

NORTHERN IRELAND MEDICINES MANAGEMENT Diabetes Supplement

May 2024

The [Endocrine chapter of the Northern Ireland \(NI\) Formulary](#) was updated earlier this year. This newsletter supplement is designed to complement that update. It highlights changes to the NI Formulary and medicines management issues related to diabetes. It is not designed to give an overall summary of diabetes management which should still be based on [NICE guidance](#).



Metformin: If not, why not? New resources available

NICE continues to recommend metformin as first choice for initial treatment of type 2 diabetes for many reasons, such as it's positive effect on weight loss, reduced risk of hypoglycaemic events and additional long-term cardiovascular benefits. The dose of standard-release metformin should be gradually increased over several weeks to minimise the risk of gastrointestinal (GI) side effects. A trial of modified-release (MR) metformin should be prescribed if GI side effects are a problem.

Audits of people living with diabetes in primary care in parts of England and Scotland have shown significant under-prescribing of metformin. Initiatives to empower the patient to titrate the drug to a tolerable level whilst educating them on the importance of taking the drug, have led to a significant increase in the % of patients on an optimum dose of metformin.

Current shortages of some of the second line drugs for diabetes have made it even more important that patients are optimised on the first line agent, metformin. Leaflets have been developed by a multidisciplinary group for use by patients and healthcare professionals to support this medicines optimisation. These simple leaflets are based on leaflets proven to be successful in other parts of the UK and the NI Formulary. The [HSCNI metformin titration patient information leaflet](#) will suit the majority of patients with normal renal function and are designed so the patient can self-titrate to 2g metformin or their maximum tolerated dose. Healthcare professionals initiating metformin should read the [guide](#) to using these metformin initiation/titration leaflets. Categories of patient who are not suitable for the patient leaflet are included in the guide.

STARTING METFORMIN 500mg: PATIENT INFORMATION LEAFLET

You are starting on METFORMIN 500mg tablets. This leaflet is designed to help you understand why you are taking metformin and to get the right dose for you. See [https://www.nhs.uk/medicines/metformin-500mg-tablets/](#) for more information.

How does metformin work?
Metformin helps control blood sugar levels and so helps to slow down the complications of Type 2 Diabetes. It also protects your heart and can help lower cholesterol. For everyone with diabetes symptoms, taking metformin may not make you feel any different. That does not mean it is not working.

Why should I take metformin?
Metformin helps control blood sugar levels and so helps to slow down the complications of Type 2 Diabetes. It also protects your heart and can help lower cholesterol. For everyone with diabetes symptoms, taking metformin may not make you feel any different. That does not mean it is not working.

How do I take metformin?
Metformin is taken once or twice daily with food or just after eating. To reduce the risk of gastric (stomach) side effects it is best to introduce Metformin slowly. The table below describes the usual medicine taking schedule to reach a total daily dose of 2g. If you have been prescribed a lower dose or you are unsure please speak to your pharmacist.

Number of tablets with or after breakfast	Number of tablets with or after evening meal	Total daily dose
1	0	500mg
1	1	1000mg
1	2	1500mg
2	2	2000mg

Health and Social Care

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Action for GP Practices:

- When pharmacological treatment is considered necessary for the management of type 2 diabetes, healthcare professionals should initiate metformin first line. They should read this [guide](#) and decide if the patient is suitable for the [HSCNI metformin titration patient information leaflet](#)
- Check if all* people with type 2 diabetes are on metformin and if they are not, check why not, i.e. check if the patient had an adequate trial of metformin, with slow titration and, as appropriate, the option to switch to metformin MR to overcome GI side effects. Check if the importance of persevering with metformin was explained to the patient.

*exclude patients with eGFR <30mL/min

Health and Social Care

Metformin 500mg Tablets, Patient Care Information Guide

(For healthcare professionals to help patients to implement STARTING METFORMIN 500mg: PATIENT INFORMATION LEAFLET)

Metformin is always the first line oral hypoglycaemic agent in Type 2 Diabetes (unless contraindicated).

Actions: Decrease glycaemic target and increase oral dose of Metformin. Reduce oral dose if necessary. Consider safety data on long-term use of metformin. Consider cardiovascular effect. Use low risk of hypoglycaemia, moderate weight loss. Generally safe in short and long term. Consider risk to reduce weight loss to 10% or more. Consider with other medicines and comorbidities.

Precautions: Use standard regimen, but if it is not tolerated due to GI side effects, use modified regimen. Check to ensure for both.

Warnings: Do not take if you are allergic to metformin or any of the ingredients. Do not take if you are pregnant or breastfeeding.

How to use: Take with food or just after eating. Do not take if you are sick or if you are taking other medicines that may affect the absorption of metformin. Do not take if you are taking other medicines that may affect the absorption of metformin. Do not take if you are taking other medicines that may affect the absorption of metformin.

Side effects: Common side effects include feeling of being sick, diarrhoea, stomach pain and stomach ache. These are often temporary and improve over time. If these occur and do not improve over time or you develop other symptoms, tell your pharmacist. Do not take if you are taking other medicines that may affect the absorption of metformin. Do not take if you are taking other medicines that may affect the absorption of metformin.

Other information: Do not take if you are pregnant or breastfeeding. Do not take if you are taking other medicines that may affect the absorption of metformin. Do not take if you are taking other medicines that may affect the absorption of metformin.

Health and Social Care

Use the most cost effective formulation of metformin

- Metformin 500mg immediate release tablets are the first line choice that will be suitable for the majority of patients. Prescribe the 500mg strength because the 1g tablets are 50 times more expensive than prescribing **2x 500mg** tablets. The 500mg strength tablets are also smaller in size, therefore patients will find them easier to swallow.
- If the patient needs **sustained release metformin**, prescribe it **generically**.



Metformin 1g and 500mg tablets

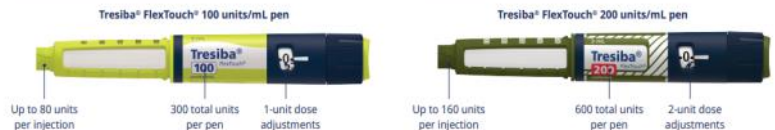


- If a patient cannot swallow solid tablets and can tolerate larger volumes of liquid, **metformin 500mg powder sachets** (£6 per month) is a more cost-effective option than metformin liquid (£52 per month). One metformin 500mg powder sachet should be dissolved in 150ml of water.

Care when using Tresiba 200u/ml Flextouch® pen

There have been some reports of patients taking the wrong dose of deludec (Tresiba®) insulin via Tresiba 200u/ml Flextouch® pen. It is important to be aware that Tresiba® FlexTouch® pen delivery devices **dial up in unit increments rather than volume** and no dose change is necessary. For example, if the patient is currently taking 20 units of Tresiba® 100 units/ml and is swapped to Tresiba® 200 units/ml they will still need to dial 20 units on their insulin pen. As insulin is a high risk medicine, patients should **always** be counselled about any change of insulin delivery device or any change to insulin dose/strength.

Leaflets (for both patient and healthcare professional) for 2 strengths of Tresiba® are available [Risk Minimisation Material: Tresiba® \(insulin degludec\) - Safety information for healthcare professionals regarding two product strengths.](#)



Sitagliptin is now first line DPP4 inhibitor

If a DPP4 inhibitor ('gliptin') is required for a person with diabetes, sitagliptin is now the most cost-effective choice. There is a standard letter available for switching patients on other gliptins to sitagliptin: available on the [Diabetes – Primary Care Intranet \(hscni.net\)](#).

Using generic sitagliptin instead of other gliptins has the potential to save almost **£1million**.

Don't forget to check if the 'gliptin is actually working for the patient! Regular checks of HbA1c may indicate that a different, more potent drug, may be indicated.



Prevention and management of hypoglycaemia

Hypoglycaemia is defined as blood glucose of less than 4mmol/L (if not < 4mmol/L but the patient is symptomatic, give a small carbohydrate snack for symptom relief).

If the patient is conscious, capable and co-operative, give 15-20g quick acting carbohydrate of the patient's choice where possible. Examples are given in on the [Diabetes UK website](#) under 'treating and managing a hypo'

Note: glucose tablets and glucose juice shots (e.g. Lift glucose Juice shots®, Lift Glucose tablets®, Dextro energy®, Lucozade tablets®, Glucotabs®) should not be prescribed; patients should purchase these products. Refer to [HSC Stop List](#).

If the patient is conscious but not capable and / or co-operative, give 2 tubes of oral glucose gel (squeezed into the mouth between teeth and gums) OR glucagon 1mg IM (GlucaGen® Hypokit).

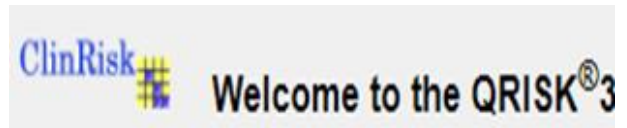
Note: Rapirose® 40% gel (3 X 25g) is the most cost-effective glucose gel to prescribe.



Cardiovascular Risk Management in Type 2 Diabetes

All patients who are initiated on drugs to manage blood glucose (including metformin) should have their cardiovascular (CV) status and risk assessed to determine whether they have chronic heart failure, established atherosclerotic CV disease or are at high risk of developing CV disease.

See the recommendations in [NICE NG28 guideline](#) on using risk scores and [QRISK3](#) to assess cardiovascular disease risk in adults with type 2 diabetes. Following these updated recommendations in the NICE NG28 guideline, more patients will now be eligible for treatment with SGLT2 inhibitors (gliflozins). For more details, refer to the [NICE guidance](#).



Deprescribing in the frail elderly with diabetes

The NICE guideline for type 2 diabetes recommends that people are treated to a HbA1c target of 48 mmol/mol (6.5%), but less stringent targets may be appropriate for people who are older and frail to avoid hypoglycaemic incidents. The targets for blood pressure may have to be changed to avoid unnecessary side effects, e.g. falls, and lipid management may no longer be a priority. See table below for a rough guide.

Functional category	Usual HbA1c target	Usual BP target (mmHg)	Management of lipids
Functionally independent	7.0-7.5% 53-58mmol/mol	<140/90	Actively manage to reduce CV risk
Functionally dependent	7.0-8.0% 53-64mmol/mol	<140/90	Actively manage to reduce CV risk
Frail	Up to 8.5% 69mmol/mol	<150/90	Statin use as clinically indicated
Dementia	Up to 8.5% 69mmol/mol	<140/90 should be attempted	Consider appropriateness of statin in non-atherosclerotic dementia
End of life care	Avoid symptomatic hyperglycaemia	BP control not necessary; consider stopping therapy	Lipid control not necessary; consider stopping therapy

Shortages and discontinuations of drugs to manage blood glucose

Like many other medications, there are currently shortages of some drugs to manage blood glucose. Of note currently are Fiasp[®] FlexTouch[®] insulin 100units/ml 3ml pre-filled injection pens, degludec insulin (Tresiba[®]) 100units/ml FlexTouch[®] pens and various GLP1RA agonists.

In addition, Insulatard[®] InnoLet[®] (insulin isophane human) 100units/ml suspension for injection 3ml pre-filled disposable devices and Levemir InnoLet[®] (insulin detemir) 100units/ml solution for injection 3ml pre-filled disposable devices are being discontinued with remaining stock exhausted by the end of May 2024.

It is important that current national guidance is followed, to best manage these shortages and discontinuations. This guidance is prepared by DHSC, diabetes specialists and representatives of the manufacturing pharmaceutical companies. The most reliable source of current national guidance is the Specialist Pharmacy Service (SPS) [Medicines Supply Tool](#).

The SPS website gives an overview of drug shortages. A login using an HSC email account is required to access SPS website: from the homepage click the 'tools' tab, then 'medicines supply' tab.



This newsletter has been produced for GPs and pharmacists by the Regional Pharmacy and Medicines Management Team. If you have any queries or require further information on the contents, please contact one of the [Pharmacy Advisers](#).

Every effort has been made to ensure that the information included in this newsletter is correct at the time of publication.

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