

# Patient information

## Management of Diabetes before and after surgery or procedure

### *Information for patients with diabetes undergoing surgery or procedures requiring a period of fasting*

Surgical procedure .....

Date of procedure .....

Last HbA1c .....Date .....

Name of doctor/nurse .....

Signature .....

Date .....

**Addressograph**

*If you are unsure and/or need to clarify the Diabetes medication instructions please contact the Diabetes Surgical Specialist Nurse on 01284 712810 to leave a message.*

Before your operation or procedure, **please follow the Diabetes medication instructions** given at the Pre Admission Unit, and highlighted/circled on this leaflet on the table marked “What to do with your medication before surgery”. Depending on your medication, you may need to refer to both tables. It is important to follow the eating and drinking instructions on your hospital letter inviting you for your surgery; **please do this or it may affect you proceeding with your surgery.**

If you test your blood sugars, **please check on waking and then hourly** until you arrive on the ward and bring the results with you.

## **How will this pre-operation starvation affect my diabetes?**

With good planning your blood sugar should not be affected too much. However starving before a procedure may increase the risk of a low blood sugar (“hypo” - CBG < 4mmol/l).

**Please follow these instructions if you experience a low blood sugar,** symptoms include:

- sweating
- dizziness
- blurred vision or
- shaking

Please test your blood sugar if you are able to do so. If your blood sugar is less than 6 mmol/L and you usually take **insulin or tablets called Glipizide, Gliclazide or Glibenclamide**, either take Dextroglucose or four glucose/dextrose tablets. Please repeat test 15 minutes later to ensure increased above 6mmol/L; if not, repeat glucose/dextrose tablets **ALSO** please tell hospital staff on arrival that you have done this because it is possible that your surgery may have to be delayed or rearranged for another day for your safety.

Do not drive on the day of your operation, the following day or until you have been advised it is safe to do so according to the surgeon’s advice.

When you travel to and from the hospital for your operation/procedure, please carry dextrigel, some glucose tablets or a sugary drink with you. **Remember** the DVLA states your blood sugar needs to be 5mmol/l or above to be able to drive.

## **What do I need to bring with me to hospital for my diabetes?**

- All your diabetes medication including insulin, syringes, needles and cartridges, pump consumables and any other tablets in their original boxes.
- Any blood testing equipment that you use at home e.g. meters, strips and record book with readings (if you usually monitor your blood glucose).
- Usual hypo treatment for after your procedure when eating and drinking eg glucose/dextrose tablets, jelly babies, jelly beans.
- Please ensure you take responsibility for any used needles while an inpatient and **directly dispose of them into a sharps box yourself.**

## **On arrival at the hospital**

Please inform the greeting ward nurse you have Diabetes. Your blood sugar will be checked and if it is between 6mmol/l and 12mmol/l your operation will be able to go ahead from a Diabetes perspective. However if it falls outside this range it will be treated as appropriate, but if your blood sugar does not stabilise we may need to postpone your operation; this is an anaesthetist/surgeon decision, for your safety.

## Pre-surgery adjustment of non–insulin Diabetes medication

(at Pre-Assessment Unit (PAU): Doctor/Nurse - please circle/highlight medication instructions to be followed)

Tablets	Day prior to admission	Day of surgery	
		Patient for morning surgery	Patient for afternoon surgery
<b>Meglitinide</b> (repaglinide or nateglinide)	Take as normal	Omit your morning dose	Take your morning dose when eating breakfast before 7.30am. Do not take your lunchtime dose
<b>Metformin / Glucophage MR</b> If you are due to have contrast media this <b>may</b> need to be stopped on the day of the procedure and not taken for a further 48 hours (your surgeon/doctor should tell you this in advance).	Take as normal	If taken once a day – do not stop. If taken twice a day - do not stop. If taken three times a day - omit your lunchtime dose only.	If taken once a day - do not stop. If taken twice a day - do not stop. If taken three times a day - omit your lunchtime dose only.
<b>Sulphonylureas</b> (glibenclamide, glipizide, gliclazide/gliclazide MR, glimepiride, gliquidone)	Take as normal	Omit your morning dose.	Omit your morning dose.
<b>Thiazolidinediones</b> (Pioglitazone)	Take as normal	Take as normal	Take as normal
<b>DPP-IV inhibitors</b> (Sitagliptin, saxagliptin, vildagliptin, alogliptin, linagliptin)	Take as normal	Take as normal	Take as normal
<b>GLP-1 analogue</b> (e.g. Exenatide, Liraglutide, Lixisenatide, Bydureon, Trulicity), Semaglutide	Take as normal	Take as normal	Take as normal
<b>SGLT-2 inhibitors (consider stopping if urology surgery)</b> (dapagliflozin, canagliflozin, empagliflozin)	Take as normal	Omit on day of surgery	Omit on day of surgery

***You should resume taking your normal tablets the morning after surgery unless advised not to.***

***Please note: Your blood glucose may be higher than usual for a day or so – please check your blood sugar more regularly if you can, until your blood glucose levels are within range (as advised by your Diabetes provider) and stabilised.***

## Pre-surgery adjustment of insulin Diabetes medication

(at PAU: Doctor/Nurse please circle and document medication instructions to be followed)

Insulins	Day prior to admission	Patient for morning surgery	Patient for afternoon surgery
<b>Once daily (evening):</b> Lantus® / Glargine / abasaglar or Levemir / Detemir® or Degludec / Tresiba® or Xultophy, Insulatard® or Humulin I®, Toujeo	Your dose will need to be reduced by 20%, please give ..... units	Take your usual evening dose tonight provided you are eating and drinking	Take your usual evening dose tonight provided you are eating and drinking
<b>Once daily (morning):</b> Lantus® / Glargine or Levemir / Detemir® or Degludec / Tresiba® or Xultophy, Insulatard® or Humulin I®; Toujeo	No dose change	Your dose will need to be reduced by 20%, please give ..... units	Your dose will need to be reduced by 20%, please give ..... units
<b>Twice daily long-acting – split doses:</b> Lantus® / Glargine or Levemir / Detemir® or Degludec / Tresiba® or Insulatard® or Humulin I® or Toujeo	Take your morning dose as normal. Your evening dose will need to be reduced by 20%, please give ..... units	Your morning dose will need to be reduced by 20%, please give ..... units. Take your usual evening dose tonight provided you are eating and drinking	Your morning dose will need to be reduced by 20%, please give ..... units. Take your usual evening dose tonight provided you are eating and drinking
<b>Twice daily mixes:</b> Novomix 30®, Humulin M3® Insuman comb 15®, Insuman comb 25®, Insuman comb 50® Humalog Mix 25®, Humalog Mix 50®, Insuman Basal	No dose change	Halve your usual morning dose to ..... units. Take your usual evening dose tonight provided you are eating and drinking	Halve your usual morning dose to ..... units. Take your usual evening dose tonight provided you are eating and drinking
<b>3, 4 or 5 insulin injections daily</b>	If taking long acting insulin once or twice daily, your evening dose will need to be reduced by 20% please give ..... units	Omit your morning dose of short/rapid acting insulin as no breakfast is eaten. Your morning dose of basal insulin will need to be reduced by 20% to ..... units. If you normally take a pre-mixed insulin the dose should be halved to ..... units. Take appropriate dose of short/rapid insulin with your lunch if able to eat. Take your usual evening insulin dose tonight provided you are eating and drinking.	Take your rapid acting insulin dose with early light breakfast before 7.30am, adjust dose as needed. Omit lunchtime dose. Your blood glucose will be checked on admission. Take your usual evening insulin dose tonight provided you are eating and drinking.

**You should resume taking your normal insulin the morning after your surgery/procedure. However, your blood glucose may be higher than usual for a day or so, therefore please test your blood sugar more regularly if you are able.**

## What happens after my operation?

- Your blood sugar will be checked regularly during and following your procedure.
- Once you are awake and free from nausea (sickness) you should eat the light snack/meal offered to you. Please inform staff if you feel nauseous at any time.
- With the next normal meal, you should take your usual diabetes medication.
- If you are ready to be discharged before your next meal is due, you will be allowed to go home providing you have eaten the light snack and are not suffering from nausea or sickness. Please return to your usual eating pattern.

## What should I do if I am unwell? (sick day rules)

- **NEVER** stop taking your insulin or tablets unless under medical advice; illness usually increases your body's need for insulin.
- **TEST** your blood glucose level every two hours, day and night, if you have the equipment to do this, until they are stable. If your blood sugar is higher than 15mmol/l seek medical advice.
- **TEST** your urine for ketones every time you go to the toilet or your blood ketones every two hours if you have the equipment to do this. If the urine ketones go over 1.5mmol/l or urine ++2; **SEEK MEDICAL ADVICE IMMEDIATELY**. If you blood ketone test, follow the "traffic light" system.
- **DRINK** at least 100mls water/sugar free fluid every hour; please drink well (non-alcoholic) during illness and keep hydrated.
- **REST** and avoid strenuous exercise as this may increase your blood glucose level during illness.
- **EAT** as normally as you can. If you cannot eat or if you have a smaller appetite than normal, replace solid food during illness, with one of the following:
  - 400mls of milk
  - 200ml carton fruit juice
  - 150 - 200ml non-diet fizzy drink
  - 1 scoop ice cream

## When should I call the Diabetes Specialist Nurses or my GP about my Diabetes?

- If you feel nauseated or vomit and unable to keep food down for four hours.
- Continuous diarrhoea and vomiting, and/or high fever or wound infection.
- High blood sugars and you feel unwell (more than 15mmol/l may indicate you need more insulin. **TEST** your ketones if CBG 12 mmol/l or more.
- Urine ketones ++2 or higher or more than 1.5mmol/l blood ketones; seek **IMMEDIATE** diabetes management advice.

**If you become unwell contact your usual diabetes team, either at you GP surgery or at the hospital. In an emergency, call your GP, attend the Emergency Department or call for an ambulance if indicated. If you are unwell due to the surgery you have just had, please follow your surgical discharge advice.**

*If you would like any information regarding access to the West Suffolk Hospital and its facilities please visit the website for AccessAble (the new name for DisabledGo) <https://www.accessable.co.uk/organisations/west-suffolk-nhs-foundation-trust>*



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