Diabetic Ketoacidosis (DKA)

NHS.UK DKA Guidance (Jun 2023) | JBDS DKA Guidelines (Mar 2023) | Diabetes UK (Nov 2024)

999: DKA Symptoms Present

- ☐ Blood ketones above 3 mmol/L plus vomiting, abdominal pain, fruity breath, confusion, or laboured breathing
- ☐ Drowsy, confused, or unresponsive at any ketone level
- ☐ DKA symptoms in a person with no known diabetes diagnosis, particularly a child or young adult
- ☐ Insulin pump failure with DKA symptoms: pump users deteriorate rapidly without insulin delivery
- ☐ DKA symptoms in a pregnant person with diabetes, even at mildly elevated glucose
- ☐ Do not advise driving. Ask them to bring their medicines.

URGENT: Same-Day Clinical Assessment

- ☐ Blood ketones 1.6 to 3 mmol/L require same-day specialist advice, even if the patient appears clinically well.
- ☐ Ketones above 3 mmol/L without clear symptoms: same-day specialist contact
- ☐ On SGLT2 inhibitor with any DKA symptoms, regardless of blood glucose level
- ☐ Glucose persistently high, not responding to insulin, or vomiting repeatedly
- ☐ No ketone test available but DKA symptoms present: refer urgently and do not delay for ketone measurements.

SGLT2 inhibitors (empagliflozin, dapagliflozin, canagliflozin, ertugliflozin) can cause DKA at normal glucose. Never dismiss symptoms based on the glucose reading.

KETONES: Quick Assessment Framework

K	**Ketones checked?**	Blood or urine? Blood ketones are preferred; urine ketones lag behind by several hours.
E	**Eating and drinking?**	Able to keep fluids down? Persistent vomiting causes dehydration and may make insulin administration difficult or unreliable.
T	**Thirst and toilet?**	Excessive thirst and polyuria suggest high glucose or new-onset diabetes.
O	**On SGLT2 inhibitor?**	DKA can occur at normal glucose. Act on symptoms, not the glucose reading.
N	**Nausea, vomiting, or pain?**	Vomiting and abdominal pain are classic DKA symptoms. Abdominal pain may indicate significant metabolic disturbance.
E	**Exhausted or confused?**	Any drowsiness, confusion, or altered consciousness: call 999 immediately.
S	**Send if red flags present**	999 if symptoms + ketones above 3 mmol/L. Same-day diabetes team or NHS 111 if ketones 1.6 to 3 mmol/L.

SELF-CARE: Ketones 0.6 to 1.5, Feeling Well

- ☐ Do NOT stop insulin, even if not eating
- ☐ Increase sugar-free fluid intake and retest every 2 hours
- ☐ Contact diabetes team for advice on insulin dose adjustment and ongoing sick-day management
- ☐ Escalate immediately if vomiting starts or ketones rise above 1.5 mmol/L

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