Managing hyperglycaemia in Acute Coronary Syndrome (1st 48 hours)

At any point consider seeking advice from the diabetes team. Mon-Fri 8:30-5pm.
Diabetes Specialist Nurse page: 4872. Registrar page 5416. email: Tay-UHB.diabendorefferrals@nhs.net

Check random laboratory blood glucose and finger prick glucose on admission

Blood glucose >11mmol/L
(on either sample) → YES → Check for ketones

Ketone positive (> 0.6 mmol/L in blood fingerpick, or > ++++ in urinalysis) consider intensive insulin therapy using intravenous (IV) insulin with 10% dextrose ± KCl*
Seek advice from Diabetes Team for ongoing management

NO

BG >7 mmol/l and / or known diabetes → YES

Ketone negative (< 0.6 mmol/L in blood fingerpick, negative urinalysis)
• Manage hyperglycaemia effectively & safely, avoid hypoglycaemia
• Minimum 4 x daily blood glucose levels, aim for target blood glucose 5-10mmol/L
• In Type 2 diabetes consider whether target can be quickly and more safely achieved by adjusting current medication ** or adding/adjusting subcutaneous insulin
• In Type 1 diabetes consider IV insulin infusion, check serum K+ at 0, 6, 12 & 24 hours*
• In Type 1 diabetes continue background basal insulin (Lantus/Levemir) daily to reduce risk of Diabetic Ketoacidosis

NO, and not known to have diabetes → See overleaf: Use algorithm for diagnosis of diabetes information: http://www.diabetes-healthnet.ac.uk/Default.aspx?pageid=388


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**METFORMIN**
- Stop pre-contrast or whilst significantly unwell
- Stop if eGFR<30mls/min
- Reduce to 500mg bd if eGFR 30-45mmol/mol

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**SULPHONYLUREAS**
- Gliclazide, Glipizide, Glimepiride

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**PIOGLITAZONE**
- Stop
- Generally safe but risk of hypoglycaemia
- Risk of fluid retention
- Potentiation of cardiac failure

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**GLIPTINS**
- Sitagliptin, Alogliptin, Saxagliptin
- Alogliptin and Saxagliptin may increase the risk of heart failure
- Suggest continue and treat to target by addition/substitution of other treatments eg gliclazide, subcut insulin

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**GLP-1 Analogues**
- Liraglutide/Exenatide
- Controversial
- Suggest stop acutely and substitute with subcutaneous insulin where appropriate

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**SGLT2 Inhibitors**
- Empagliflozin/Dapagliflozin
- Risk of DKA/dehydration with intercurrent illness
- Stop acutely and substitute with insulin where appropriate
- Change to Empagliflozin after discharge given cardiovascular outcome benefit

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Testing for Diabetes

Advise patients that high blood glucose after ACS correlates with an increased risk of Type 2 diabetes. Offer tests for:

- **HbA1c pre discharge**
  - normal <42mmol/mol
  - 42-47mmol/mol may be abnormal and OGTT should be considered at around 6 weeks
  - ≥48mmol/mol is abnormal

- Advise to go to GP for blood glucose if experience any of the following:- increased frequency of urination, excessive thirst, weight loss & fatigue.

- Fasting blood glucose no earlier than 4 days after onset of ACS – do not delay discharge – ask GP to check in community (normal < 6.1mmol/l)

- Do not routinely offer oral glucose tolerance tests if HbA1c and fasting blood glucose in normal range

Lifestyle advice and ongoing monitoring in patients without known diabetes

Offer lifestyle advice in line with SIGN/NICE guidance on:

- Healthy eating
- Physical exercise
- Weight management
- Smoking cessation
- Alcohol consumption advice

Offer annual monitoring of HbA1c and fasting blood glucose to people without known diabetes

Ongoing management in patients with diabetes