

Supplementary Figure S2. The RaK Score (2022), clinical scoring algorithm

Risk Calculation for Ramadan Fasting and Kidney Diseases. Sum points across all 17 components; map total to risk band below.

1

Age

<70

0

>70

+1

2

GFR (mL/min/1.73 m²)

>60

0

45–60

+1

30–45

+2

15–30

+3

<15 (no dialysis)

+4

On dialysis

+5

3

Duration of dialysis

>5 years

0

<5 years

+1

4

Level of proteinuria

No proteinuria

0

0 – <1 g/day

0

1–3.5 g/day

+1

>3.5 g/day

+2

5

Presence of DM

No DM

0

T2DM

+1

T1DM

+2

6

Glycaemic control (HbA1c)

<7.0%

0

7–9%

+1

>9%

+2

7

Hypertension

No / well controlled

0

Poorly controlled

+2

8

Presence of CVD

No

0

Stable MVD

+1

Unstable MVD

+2

Congestive heart failure

+1

Cardiac arrhythmia

+1

Add 1 for any stable heart disease; +2 if unstable

9

History of kidney transplant

No

0

>12 months

+1

6–12 months

+2

1–6 months

+3

10

History of kidney stones

No

0

Yes

+1

11

Medications

Twice-daily meds / CNI

0

Diuretics

0

SGLT2 inhibitor

0

Insulin

0

Glucocorticoids

0

Sulfonylureas

0

ACEI / ARB

0

+1 for diuretic, SGLT2 inhibitor, or ACEI / ARB use

12

Duration of fasting

<16 hours

0

>16 hours

+1

13

Temperature >30 °C exposure

No / has AC

0

Yes / no AC

+1

14

Labour during fasting

No physical labour

0

Moderate labour

+1

Heavy physical labour

+2

15

Frailty / cognitive function

No frailty or cognitive loss

0

Hospital admission within 3 mo

+1

Impaired cognition / frail

+2

FRAIL score (0=robust, 1=pre-frail, 2=frail)

16

Past fasting experience

No adverse events

0

Adverse events

+1

17

AKI in last 3 months

No

0

Yes

+1

Σ TOTAL RaK SCORE

sum of points across all 17 components

VERY LOW RISK

<5 pts

Fasting is probably safe

Standard pre-Ramadan review

LOW RISK

5–8 pts

Safe with monitoring

Medical evaluation, medication adjustment, strict monitoring, weekly weight & GFR

MODERATE RISK

9–13 pts

Fasting safety is uncertain

Medical supervision, medication adjustment, strict monitoring, weekly weight & GFR

HIGH RISK

>13 pts

Fasting is probably unsafe

Advise against fasting

ABBREVIATIONS

GFR / eGFR = (estimated) glomerular filtration rate

DM = diabetes mellitus; T1/T2DM = type 1 / type 2 DM

HbA1c = glycated haemoglobin; AC = air conditioning

CVD = cardiovascular disease; MVD = major vessel disease

CNI = calcineurin inhibitor

SGLT2 = sodium–glucose co-transporter 2

ACEI / ARB = angiotensin-converting enzyme inhibitor / angiotensin receptor blocker; AKI = acute kidney injury