

Diabetic ketoacidosis care pathway 2

4 hours to discharge

Time bundle started: _____ NAME: *Affix label*
 Location: _____
 Date: _____

Whenever possible, all patients should be notified to the diabetes team within 12 hours of admission

Aim: To improve management of diabetic ketoacidosis in adults aged 16 years and over more than 4 hours after presentation

Definition: Severe uncontrolled diabetes with: a) ketonaemia/ketonuria; b) metabolic acidosis: c) usually with hyperglycaemia

Subsequent Management ✓

Review Blood Glucose results and U&Es	
Prescribe usual long acting insulin SC if relevant along with IV insulin (Detemir, Glargine, Insulatard, Humulin I etc) at patient's usual times	
Continue Sodium chloride 0.9% + KCl at 250 mls/hr until BG <14 mmol/L	

When Blood Glucose falls <14 mmol/L (If not fallen in first 4 hours)

<ul style="list-style-type: none"> Commence Glucose 10% with 20 mmol KCl 100ml/hour Reduce Sodium chloride 0.9% to 150mls/hour + KCL (according to K+ table below) Reduce insulin to 3 units/hour Maintain Blood Glucose >9 mmol/L and ≤14 mmol/L adjusting insulin rate as necessary 	
Review U&Es	
Review K+ result and replace KCl in 500 ml Sodium Chloride 0.9% bag as: <ul style="list-style-type: none"> None if anuric or > 5 mmol/L 10 mmol if level 3.5-5 mmol/L 20 mmol if level <3.5 mmol/L 	

Measure and record Lab glucose, U&Es and HCO₃ 4 hourly for 24 hours (Measure lab BG 2 hourly if BG>20mmol/l)

8 12 16 20 24

Convert back at next convenient meal time to usual sc insulin regimen when: <ul style="list-style-type: none"> HCO₃ within normal reference range Patient eating normally Stop iv fluids and iv insulin 30 mins after usual injection of pre-meal sc insulin	
Phone/refer for specialist diabetes review before discharge. If not available, ensure specialist team receives a copy of the discharge summary	
Do not discharge until HCO ₃ normal, established on usual sc regimen and eating normally	

If Blood Glucose rises >14 mmol/L after glucose commenced ✓

<ul style="list-style-type: none"> Continue Glucose 10% with 20mmol KCL at 100ml/hour Continue Sodium chloride 0.9% at 150mls/hour + KCL Increase insulin to maintain Blood Glucose > 9 mmol/L and ≤14 mmol/L When Blood Glucose ≤ 14mmol/L adjust insulin rate as necessary to maintain Blood Glucose > 9 and ≤ 14 mmol/L 	
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Good Clinical Practice

Record SEWS/MEWS/SIRS and GCS score. Finger prick Blood Glucose hourly	
Review other investigations	
If not improving at start of this bundle: <ul style="list-style-type: none"> Check that equipment is working Confirm venous access is secure Check non-return valve on pump Replace 50ml syringe with fresh saline & insulin Call consultant/senior physician if all the above is working and patient still deteriorating 	

Supplementary Notes

1. Continuation of Insulin It is reasonable to use a point-of-care blood glucose meter to monitor blood glucose level if the previous laboratory blood glucose value is less than 20 mmol/L.

2. Consider Precipitating Factors

- Common causes include:
- Omissions of insulin
 - Infection
 - Newly diagnosed

- Myocardial infarction
- Combination of the above.
- Some or all of the following may have contributed to the DKA episode:
 - Errors in insulin administration
 - Faulty equipment
 - Practical problems.

3. Refer for Specialist Diabetes review as soon as possible

- For local diabetes Service:
- Insert No here _____

Ensure insulin is prescribed before patient leaves hospital.

