| Describe Prioglitazone | • Thiazolidinedione  
• Protein bound  
• Half life 7 hours  
• Half life when active 24 hours  
• Takes 6 – 12 weeks for max effect to develop  
• Give with metformin, insulin or other hypoglycaemic drugs  
• Side effects: Weight gain (1 – 4hg) due to increase differentiation of adipocytes, fluid retention by stimulating amiloride sensitive Na+ absorption |
| Is it protein bound? | | |
| What is the half life? | | |
| What is the half life when active? | | |
| How long does it take for the max effect to develop? | | |
| What is it given with? | | |
| What are the 2 main side effects? | | |
| Describe incretins | • In the gut, the glucagon gene is processed to give incretins  
• GLP-1 (L cells in distal ileum)  
• GIP (K cells in duodenum)  
• GLP-2  
• GLPs act on beta cells to increase insulin release  
• Incretins are compounds which stimulate insulin release  
• Exendin-4 isolated from saliva of glia monsters 97% homology with GLP-1  
• Exenatide is a synthetic version of Exendin-4 |
| Where and how do incretins act? | | |
| 5 effects | | |
| Which receptor? | • Action on the incretin receptor (GLP-1 receptor)  
• Stimulates insulin release  
• Suppresses glucagon secretion  
• Reduces appetite and body weight  
• Slows gastric emptying  
• Stimulated beta cell number |
| List some incretins | • Byetta (exenatide)  
• Bydureon (sustained release exenatide)  
• Victoza (Liraglutide) (acylated GLP-1 analogue) 97% homology GLP-1  
• Syncial (Albiglutide) (GLP-1 dimer fused to albumin) half life 4 – 7 days  
• Lixisenatide (extended GLP-1 analogue) |
| Describe serine protease Dipeptidyl peptidase 4 (DPP4) inhibitors | • Serine protease Dipeptidyl peptidase 4 (DPP4) breaks down incretins to an inactive form which can then be cleared by the kidney  
• DPP4 inhibitors stop this  
• No effect on weight  
• No hypoglycaemia |
| What is a possible side effect of DPP4 inhibitors? | Increase in incidence of some cancers |