


COVID-19 infection in people with or without previously recognised diabetes increases the risk of the EMERGENCY states of hyperglycaemia with ketones, Diabetic Ketoacidosis (DKA) and Hyperosmolar Hyperglycaemic State (HHS)

The guidance in this document is based on experience from UK centres and will be updated as more evidence becomes available.

WHERE CHANGE SEEN	KEY DIFFERENCE WITH COVID-19	SUGGESTED ACTION
Early in admission	<p>People with COVID-19 infection appear to have a greater risk of hyperglycaemia with ketones including:</p> <ul style="list-style-type: none"> • People with type 2 diabetes (risk even greater if on a SGLT-2 inhibitor) • People with newly diagnosed diabetes <p>COVID-19 disease precipitates atypical presentations of diabetes emergencies (eg, mixed DKA and hyperosmolar states)</p>	<ul style="list-style-type: none"> • Check blood glucose in everybody on admission • Check ketones in: <ul style="list-style-type: none"> ○ everybody with diabetes being admitted ○ everybody with an admission glucose over 12 mmol/l • Stop SGLT-2 inhibitors AND metformin in all people admitted to hospital • Consider using 10-20% dextrose where ketosis persists despite treatment in line with CUH DKA Guideline
Severe illness on admission	<p>Fluid requirements may differ in those with DKA/HHS and evidence of “lung leak” or myocarditis</p>	<ul style="list-style-type: none"> • After restoring the circulating volume the rate of fluid replacement regimen may need to be adjusted where evidence of “lung leak” or myocarditis • Contact the diabetes specialist team early • Early involvement of the critical care team
All inpatient areas	<p>Infusion pumps may not be available to manage hyperglycaemia using intravenous insulin as these are required elsewhere (e.g. for sedation in ICU)</p>	<ul style="list-style-type: none"> • Use alternative s/c regimens to manage <ul style="list-style-type: none"> ○ Hyperglycaemia ○ Mild DKA • Contact the diabetes specialist team for support
ICU	<p>Significant insulin resistance seen in people with type 2 diabetes in ICU settings</p>	<ul style="list-style-type: none"> • IV insulin protocols may need amending (people seen requiring up to 20 units/hr) • Patients often nursed prone so feeding may be accidentally interrupted – paradoxical risk of hypoglycaemia

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**Management of Acute Diabetes at the Front Door for Emergency Departments & Acute Medical
 Units**

Patient Assessment: **ABCDE**
NOTE: Shortness of Breath can also be due to METABOLIC Acidosis (e.g DKA)

Ensure **ALL** newly admitted patients are **evaluated for diabetes**

GLUCOSE measurement in ALL patients and KETONE check if known diabetes or blood glucose level above 12mmol/L
STOP SGLT-2 inhibitor (Cana-/Dapa-/Empa- or Ertugliflozin) and Metformin in ALL patients
REVIEW safety of continuing ACE-inhibitors, ARBs, NSAIDs

