



Comparing the International Clinical Diabetic Retinopathy (ICDR) severity scale

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ICDR severity scale	Scottish grading protocol	English protocol	Example retinal images with labelled features	
Retinopathy grade				
No diabetic retinopathy (DR)	R0	No DR (R0)	Normal retina	
Mild non-proliferative diabetic retinopathy (NPDR) Microaneurysms only	R1 Microaneurysms or haemorrhages with or without hard exudates	Background DR (R1)	Mild NPDR 	Moderate NPDR
Moderate NPDR 1 Any of the following: <ul style="list-style-type: none">microaneurysmsretinal dot or blot haemorrhageshard exudates or cotton wool spots 2. No signs of severe NPDR	R2 4 or more blot haemorrhages in 1 hemifield only			
Severe NPDR 1 More than twenty intraretinal haemorrhages in all 4 quadrants 2 Definite venous beading in 2 or more quadrants 3 Prominent intraretinal microvascular abnormality (IRMA) in 1 or more quadrants 4 No signs of proliferative retinopathy	R3 4 or more blot haemorrhages in superior and inferior hemifields		Severe NPDR 	
Proliferative DR One or both of the following: <ul style="list-style-type: none">neovascularisation (new vessels)vitreous/pre-retinal haemorrhage	R4	Proliferative DR (R3)	Proliferative DR 	
Maculopathy grade				
No macular oedema No exudates or apparent retinal thickening within one disc diameter (DD) of the fovea	M0	M0	Normal macula	
Macular oedema Exudates or apparent thickening within 1 DD of the fovea	M1 Any lesions within 2 DD but more than 1 DD from the fovea	M1	Macular oedema 	Examples of maculopathy showing exudates within 1 disc diameter (DD) of the fovea

DR: diabetic retinopathy, NPDR: non-proliferative diabetic retinopathy, IRMA: intraretinal microvascular abnormality, DD: disc diameter