Cheshire & Merseyside Cardiac Network

NHS North West Coast Clinical Networks

Initiating a DOAC in Patients with Atrial Fibrillation / Flutter (AF)

NHS Cheshire and Merseyside

Patients to consider

- Newly identified patients with AF or previous diagnosis not on an oral anticoagulant
- Patients on VKAs with consistently low TTR < 70%, it is recommended to switch to DOACs unless contraindicated

Determine risk of stroke using CHA2DS2-VASc score and bleeding risk

- Patients with a CHA_2DS_2-VASc =1 in men or 2 in women should be considered for an oral anticoagulant (OAC)
- Patients with a CHA_2DS_2-VASc score ≥2 in men and ≥3 in women: It is recommended that these patients should be prescribed an OAC
- Assess bleeding risk using HAS-BLED score or ORBIT score and address modifiable risk factors for anticoagulation in all AF patients e.g. BP control, use of NSAIDs, alcohol intake, obesity
- **Oral anticoagulation is recommended in all patients with AF and hypertrophic cardiomyopathy or cardiac amyloidosis, regardless of CHA2DS2-VASc score**

Assess if suitable for oral anticoagulation

- Baseline clotting screening, body weight, FBC, LFTs, serum creatinine, urea and electrolytes
- Consider contraindications, concomitant medicines (e.g. aspirin, SSRIs, NSAIDs, bisphosphonates), alcohol and drug abuse.

Does the patient have a contraindication to a DOAC?

- With a prosthetic mechanical valve (bioprosthetic/tissue valves are not contraindicated).
- With moderate to severe mitral stenosis
- Antiphospholipid antibody syndrome (APLS) with an indication for anticoagulation i.e. recent provoked VTE or as long-term treatment for unprovoked event.
- Who are pregnant, breastfeeding or planning a pregnancy
- With severe renal impairment - Creatinine Clearance (CrCl) < 15ml/min (apixaban, edoxaban and rivaroxaban). If CrCl 15-30 mL/min use apixaban, edoxaban and rivaroxaban with caution. Do not prescribe dabigatran if CrCl<30 ml/min.
- Those requiring a higher INR than the standard INR range of 2.0 – 3.0, without appropriate discussion with an anticoagulant specialist or cardiologist
- With active malignancy/ chemotherapy (unless advised by a specialist), there is no data to suggest lack of DOAC efficacy in patients with active cancer but consider specialist advice before initiation, particularly for gastric and genitourinary malignancies. Check for interactions with chemotherapy and absorption relating to chemotherapy induced nausea and vomiting.
- Prescribed interacting drugs – check SPCs for full list e.g. HIV antiretrovirals and hepatitis antivirals - check with HIV drug interactions website at https://www.hiv- druginteractions.org/ and some antiepileptics – phenytoin, carbamazepine, phenobarbitone or rifampicin are likely to reduce DOAC levels so should be discussed with an anticoagulation specialist
- If the patient has a lesion or condition considered a significant risk for major bleeding, including current or recent gastrointestinal ulceration, recent brain or spinal injury, recent brain, spinal or ophthalmic surgery, recent intracranial haemorrhage, known or suspected oesophageal varices, arteriovenous malformations, vascular aneurysms or major intraspinal or intracerebral vascular abnormalities – seek specialist advice.
- There is little data on DOACs for patients with venous thrombosis at unusual sites (e.g. portal vein thrombosis) - discuss with an anticoagulation specialist

If YES to any of the above, consider warfarin or LMWH if clinically appropriate and discuss with specialist if required

If the answer if NO to all of the above, continue down the flowchart. See FAQ for further information if required.

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Is the patient at high risk of ischaemic stroke? e.g. Recurrent ischaemic stroke /systemic embolism/TIA with good anticoagulation control (TTR≥70%) or other DOAC

Yes

***Preferred*: Dabigatran 150mg BD if appropriate.** However, if the patient qualifies for the lower dose of dabigatran, use apixaban at the appropriate dose instead i.e. patients who are:

- Age ≥80 years old
- Age 75-79 years and bleeding risk high
- Weight <50kg
- CrCl 30-50ml/min (alternative agent preferred)
- Concomitant verapamil
- High bleeding risk (HAS-BLED ≥3, ORBIT ≥4)

*Only dabigatran 150mg BD showed significant superiority reducing ischaemic stroke vs. warfarin

No

Has there been poor concordance previously with twice daily dosing or a strong requirement for once daily dosing?

Yes

Does the patient have:

- Prior unprovoked bleeding, warfarin-associated bleeding, or at high risk of bleeding - HAS-BLED≥3, ORBIT ≥4
- Gastrointestinal symptoms/ dyspepsia
- An indication for concomitant antiplatelets

Yes

Initiate Edoxaban 60mg daily, OR edoxaban 30mg daily if your patients has any of the following:

- Weight ≤60kg
- CrCl 15-50[a]ml/min
- On strong P-gp inhibitors e.g. ciclosporin, dronedarone, erythromycin or ketoconazole (SPC)

No

Best Value DOAC

Initiate Rivaroxaban 20mg tablets daily

OR

Rivaroxaban 15mg tablets daily if CrCl <50mls/min

Note: Advise to take with food to improve absorption

No

Best Value DOAC

Initiate apixaban 5mg BD

OR

Initiate apixaban at 2.5mg BD only if your patient meets the following criteria:

- CrCl 15-29 ml/min

OR if your patient has at least TWO of the following risk factors:

- Age ≥80 years old
- Weight ≤60kg
- Serum creatinine ≥ 133 micromole / L

Note: apixaban is appropriate in patients at higher risk of bleeding – HAS-BLED ≥3, ORBIT ≥4

- Patients requiring a blister pack /swallowing difficulties requiring crushing/NG tube cannot take dabigatran
- Patients with a BMI >40 kg m^2 or a weight >120kg can be considered for a DOAC
- Laboratory monitoring of DOACs is not routinely recommended and the availability of drug concentration level measurement is variable. Consider discussion with a Anticoagulation specialist before requesting drug concentration levels under special circumstances e.g., bleeding, extreme obesity
- Patients with AF ≥ 48 h or unknown duration undergoing elective electrical or pharmacologic cardioversion require DOAC for at least 3 weeks before cardioversion and for at least 4 weeks after successful cardioversion to sinus rhythm, regardless of the baseline risk of stroke

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