

# Editorials

## Chronic Disease Management During Ramadan

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**Ramadan** is the ninth month of the Islamic lunar calendar and, for postpubertal Muslims, is observed with fasting. Fasting for Ramadan comprises abstaining from food, drink, and sexual intercourse during daylight hours. All forms of medication administered orally, nasally, or rectally are also not permitted. Those with various ailments may be religiously exempt from continuous daily fasting if health and safety are compromised. This editorial provides guidance on chronic disease management and explores specific ways physicians can support patients who observe Ramadan.

### Risk Stratification

Patients with chronic conditions who want to fast during Ramadan should be individually assessed to determine whether fasting is safe. The International Diabetes Federation and the Diabetes and Ramadan International Alliance provide a structured, traffic-light system for managing diabetes mellitus during Ramadan, most recently updated in 2021.<sup>1</sup> This system was expanded into the British Islamic Medical Association's Ramadan compendium, which includes a wider range of chronic conditions. The compendium incorporates expert consensus and evidence synthesis to create a risk-stratification system that enables patient-centered shared decision-making about Ramadan fasting.<sup>2</sup> Guidance from the compendium provides a common framework for counseling a patient in preparation for Ramadan, assessing risk, and potentially tailoring existing medical treatment.<sup>2</sup>

Patients may be categorized as low to moderate risk, with no clear contraindications to fasting, but perhaps need general advice about aspects of fasting, including sick day rules or ensuring adequate nutrition and fluid intake during non-fasting hours. Patients who are high to very high risk should be advised not to fast; however, patients' desire to fast may be strong, and they may benefit from clinical input. The British Islamic Medical Association's Ramadan compendium offers a risk-reduction approach but does not replace individual clinical judgment.<sup>2</sup>

Ramadan fasting is an individualized choice, with medical exemptions and other dispensations.<sup>2</sup> In general, daily consecutive fasting for the entire month (from approximately March 22, 2023, to April 23, 2023) is not a binary decision, and patients may fast intermittently if their health permits it.<sup>3</sup> Some may fast later in the year, when fewer hours of daylight and an agreeable climate make fasting easier (*Table 1*). Information about prior experience with Ramadan fasting is helpful in determining how patients

TABLE 1

### Alternatives to Fasting During Ramadan

#### Nonconsecutive Ramadan fasts

Ideally, patients at higher risk should have trial periods of fasting before Ramadan to optimize medications and to acclimate their bodies. If patients find daily fasting intolerable, they may choose to fast some days of Ramadan, with nonfasting days of recovery in between. Missed days could be made up by fasting before the next Ramadan, bearing in mind the Islamic year is based on a lunar calendar and is shorter by approximately 11 days.

#### Make-up fasts post-Ramadan

Making up fasts is common in cases of acute illness, travel, and menstruation. Fasts are usually made up immediately after Ramadan, but those with chronic illness may choose to delay this to later in the year.

#### Fasting in winter months

Hours of daylight, and therefore the length of the Ramadan fast, varies considerably depending on geographical latitude. If Ramadan falls during periods where longer daylight hours pose considerable risk, patients may instead fast during the shorter winter days. Warmer months are also more challenging because they can increase the risk of dehydration and electrolyte imbalances.

#### Paying charity

The *fidyah* is a charitable contribution that is offered with each day of missed Ramadan fasts. This is done when making up the fast is not possible because of persistent illness or other ongoing exempting factors throughout the year.

may tolerate subsequent fasts and where modification may be required. Physicians should be aware of these nuances and consider exploring them with higher-risk patients, who should be encouraged to discuss matters with a trusted religious authority, particularly when the patient is advised not to fast and remains hesitant to abstain from fasting.

This editorial summarizes the British Islamic Medical Association's Ramadan compendium's approach for fasting in patients with cardiovascular disease or epilepsy and recommendations for mental health wellness,<sup>2</sup> along with public health opportunities that Ramadan affords through lifestyle modification.

### CARDIOVASCULAR DISEASE

Dehydration is common during fasting and can predispose patients with underlying cardiovascular disease to electrolyte abnormalities and fasting-associated hypotension. Recent acute coronary syndrome (within six weeks) and any unstable cardiovascular disease could increase the risk from fasting because patients may still be in the process of receiving interventions, rehabilitation, or optimizing treatments.<sup>4</sup>

Care should be taken with oral medications that have a dosing regimen that occurs during fasting hours, such as midday, because these doses would be skipped to maintain a valid fast. Physicians may consider switching to once- or twice-daily regimens where appropriate. In particular, direct oral anticoagulants and antiplatelets must be monitored because under- or overdosing could occur if the time frame between doses is significantly different than recommended.

### EPILEPSY

Because patients with epilepsy are sensitive to changes in drug bioavailability, fasting may increase the risk of seizure. Medications should be reviewed well before Ramadan to establish adequate, timely control ahead of fasting, especially if therapy needs to be changed. Published guidance on medication optimization is available.<sup>5</sup> Circadian disruption is commonly experienced during Ramadan because of predawn meals that begin the fast and late-night prayers. Fatigue and disruption in sleep are seizure triggers, and promoting sleep hygiene is vital.

### MENTAL HEALTH WELLNESS

Ramadan is a highly social experience with communal activities taking place throughout the month. Many Muslims report improvements in their mental health during this month. However, for some unable or unwilling to fast during Ramadan, feelings of guilt and exclusion can affect their experience, leading to isolation and worsening mental health.

Patients with bipolar disorders are sensitive to circadian disruptions and should take extra care, especially if they have had a recent relapse.<sup>2</sup> Patients taking lithium are at higher risk because of fasting-related electrolyte imbalances

and a narrow therapeutic window. Those who lack mental capacity due to either an acute episode or from chronic mental health disorders are religiously exempt from fasting.<sup>6</sup> Because of the focus on food, patients with active eating disorders are also at very high risk, although there is significant variability of disease expression in Ramadan.

### Lifestyle Modification

Ramadan involves a change in schedule for an entire month and therefore presents an opportunity to discuss healthier lifestyle choices with patients. Smoking breaks the fast, and cessation strategies should be promoted, such as using transdermal nicotine replacement patches. Targeted weight management advice may also yield results as individuals are driven to revise meals and routines.

Physical activity is best undertaken during nonfasting hours or close to the end of the fast, with monitoring of hydration and caloric intake during meals and progressively increasing exercise intensity. Athletes can refer to specialist guidance that outlines dietary plans and training routines that can also be used by healthy nonathletes.<sup>7</sup>

### Conclusion

Ramadan is an important month for many Muslims. Patients value a shared decision-making process that individualizes risk and choice. By using some of the principles outlined in this editorial, physicians can help patients with chronic conditions safely manage Ramadan fasting and use the motivation around Ramadan to adopt healthier lifestyles.

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