# Anti-coagulant drugs

## Treatment of Thromboembolism

| | Normal dose range | eGFR (mL/min/1.73m$^2$) | |
|---|---|---|---|
| | | **30–59** | **< 30** |
| Dalteparin | 200 units/kg SC daily or 100 units/kg SC twice daily (consider if > 100kg) | 100% | Reduce dose, but no recommendations; dose based upon anti-Xa levels. Consultation with a specialist recommended |
| Enoxaparin | 1 mg/kg SC twice daily or 1.5 mg/kg SC daily | 100%; monitor for bleeding | 1 mg/kg SC daily and consultation with a specialist recommended |
| Tinzaparin | 175 units/kg SC daily | 100% | Reduce dose, but no recommendations. Use with caution. Consultation with a specialist recommended. Studies show no accumulation to 20 ml/min, but limited data in those with lower GFR. |
| Nadroparin | 171 U/kg SC daily (or 86 U/kg SC twice daily for those with increased risk of bleeding) | Decrease dose by 25-33% | Use contraindicated |
| Rivaroxaban | 15 mg PO BID x 3 weeks, then 20 mg PO daily | 100% | Avoid |
| Dabigatran | 150 mg PO BID | 100%<br>110 mg recommended in patients > 80 years old or > 75 years old, plus one other bleeding risk factor. | Avoid |
| Apixaban | 10 mg PO BID x 7 days then 5mg PO BID x 3 months minimum | 100% | Use with caution at GFR 15-29ml/min, and avoid with GFR <15 ml/min |
| Edoxaban | 60 mg PO daily | 30 mg daily<br>Reduce dose for those with GFR 30-50 ml/min, body weight 60 KG or less, or concomitant use of P-Glycoprotein inhibitors (except Amiodarone and Verapamil) | Avoid |

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## Thromboembolism prophylaxis

| | Normal dose range | eGFR (mL/min/1.73m$^2$) | | |
|---|---|---|---|---|
| | | **30–59** | **< 30** | |
| Dalteparin | 5000 units SC daily | 100% | Reduce dose, but no recommendations. Suggest monitoring Anti XA levels. Some data suggests no accumulation in eGFR < 30 ml/min for > 7 days | |
| Enoxaparin | 40 mg SC daily or 30 mg SC twice daily( or 30-40 mg SC BID for high BMI) | 100% | 20-30 mg SC daily | |
| Tinzaparin | 50-75 anti-Xa units/kg SC daily<br>See alternate dosing for general and bariatric surgery | 100% | Reduce dose, but no recommendations. Use with caution. Evidence suggests no accumulation down to 20 ml/min | |
| Nadroparin | 2850 - 5700 units SC daily depending on indication | Reduce dose by 25-33% (some suggest no change) | Reduce dose by 25-33% | |
| Dabigatran | 220 mg PO daily | No adjustment necessary unless GFR <50ml/min & taking concomitant P-Glycoprotein inhibitor<br>150 mg daily has been used in those with GFR 30-50 ml/min with hip and knee replacement | Avoid. No Adjustment provided. This population excluded from trials. | |
| Rivaroxaban | 10 mg PO daily | 100%<br>Use with caution and monitor for bleeding | Avoid | |
| | | **30–59** | **15–30** | **< 15** |
| Apixaban | 2.5 mg PO BID | 100% | Caution, increased bleeding risk (CrCl < 30 ml/min were excluded from trials) | Avoid |

# Anti-coagulant drugs

## Treatment of Atrial Fibrillation

| | Normal dose range | eGFR (mL/min/1.73m$^2$) | | |
|---|---|---|---|---|
| | | **> 50** | **30–50** | **< 30** |
| Dabigatran | 150 mg PO BID | 100% | 100%; consider 110 mg PO BID in patients ≥ 80 years old, or those ≥ 75 years old & 1 bleeding risk factor | Avoid |
| Rivaroxaban | 20 mg PO daily | 100% | 15 mg PO daily | Avoid |
| Apixaban | 5 mg PO BID | 100% | 100%<br>Dose reduction to 2.5 mg PO BID recommended for patients with two of the following:<br>>80 years old, body weight < 60 kg, or Secr > 133umol/L | Avoid for GFR < 15 ml/min.<br>No dosage recommendations for those with GFR between 15 and 24 ml/min |
| Edoxaban | 60 mg PO daily | 100% | 30 mg PO daily recommended for those with one or more of the following:<br>GFR 30-50 ml/min, body weight < 60 kg concomitant use of P-Glycoprotein inhibitors (except Amiodarone and Verapamil) | Avoid |