TYPE 2 DIABETES – SUMMARY OF ANTI-DIABETIC AGENTS

The North West London health and care partnership

Please see individual drug monographs on pages 34-37 and 59-60 for more details.

	Hypoglycaemia	Weight	GI side effects	Cardiovascular risks/benefit	Renal dosing	Liver impairment
Metformin	No	Loss	Common	Benefits Caution in chronic stable heart failure	eGFR 30-44: Max 1g daily dose Contraindicated if eGFR<30	Withdraw if risk of tissue hypoxia, predisposes to lactic acidosis
Sulfonylureas	Associated risk	Gain	Common	Neutral	**See page 15 for individual drug breakdown**	
					Higher risk of hypoglycemia; increase patient monitoring	If severe, reduce dose (risk of hypoglycemia)
DPP-4i (-gliptins)	Only when combined with SU/Insulin	Neutral	No known risks	Neutral	**See page 15 for individual drug breakdown**	
			Alogliptin - Common	Caution with Alogliptin and Saxagliptin in moderate-severe heart failure	Dose reduction may be required	Vildagliptin has a risk of liver toxicity
			Saxagliptin - Possible			
Thiazolidinediones (Pioglitazone)	Only when combined with SU/Insulin	Gain	No known risks	Risk Contraindicated in people with heart failure or a history of heart failure	None	Avoid, risk of liver toxicity
SGLT-2i (-flozins)	Only when combined with SU/Insulin	Loss	No known risks	Established benefits	**See page 15 for individual drug breakdown**	
				Caution in significant PVD due to increased risk of digital amputation	Dose reduction may be required	Excluding dapagliflozin, avoid If severe
GLP-1 Agonist (-tides)	No	Loss	Common	Semaglutide, Liraglutide, Dulaglutide have CV benefit	**See page 15 for individual drug breakdown**	
					Except Lixisenatide and Exenatide	Avoid if Liraglutide
Repaglinide	Associated risk	Gain	Common	CVD as a rare side effect	Use with caution	Avoid if severe
Acarbose (AGI)	If prescribed in addition to other blood glucose lowering drugs	Neutral	Common	Neutral	Avoid if eGFR<25	Avoid if severe
Insulin	Associated risk	Gain	No known risks	Neutral Cardiac failure risk when used concurrently with Pioglitazone	Dose reduction required, higher risk of hypoglycemia	Reduced dose required

Date of preparation: December 2022. For review: July 2023

TYPE 2 DIABETES – HBA1C TARGETS

The North West London health and care partnership

INDIVIDUALISING HBA1C TARGETS

HBA1C TARGET RECOMMENDATIONS:

People with Type 2 Diabetes should normally have their HbA1c maintained between 48 and 58 mmol/mol.

Clinicians should aim to involve people in decisions about their individual HbA1c target level, which may in some cases be above that of 48-58 mmol/mol set for people with Type 2 Diabetes in general.

Target HbA1c level should be informed by a number of factors including duration of Diabetes, life expectancy, comorbidities including established vascular complications and available support.

Tighter targets (6.0 - 6.5% / 42 – 48 mmol/mol)
younger, healthier

Looser targets (7.5 - 8.0%+/ 58-64 mmol/mol
older, CKD, comorbidities, hypoglycaemia prone, End of Life

Encourage the person to maintain their individual target unless the resulting side effects (including hypoglycaemia) or their efforts to achieve this impair their quality of life.

Offer therapy (lifestyle and medication) to help achieve and maintain the HbA1c target level

Inform a person with a higher HbA1c that any reduction in HbA1c towards the agreed target is advantageous to future health.

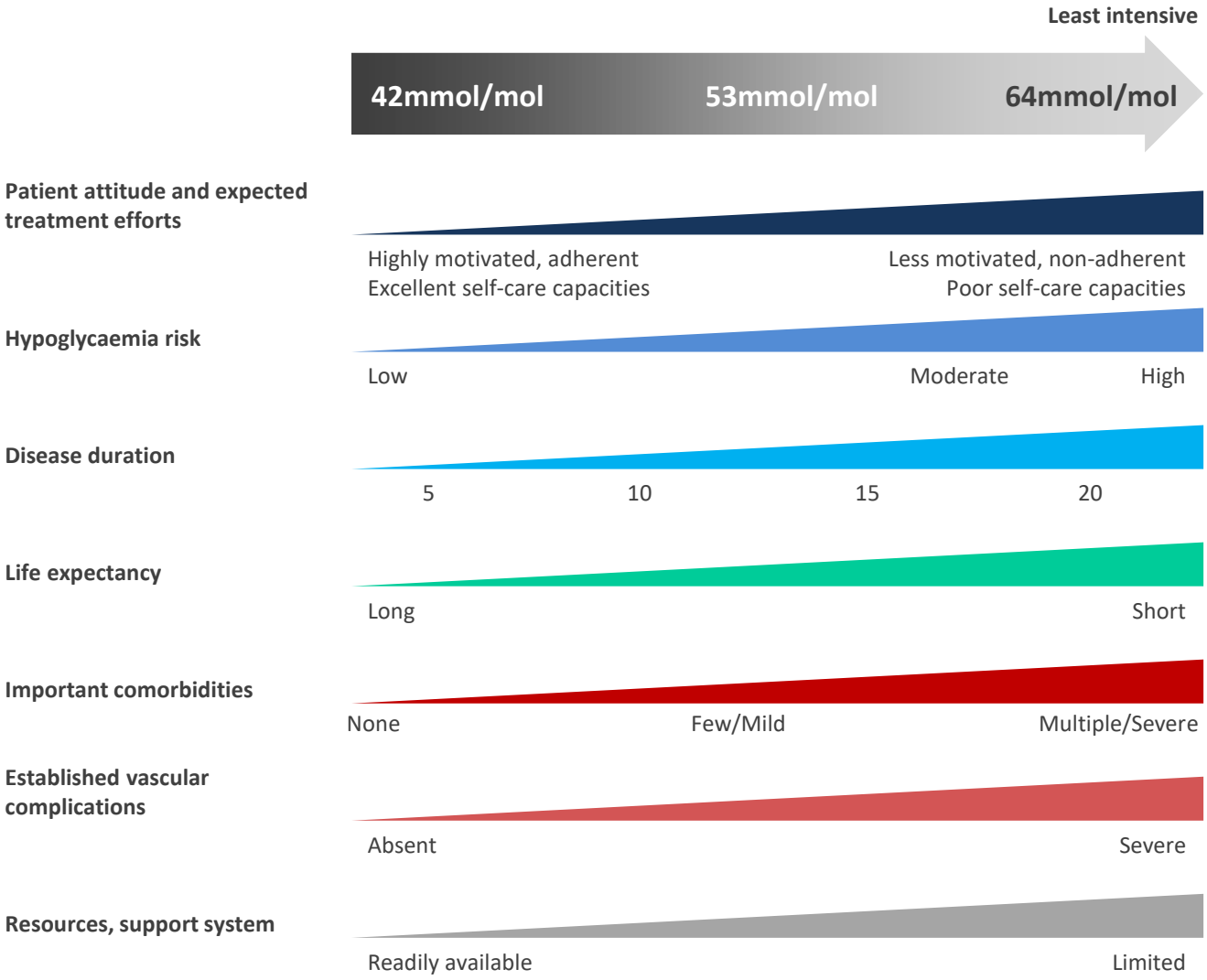
Avoid pursuing highly intensive management particularly in elderly and frail people in whom the risk of hypoglycaemia is high.

HBA1C IFCC UNITS:

HbA1c values should be expressed in mmol/mol instead of percentages as follows:

DCCT (%)	IFCC (mmol/mol)
6.0	42
6.5	48
7.0	53
7.5	58
8.0	64
9.0	75

APPROACH TO MANAGEMENT OF HYPERGLYCAEMIA



From Ismail-Beigi, et al. Individualizing glycemic targets in Type 2 Diabetes mellitus: implications of recent clinical trials. *Ann Intern Med.* 2011 Apr 19;154(8):554-9.

Date of preparation: December 2022. For review: July 2023

INDIVIDUALISATION OF HBA1C

The North West London health and care partnership

Age	<65		65-70		>70		Severe frailty or Residential care	End of Life Care
Duration > 10 years Latest HbA1c > 64-75 Complications: CVD, CKD, retinal, foot Hx of Hypoglycaemia On SU / Insulin	N	Y	N	Y	N	Y	Y	**Refer to:** Diabetes UK End of Life Diabetes Care Clinical Recommendations for advice on targets and potential deprescribing
Target HbA1c	<48	48-53	<48	53-58	53-58	58-64	58-69	

Adapted from Khunti and Davies 2010

Date of preparation: December 2022. For review: July 2023