

Diabetic ketoacidosis and hyperglycemic hyperosmolar state

Knowing the difference between the two is essential to ensure patients receive prompt, proper treatment.



	Diabetic ketoacidosis	Hyperglycemic hyperosmolar state
Diabetes type	<ul style="list-style-type: none"> Type 1 Ketosis-prone Type 2 	<ul style="list-style-type: none"> Type 2
Onset	<ul style="list-style-type: none"> Rapid (typically 24 hours) 	<ul style="list-style-type: none"> Gradual
Blood glucose levels	<ul style="list-style-type: none"> 350-500 mg/dL 	<ul style="list-style-type: none"> >800 mg/dL
Serum ketones/anion gap	<ul style="list-style-type: none"> Present/elevated 	<ul style="list-style-type: none"> Usually absent or low/usually normal
Serum osmolality	<ul style="list-style-type: none"> 300-320 mOsm/kg 	<ul style="list-style-type: none"> 330-440 mOsm/kg
Other findings	<ul style="list-style-type: none"> Acetone breath Kussmaul breathing 	<ul style="list-style-type: none"> Altered mental status Significant dehydration
Diagnostic criteria	<ul style="list-style-type: none"> Elevated blood glucose Anion-gap acidosis Serum ketones 	<ul style="list-style-type: none"> Elevated blood glucose Elevated serum osmolality Mental status changes
Treatment	<ul style="list-style-type: none"> I.V. insulin and I.V. fluids 	<ul style="list-style-type: none"> I.V. fluids and I.V. insulin
Resolution	<ul style="list-style-type: none"> Anion gap normalized Ketones improved 	<ul style="list-style-type: none"> Alert Serum osmolality <315 mOsm/kg

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Buchert LK. 2021;16(9):6-12.

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