# DIRECT ORAL ANTICOAGULANT (DOAC) GUIDE

## Dosing and Drug Interactions

*NOTE: This document is for reference purposes only*

| Medications | INDICATIONS AND DOSAGE | | | | | | |
|---|---|---|---|---|---|---|---|
| | Stroke Prevention in NVAF | Treatment of VTE | VTE Prevention after 6 months of initial treatment for VTE | VTE Prevention-Hip | VTE Prevention - Knee | VTE Prevention after PCI with NVAF | Prevention of Cardiovascular Events in Patients with CAD/PAD |
| **Eliquis®** (apixaban) | 5 mg BID<br>**OR**<br>2.5 mg BID<br>if 2 of the following:<br>• Age ≥ 80 years<br>• Weight ≤ 60 kg<br>• SCr ≥ 1.5 mg/dL | 10 mg BID x 7 days<br>then 5 mg BID | 2.5 mg BID<br>*Off label indication for cancer associated VTE*** | 2.5 mg BID x 35 days<br>***Use caution if*** *CrCl < 30 mL/min* | 2.5 mg BID x 12 days<br>***Use caution if*** *CrCl < 30 mL/min* | *Off-label Indication*<br>5 mg BID<br>**OR**<br>2.5 mg BID<br>if 2 of the following:<br>• Age ≥ 80 years<br>• Weight ≤ 60 kg<br>• SCr ≥ 1.5 mg/dL | *Not FDA Approved* |
| **Xarelto®** (rivaroxaban) | 20 mg QD*<br>**OR**<br>15 mg QD*<br>if CrCl 15-50mL/min<br>***Do not use if*** *CrCl < 15mL/min* | 15 mg BID* x 21 days<br>then 20 mg QD*<br>***Do not use if*** *CrCl < 15 mL/min* | 10 mg QD<br>***Do not use if*** *CrCl < 15 mL/min* | 10 mg QD x 35 days<br>***Do not use if*** *CrCl < 15 mL/min* | 10 mg QD x 12 days<br>***Do not use if*** *CrCl < 15 mL/min* | *Off-label Indication*<br>15 mg QD*<br>**OR**<br>10 mg QD*<br>If CrCl 30–50 mL/min<br>***Do not use if*** *CrCl < 30 mL/min* | 2.5 mg BID<br>with 81 mg aspirin QD<br>***Do not use if*** *CrCl < 15 mL/min* |
| **Pradaxa®** (dabigatran) | 150 mg BID<br>**OR**<br>75 mg BID<br>if CrCl 15-30 mL/min<br>***Do not use if*** *CrCl < 15 mL/min* | 150 mg BID<br>(after 5-10 days of heparin or LMWH)<br>***Do not use if*** *CrCl < 30 mL/min* | 150 mg BID<br>***Do not use if*** *CrCl < 30mL/min* | 110 mg QD day 1,<br>then 220 mg QD<br>x 28 - 35 days<br>***Do not use if*** *CrCl < 30mL/min* | *Off-label Indication*<br>150-220 mg QD<br>x 6-10 days | *Off-label Indication*** | *Not FDA Approved* |
| **Savaysa®** (edoxaban) | 60 mg QD<br>**OR**<br>30 mg QD<br>if CrCl 15-50 mL/min<br>***Do not Use if*** *CrCl > 95 mL/min*<br>***OR*** *CrCl < 15 mL/min* | 60 mg QD<br>(after 5-10 days of heparin or LMWH)<br>**OR**<br>30 mg QD if weight ≤ 60 kg or CrCl 15–50 mL/min<br>***Do not use if*** *CrCl < 15 mL/min* | *Off label indication for cancer associated VTE*** | *Off-label Indication*** | *Off-label Indication*** | *Not FDA Approved* | *Not FDA Approved* |

CAD: coronary artery disease
CrCl: Cockcroft-Gault creatinine clearance
LMWH: low molecular weight heparin
NVAF: non-valvular atrial fibrillation
PAD: peripheral artery disease
PCI: percutaneous coronary intervention
VTE: venous thromboembolism
* take with food
**no specific dose listed

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| Medication | Drug Interaction | Effect of DOAC | Recommendation |
|---|---|---|---|
| **Eliquis®** (apixaban) | **Strong CYP3A4 Inhibitors + P-gp Inhibitors** (itraconazole, ketoconazole, ritonavir) | Significant increase in apixaban effect | Use with caution; if taking 5 mg or 10 mg BID, reduce dose by 50%; if taking 2.5 mg BID – avoid use |
| | **Moderate CYP3A4 Inhibitors + P-gp Inhibitors** (clarithromycin, diltiazem, verapamil) | Moderate increase in apixaban effect | Use with caution |
| | **Strong CYP3A4 Inducers OR P-gp Inducers** (apalutamide, carbamazepine, fosphenytoin, phenytoin, rifampin, St. John's Wort) | Significant decrease in apixaban effect | Avoid use |
| **Xarelto®** (rivaroxaban) | **Strong CYP3A4 Inhibitors + P-gp Inhibitors** (itraconazole, ketoconazole, ritonavir) | Significant increase in rivaroxaban effect | Avoid use |
| | **Moderate CYP3A4 Inhibitors + P-gp Inhibitors** (clarithromycin, diltiazem, verapamil) | Moderate increase in rivaroxaban effect | **Avoid use:** in patients with CrCl 15-80 mL/min unless benefit outweighs risk |
| | **Strong CYP3A4 Inducers OR P-gp Inducers** (apalutamide, carbamazepine, fosphenytoin, phenytoin, rifampin, St. John's Wort) | Significant reduction in rivaroxaban effect | Avoid use |
| **Pradaxa®** (dabigatran) | **P-gp Inhibitors** (amiodarone, carvedilol, clarithromycin, cyclosporine, dronedarone, erythromycin*, ivacaftor, ketoconazole*, quinidine, ranolazine, ritonavir, ticagrelor, verapamil) | Increase in dabigatran effect | **AF**: Consider reducing dose from 150 mg BID to 75 mg BID in patients with CrCl 30-50 mL/min and taking dronedarone or ketoconazole*<br>**VTE**: Avoid use in patients with CrCl<50mL/min<br>**Avoid use:** in patients with CrCl<30 mL/min |
| | **P-gp Inducers** (apalutamide, carbamazepine, fosphenytoin, phenytoin, rifampin, St. John's Wort) | Significant reduction in dabigatran effect | Avoid use |
| **Savaysa®** (edoxaban) | **P-gp Inhibitors** (amiodarone, carvedilol, clarithromycin, cyclosporine, dronedarone, erythromycin*, ivacaftor, ketoconazole*, quinidine, ranolazine, ritonavir, ticagrelor, verapamil) | Increase in edoxaban effect | **AF**: do not reduce dose<br>**VTE**: reduce dose to 30 mg QD if patient taking verapamil, quinidine, clarithromycin, dronedarone, erythromycin*, ketoconazole*; **NOTE**: other P-gp inhibitors have not been studied |
| | **P-gp Inducers** (apalutamide, carbamazepine, fosphenytoin, phenytoin, rifampin, St. John's Wort) | Significant reduction in edoxaban effect | Avoid use |

AF: atrial fibrillation
CrCl: Cockcroft-Gault creatinine clearance
CYP: cytochrome P450
P-gp: permeability glycoprotein
VTE: venous thromboembolism
*Systemic use


REFERENCES:

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3. Clinical Pharmacology powered by ClinicalKey. Philadelphia (PA): Elsevier. C2021- cited December 17, 2021