

## Practice Point

### Frequently asked questions for safe fasting in Ramadan : How to adjust drugs?

Fariduddin M<sup>1</sup>, Chowdhury MAJ<sup>2</sup>

#### Can a diabetic patient fast?

Most of the uncomplicated diabetic patients can fast during Ramadan safely. But for safe fasting patients need to go for the followings:

- Pre-Ramadan assessment at least three months before Ramadan
- Ramadan focused structured education & motivation
- Patient centered individualized management plan
- Proper follow-up

#### Physician's Role for safe fasting

- Guidance and advice to minimize the risk of hypoglycemia:
  - To take Suhur close to Suhur time
  - To keep the same calorie during Ramadan as before
  - To change in the schedule, amount and composition of meals
  - To reduce physical activity during the day time; however physical exercise can be performed about one hour after Iftar

#### What are Pre-Ramadan assessment at least 3 months before Ramadan?

- Assessment of glycemic status
- Assessment of complications & co-morbid conditions
- Assessment of patient's ability

#### Individualization

- Care must be individualized
- The management plan will differ for each specific patient

#### General advice for those who wants to fast

- First consultation with a doctor for pre Ramadan medical assessment & education
- Practice fasting in Shaban first
- With the approval of physician, switch to either long acting or twice daily medication

- \*Professor Dr M Fariduddin, Professor & former Chairman, Department of Endocrinology Bangabandhu Sheikh Mujib Medical University, Dhaka. Email: dr.md.fariduddin@gmail.com
- Professor M A Jalil Chowdhury, Professor & former Chairman, Department of Medicine, Bangabandhu Sheikh Mujib Medical University, Dhaka

\*For correspondence

Elderly patients on NSAID should have frequent monitoring of renal functions  
Anticoagulant and Antiplatelet medications should be given at night

#### What are Pre-Ramadan assessment at least 3 months before Ramadan?

- Assessment of glycemic status
- Assessment of complications & co-morbid conditions
- Assessment of patient's ability

#### Patients who are advised not to fast according to the International Ramadan Advisory Board consisting of Medical Experts and Religious Scholars

- Conditions related to diabetes:
- Advanced nephropathy
  - Severe retinopathy
  - Autonomic neuropathy
  - Hypoglycemic unawareness
  - Major macrovascular diseases
  - Recent hyper-osmolar state or DKA
  - Poorly controlled diabetes (Mean RBG > 300)
  - Multiple insulin injections per day

#### Physiological conditions:

- Pregnancy
- Lactation

#### Co-existing major medical conditions such as:

- Acute peptic ulcer
- Severe Pulmonary Tuberculosis
- Severe infection
- Severe bronchial asthma
- Recurrent stones formation
- Cancer with poor general condition
- Overt cardiovascular diseases (Recent MI)
- Severe psychiatric conditions
- Hepatic dysfunction (liver enzymes > 2 × ULN)

\*Tips: Individualization is very important

#### What about diet and exercise?

##### Diet in Ramadan

- Drink more water at night to avoid dehydration
- Avoid sugar and sugar containing drinks specially during Iftar (sweetener can be used)

- Avoid heavy Iftar
- Keep same calorie as before Ramadan
- Take complex carbohydrate at Suhur
- Take Suhur as late as possible

**Exercise in Ramadan**

- Physical activity should be reduced during day time
- Exercise can be performed for an hour after Iftar or after Tarawih
- Increased prayer during Ramadan should be taken into account

**How to adjust drugs?**

**For oral anti Diabetic Drug**

Before Ramadan	During Ramadan
Patients on “diet and exercise”	No change is needed Modify time & intensity of exercise Ensure adequate fluid intake
Metformin 500 mg thrice daily	At Iftar: 1,000 mg At Suhuur: 500 mg
DPP4 inhibitor	As usual at night
SGLT2 inhibitor	As usual at night
Glinide	As usual at night
Sulfonylurea Once Daily: Morning dose	At Iftar: Full Morning dose
Sulfonylurea Twice Daily: Morning & Evening dose.	At Iftar: Full Morning dose At Suhur: ½ Evening dose

\* **Tips:** DPP-4 inhibitors are less hypoglycemic in Ramadan. Modern sulfonylurea (gliclazide MR and glimepiride) is better compared to conventional one considering risk of hypoglycemia. Avoid glibenclamide in Ramadan

**For insulin**

Before Ramadan	During Ramadan
Premixed insulin 30	
Morning: (30 U)	At Iftar: Full Morning Dose (30 U)
Dinner: (20 U)	At Suhur: ½ Dinner Dose (10 U)
Split Mixed (R+N)	
R+0+R	R+0+50%of R
N+0+N	N+0+50%of N
R+R+R	R+R+50% of R
0+0+N	0+0+50% of N
Basal Analogue	At the same time 20-30% dose reduction

\* **Tips:** Insulin Analogues are less hypoglycemic compared to conventional insulin. Premixed Analogues can be given just before meal.



**Figure-1:** Opinion of Muslim scholars regarding blood glucose test and insulin administration during Ramadan

**Can a patient monitor blood sugar while fasting?**

Islam allows diabetics to have regular blood test while fasting

Patients should monitor their blood glucose even during the fast to recognize subclinical hypo and hyperglycemia

If blood glucose is noted to be low (<70mg/dl), the fast must be broken

If blood glucose is noted to be (>300mg/dl), ketones in urine should be checked & medical advice sought

**Conclusion**

Uncomplicated type 2 diabetic patients can fast during Ramadan safely

Pre-Ramadan education and motivation is very important to prevent diabetic related complications

Islam allows diabetics to have regular blood test while fasting

Fasting along with regular prayer have been proved to aid in better control of diabetes

Individualization & frequent monitoring of glycemia can significantly reduce major risks associated with fasting in Ramadan.