


THIAZOLIDINEDIONES (also known as GLITAZONES)

(Pioglitazone is the only available thiazolidinedione) Reduces peripheral insulin resistance, leading to a reduction of blood glucose concentration

DRUG	NOTES	FORMULARY CHOICE	PRECAUTIONS / CONTRA-INDICATIONS / LESS DESIRABLE PATIENT GROUPS
<p>Pioglitazone (Actos®)</p> <p> Green</p> <p>Cost per month (Dec 2015): 15–45mg daily £1.17-£1.61</p>	<p>NICE guidance (NG28): <i>In adults with type 2 diabetes, if:</i></p> <ul style="list-style-type: none"> • <i>metformin is contraindicated or not tolerated, consider initial drug treatment with:</i> <ul style="list-style-type: none"> ○ <i>a dipeptidyl peptidase-4 (DPP-4) inhibitor or</i> ○ <i>pioglitazone or</i> ○ <i>a sulfonylurea</i> • <i>initial drug treatment with metformin has not continued to control the HbA1c to below the person's individually agreed threshold for intensification, consider dual therapy with:</i> <ul style="list-style-type: none"> ○ <i>metformin and a DPP-4 inhibitor or</i> ○ <i>metformin and pioglitazone or</i> ○ <i>metformin and a sulfonylurea</i> • <i>metformin is contraindicated or not tolerated, and initial drug treatment with metformin has not continued to control the HbA1c to below the person's individually agreed threshold for intensification, consider dual therapy with:</i> <ul style="list-style-type: none"> ○ <i>a DPP-4 inhibitor and pioglitazone or</i> ○ <i>a DPP-4 inhibitor and a sulfonylurea or</i> ○ <i>pioglitazone and a sulfonylurea</i> • <i>dual therapy unsuccessful, consider triple therapy with:</i> <ul style="list-style-type: none"> ○ <i>metformin, a DPP-4 inhibitor and a sulfonylurea or</i> ○ <i>metformin, pioglitazone and a sulfonylurea</i> 	<p>Pioglitazone is the only thiazolidinedione available</p>	<p>Continue pioglitazone therapy <u>only</u> if there is a reduction of $\geq 5.5\text{mmol/mol}$ (0.5%) in HbA1c in 6 months</p> <p>Do NOT start or continue pioglitazone in people who:</p> <ul style="list-style-type: none"> • have heart failure (NYHA class I-IV) • are at a higher risk of fracture • have macular oedema • have a history of bladder cancer or in patients with uninvestigated macroscopic or microscopic haematuria <p>Risk of bladder cancer: MHRA safety update. This is now very out of date (2011), although still quoted in NG28, and the accumulated evidence makes the link with bladder cancer unlikely.</p> <p>Cases of cardiac failure have been reported when pioglitazone was used in combination with insulin, especially in patients with risk factors for the development of cardiac failure. If the combination is used, patients should be observed for signs and symptoms of heart failure, weight gain, and oedema.</p> <p>Risk of cardiac failure when combined with insulin: MHRA safety update</p> <p>Pioglitazone can cause weight gain.</p> <p>Discuss the potential benefits and risks of treatment with pioglitazone with the person to enable them to make an informed decision. Pioglitazone may be preferable to a gliptin if:</p> <ul style="list-style-type: none"> • the person has marked insulin insensitivity, or

	<p>Licensed as:</p> <ul style="list-style-type: none">• Dual therapy with metformin or sulfonylurea.• Triple therapy with metformin and a sulfonylurea.• Insulin (if metformin not appropriate)		<ul style="list-style-type: none">• the person has previously had a poor response to, or did not tolerate, a gliptin. <p>Renal impairment (SPC): No dose adjustment is necessary in patients with impaired renal function (creatinine clearance > 4 ml/min).</p> <p>Do not use if hepatically impaired. No dose adjustment is necessary for elderly patients. Start with the lowest available dose and increase gradually, particularly when used in combination with insulin.</p> <p>NB Pioglitazone is one of the few drugs that, like GLP-1 receptor agonists and DPP4 inhibitors, preserve beta cell function.</p>
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