

## Anti-diabetic drugs

eGFR (mL/min/1.73m <sup>2</sup> )	Safe	Caution	Stop
> 60	All agents		
30-59	acarbose linagliptin gliclazide glimepiride repaglinide thiazolidinediones	metformin saxagliptin (2.5 mg) sitagliptin (50 mg) exenatide liraglutide glyburide	liraglutide (eGRF < 50)
15-29	linagliptin repaglinide	saxagliptin (2.5 mg) sitagliptin (25 mg) gliclazide glimepiride thiazolidinediones	metformin exenatide liraglutide glyburide acarbose
< 15	repaglinide	linagliptin sitagliptin (25 mg) thiazolidinediones	saxagliptin gliclazide

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Biguanide				
Use with caution in patients with eGFR < 60 mL/min/1.73m <sup>2</sup>				
Avoid in patients with eGFR < 30 mL/min/1.73m <sup>2</sup>				
<ul style="list-style-type: none"><li>Metformin may be used in certain circumstances if eGFR is 20–29 mL/min/1.73m<sup>2</sup>, but requires very close monitoring of serum bicarbonate levels to detect acidosis</li></ul>				
When deciding which agent to add to metformin, consideration should be given to a number of factors including effectiveness in blood glucose lowering, degree of hyperglycemia, kidney function, and risk of hypoglycemia.				
	Normal dose range	eGFR (mL/min/1.73m <sup>2</sup> )		
		> 50	30–50	< 30
Metformin	500–1000 mg PO BID-TID (max 2500 mg/day)	100%	Use with caution with eGFR less than 60 mL/min; dose reductions may be necessary	Avoid; see note above

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Sulfonylureas				
	Normal dose range	eGFR (mL/min/1.73m <sup>2</sup> )		
		> 50	30-50	< 30
Glyburide	1.25-20 mg/day PO divided once-twice daily	100%	Not recommended	Contraindicated
Gliclazide regular release	80-160 mg PO BID	100%	Dose reductions may be necessary	Contraindicated
Gliclazide MR	30-120 mg PO daily	100%	Dose reductions may be necessary	Contraindicated
Glimepiride	Initial: 1-2 mg PO daily; titrate by 1-2 mg daily every 1-2 weeks (max 8 mg/day)	100%	Initial: 1 mg PO daily; titrate cautiously based on fasting blood glucose	Contraindicated when eGFR is less than 15 mL/min

DPP – IV Inhibitors				
	Normal dose range	eGFR (mL/min/1.73m <sup>2</sup> )		
		> 50	30-50	< 30
Sitagliptin	100 mg PO daily	100%	50 mg PO daily	25 mg PO daily
Saxagliptin	2.5-5 mg PO daily	100%	2.5 mg PO daily	2.5 mg PO daily
Linagliptin	5 mg PO daily	100%	100%	100%

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GLP-1 Receptor Antagonists				
	Normal dose range	eGFR (mL/min/1.73m <sup>2</sup> )		
		> 50	30-50	< 30
Exenatide	5 mcg SC BID within 60 minutes prior to a meal; max 10 mcg SC BID	100%	adjustment and/or discontinuation at eGFR less than or equal to 50 mL/min	Contraindicated
Liraglutide	Initial: 0.6 mg SC daily for 1 week, then 1.2 mg SC daily (max 1.8 mg/day)	100%	100%; use with caution	Contraindicated

Insulin		
Normal dose range	eGFR (mL/min/1.73m <sup>2</sup> )	
	> 50	30-50
100%	100%	insulin requirements may be reduced due to changes in insulin clearance or metabolism; monitor blood glucose closely