# Glitazones in treatment regimens: The experts' views

Following the publication of a recent meta-analyses, the journal's Editor, Colin Kenny, composed some fictitious case studies with a focus on the glitazones and asked several experts what they would alter in the regimen, if anything, if these individuals presented to them. With thanks to: Cliff Bailey (Professor of Clinical Science, Birmingham), Felix Burden (Consultant Diabetologist, Birmingham), Miles Fisher (Consultant Physician, Glasgow) and Simon Heller (Reader in Medicine, Sheffield).

| Case | Expert 1 | Expert 2 | Expert 3 | Expert 4 |
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| **Bert**<br>(64 years old, market gardener, married, ex-smoker, 87 kg, BMI 31, $HbA_{1c}$ 6.9%, BP 137/72, TC 3.65, TG 1.7)<br>Metformin 500 mg tds<br>Rosiglitazone 8 mg daily<br>Diabetes duration: 4 years | Talk through the risks of rosiglitazone as he is well controlled on it and offer the opportunity to switch to pioglitazone if he has any concerns. If he asked for advice I would suggest he maintains his current therapy. | Would suggest changing to pioglitazone 45 mg daily as it has less CV risk and is cheaper. Measure girth as it may be normal despite the BMI due to his job. If not then suggest exenatide as an option to reduce weight and stop the glitazone. Also explain that he may need simvastatin 40 mg at night and aspirin 75 mg due to CHD risk. | Increase metformin to 500 mg qds. At no time change the existing glitazone except to increase the dose. | Well controlled and at low risk so would not change medication. |
| **Will**<br>(70 years old, retired carpenter, married, non-smoker, 107 kg, BMI 41, $HbA_{1c}$ 8.9 %, BP 143/81, TC 4.2, TG 1.6)<br>Metformin 500 mg tds<br>Gliclazide 160 mg<br>Rosiglitazone 8 mg daily<br>Statin<br>4 antihypertensives<br>Diabetes duration: 18 years | He is poorly controlled. As his BP is so high, even with 4 antihypertensives, he may not be adhering to his regimen. Suggest a trial of insulin and if he agrees stop rosiglitazone and start evening NPH, encouraging him to increase the dose until fasting glucose level is close to normal. He should remain on metformin and sulphonylurea. | Stop rosiglitazone and initiate insulin immediately. Advise gastric banding and check for features of sleep apnoea to ensure he will be able to drive home safely. | Switch from gliclazide to Diamicron MR 30 mg and add insulin. At no time change the existing glitazone except to increase the dose. | He is obese and poorly controlled. Would stop rosiglitazone and suggest exenatide. Increase gliclazide dose to 320 mg and begin a formal weight management programme that may include surgery. |
| **Richard**<br>(61 years old, retired businessman, married, car dependent, ex-smoker, 76 kg, BMI 27, $HbA_{1c}$ 7.1%, BP 126/82, TC 3.7, TG 1.5)<br>Stenting following recent ACS<br>Metformin 500 mg qds<br>Rosiglitazone 8 mg daily<br>ß-blocker<br>ACE inhibitor<br>Aspirin<br>Statin<br>Diabetes duration: 3 years | He is reasonably well controlled on metformin and sulphonylurea. The fact that he has CVD does not alter the issue of whether he should stop or swap the glitazone. Discuss the risks of rosiglitazone and switch to pioglitazone if he has concerns. Avoid the use of insulin if possible and suggest sitagliptin as an alternative. | Would suggest changing to pioglitazone 45 mg daily as it has less CV risk and is cheaper. Check with hospital correspondence and Cochrane to see if he ought to be on clopidogrel. Find out if he has attended all cardiac rehabilitation. | Would add sitagliptin and the case for its use would be argued after prescribing. At no time change the existing glitazone except to increase the dose. | High risk following ACS so would switch to pioglitazone based on the PROactive trial data and intensify lifestyle intervention with a formal cardiac rehabilitation programme. |
| **Dora**<br>(67 years old, lives at home, divorced, non-smoker, 87 kg, BMI 33, $HbA_{1c}$ 8.6%, BP 137/84, TC 4.7, TG 1.7)<br>Presents with vaginal thrush<br>Metformin 500 mg qds<br>Gliclazide 160 mg<br>Aspirin<br>Statin<br>2 antihypertensives<br>Diabetes duration: 9 years | She is poorly controlled. Addition of a glitazone (pioglitazone) is a consideration. In view of her weight, it might be better to try exenatide for 6 weeks. If this fails then consider insulin. Sitagliptin does not have a licence in this situation so is not appropriate. Possibly increase antihypertensives. | Does she have glycosuria? If not then thrush is likely to be a bystander. Treat with an antifungal. Initiate insulin, changing dose when the thrush has resolved. If no glycosuria, there would be the same, or greater, need for antifungal therapy. Offer pioglitazone or exenatide for its weight loss and control benefits. She will need to join a weight loss programme. | Add exenatide as a 'holding exercise' to see how she fares and consider reducing gliclazide to 80 mg or switch to Diamicron MR 30 mg. Probably initiate insulin. | She is obese and poorly controlled. Consider adding exenatide. |

*BMI, body mass index (kg/m$^2$); BP, blood pressure (mmHg); TC, total cholesterol (mmol/l); TG, triglycerides (mmol/l)*