

## Diabetes Endoscopy - Full Clinical Guideline

Ref No: CG-ENDO/2023/001

### Introduction

Guidelines for Adult Patients with Diabetes undergoing Endoscopic Procedures at **University Hospitals of Derby and Burton NHS Foundation Trust**, covering the Endoscopy Unit at Royal Derby Hospital, Queen's Hospital Burton and Sir Robert Peel Hospital, Tamworth

### Aim

To ensure the safe and effective treatment of patients with diabetes undergoing endoscopic procedures.

The aim is to avoid unnecessary hypoglycaemia during periods of fasting.

### Purpose and Scope

The purpose of these guidelines is to provide advice for the management of patients with diabetes undergoing endoscopic procedures. Giving guidance on managing insulin injections, non-insulin injections and oral hypoglycaemics pre, peri and post procedure.

### Guideline

MoviPrep is the preferred default bowel prep for all patients having colonoscopy. Klean Prep or Picolax should only be used for diabetic patients for specific exceptional reasons e.g. allergy to Moviprep or previous intolerance of Moviprep due to increased risk of hypoglycaemia

- **Appendix 1** - Patients on Insulin undergoing Colonoscopy / Flexible Sigmoidoscopy with MoviPrep, Klean Prep or Picolax
- **Appendix 2** - Patients on Non-Insulin Injections and / or Oral Hypoglycaemics undergoing Colonoscopy / Flexible Sigmoidoscopy with MoviPrep, Klean Prep or Picolax.
- **Appendix 3** – Patients on Insulin undergoing Gastroscopy or Flexible Sigmoidoscopy (with enema prep)
- **Appendix 4** – Patients on Non-Insulin Injections and / or Oral Hypoglycaemics undergoing Gastroscopy or Flexible Sigmoidoscopy (with enema prep)

**If you cannot find your medication in the appendices, please contact your own diabetes team**

Close monitoring is recommended during periods of fasting and post procedure.

Any episodes of blood glucose >14mmol, please test for ketones in patients with type 1 diabetes or patients with type 2 diabetes on an SGLT2 inhibitor. Please refer to perioperative guidelines if considering giving subcutaneous insulin.

Please use low sugar fluids for the purpose of hydration. Full sugar Lucozade or lemonade should be used to treat an episode of hypoglycaemia (blood glucose level <4mmol/L). Any episodes of blood glucose <4mmol/L requires treatment as per the Trust hypoglycaemia guidelines.

Please avoid eating high carbohydrate/sugar foods that are advised in colonoscopy meal plan.

### Contacts:

Queens Hospital, Burton diabetes team: On call mobile 07385375932

Royal Derby Hospital diabetes team: On call mobile 07384245434

## Appendix 1

**Patients with diabetes attending for colonoscopy/flexible sigmoidoscopy with MoviPrep Klean Prep, or Picolax - guidance for adjustment of insulin treatment**

- MoviPrep No food after a light lunch the day before the procedure.**
- Klean Prep, or Picolax No food after breakfast the day before the procedure**

<b>Usual medication</b>	<b>Day before the procedure</b>	<b>Day of the procedure Morning procedure</b>
<b>Once daily long acting (evening)</b> e.g. Lantus/Abasaglar/Toujeo/Semglee (Glargine) Levemir (Detemir) Tresiba (Degludec)	Can take normal dose	Take normal dose
<b>Once daily long acting (morning)</b> e.g. Lantus/Abasaglar/Toujeo/Semglee (Glargine) Levemir (Detemir) Tresiba (Degludec)	Take normal dose	Take normal dose
<b>Basal bolus regimes Long and rapid/short acting insulins</b> e.g. once daily (long acting) Lantus/Abasaglar/Toujeo/Semglee (Glargine) Levemir (Detemir) Tresiba (Degludec)  Three times daily (rapid/short acting) Novorapid, Fiasp, Humalog, Lyumjev, Trurapi, Apidra, Humulin S, Actrapid	Continue basal/long acting insulin unchanged  DO NOT take rapid/short acting insulin whilst not eating	Continue basal/long acting insulin unchanged  DO NOT take morning rapid/short acting insulin  Take usual rapid/short acting insulin with next meal.
<b>Twice daily isophane</b> (morning and evening) e.g. Insulatard, Humulin I, Insuman Basal <b>Once daily isophane</b> (morning OR evening) e.g. Insulatard, Humulin I, Insuman Basal	Take HALF morning dose  Take HALF normal evening dose	Take HALF normal morning dose AFTER procedure  Take normal evening dose
<b>Twice daily mixed insulin</b> e.g. Novomix 30 Humulin M3 Humalog Mix25, Humalog Mix50	Take HALF morning dose  Take HALF normal evening dose	Take HALF normal morning dose AFTER procedure with first post procedure meal  Take normal evening dose
<b>Three times daily mixed insulin</b> e.g. Novomix 30 Humulin M3 Humalog Mix25, Humalog Mix50	Take HALF normal morning dose  DO NOT take lunchtime dose  Take HALF normal evening dose	DO NOT take morning dose  Take normal lunchtime dose with first post procedure meal  Resume usual insulin with evening meal
<b>Insulin pump therapy</b>	Patients should be encouraged to self-manage, for advice refer to diabetes team	

## Appendix 2

**Patients with diabetes having colonoscopy/flexible sigmoidoscopy with MoviPrep, Prep, or Picolax guidance for adjustment of tablets and non-insulin injections**

**Klean**

- MoviPrep No food after a light lunch the day before the procedure**
- Klean Prep, or Picolax No food after breakfast the day before the procedure**

<b>Usual medication</b>	<b>Day before the procedure</b>	<b>Day of the procedure Morning procedure</b>	<b>Day of the procedure Afternoon procedure</b>
<b>Metformin*</b> <b>Metformin MR*</b>	DO NOT TAKE	DO NOT take whilst not eating	DO NOT take whilst not eating
<b>Sulphonylureas</b> Gliclazide Glibenclamide Glipizide Glimepiride Tolbutamide	DO NOT TAKE	DO NOT take whilst not eating	DO NOT take whilst not eating
<b>Pioglitazone</b>	CAN TAKE USUAL MORNING DOSE with food	DO NOT take whilst not eating	DO NOT take whilst not eating
<b>Prandial Glucose Regulators</b> Repaglinide Nateglinide	DO NOT take whilst not eating	DO NOT take whilst not eating	DO NOT take whilst not eating
<b>DPP-4 inhibitors</b> Sitagliptin Alogliptin Linagliptin	CAN TAKE USUAL MORNING DOSE with food	DO NOT take whilst not eating	DO NOT take whilst not eating
<b>SGLT2-inhibitors</b> Dapagliflozin Empagliflozin Canagliflozin	DO NOT take whilst not eating	DO NOT take whilst not eating	DO NOT take whilst not eating
<b>GLP-1 agonists (daily)</b> Byetta (Exenatide) Liraglutide (Victoza) Lixisenatide Semaglutide (Rybelsus)	DO NOT TAKE the day before procedure	DO NOT take whilst not eating	DO NOT take whilst not eating
<b>GLP-1 agonists (weekly)</b> Bydureon (Exenatide) Dulaglutide (Trulicity) Semaglutide (Ozempic)	For weekly injections DO NOT take 48 hours before procedure. Can restart 24 hours after the procedure/as per manufacturers advice		
<b>Insulin/GLP-1 agonists</b> Xultophy	DO NOT take for 24 hours before procedure	DO NOT take whilst not eating	DO NOT take whilst not eating

\*Metformin preparations should be avoided 48 hours before and after IV contrast enhanced endoscopic procedure

## Appendix 3

**Patients with diabetes having gastroscopy or flexible sigmoidoscopy (with enema preparation) - guidance for adjustment of insulin treatment**

Usual medication	Day before the procedure	Day of the procedure Morning procedure	Day of the procedure Afternoon procedure
<b>Once daily long acting (evening)</b> e.g. Lantus/Abasaglar/Toujeo/Semglee (Glargine) Levemir (Detemir) Tresiba (Degludec)	Take normal dose	Take normal dose	Take normal doses
<b>Once daily long acting (morning)</b> e.g. Lantus/Abasaglar/Toujeo/Semglee (Glargine) Levemir (Detemir) Tresiba (Degludec)	Take normal dose	Take normal dose	Take normal doses
<b>Basal bolus regimes</b> <b>Long and rapid/short acting insulins</b> e.g. once daily (long acting) Lantus/Abasaglar/Toujeo/Semglee (Glargine) Levemir (Detemir) Tresiba (Degludec)  Three times daily (rapid/short acting) Novorapid, Fiasp, Humalog, Lyumjev, Trurapi, Apidra, HumulinS, Actrapid	Take normal doses	Continue basal/long acting insulin unchanged  DO NOT take morning rapid/short acting insulin  Take usual rapid/short acting insulin with next meal.	Continue basal/long acting insulin unchanged  Take usual rapid/short acting insulin with breakfast (before 07:30)  DO NOT take lunchtime rapid/short acting insulin  Take usual rapid/short acting insulin with next meal after procedure
<b>Twice daily isophane</b> (morning and evening) e.g. Insulatard, Humulin I, Insuman Basal  <b>Once daily isophane</b> (morning OR evening) e.g. Insulatard, Humulin I, Insuman Basal	Take normal doses	Take normal doses	Take normal doses
<b>Twice daily mixed insulin</b> e.g. Novomix 30 Humulin M3 Humalog Mix25, Humalog Mix50	Take normal doses	DO NOT take any insulin at breakfast  Take HALF normal morning dose with lunch AFTER procedure  Take normal evening dose	Take half normal morning dose with breakfast (before 07:30)  Take normal evening dose

**Appendix 3** (continued)**Patients with diabetes having gastroscopy or flexible sigmoidoscopy (with enema preparation) - guidance for adjustment of insulin treatment**

<b>Usual medication</b>	<b>Day before the procedure</b>	<b>Day of the procedure Morning procedure</b>	<b>Day of the procedure Afternoon procedure</b>
<b>Three times daily mixed insulin</b> e.g. Novomix 30 Humulin M3 Humalog Mix25, Humalog Mix50	Take normal doses	DO NOT take morning dose  Take HALF normal morning dose with lunch after procedure  Take normal insulin dose with evening meal	Take half normal morning dose with breakfast (before 07:30)  DO NOT take lunchtime insulin  Take normal dose with evening meal
<b>Insulin pump therapy</b>	Patients should be encouraged to self-manage, for advice refer to diabetes team		

## Appendix 4

**Patients with diabetes having gastroscopy or flexible sigmoidoscopy (with enema preparation) - guidance for adjustment of tablets and non-insulin treatments.**

<b>Usual medication</b>	<b>Day before the procedure</b>	<b>Day of the procedure Morning procedure</b>	<b>Day of the procedure Afternoon procedure</b>
<b>Metformin*</b> <b>Metformin MR*</b>	Take as usual unless advised by doctor to omit	Take as usual unless advised by doctor to omit	Take as usual unless advised by doctor to omit
<b>Sulphonylureas</b> Gliclazide Glibenclamide Glipizide Glimepiride Tolbutamide	Take as usual	Once daily dose DO NOT take in morning  Twice daily dose DO NOT take in morning Take as usual AFTER procedure	Once daily dose DO NOT take in morning  Twice daily dose DO NOT take either dose
<b>Pioglitazone</b>	Take as usual	Take as usual	Take as usual
<b>Prandial Glucose Regulators</b> Repaglinide Nateglinide	Take as usual	DO NOT take day of procedure	DO NOT take day of procedure
<b>DPP-4 inhibitors</b> Sitagliptin Alogliptin Linagliptin	Take as usual	DO NOT take day of procedure	DO NOT take day of procedure
<b>SGLT2-inhibitors</b> Dapagliflozin Empagliflozin Canagliflozin	Take as usual	DO NOT take day of procedure	DO NOT take day of procedure
<b>GLP-1 agonists (daily)</b> Byetta (Exenatide) Liraglutide (Victoza) Lixisenatide Semaglutide (Rybelsus)  <b>GLP-1 agonists (weekly)</b> Bydureon (Exenatide) Dulaglutide (Trulicity) Semaglutide (Ozempic)	Take as usual if morning injection  DO NOT take if evening injection  For weekly GLP-1 analogues like DO NOT TAKE for 48 hours before procedure. Can restart 24 hours after the procedure/as per manufacturers advice	DO NOT take day of procedure	DO NOT take day of procedure
<b>Insulin/GLP-1 agonists</b> Xultophy	Take as usual if morning injection  DO NOT take if evening injection	DO NOT take whilst not eating	DO NOT take whilst not eating

\*Metformin preparations should be avoided 48 hours before and after IV contrast enhanced endoscopic procedure

**Documentation Controls**

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**References:**

Clinical guidelines for the perioperative management of patients with diabetes.

Clinical guidelines for the treatment of hypoglycaemia

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**Keywords**

Colonoscopy, Sigmoidoscopy, Gastroscopy Endoscopy, Diabetes, Inpatients