Neuro.Wiki

DIRECT ORAL ANTICOAGULANTS (DOACs)

Agents · dosing · renal adjustment · reversal · precautions

teal = agent · red = caution / avoid / contraindicated · green = preferred

Agent	Target & clearance	Atrial fib dose	VTE treatment dose	Renal adjustment & cautions	Reversal
Apixaban (Eliquis)	Factor **Xa** inhibitor. ~27% renal (least).	**5 mg BID**; **2.5 mg BID** if ≥2 of: age ≥80, wt ≤60 kg, Cr ≥1.5.	10 mg BID ×7 d, then 5 mg BID.	**Best in low CrCl / dialysis** (per label). Least bleeding in trials.	PCC
Rivaroxaban (Xarelto)	Factor **Xa** inhibitor. ~35% renal; CYP3A4.	**20 mg daily w/ evening meal.**	15 mg BID ×21 d, then 20 mg daily.	**15 mg if CrCl 15–50**; **avoid CrCl <15**. Take with food.	PCC
Edoxaban (Savaysa)	Factor **Xa** inhibitor. ~50% renal.	**60 mg daily** (30 mg if wt ≤60 kg).	60 mg daily after ≥5 d parenteral.	**30 mg if CrCl 15–50. Avoid in AF if CrCl >95** (reduced efficacy).	PCC
Dabigatran (Pradaxa)	Direct **thrombin (IIa)** inhibitor. ~80% renal.	**150 mg BID.**	150 mg BID after ≥5 d parenteral heparin.	**CrCl 15–30: 75 mg BID**; **CrCl <15: avoid**. Dyspepsia. Dialyzable.	Idarucizumab

⚠ When to Avoid & Key Interactions

Situation / combination	Why it matters	What to do
DOAC + **mechanical heart valve** or mod–severe **mitral stenosis**	DOACs failed (↑ thrombosis & bleeding, RE-ALIGN).	Avoid — use warfarin.
DOAC + **antiphospholipid syndrome** (triple-positive)	↑ recurrent thrombosis vs warfarin.	Avoid — use warfarin.
DOAC + **severe renal impairment / dialysis**	Accumulation → bleeding (esp. dabigatran).	Apixaban only (per label); avoid others.
DOAC + **antiplatelet / NSAID**	Additive bleeding (esp. GI).	Minimize duration; GI protection; reassess need.
DOAC + **SSRIs**	Moderate ↑ bleeding risk.	Caution; counsel on bleeding; consider GI protection.
DOAC + **strong CYP3A4 inducers** (rifampin, carbamazepine, phenytoin, phenobarbital, St John's wort)	↓ DOAC levels → ↓ efficacy (thrombosis).	Avoid; use a non-enzyme-inducing AED.
DOAC + **strong CYP3A4 inhibitors** (azoles, ritonavir, clarithromycin)	↑ DOAC levels → ↑ bleeding.	Avoid or dose-reduce per label.

Reversal Agents

Reversal agent	Reverses (which drugs)	Dose & notes
Idarucizumab (Praxbind)	**Dabigatran** — specific antidote.	**5 g IV** (two 2.5 g boluses).
4-factor PCC — Kcentra **(standard)**	Factor Xa inhibitors (apixaban, rivaroxaban, edoxaban); also warfarin.	**25–50 units/kg**.
FEIBA (activated PCC)	Factor Xa inhibitors — alternative to Kcentra.	**25–50 units/kg**; showed equivalent hemostasis to Kcentra in studies.

Andexanet alfa (Andexxa) — specific factor Xa reversal, now discontinued.

Neuro Pearls

- **Restart after cardioembolic (AF) stroke — start early: OPTIMAS** (≤4 days) and **ELAN** (≤48 h for minor–moderate; ~day 6–7 for large infarcts).
- **After ICH:** hold for a few weeks, then reassess thrombotic vs bleeding risk; consider **left atrial appendage occlusion (LAAO)**.
- **Prefer apixaban** in renal impairment, high GI-bleed risk, or the elderly; **avoid edoxaban if CrCl >95** in AF.