

1st LINE In ADDITION to lifestyle measures		SET GLYCAEMIC TARGET: HbA1c <7% (53 mmol/mol) OR INDIVIDUALISED AS AGREED			
		USUAL APPROACH		ALTERNATIVE APPROACH: if osmotic symptoms or intolerant of metformin	
	METFORMIN*			SULPHONYLUREA*	<p>The following are also accepted by the SMC for first-line use where metformin and sulphonylureas are not tolerated:</p> <ul style="list-style-type: none"> • canagliflozin, dapagliflozin or empagliflozin (SGLT2 inhibitors); • linagliptin, sitagliptin or vildagliptin (DPP-4 inhibitors); • pioglitazone (thiazolidinedione) <p>IF SEVERE OSMOTIC SYMPTOMS WITH WEIGHT LOSS OR POSSIBILITY OF TYPE 1 DIABETES (URGENT - PHONE SECONDARY CARE IMMEDIATELY)</p>
EFFICACY	MODERATE			HIGH	
CV BENEFIT	YES			NO	
HYPOGLYCAEMIA RISK	LOW			HIGH	
WEIGHT	REDUCTION			GAIN	
MAIN ADVERSE EVENTS	GASTROINTESTINAL			HYPOGLYCAEMIA	
IN CKD STAGE 3A	MAXIMUM 2 g DAILY			CAREFUL MONITORING ¹	

2nd LINE In ADDITION to lifestyle measures		IF NOT REACHING TARGET AFTER 3–6 MONTHS ² , REVIEW ADHERENCE: THEN GUIDED BY PATIENT PROFILE			
		ADD ONE OF:			
		SULPHONYLUREA* OR	SGLT2 INHIBITOR* OR	DPP-4 INHIBITOR* OR	PIOGLITAZONE*
EFFICACY		HIGH	MODERATE	LOW/MODERATE	MODERATE
CV BENEFIT		NO	YES (SPECIFIC AGENTS) ³	NO	PROBABLE (BUT FLUID RETENTION)
HYPOGLYCAEMIA RISK		HIGH	LOW	LOW	LOW
WEIGHT		GAIN	LOSS	NEUTRAL	GAIN
MAIN ADVERSE EVENTS		HYPOGLYCAEMIA	GENITAL MYCOTIC	FEW	OEDEMA/FRACTURES ⁶
IN CKD STAGE 3A		CAREFUL MONITORING ¹	DO NOT INITIATE ⁴	REDUCE DOSE ⁵	DOSE UNCHANGED

3rd LINE In ADDITION to lifestyle measures		IF NOT REACHING TARGET AFTER 3–6 MONTHS, REVIEW ADHERENCE: THEN GUIDED BY PATIENT PROFILE ⁷			
		ADD EITHER AN ADDITIONAL ORAL AGENT FROM A DIFFERENT CLASS			
		SULPHONYLUREA* OR	SGLT2 INHIBITOR* OR	DPP-4 INHIBITOR* OR	PIOGLITAZONE*
		OR AN INJECTABLE AGENT			
		If BMI >30 kg/m ²		If BMI <30 kg/m ²	
		GLP-1 AGONIST*		BASAL INSULIN*	
EFFICACY		HIGH	<ul style="list-style-type: none"> • stop DPP-4 inhibitor • consider reducing sulphonylurea • continue metformin • can continue pioglitazone • can continue SGLT2 inhibitor 	HIGH	<ul style="list-style-type: none"> • inject before bed • use NPH (isophane) insulin - or longer-acting analogues according to risk of hypoglycaemia¹⁰ • can continue metformin, pioglitazone, DPP-4 inhibitor or SGLT2 inhibitor • can reduce or stop sulphonylurea
CV BENEFIT		YES (SPECIFIC AGENTS) ³		NO	
HYPOGLYCAEMIA RISK		LOW		HIGHEST	
WEIGHT		LOSS		GAIN	
MAIN ADVERSE EVENTS		GASTROINTESTINAL		HYPOGLYCAEMIA	
IN CKD STAGE 3A		DOSE UNCHANGED ⁸	DOSE UNCHANGED ⁹		

4th LINE In ADDITION to lifestyle measures		IF NOT REACHING TARGET AFTER 3–6 MONTHS, REVIEW ADHERENCE: THEN GUIDED BY PATIENT PROFILE ADD ADDITIONAL AGENT(S) FROM 3rd LINE OPTIONS (NEED SPECIALIST INPUT)			
		ADD PRANDIAL INSULIN OR SWITCH TO TWICE-DAILY MIXED BIPHASIC INSULIN			

IF INSULIN INTENSIFICATION REQUIRED (NEED SPECIALIST INPUT)

Algorithm summarises evidence from the guideline in the context of the clinical experience of the Guideline Development Group. It does not apply in severe renal or hepatic insufficiency.

Prescribers should refer to the British National Formulary (www.medicinescomplete.com), the Scottish Medicines Consortium (www.scottishmedicines.org.uk) and Medicines and Healthcare products Regulatory Agency (MHRA) warnings for updated guidance on licensed indications, full contraindications and monitoring requirements.

***Continue medication at each stage if EITHER individualised target achieved OR HbA1c falls more than 0.5% (5.5 mmol/mol) in 3–6 months. Discontinue if evidence that ineffective.**

NOTES: 1. Consider dose reduction, 2. Do not delay if first line options not tolerated / inappropriate, 3. See guideline pages 23 & 26-27, 4. See BNF: specific agents can be continued at reduced dose, 5. See BNF: no dose reduction required for linagliptin 6. Pioglitazone is contraindicated in people with (or with a history of) heart failure or bladder cancer, 7. Do not combine dapagliflozin with pioglitazone, 8. Caution with exenatide when eGFR<50 ml/min/1.73 m², 9. Adjust according to response, 10. Driving, occupational hazards, risk of falls, previous history.

ABBREVIATIONS: CKD 3A = chronic kidney disease stage 3A (estimated glomerular filtration rate 45–59 ml/min/1.73 m²) CV = cardiovascular