- There are three main types of anticoagulation that are used in Kijabe:
  - Rivaroxaban (NOAC available locally).
  - Warfarin
  - Low Molecular Weight Heparin.
- When cost, monitoring, side effects and tolerance are taken into account - rivaroxaban is normally the recommended first line.
- The table below shows the recommended first line agent and dosing in specific situations.
- Further details on using warfarin and rivaroxaban are found at the bottom of this document.

Indication	Recommendation	Details
Mechanical Valve	Warfarin	NOAC's contraindicated
Atrial Fibrillation	Rivaroxaban	Dose 20mg OD PO. May have improved outcomes over Warfarin
DVT/PE Prophylaxis	Rivaroxaban	Dose 10mg OD PO
DVT/PE Treatment	Rivaroxaban	Dose 15mg BD PO for 21 days then 20mg OD PO.
History of GI Bleeding	Warfarin	Higher rates of bleed with Rivaroxaban - other NOACs better if available.
Weight >120Kg or BMI >40	Warfarin	
Renal impairment (Creat Clearance 15-50ml/hr)	Rivaroxaban	For AF use 15mg OD PO Other indications have same treatment doses as for normal renal function.
Severe renal impairment (Creat Clearance <15ml/hr)	Discuss with Consultant Likely Warfarin	
Pregnancy	Discuss with Consultant. Likely LMWH	

Monitoring Patients on Rivaroxaban:

- These patients do NOT require an INR for monitoring.
- At every visit the patient should be asked about compliance and any side effects - especially bleeding.
- Renal function should be check annually - more frequently if any impairment.
- Every 6 months the benefits/risk of being on anticoagulation should be assessed.
- It should **NOT** be prescribed in patients on the following medication:
  - HIV Protease Inhibitors
  - Ketaconazole, itraconazole, Posaconazole, Voriconazole
  - Rifampicin
  - Carbamazepine, Phenytoin, Phenobarbital or St John's Wort
  - Prasugrel, Ticagrelor.
- Discuss with consultant if also on SSRI or antiplatelet agent.

Prescribing Warfarin

Indications and INR

- DVT or PE – *Target INR 2-3*
- Atrial Fibrillation – *Target INR 2-3*
- Other e.g. Valve replacement – *Discuss with consultant*

- If commencing warfarin for DVT or PE LMWH should be used concurrently until the INR is above 2.
- Women of child-bearing age should have LMP or Pregnancy Test result documented. If Pregnant d/w Consultant

Initiation of Warfarin - with INR goal 2-3

Day Therapy	INR	Total daily dose
Day 1		5mg daily (2.5 mg if very sensitive)
2-3 days after initiation	<1.5 1.5-1.9 2.0-2.5 >2.5	5-7.5mg daily 2.5-5mg daily 2.5mg daily Hold and recheck INR next day
2-3 days after last INR check	<1.5 1.5-1.9 2.0-3 >3	7.5-10mg daily 5-10mg daily 2.5-5mg daily Hold warfarin and recheck in 1-2 days

Continuation Warfarin

INR <1.5	1.5-1.9	2-3	3.1-4	4.1-5	5.1-9	>9
Increase weekly dose 10-20%	**Increase weekly dose 5-10%**	**No change**	**Decrease weekly dose 5-10%**	**Hold 1 dose then decrease weekly dose 10%**	**Hold 2 doses then reduce 10-20%**	**Consultant review**

Frequency of INR Monitoring:

- Every 2-3 days - until INR therapeutic range on 2 consecutive INR checks.
- Then every week - until INR therapeutic range on 2 consecutive INR checks.
- Then every 2 weeks - until INR therapeutic range on 2 consecutive INR checks.
- Then every 4 weeks - continually monthly checks while remains stable

Drug Interactions

Many drugs may alter the INR. A list of common drugs and their effect are shown below. This is not exhaustive and if in doubt review the BNF. If interaction found then recheck INR after 3 days and per the schedule above.

Increases INR	Decreases INR
cimetidine, omeprazole, amiodarone, propranolol, simvastatin, SSRI's, tramadol, azole antifungals, co-trimoxazole, isoniazid, macrolides, metronidazole, quinolones, tetracyclines, high dose steroids, levothyroxine, alcohol, allopurinol	Alcohol (chronic), azathioprine, barbiturates, carbamazepine, griseofulvin, nevirapine, OCP/HRT, rifampicin, trazadone