

Anti-diabetic drugs

| eGFR (mL/min/1.73m ²) | 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 |

Anti-diabetic drugs

| Biguanide | | | | |
|---|---|-----------------------------------|--|-----------------------|
| Use with caution in patients with eGFR < 60 mL/min/1.73m ² | | | | |
| Avoid in patients with eGFR < 30 mL/min/1.73m ² | | | | |
| <ul style="list-style-type: none">Metformin may be used in certain circumstances if eGFR is 20–29 mL/min/1.73m², but requires very close monitoring of serum bicarbonate levels to detect acidosis | | | | |
| 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 ²) | | |
| | | > 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 |

Anti-diabetic drugs

| Sulfonylureas | | | | |
|----------------------------|--|-----------------------------------|---|--|
| | Normal dose range | eGFR (mL/min/1.73m ²) | | |
| | | > 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 ²) | | |
| | | > 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% |

Anti-diabetic drugs

| GLP-1 Receptor Antagonists | | | | |
|----------------------------|--|-----------------------------------|---|-----------------|
| | Normal dose range | eGFR (mL/min/1.73m ²) | | |
| | | > 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 ²) | |
| | > 50 | 30-50 |
| 100% | 100% | insulin requirements may be reduced due to changes in insulin clearance or metabolism; monitor blood glucose closely |