Pharmacy Pearls

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Anticoagulant Selection

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References:
Antithrombotic Therapy for Atrial Fibrillation: CHEST Guidelines and Expert Panel Report. 2018.
Antithrombotic Therapy for VTE Disease: CHEST Guideline and Expert Panel Report. 2016.

Warfarin or Direct Oral Anticoagulant (DOAC)?

CHEST guidelines for **AFib (2018) as well as VTE without cancer (2016) recommend the use of DOACs over warfarin**. The guidelines acknowledge that patient and caregiver preferences, cost, formulary considerations, anticipated medication adherence, or compliance with INR testing and dose adjustments should be incorporated into decision-making:

Warfarin Preferred

- Significant liver disease or ESRD
- Mechanical heart valve
- Atrial fibrillation (AFib) with moderate to severe mitral stenosis
- Concomitant therapy with interacting drugs
- Poor adherence/missed doses

DOACs Preferred

- Generally preferred in guidelines (see above)
- Poor INR control despite adequate adherence
- Difficulty obtaining regular INR checks
- Drug interactions that can't be managed with warfarin adjustment

Which DOAC?

CHEST guidelines **do not endorse preference for one DOAC over another for AFib, VTE treatment, or prevention of recurrent VTE.** Agent selection is often guided by clinician experience and insurance formularies/cost. However, there are certain considerations when one might prefer a certain DOAC over another:

Consideration	General DOAC Guidance
Increased risk of bleeding	Bleeding risk: Eliquis® < Savaysa® < Xarelto® < Pradaxa®
Renal impairment	% renal elimination: Eliquis® < Xarelto® < Savaysa® < Pradaxa® (see next page for renal dose adjustments)
Drug interactions	All DOACs are P-gp substrates % CYP3A4 metabolism: Pradaxa® < Savaysa® < Eliquis®/Xarelto®
Once daily dosing	Xarelto® or Savaysa®
GERD medications or need to use medication organizer	**Avoid Pradaxa®** (requires acidic environment for absorption and needs to be kept in original container)
Obesity (weight >120 kg, BMI >40)	Though data on DOAC use in extremes of body weight are somewhat limited, Xarelto® and Eliquis® appear to have the most favorable efficacy and safety profiles at this time. **Pradaxa® should be avoided** as available evidence suggests possible increased risk of harm.[1,2]

[1]Sebaaly J. Ann Pharmacother. 2020. [2]Covert K. Am J Health-Syst Pharm. 2020.

Standard DOAC Dosing

	Apixaban (Eliquis®)	Dabigatran (Pradaxa®)	Edoxaban (Savaysa®)	Rivaroxaban (Xarelto®)
AFib	5 mg BID	150 mg BID	60 mg once daily	20 mg once daily[2]
VTE treatment	10 mg BID x7 days, then 5 mg BID	150 mg BID[1]	60 mg once daily[1] (>60 kg) **OR** 30 mg once daily[1] (≤60 kg)	15 mg BID x21 days[2], then 20 mg daily[2]
VTE prevention (after initial tx period)	2.5 mg BID	VTE tx dose	No specific recommendations	10 mg once daily

[1]Both Pradaxa® and Savaysa® require at least 5 days of parenteral anticoagulation prior to initiation for VTE treatment
[2]Xarelto® dose ≥15 mg should be taken with food, 2.5 and 10 mg doses can be taken without regards to meals

Renal DOAC Dosing

	Apixaban (Eliquis®)	Dabigatran (Pradaxa®)	Edoxaban (Savaysa®)	Rivaroxaban (Xarelto®)
AFib	Reduce to 2.5 mg BID **ONLY** if pt has 2/3 of: • Age ≥ 80 • Weight ≤60 kg • SCr ≥1.5	CrCl 15-30: 75 mg BID CrCl <15: avoid use	CrCl 15-50: 30 mg once daily CrCl <15 or >95: use is not recommended	CrCl 15-50: 15 mg once daily CrCl <15: avoid use
VTE treatment	No dose adjustment	CrCl ≤30: avoid use	CrCl 15-50: 30 mg once daily CrCl <15 or >95: use is not recommended	CrCl <30: avoid use
VTE prevention (after initial tx period)	No dose adjustment	CrCl ≤30: avoid use	No specific recommendations	CrCl <30: avoid use

Switching Between Agents

Switching to:

Switching from:	Warfarin	Apixaban (Eliquis®)	Dabigatran (Pradaxa®)	Edoxaban (Savaysa®)	Rivaroxaban (Xarelto®)
Warfarin	--	Stop warfarin Start Eliquis® when INR <2	Stop warfarin Start Pradaxa® when INR <2	Stop warfarin Start Savaysa® when INR <2.5	Stop warfarin Start Xarelto® when INR <3
Eliquis®	Start warfarin Overlap warfarin and DOAC ≥2 days until INR is therapeutic*	--	Stop Eliquis® Start Pradaxa® at next scheduled dose	Stop Eliquis® Start Savaysa® at next scheduled dose	Stop Eliquis® Start Xarelto® at next scheduled dose
Pradaxa®	• CrCl >50 mL/min: start warfarin 3 days before stopping Pradaxa® • CrCl 31-50 mL/min: start warfarin 2 days before stopping Pradaxa® • CrCl 15-30 mL/min: start warfarin 1 day before discontinuing Pradaxa®	Stop Pradaxa® Start Eliquis® at next scheduled dose	--	Stop Pradaxa® Start Savaysa® at next scheduled dose	Stop Pradaxa® Start Xarelto® at next scheduled dose
Savaysa®	• Savaysa® 60mg: Reduce Savaysa® to 30mg daily and start warfarin • Savaysa® 30mg: Reduce Savaysa® to 15mg daily and start warfarin Then measure INR weekly just prior to daily dose of Savaysa and discontinue Savaysa® once stable INR ≥ 2**	Stop Savaysa® Start Eliquis® at next scheduled dose	Stop Savaysa® Start Pradaxa® at next scheduled dose	--	Stop Savaysa® Start Xarelto® at next scheduled dose
Xarelto®	Start warfarin Overlap warfarin and DOAC ≥2 days until INR is therapeutic*	Stop Xarelto® Start Eliquis® at next scheduled dose	Stop Xarelto® Start Pradaxa® at next scheduled dose	Stop Xarelto® Start Savaysa® at next scheduled dose	--

*Alternative option: Stop DOAC and start both warfarin and LMWH when next DOAC dose would have been due, continue LMWH until INR therapeutic
**Alternative option: Stop Savaysa® and start both warfarin and LMWH at next scheduled dose, stop LMWH once stable INR ≥2 achieved