6. Risk Table and Recommendations Summary

Condition	Very High Risk Advise MUST NOT fast	High Risk Advise should NOT fast	Low/Moderate Risk Decision to not fast based on discretion of medical opinion and ability of the individual to tolerate fast
	If patients in these categories wish to fast, is fasting shorter fasts in the winter a safe alternative? If not an option, or patients not willing to defer fasts and still wishing to fast, then they should be supported and should: • Receive structured education (where appropriate) • Be followed by an appropriate specialist/primary care contact whilst fasting • Monitor their health regularly • Adjust medication dose, frequency and timing as per recommendations • **Be prepared to break the fast/abstain from fasting in case of adverse events**		
Respiratory disease	• Those experiencing an acute exacerbation of their chronic lung disease • Asthma/COPD sufferers at high risk of exacerbation and preventative inhaler timings cannot be altered to a fasting compatible regime	• Poorly controlled lung disease with frequent exacerbations/hospital admissions • Poorly controlled symptoms requiring frequent rescue inhaler and/or nebuliser use throughout the day • Those receiving immunosuppressants for active lung disease • Those receiving anti-fibrotic therapy	• Well controlled asthma/COPD requiring intermittent inhaler use only • Stable disease with infrequent exacerbations • Those receiving immunosuppressants for stable disease (in remission)
Cardiovascular disease	• Advanced heart failure (optimal medical therapy, Left Ventricular Ejection Fraction <35%, with class III-IV NYHA symptoms, ≥1 hospitalisation in the last 6 month due to decompensated heart failure and severely impaired functional capacity (e.g. 6 min walk distance <300m) • Severe pulmonary hypertension (defined as WHO/NYHA III-IV classification, right ventricular dysfunction and objective markers on right heart catheterisation e.g. SvO2 <60%)	• Recent Acute Coronary Syndrome / myocardial infarction (<6 weeks) • Hypertrophic Obstructive Cardiomyopathy (HOCM) with significant left ventricular outflow tract gradient (e.g. peak gradient ≥50mmHg) • Severe valvular disease (defined by echocardiographic criteria) • Severe heart failure without advanced features • Poorly controlled arrhythmias (as defined by your specialist)	• Hypertension • Stable angina (episodes of angina are not occurring at rest or increasing significantly in frequency or severity) • Mild heart failure with reduced ejection fraction (HFrEF) (Left Ventricular Ejection Fraction or LVEF ≥ 45%), Moderate HFrEF (LVEF 35 - 45%) or Heart Failure with preserved ejection fraction (HFpEF) (diagnosed by a combination of symptoms, LVEF ≥ 45-50%, Heart Failure Association score, natriuretic peptide levels +/- imaging - refer to specialist confirmation) • Intracardiac devices (pacemaker, ICD, CRT-D) • Mild/mild-moderate valvular disease (as defined by echocardiographic criteria) • Supraventricular tachycardias/Atrial Fibrillation/Non sustained ventricular tachycardia • Mild/moderate Pulmonary Hypertension (Pulmonary Artery Systolic Pressure >25mmHg without severe echocardiographic or right heart catheterisation features)
	• *Patients with Grown-up Congenital Heart disease (GUCH) and/or Heart Transplant must consult their specialist for an individual risk assessment.*		

Chronic kidney disease	• CKD patients in stage 4-5 with eGFR<30 ml/min • Patients on all forms of hemodialysis and peritoneal dialysis • Pregnant CKD patients • Patients with inflammatory conditions of the kidney requiring immunosuppression • CKD stage 3-5 patients with history of pre-existing cardiovascular disease • CKD patients on tolvaptan	• CKD patients in stage 3 (eGFR 30-60 ml/min) • CKD patients with known electrolyte abnormalities • Patients at risk of dehydration due to fluid restriction requirements or need for diuretics • CKD patients in stage 1-3 on ACE-I/ARB	• CKD patients in stages 1-2 with stable kidney function • CKD patients prone to urinary tract infections or stone formation
Gastrointestinal disease	• Patients with established cirrhosis especially Child-Pugh B and C • Patients who are < 6months post Liver transplant • Patients with symptomatic active inflammatory bowel disease • Patients with significant acute or chronic diarrhoea • Patients with high output ileostomy	• Liver transplant patients taking Tacrolimus are at high risk of renal toxicity if they become dehydrated. They are also at risk of rejection if adherence to immunosuppression medication is not maintained due to fasting. • Patients on prednisolone at doses > 20mg per day	• Patients with stable chronic liver disease without cirrhosis • Patients with stable chronic inflammatory bowel disease in remission, including those on immunosuppressants • Patients with peptic ulcer disease, reflux oesophagitis and irritable bowel syndrome
Neurological disease	• Any condition predisposing to respiratory complications e.g. bulbar weakness, neuromuscular disorders* • Myasthenia Gravis on regular pyridostigmine more than 3 times per day • MND • Poorly controlled epilepsy, on multiple antiepileptic medications, history of status epilepticus • Parkinson's disease requiring regular levo-dopa • Neurodegenerative disorders with cognitive impairment	• Epilepsy requiring a medication regime incompatible with fasting which cannot be modified safely in time for Ramadan 2020 • Myasthenia gravis on pyridostigmine 3 times daily or less • Parkinson's disease with low requirement for levo-dopa in younger patients	• History of cerebrovascular disease, dependent on level of disability • History of MS, dependent on level of disability. See ABN guidance for management of immunosuppression during the COVID-19 pandemic • Well controlled epilepsy with medication regime compatible with length of fast • Myasthenia gravis not requiring pyridostigmine or purely ocular • Migraine
Diabetes	• Poorly controlled type 1 diabetes • Acute hyperglycaemic diabetes complications within 3 months prior to Ramadan (DKA, HHS) • Disabling hypoglycaemia: severe hypoglycaemia within 3 months prior to Ramadan, hypoglycaemia unawareness, recurrent hypoglycaemic episodes • Advanced macrovascular diabetic complications • Type 2 diabetes requiring insulin (MDI/Biphasic) with no prior experience of safe fasting* • Chronic dialysis and CKD (stage 4 & 5)	• Well controlled type 1 diabetes • Type 2 diabetes with sustained poor control (consider: HbA1c >75mmmol/mol for over 12months) • Type 2 diabetes requiring insulin (MDI/Biphasic) with prior experience of safe fasting • Type 2 diabetes on SGLT2 antagonists* (consider alternatives/stopping) • Stable macrovascular diabetes complications • CKD stage 3; • Pregnant Type 2 diabetics or GDM on diet or metformin • Comorbidities with additional risk factors	Well controlled type 2 diabetes (on one or more of the following therapies): • Diet & lifestyle • Metformin • Gliptins • GLP-1 agonists • Glitazones • Acarbose • Second generation sulfonylurea* (moderate risk: regular BM monitoring advised) • Basal insulin* (moderate risk: regular BM monitoring advised)

	• Pregnancy in pre-existing diabetes or GDM treated with insulin or sulfonylureas (SUs) • Acute illness • Old age with ill health	• Treatment with drugs that can affect cognitive function • People with diabetes performing intense physical labour	
Adrenal disease	Any of the following: • Multi-morbidity: major organ system involvement • Diabetes Mellitus on insulin treatment • Pituitary (Diabetes) insipidus • Adrenal crises in the last 12 months • Untreated mineralocorticoid deficiency • Untreated TSH deficiency • Pregnancy (>28 weeks)*	Any of the following: • Recent diagnosis of steroid dependence within the last 12 months* • No prior experience of fasting, or steroid alterations, or adjustments in Ramadan* • Aldosterone deficiency (i.e. on fludrocortisone or mineralocorticoid replacement)* • Pregnancy (<28 weeks)	Must meet ALL criteria: • Stable and well controlled steroid insufficiency • Previous experience of fasting and risk assessments • No significant comorbidities • Understanding of adjustment and changes to steroid dosing during fasting, when to terminate fasts and sick day rules • Access to Prednisolone 5mg once daily or health care professional who can support prescriptions • Access to emergency (IM) hydrocortisone and understanding of how to use this
Benign haematological disorders	• Sickle cell disease including HbSS, HbSC, HbS/Beta-Thal, HbSO, HbSD and those prone to sickle cell crisis. • Cold Haemagglutinin Disease with ongoing haemolysis • Amyloidosis with renal impairment • Antiphospholipid Syndrome with history of blood clots • Paroxysmal Nocturnal Haemoglobinuria with active haemolysis or history of recurrent thrombosis • Thrombophilias with history of recurrent thrombosis despite being on anticoagulation	• Warm Auto-Immune Haemolytic Anaemia with active haemolysis • Other Haemolytic Anaemias with active haemolysis • Clotting disorders like the thrombophilias with history of thrombosis • Aplastic anaemia on immunosuppression • Thrombophilia with a history of thrombosis within the last three months and are on anticoagulation.	• Thalassaemia carriers and sickle cell carriers who are not prone to crises • Aplastic Anaemia not on active treatment • White cell disorders with low count • Inherited Bleeding disorders • Immune Thrombocytopenias in remission • Thrombophilia with history of thrombosis on Anticoagulation
Haematological malignancies	• Patients requiring inpatient treatment for cancer or complications of cancer e.g. acute leukemias, high grade lymphomas, aggressive/refractory myeloma • Patients requiring inpatient treatment undergoing autologous or allogeneic stem cell transplantation or its complications • Patients requiring inpatient treatment for complications of cancer treatment e.g. neutropenic sepsis, severe vomiting, diarrhoea, pain and other symptoms • Newly diagnosed myeloma patients who are at risk of kidney injury	• Patients taking tacrolimus or ciclosporin where risk of kidney injury is increased by dehydration • Patients newly commenced on induction chemotherapy for hematological malignancies such as myeloma, lymphoma, chronic leukemias or experiencing significant side effects • Patients receiving oral chemotherapy or targeted therapy, that: ○ require twice daily dosing ○ must be taken with food ○ are experiencing significant side effects • Patients receiving a course of radiotherapy	• Patients receiving oral chemotherapy or targeted therapy, if: ○ on a once daily dosing regime ○ drug pharmacokinetics allow fasting ○ well established (>3 cycles) on treatment ○ not experiencing significant side effects • Patients receiving outpatient parenteral chemotherapy beyond induction phase (except on drug administration days) if: ○ well established on treatment ○ no/few manageable side effects • Patients on parenteral maintenance Immunotherapies with no/few manageable side effects e.g. Rituximab, Obinutuzumab • Outpatients with haematological cancers who are not receiving any

		• Patients who have undergone autologous or allogeneic transplantation within the last 6 months • Patients receiving treatment for post transplant complications such as GVHD.	active treatment and are on active surveillance only e.g. MGUS, chronic leukemias, low grade lymphomas, • Patients with previously treated cancers who are currently in remission and on active surveillance
Rheumatological disease	• Active SLE with renal involvement • Active vasculitis with renal involvement • Low eGFR secondary to connective tissue diseases/vasculitis • Scleroderma leading to pulmonary hypertension	• Uncontrolled Gout • Higher dose of steroids >20mg/day*	• Rheumatological conditions in remission e.g. rheumatoid arthritis, polymyalgia rheumatica, connective tissue diseases and vasculitis. • Osteoarthritis • Osteoporosis • Sjogren's syndrome • Well controlled gout
Obesity	BMI>40kg/m2 with any of the following: • Established end-organ cardiovascular disease (e.g. previous myocardial injury, cardiac failure, previous CVA/TIA) • Advanced CKD (stage 4-5) • Advanced chronic pulmonary diseases • Severe obstructive sleep apnoea	• BMI>40kg/m2 with complicated metabolic syndrome and related complications e.g. those associated with high risk conditions (diabetes, hypertension, dyslipidemia, PCOS, hypothyroidism)	• BMI>40kg/m2 with stable non-metabolic comorbidities (e.g. osteoarthritis, fibromyalgia) • Simple obesity without any comorbidities
Pregnancy[a]	• Pregnancy with severe underlying maternal health conditions • Complicated pregnancy	• Uncomplicated pregnancy in an otherwise healthy woman in first trimester • Pregnancy with moderately severe underlying maternal health conditions	• Uncomplicated pregnancy in an otherwise healthy woman beyond first trimester • Pregnancy with mild/well controlled underlying maternal health conditions
Organ transplants	• SOT recipients who underwent a transplant in the last 6 months • Patients on twice daily immunosuppression • Pregnant transplant patients • Transplant patients diagnosed with New Onset Diabetes Post Transplant requiring twice daily oral hypoglycemics or insulin treatment • Kidney transplant recipients with reduced kidney function (eGFR<30 ml/min) • Patients with unstable graft function, rejection episodes and opportunistic infections	• Kidney transplant recipients with reduced kidney function (eGFR 60-30 ml/min) • Heart, lung, liver, small bowel, pancreas and multi-organ transplant recipients with reduced graft function • Patients at risk of dehydration due to fluid restriction requirements, need for diuretics or if they would be unable to meet their daily fluid intake requirement set by their transplant team	• Transplant patients not in the above categories. We would advise patients to discuss the suitability of fasting and monitoring necessary with their relevant transplant teams
Solid tumors	• Patients on clinical trials • Patients requiring inpatient treatment for cancer (or complications of cancer) • Patients undergoing radical radiotherapy (especially head and neck, CNS and upper GI malignancies) • Patients receiving immunotherapy	• Patients receiving intravenous chemotherapy who: • have newly commenced (cycles 1-2) their treatment regime • are experiencing significant side effects • Patients receiving oral chemotherapy or targeted therapy: • that require twice daily dosing	• Patients receiving oral chemotherapy or targeted therapy, if: ○ they are on a once daily dosing regime ○ the drug pharmacokinetics allow it to be taken whilst fasted ○ they are well established on treatment ○ they have no/few manageable side effects

		• that must be taken with food
		• who are experiencing significant side effects
		• Patients receiving a course of radiotherapy (with or without chemotherapy)
		• Patients immediately following cancer surgery
			• Patients receiving intravenous chemotherapy, if:
			  ○ they are well established (cycle 3 or beyond) on their treatment regime
			  ○ they have no/few manageable side effects
			• Patients on intravenous maintenance therapies (eg trastuzumab, bevacizumab) with no/few manageable side effects
			• Patients on endocrine therapy or androgen deprivation therapies with no/few manageable side effects
			• Patients receiving radiotherapy for skin cancer or breast cancer (if otherwise well)
			• Patients receiving palliative (single fraction) radiotherapy (if otherwise well)
			• Patients under cancer surveillance, who are more than 3 months beyond completion of cancer therapies (including surgery) and have recovered sufficiently.

Mental health[b]	• Anorexia/bulimia nervosa with purging by vomiting; severe laxative abuse • Severe substance dependence disorder where stopping regime may cause harm • Medication dosing interval shorter than fasting hours, and necessary to prevent relapse/harm • Poorly controlled SMI disorders (including clozapine use) • Risk of electrolyte imbalance (e.g. lithium or metformin) or medication out of range	• Stable bipolar/psychosis with medication regime compatible with fasting hours, >6m since relapse. Monitor during Ramadan	• Mild mental health illness not affecting functioning • Well controlled mental illness (no relapses in previous 12m) with previous history of safe fasting

1. This is not an exhaustive list and is to be used for informative and shared decision making by healthcare professionals with patients. It does not form a directive. In all categories, patients should be advised to follow medical opinion due to probability of harm. Where appropriate, expert individualised medical advice must be sought before any decisions around fasting in Ramadan are made.
2. If a patient's condition is not on this table and they have uncertainty or concerns about fasting, then they should seek medical advice before doing so. If this is not possible and they decide to fast, the advice given regarding terminating the fast should be followed.
3. The **decision to fast is a personal decision for the individual concerned**, who should be supported to achieve best possible outcomes.
4. Consider upgrading risk if unable to seek timely medical attention and make necessary changes to medication regime, arrange baseline blood tests, or other preparation that usually precedes fasting, due to the effect of COVID-19 on health services.
5. Frailty is recognised by NICE as a predictor of worse outcome with COVID-19. Use the Rockwood clinical frailty score (CFS) to assist with making assessments on risks of fasting in frail patients. Also take caution with obesity (noting lower cut off for S.Asian patients) risk in COVID-19.
6. Ensure adequate hydration and nutrition; social distancing, isolation and shielding may be beneficial in this respect
7. In the context of the COVID-19 pandemic, episodes of illness should be taken seriously and strong consideration should be given to breaking the fast, as the onset of illness can be rapid. Recovery from COVID-19 may also be prolonged. See Figure 1 and section on acute illness for details.
8. Islamic jurists advise that any missed fasts should be made up in the future. However, if one's health takes a permanent decline such that even fasting during the winter period becomes unsafe or impossible, the fidyah would have to be paid. Patients should speak to a trusted religious authority before doing so.

* Expert-recommended upgrading risk due to COVID-19
[a] For breastfeeding please refer to the MCB Ramadan Health Factsheet
[b] Issues relating to capacity are discussed in the General Principles section of this review

Table 1 - Risk stratification by body condition/disease