period for worship, self-discipline, austerity and charity. Fasting is obligatory for all healthy adult Muslims, with no food or drink being consumed between dawn and sunset. Nor should anything be inhaled either tobacco or other drugs. There are only 2 meals a day - pre-dawn and after sunset. As the Islamic calendar year begins with the sighting of the new moon, Ramadan starts 10 days earlier each year.

Diabetes and Fasting

Exemptions from fasting:
- Children under the age of puberty
- Pregnant and breast feeding women
- Those with learning difficulties
- The old and frail
- The acutely unwell
- Those with chronic illnesses for whom fasting may be detrimental to health
- People with diabetes fall into this last category, but the majority may prefer to meet their religious obligations by fasting.

Those who Might be Advised Not to Fast
- People with impaired hypoglycaemia awareness
- People with Type 1 or type 2 with poor glycaemic control
- Individuals known to be non-compliant with diet or medication
- Patients with a history of recurrent DKA
- Patients with intercurrent infections
- Patients with renal impairment of any severity (risk of dehydration and uraemia)
- Elderly people with reduced alertness
- Those who have previously experienced severe deterioration in glycaemic control during Ramadan

Hazards of Fasting

The alteration of eating pattern without appropriate adjustment to the dosage and timing of insulin and/or oral medication may result in deterioration of glycaemic control. People treated with insulin or sulphonylureas run the risk of hypoglycaemia and some people with Type 1 diabetes may risk DKA. When Ramadan occurs during the summer months prolonged fasting may create greater potential hazards. It is important therefore to discuss the management of hypo and hyperglycaemia. Patients should be advised to break their fast if there is severe deterioration in glycaemic control, both hypo and hyperglycaemia. It may be necessary to prescribe Hypostop (glucose gel) and/or a Glucagen Hypokit. People need to be warned of the risks of dehydration if the fast is long and to drink plenty of fluids when not fasting

Precautions for Those Who Fast

The importance of continued compliance with dietary recommendations should be emphasized. Breaking the fast after sunset may lead to over eating. Healthy eating guidelines should be encouraged - foods high in sugar and fats should be avoided. Meals with complex carbohydrate/starchy foods should be eaten. Patients need to monitor blood glucose with adjustment of medication as needed, though some people will not take blood sugar tests during their fast.

Patients who are treated with diet alone should not experience any problems with fasting during Ramadan.
Patients on Oral Medication or Incretin Mimetics

Patients taking Metformin alone are at little risk of hypoglycaemia and fasting poses little hazard. If a dose is usually taken at lunchtime it can be omitted or taken with the sunset meal.

Patients taking a short acting sulphonylurea e.g. Gliclazide or Glipizide should take the largest dose with their evening meal and can half their morning dose if necessary. Alternatively the morning dose of sulphonylurea can be substituted by a post-prandial regulator such as Rapaglinide.

Long acting agents such as Glibenclamide and Glimepiride are hazardous and should be avoided, being substituted with Gliclazide before the sunset meal.

Patients taking a glitazone and sulphonylureas may take the glitazone at the usual time.

Patients taking incretin mimetics, such as Exenatide (Byetta), may continue to take the injections before their meals as usual, so long as the meals are 6 hours or more apart. Otherwise only 1 injection should be taken before the sunset meal.

DPP4 inhibitors, such as Sitagliptin (Januvia), if taken once daily should be taken before the sunset meal; if taken twice daily can be taken as usual before meals at sunrise and sunset.

Glucosidase inhibitors such as Acarbose if taken 3 times daily, the midday dose may be omitted or taken with the sunset meal.

Patients on Insulin

Patients should contact their DSN for advice before they fast. There should be no need for a drastic reduction in the total dose of insulin for people with Type 2 diabetes. Many patients with Type 2 diabetes are insulin resistant and will still require large doses.

Many patients with Type 2 normally use premixed insulin e.g. Humalog Mix 25/50 or Novomix 30. It is advisable to reverse the morning and evening dose if the morning dose is usually larger. If the doses are the same, the morning dose should be reduced by about 50% and a corresponding larger dose taken before the sunset meal. Or a short acting insulin e.g. Novorapid or Humalog can be substituted before breakfast (30% of usual morning dose of premixed insulin) with their evening dose of premixed insulin kept the same.

Patients who are on a basal bolus regime should take their short acting insulin Humulin S, Novorapid, Humalog before each meal taken. If taking long acting analogues e.g. Levemir or Lantus the dose and timing continues as before. For those using long acting insulin such as Insulatard, Humulin I daily, the timing and dosage remains the same. For those taking Insulatard or Humalin I bd, the morning dose can be reduced by 50%.

People with insulin pumps may adapt their basal rate of insulin depending on activity while fasting and omit boluses except when eating.

Further adjustment to insulin dosages are likely to be needed after these initial suggestions have been instituted.