### DIRECT ORAL ANTICOAGULANT (DOAC) FOLLOW-UP CHECKLIST

**Patient name:**

**Date:**

**DOAC:**

**Dose:**

**Dosing Time(s):**

**Weight:**

**CHADS\textsubscript{2}**

#### HEALTH STATUS SINCE LAST ASSESSMENT

- Any new relevant medical problems, ED visits/hospitalizations? [ ] Y [ ] N
- Any embolic events (stroke / TIA / systemic embolism)? [ ] Y [ ] N

#### ADHERENCE WITH DOAC THERAPY

- 1 or more missed doses in an average week? If yes, number of missed doses: _______
- Any issues with taking the DOAC property? (i.e. rivaroxaban with food/don't open or chew dabigatran/etc.)

#### BLEEDING RISK ASSESSMENT

- Any signs / symptoms of GI bleeding? Any other bleeding? [ ] Y [ ] N
- Any drop in hemoglobin or new anemia? Latest hemoglobin: _______
- EtOH overuse? [ ] Y [ ] N
- Uncontrolled hypertension (SBP >160 mmHg)? Hypotension with syncope/falls? [ ] Y [ ] N

#### CREATININE CLEARANCE

- Latest creatinine:
- Latest eGFR (or calculated creatinine clearance if eGFR <50ml/min): _______
- http://thrombosiscanada.ca/?page_id=502&calc=cockcroft
- Any recent dehydrating illness or medications added/changed? (i.e. diuretics)

#### DRUG INTERACTIONS

- ASA / other antiplatelets? NSAID? [ ] Y [ ] N
- Other drug interactions? (Review med list / OTCs; see Table)

#### EXAMINATION

- Blood Pressure: [ ] Within Target [ ] High [ ] Low
- Actual BP (Opt.): ___/___
- Does patient need referral for gait assessment/walking aids for falls prevention? [ ] Y [ ] N

#### FINAL ASSESSMENT & RECOMMENDATIONS

- Overall patient appears stable from the anticoagulant standpoint; benefits of continued anticoagulant therapy outweigh risks; Recommend continue current anticoagulant therapy. [ ] Y [ ] N
- Dose verified and is appropriate for patient’s age/weight/renal function/health status
- http://thrombosiscanada.ca/?page_id=502&calc=antithromboticAlgorithm
- Any changes to current therapy needed? [ ] Y [ ] N
- Provide details:

#### PATIENT EDUCATION & COUNSELING

- I have counselled about the following: [ ] Y [ ] N
- The rationale for continued DOAC therapy
- The potential for minor, major or life-threatening bleeding
- Dosing instructions, adherence, risks of non-adherence, handling missed doses
- Avoiding OTC ASA & NSAIDs & minimizing EtOH to reduce bleeding risks

**Next F/U Date**

**Next Bloodwork**

**Initials**

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This checklist was developed by Gladstone DJ, Geerts WH, Douketis J, Ivers N, Healey JS, Leblanc K. and is a supplement to Ann Int Med. 2015;163:382-386
### Atrial Fibrillation

<table>
<thead>
<tr>
<th>Oral Anticoagulant</th>
<th>Usual Dose</th>
<th>Adjusted Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Apixaban Eliquis®</strong> (Direct Factor Xa Inhibitor)</td>
<td>5 mg BID</td>
<td>2.5 mg BID (Recommended in patients with 2 of the following: age ≥ 80 yrs, body weight ≤ 60 kg, or serum creatinine ≥ 133 μmol/L. No dose recommendation can be made if CrCl between 15 and 24 mL/min. Avoid in patients with CrCl less than 15 mL/min)</td>
</tr>
<tr>
<td><strong>Dabigatran Pradaxa®</strong> (Direct Thrombin [IIa] inhibitor)</td>
<td>150 mg BID</td>
<td>110 mg BID (Recommended in patients age ≥ 80 yrs or those age ≥ 75 yrs with at least one other bleeding risk factor (i.e. CrCl 30-50mL/min, concomitant ASA/NSAID, interfering drug, blood dyscrasia, recent bleed etc.) Avoid in patients with CrCl less than 30 mL/min)</td>
</tr>
<tr>
<td><strong>Edoxaban Lixiana®</strong> (Direct Factor Xa Inhibitor)</td>
<td>60 mg daily</td>
<td>30 mg daily (Recommended in patients with 1 or more of the following: CrCl ≥ 30 - 50 mL/min, body weight 60 kg or less, or concomitant use of P-gp inhibitors. Avoid in patients with CrCl less than 30 mL/min)</td>
</tr>
<tr>
<td><strong>Rivaroxaban Xarelto®</strong> (Direct Factor Xa inhibitor)</td>
<td>20 mg daily</td>
<td>15 mg daily (Recommended in patients with moderate renal impairment (CrCl 30 - 49 mL/min). Avoid in patients with CrCl less than 30 mL/min)</td>
</tr>
</tbody>
</table>

### Venous Thromboembolism

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</tr>
</thead>
<tbody>
<tr>
<td><strong>Apixaban Eliquis®</strong> (Direct Factor Xa Inhibitor)</td>
<td>10 mg BID x 7 days, then 5 mg BID x 3 months minimum</td>
<td>No dose adjustment if CrCl ≥ 30 mL/min or more; use with caution if CrCl between 15 and 29 mL/min; avoid if CrCl less than 15 mL/min</td>
</tr>
<tr>
<td><strong>Dabigatran Pradaxa®</strong> (Direct Thrombin [IIa] inhibitor)</td>
<td>Parenteral treatment x 5-10 days, then 150 mg BID x 3 months minimum</td>
<td>110 mg BID (Recommended in patients age ≥ 80 yrs or those age ≥ 75 yrs with at least one other bleeding risk factor. Avoid in patients with CrCl less than 30 mL/min)</td>
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<tr>
<td><strong>Edoxaban Lixiana®</strong> (Direct Factor Xa Inhibitor)</td>
<td>60 mg daily</td>
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</tr>
<tr>
<td><strong>Rivaroxaban Xarelto®</strong> (Direct Factor Xa inhibitor)</td>
<td>15 mg BID x 21 days, then 20 mg daily x 3 months minimum</td>
<td>No dose adjustment if CrCl ≥ 30 mL/min or more; avoid if CrCl less than 30 mL/min</td>
</tr>
</tbody>
</table>

### Drug Interactions That May Affect DOAC Drug Levels


### Administration Information

- **Apixaban Eliquis®**
  - May be taken twice daily without regard to meals/food
  - For NG Administration, may be crushed and suspended in 60 mL water

- **Dabigatran Pradaxa®**
  - Must not crush, chew or open capsules (increases exposure by almost double (1.8 times))
  - Must be stored in original packaging (foil or bulk bottle) as light, moisture can cause product breakdown

- **Edoxaban Lixiana®**
  - May be taken once daily without regard to meals/food

- **Rivaroxaban Xarelto®**
  - Doses of 15-20 mg must be taken with food (AUC increases 39%, Cmax increases 75% with food)
  - For NG Administration, may be crushed and suspended in 50 mL water; follow immediately with food (enteral feeds); ensure NG tube not distal to stomach or decreased absorption can occur

- **Note:** Drug interaction data with the DOACs is limited and this table reflects currently available data. Consider Pharmacist consult as needed. Dabigatran etexilate and edoxaban are substrates for the P-glycoprotein transporter (P-gp) and as such any strong inhibitors or inducers should be avoided. Rivaroxaban and apixaban are eliminated by both P-gp and cytochrome P-450 3A4 (CYP-450 3A4). As such the concomitant use of strong inhibitors and inducers of both P-gp and 3A4 should be avoided.

**Data adapted from: The AFIB Innovation Program (www.afibinnovationprogram.com)**

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**Potential ↑ in Apixaban** | **Potential ↓ in Apixaban** | **Potential ↑ in Dabigatran** | **Potential ↓ in Dabigatran**
--- | --- | --- | ---
Diltiazem* | Naproxen* | Carbamazepine* | Amiodarone* | Quinidine*$
Ketoconazole, itraconazole, voriconazole, posaconazole = Strong inhibitors of both P-glycoprotein and CYP 3A4 | Clarithromycin* | Cyclosporine* | Cyclosporine* | Phenytoin*
| Ritonavir (all HIV protease inhibitors) | Rifampin* | St. John’s Wort* | Saquinavir* | Ritonavir*
| Strong inhibitors of both | Strong inducers of both | Strong inhibitors of both | Tacrolimus | Titranavir
| Gastrointestinal motility modulators | Tucagrelo* | Verapamil*§ | Vitamin K users | Tipranavir
| Antidepressants | Posaconazole* | Strong P-glycoprotein inhibitors | Nelfinavir | Verapamil
| Antipsychotics | Phenytoin* | |

**Potential ↑ in Edoxaban** | **Potential ↓ in Edoxaban** | **Potential ↑ in Rivaroxaban** | **Potential ↓ in Rivaroxaban**
--- | --- | --- | ---
Amiodarone* | Ketoconazole* | Atorvastatin* | Carbamazepine* | Quinidine*$
Cyclosporine* | Quinidine* | Carbamazepine* | Amiodarone* | Quinidine*$
Dronedarone* | Verapamil* | Esomeprazole* | Clarithromycin* | Ritonavir*
Erythromycin* | Proinflammatory | Phenytoin* | Fluconazole* | Posaconazole*
| Inhibitors*$ | Strong inhibitors of both P-glycoprotein and CYP 3A4 | Strong inhibitors of both | Posaconazole* | Ritonavir*
| Strong P-glycoprotein inhibitors | Rifampin* | |

**Potential ↑ in Rivaroxaban** | **Potential ↓ in Rivaroxaban**
--- | ---
Atorvastatin* | Carbamazepine* | Strong inhibitors of both P-glycoprotein and CYP 3A4
Dronedarone* | Esomeprazole* | |
Dronedarone* | Fluconazole* | |
Erythromycin* | Posaconazole* | |
Ketoconazole* | Proinflammatory | |
Phenytoin* | Strong inhibitors of both P-glycoprotein and CYP 3A4
Ritonavir* | |
St. John’s Wort* | |

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*No empiric dosage adjustment required, however use with caution; § recommended to give 2 hours after dabigatran; ¥ contraindicated; ¥ caution advised if co-administering, should be avoided. £ reduce dose of edoxaban to 30mg daily. **No dose adjustment is required.
**TYPES OF CLINICAL BLEEDING**

**Minor bleeding**
Self-limited bleeding events. Examples include subconjunctival hemorrhage, small bruising/lacerations, dental bleeding, anterior epistaxis and hemorrhoidal bleeding.

**Moderate bleeding**
Bleeding events requiring medical attention and actual or potential need for blood transfusion or definitive intervention. Examples include hemodynamically stable gastrointestinal bleeding and uncontrolled posterior epistaxis.

**Severe/Life-threatening bleeding**
Bleeding events requiring urgent medical attention and causing actual or impending hemodynamic compromise. Examples include intracranial hemorrhage, bleeding into another critical site (e.g., retroperitoneal, intra-spinal, intra-ocular, intra-articular), massive gastrointestinal bleed or other clinically overt bleeding with hemoglobin decrease ≥20 g/L or administration of ≥2 units RBCs.