Guidance on converting between anticoagulants

NHS Wiltshire Clinical Commissioning Group

From ↓ To →	Warfarin	LMWH	Rivaroxaban	Apixaban	Dabigatran	Edoxaban
Warfarin	**This advice applies to patients with normal renal function.** In patients with renal impairment, higher than therapeutic plasma concentrations are expected and a longer interval may be required, seek specialist advice. **When switching TO warfarin do a baseline INR before starting warfarin - if baseline already high then discuss with a specialist or anticoagulant clinic for advice.**	**Treatment of DVT/PE**; Stop - start when INR <2.0. **Prevention of stroke and systemic embolism**; review thrombotic risk on a case-by-case basis and consider initiating prophylactic or treatment dose LMWH once INR <2.0	**DVT, PE and prevention of recurrence**; stop – start when INR is ≤2.5. **Prevention of stroke and systemic embolism**; stop – start when INR ≤3.0.	Stop – Start as soon as INR is <2.0	Stop – Start as soon as INR is <2.0	Stop – Start when the INR is ≤ 2.5
LMWH	Commence warfarin in combination with LMWH, and monitor INR. Discontinue LMWH once INR in therapeutic range for 2 consecutive days.		Stop – Start 0-2 hrs early	Stop – Start	Stop – Start 0-2 hrs early	Stop – Start
Rivaroxaban	Commence warfarin in combination with rivaroxaban. Rivaroxaban should be discontinued when INR is in therapeutic range (normally ≥2). Measure INR prior to each dose of rivaroxaban being administered & 24hrs after rivaroxaban is stopped.	Stop - Start		Stop – Start	Stop – Start	Stop – Start
Apixaban	Commence warfarin in combination with apixaban. Apixaban should be continued for 2 days, after which point INR should be measured prior to each dose of apixaban. Apixaban should be discontinued when INR is ≥ 2.0.	Stop - Start	Stop - Start		Stop - Start	Stop - Start
Dabigatran	**Conversion protocol depends on renal function.** For **CrCl ≥ 50ml/minute**, commence warfarin 3 days prior to discontinuing dabigatran. For **CrCl 30-50ml/minute**, commence warfarin 2 days prior to discontinuing dabigatran. NB: dabigatran can increase INR. INR measurements should be interpreted cautiously until dabigatran has been stopped for 2 days.	Discontinue dabigatran and commence LMWH 12-hours after the last dose of dabigatran was administered.	Stop - Start	Stop - Start		
Edoxaban	If on 60 mg dose, give 30 mg edoxaban OD plus an appropriate warfarin dose. If on 30 mg dose, give 15 mg edoxaban OD plus an appropriate warfarin dose. Patients should not take a loading dose of warfarin in order to promptly achieve a stable INR between 2 and 3. Once an INR ≥ 2.0 is achieved, Edoxaban should be discontinued. Most patients (85%) should be able to achieve an INR ≥ 2.0 within 14 days of concomitant administration. After 14 days it is recommended that edoxaban is discontinued and the warfarin continued to be titrated to achieve an INR between 2 and 3. It is recommended that during the first 14 days of concomitant therapy the INR is measured at least 3 times just prior to taking the daily dose of edoxaban to minimise the influence of edoxaban on INR measurements. See SPC for further details.	These agents should not be administered simultaneously. Stop - Start	Stop - Start	Stop - Start	Stop - Start	

Key

Stop – Start = Discontinue original and commence new treatment at the time that the next scheduled dose of original drug would be due.

Stop – Start 0-2 hrs early = Discontinue original and commence new treatment 0 – 2 hours before the next scheduled dose of original drug would be due.

References

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