



شركة الصحة القابضة
Health Holding Company
North Business Unit

Model of Care
Chronic Care

Diabetes Medications

This clinical sub-pathway is part of the system level Diabetes pathway and it focuses on diabetes medication, not including insulin. This pathway provides information about the frequently used medication of patients with diabetes.



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Background

This pathway is intended to provide answers to selected frequently asked questions for PHC physicians on diabetes medication and does not replace other Saudi prescribing guidelines or the [Wasfaty application](#). See also Medication Summary. [🔗](#)

Drugs that can be prescribed by PHC or by [Wasfaty application](#):

- Metformin tablets 500mg and XR tablets 750mg
- Sulphonylureas e.g. glibenclamide tablets 5mg, gliclazide MR tablets 30mg and 60mg, glimepiride tablets 2mg
- Glitazones e.g. pioglitazone tablets 15mg and 30mg
- DPP 4 inhibitors e.g. sitagliptin tablets 100mg, linagliptin tablets 5mg
- SGLT2 inhibitors e.g. empagliflozin tablets 1mg and 2.5mg
- Meglitinides e.g. repaglinide tablets 0.5mg, 1.0mg and 2.0mg

Drugs that require hospital prescription:

- Glucagon-like peptide-1 receptor (GLP-1) agonists e.g. liraglutide multidose syringe pen



Medications

Below is a list of the most frequently prescribed medication for patients with type 2 diabetes:

Metformin:

- Indications:
 - Firstline treatment for type 2 diabetes
 - Can be used to treat prediabetes
- Dose and side effects:
 - Gastrointestinal (GI) intolerance is common. To reduce this, consider:
 - In renal impairment:
 - Vitamin B12 deficiency:

Sulfonylureas (SU):

- Indications:
 - Previously second line treatment of type 2 diabetes (after metformin). Recommended for use when other medications are not available, not tolerated, or if cost is a concern
 - Gliclazide and glimipride are short-acting sulfonylureas and are preferred over glibenclamide
 - Glibenclamide has a more potent and prolonged action. It is associated with hypoglycaemia, especially in older adults
- Dose and side effects:
 - Risk of hypoglycaemia – provide information about the prevention and treatment of hypoglycaemia
 - Associated with weight gain, typically 2 to 3 kilograms
 - Start with a small dose and increase weekly or fortnightly

Glucagon-like peptide-1 receptor (GLP-1) agonists:

E.g. Liraglutide, semaglutide, exenatide, and dulaglutide

- Indications:
 - Consider in all patients with IHD, PVD, or cerebrovascular disease irrespective of HBA1c as shown to reduce cardiovascular disease progression. Refer all patients to a consultant diabetes clinic as not on Essential Drug List for PHC
 - Often used in combination with oral agents, especially metformin
- Side effects:
 - Does not cause hypoglycaemia if used without a sulphonylurea or insulin
 - Induces weight loss, usually around 3 kg
 - GI symptoms (e.g. nausea, vomiting, diarrhoea and abdominal discomfort)



Medications

Glitazones:

E.g. pioglitazone

- Indications:
 - Recommended for use when cost is a major issue or when there is a compelling need to minimize hypoglycaemia
 - Can be used in patients with renal impairment
 - Severe insulin resistance or fatty liver disease
- Dose and side effects:
 - Dose 15 to 30mg once daily
 - Use has been limited due to adverse effects:
 - Glucose-lowering effect may take up to 6 weeks. Make any dose adjustment after this time period
 - Induces weight gain

Dipeptidyl peptidase-4 (DPP-4) inhibitors:

E.g. sitagliptin tablets 100mg, linagliptin tablets 5mg

- Indications:
 - Second-line treatment of type 2 diabetes in patients who do not have cardiovascular disease, renal disease, or heart failure
- Side effects and precautions:
 - Well tolerated but risk of pancreatitis and contraindicated if history of pancreatitis



Medications

Sodium-glucose co-transporter 2 (SGLT2) inhibitors:

E.g. Empagliflozin

- Indications:
 - Consider in all patients with heart failure or chronic renal disease. Refer to diabetes clinic or hospital if the drug is not available on Wasfaty or PHC Essential Drug List
 - Can be used as monotherapy if metformin not tolerated
 - Can be added to metformin, sulfonylurea, or insulin
- Side effects and cautions:
 - Increased rate of genital and urinary tract infections, particularly in women
 - Will not cause hypoglycaemia if used alone or with metformin
 - Can induce weight loss
 - Increased risk of hypoglycaemia if combined with sulfonylurea or insulin
 - Ketoacidosis can occur with minimally elevated glucose readings in patients with severe insulin deficiency. Stop when patients have severe intercurrent illness or dehydration
 - Caution when used in combination with diuretics and/or angiotensin-converting enzyme (ACE) inhibitors and angiotensin receptor blockers due to increased risk of orthostatic hypotension and acute kidney injury
- Dose:
 - If eGFR on routine testing is less than 60, seek endocrinology, nephrology, or pharmacology advice. Stop drug if less than 45 until advice is received

Meglitinides:

E.g. Repaglinide

- Dose and side effects:
 - Can cause hypoglycaemia
 - Associated with weight gain



Information

For health professionals

- Ministry of Health - [MOH Formulary](#)
- This page is consistent with ADA Position Statement on local expert recommendation: https://care.diabetesjournals.org/content/43/Supplement_1/S98.figures-only and may not be consistent with KSA guidelines
- [Wasfaty Link](#) for available medications
- BPACNZ:
 - [Prescribing Glucose-lowering Medicines](#)
 - [Vildagliptin: A New Treatment for Type 2 Diabetes](#)
- Diabetologia – [Clinical Guidelines](#)
- Research Review – [Type 2 Diabetes and the Management of Hyperglycaemia](#)

For patients

- Ministry of Health documents on:
 - [Diabetes](#)
 - [Type 1 Diabetes](#)
 - [Type 2 Diabetes](#)
 - [Type 2 Diabetes Medication](#)



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