NENC Patient Specific Factors to Consider When Choosing a DOAC in NVAF

Northern Treatment Advisory Group

In January 2022, NHS England published an operational note on commissioning recommendations for national procurement for DOACs. Based on a newly negotiated price framework, this document encouraged clinicians to prescribe edoxaban as first line DOAC therapy to realise financial savings. It recognised that clinicians may use an alternative DOAC (Dabigatran, Rivaroxaban, Apixaban) when the alternative is felt to have a clinical advantage over Edoxaban (please see notes below for a local consensus on potential factors to consider). Local consensus does not encourage a strategy of switching DOAC therapy for patients established on non-Edoxaban DOAC therapy to Edoxaban, other than for clinical indications. Converting patients from vitamin K antagonists to DOAC should be encouraged if clinically appropriate and choice of DOAC should be in line with other patients receiving a DOAC prescription for the first time.

Patient Characteristics	Preferred Choice DOAC Recommended
No specific patient characteristics or preferences	Any DOAC can be considered as an option. Consider agent with lowest acquisition cost – currently this is Edoxaban based on the National Procurement for DOACs from January 2022.
Recurrent ischaemic stroke/systemic embolism/TIA despite good anticoagulation control (TTR≥70%) or other DOAC	Dabigatran 150mg BD preferred if high dose appropriate
High risk of ischaemic stroke, low bleeding risk and age < 80 years old	Consider agent with the best reduction of ischaemic stroke. *Dabigatran 150 mg is the only antithrombotic agent shown to have superior efficacy in the reduction of ischaemic stroke when compared to warfarin (RE-LY trial).*
Previous stroke (secondary prevention)	Consider agent associated with greatest reduction of secondary stroke. *Both Apixaban and Dabigatran have demonstrated superiority compared to warfarin for stroke prevention in AF.* *Subgroup analyses showed favourable efficacy in patients with previous stroke for all DOACs when compared with warfarin.*
History or High risk of GI bleeding	Apixaban preferred. *In the clinical trials (RE-LY, Engage & Rocket) higher rates of GI bleeding were reported with Dabigatran 150 mg, rivaroxaban and Edoxaban, compared to warfarin. Apixaban was associated with similar risks to warfarin in clinical trials (ARISTOTLE).*
Major GI symptoms or severe dyspepsia. Also consider increased risk of bleeding.	Apixaban preferred. Dabigatran was associated with increased rates of dyspepsia compared to warfarin.
History of GI symptoms/ dyspepsia but no active symptoms	Consider a PPI alongside DOAC Dabigatran was associated with increased rates of dyspepsia compared to warfarin.
High risk of bleeding (HAS-BLED ≥3 /ORBIT ≥4) excluding gastric bleeding	Edoxaban, Apixaban and low dose Dabigatran have all been shown to have reduced rates of major bleeding compared to warfarin.

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Moderate renal impairment CrCl 30-50mls/min	*Consider agents which are less dependent on the kidney for excretion. Renal clearance for each DOAC (expressed as a percentage of clearance of total absorbed dose) is: Apixaban (27%), Rivaroxaban▼ (35%), Edoxaban (50%), Dabigatran (80%).*
CrCl 15-29mls/min* - Use with caution, recheck in 4 weeks (and every 3 months thereafter)	Edoxaban 30mg od (or Apixaban 2.5mg bd if clinician preference) Edoxaban is the most widely studied DOAC in the setting of this degree of renal dysfunction
CrCl >95ml/min	*Edoxaban is associated with decreasing efficacy with increasing creatinine clearance. The SPC advises Edoxaban should only be used in patients with NVAF and high creatinine clearance after a careful evaluation of the individual thromboembolic and bleeding risk.*
Post ACS or PCI	*Rivaroxaban given in a lower dose than that trialled in NVAF trials is the only licensed DOAC indicated for the prevention of atherothrombotic events in adult patients after an acute coronary syndrome (ACS). Study data exists for all NOACs. Apixaban shown to have reduced bleeding compared to VKA at a dose validated for stroke prevention in AF.*
Poor swallowing requiring tablets to be crushed	Avoid Dabigatran
Patient preference for once daily	Edoxaban preferred
*CrCl<20mls/min consider if Oral anticoagulant appropriate	

The Cockcroft-Gault equation is recommended by the manufacturers of all DOACs for calculating creatinine clearance (CrCl) when prescribing these agents. eGFR should not be used, as data suggest it may lead to inappropriate dosing

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