



## SGLT2 inhibitors: Indications, doses and licences in adults

## Indications, doses and licences of SGLT2 inhibitors, by indication.

Indication	Drug and dose	Initiate	Stop/reduce	Notes
Insufficiently controlled type 2 diabetes (as an adjunct to diet and exercise)	<b>Canagliflozin 100 mg</b> Increase to <b>300 mg</b> if required	eGFR $\geq 30^*$ eGFR $\geq 60$	Stop if eGFR persistently $<30$ and ACR $\leq 30$ mg/mmol.* Can continue to dialysis/transplant if ACR $>30$ mg/mmol.* If using 300 mg, reduce to 100 mg if eGFR $<60$	*All four SGLT2 inhibitors are licensed for use at eGFR $<45$ ; however, due to their mode of action, they have <b>reduced glucose-lowering effects at eGFR <math>&lt;45</math>. Add another glucose-lowering drug if HbA<sub>1c</sub> is above the agreed, individualised, target</b>  †Empagliflozin is licensed for initiation and continuation to eGFR $\geq 30$ in those with T2D and established CVD, and is licensed for initiation and continuation to eGFR $\geq 20$ in those with heart failure, with or without T2D
	<b>Dapagliflozin 10 mg</b>	eGFR $\geq 15^*$	No lower eGFR limit for continuation.* Specialist discussion as dialysis/transplant approaches	
	<b>Empagliflozin 10 mg</b> Increase to <b>25 mg</b> if required	eGFR $\geq 60^{\dagger}$ eGFR $\geq 60$	If using 25 mg, reduce to 10 mg if eGFR $<60$ Stop if eGFR $<45^{\dagger}$	
	<b>Ertugliflozin 5 mg</b> Increase to <b>15 mg</b> if required	eGFR $\geq 45$ eGFR $\geq 45$	Stop if eGFR persistently $<30^*$	
Diabetic kidney disease/chronic kidney disease (DKD/CKD)	<b>Dapagliflozin 10 mg</b>	eGFR $\geq 15^{\ddagger}$	No lower eGFR limit for continuation. Specialist discussion as dialysis/transplant approaches	Use with other CKD therapies With or without type 2 diabetes $\ddagger$ NICE TA775 and SMC2428 advise initiation in people with eGFR 25–75 and type 2 diabetes or ACR $\geq 22.6$ mg/mmol ( $\geq 23$ mg/mmol in SMC2428)
Diabetic kidney disease (DKD)	<b>Canagliflozin 100 mg</b>	eGFR $\geq 30$	Stop if eGFR persistently $<30$ and ACR $<30$ mg/mmol. Can continue to dialysis/transplant if ACR $\geq 30$ mg/mmol	Add on to standard of care (e.g. ACEi or ARB) for DKD
Symptomatic chronic heart failure	<b>Empagliflozin 10 mg</b>	eGFR $\geq 20$	Stop if eGFR $<20$ ; should not be used in those with end-stage renal disease or on dialysis	With or without type 2 diabetes
	<b>Dapagliflozin 10 mg</b>	eGFR $\geq 15$	No lower eGFR limit for continuation. Specialist discussion as dialysis/transplant approaches	With or without type 2 diabetes

eGFR presented in mL/min/1.73 m<sup>2</sup>.

ACEi=angiotensin-converting enzyme inhibitor; ACR=albumin:creatinine ratio; ARB=angiotensin receptor blocker; CVD=cardiovascular disease; eGFR=estimated glomerular filtration rate; T2D=type 2 diabetes.

Information correct on 11<sup>th</sup> January 2023. **Licence amendments frequent – view most recent version.**

Always consult the electronic BNF or the Summaries of Product Characteristics (SPCs) prior to prescribing any drug.

SPCs: [Canagliflozin](#) | [Dapagliflozin](#) | [Empagliflozin](#) | [Ertugliflozin](#)**Author:** Pam Brown, GP, Swansea**Citation:** Brown P (2023) SGLT2 inhibitors: Indications, doses and licences in adults. Updated December 2022. *Diabetes & Primary Care* 25: [Early view publication]

## Indications, doses and starting/stopping recommendations of SGLT2 inhibitors, by drug name.

Drug	Indication	Drug and dose	Initiate	Stop/reduce	Notes
Canagliflozin	Insufficiently controlled type 2 diabetes	Canagliflozin 100 mg Increase to 300 mg if required	eGFR $\geq 30^*$ eGFR $\geq 60$	Stop if eGFR persistently $< 30$ and ACR $\leq 30$ mg/mmol.* Can continue to dialysis/transplant if ACR $> 30$ mg/mmol.* Reduce to 100 mg if eGFR $< 60$	*Licensed for initiation to eGFR $\geq 30$ but reduced glucose lowering below eGFR 45; add another glucose-lowering drug if needed
	Diabetic kidney disease (DKD)	Canagliflozin 100 mg	eGFR $\geq 30$	Stop if eGFR persistently $< 30$ and ACR $\leq 30$ mg/mmol. Can continue to dialysis/transplant if ACR $> 30$ mg/mmol	Add on to standard of care (e.g. ACEi or ARB) for DKD
Dapagliflozin	Insufficiently controlled type 2 diabetes	Dapagliflozin 10 mg	eGFR $\geq 15^\dagger$	No lower eGFR limit for continuation. <sup>†</sup> Specialist discussion as dialysis/transplant approaches	<sup>†</sup> Licensed for initiation to eGFR $\geq 15$ but reduced glucose lowering below eGFR 45; add another glucose-lowering drug if needed
	Diabetic/chronic kidney disease (DKD/CKD)	Dapagliflozin 10 mg	eGFR $\geq 15^\ddagger$	No lower eGFR limit for continuation. Specialist discussion as dialysis/transplant approaches	Use with other DKD/CKD therapies With or without type 2 diabetes <sup>‡</sup> NICE TA775 and SMC2428 advise initiation in people with eGFR 25–75 and T2D or ACR $\geq 22.6$ mg/mmol
	Symptomatic chronic HF	Dapagliflozin 10 mg	eGFR $\geq 15$	No lower eGFR limit for continuation. Specialist discussion as dialysis/transplant approaches	With or without type 2 diabetes
Empagliflozin	Insufficiently controlled type 2 diabetes	Empagliflozin 10 mg Increase to 25 mg if required	eGFR $\geq 60^\ddagger$ eGFR $\geq 60$	Reduce to 10 mg if eGFR $< 60$ Stop if eGFR $< 45^\ddagger$	<sup>¶</sup> Licensed for initiation and continuation to eGFR $\geq 30$ in those with T2D and established CVD, but reduced glucose lowering below eGFR 45; add another glucose-lowering drug if needed
	Symptomatic chronic HF	Empagliflozin 10 mg	eGFR $\geq 20$	Stop if eGFR $< 20$ ; should not be used in those with end-stage renal disease or on dialysis	With or without type 2 diabetes
Ertugliflozin	Insufficiently controlled type 2 diabetes	Ertugliflozin 5 mg Increase to 15 mg if required	eGFR $\geq 45$ eGFR $\geq 45$	Stop if eGFR persistently $< 30^{**}$	**Licensed for continuation to GFR $\geq 30$ but reduced glucose lowering below eGFR 45; add another glucose-lowering drug if needed

eGFR presented in mL/min/1.73 m<sup>2</sup>.

ACEi=angiotensin-converting enzyme inhibitor; ACR=albumin:creatinine ratio; ARB=angiotensin receptor blocker; CVD=cardiovascular disease; eGFR=estimated glomerular filtration rate; HF=heart failure; T2D=type 2 diabetes.

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SPCs: [Canagliflozin](#) | [Dapagliflozin](#) | [Empagliflozin](#) | [Ertugliflozin](#)