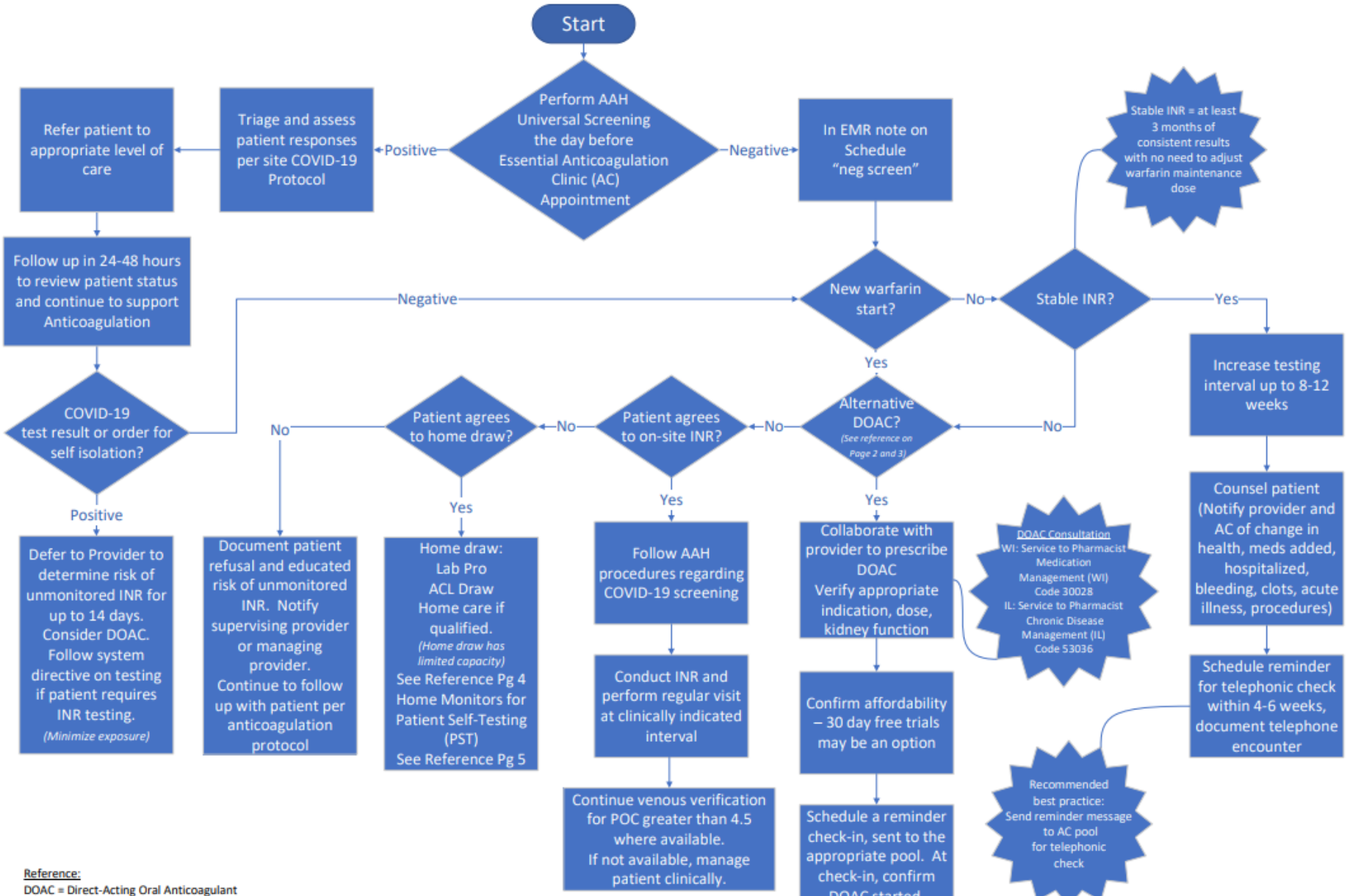
AdvocateAuroraHealth

Essential Anticoagulation (AC) Monitoring



Reference:

DOAC = Direct-Acting Oral Anticoagulant

Antithrombotic Therapy for VTE Disease: CHEST Guideline and Expert Panel Report. Evidence-Based Management of Anticoagulant Therapy. CHEST Supplement 141/2/February 2012

Lip GY, Banerjee A, Boriani G, et al. Antithrombotic Therapy for Atrial Fibrillation. CHEST Guideline and Expert Panel Report. November 2018; 154(5):1121-201.

Kearon C, Akl EA, Ornelas J, et al. Antithrombotic Therapy for VTE Disease: CHEST Guideline and Expert Panel Report. Chest 2016; 149(2):315-52.

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DOAC (Direct-Acting Oral Anticoagulant) Reference adapted from AMG Anticoagulation Guidelines

Anticoagulation (AC) RNs should work with supervising provider when transitioning to DOAC.
DOACs have not been approved in Mechanical Heart Valves, Valvular Afib and Antiphospholipid Antibody Syndrome (APS).
Special considerations: liver/kidney disease, elderly, and extreme weight values (< 60kg or > 120kg).

Medication	Dosing*
Dabigatran (Pradaxa®)	Atrial Fibrillation CrCL ≥ 30mL/min = 150mg BID CrCL 15 - 30mL/min = 75mg BID CrCL < 15mL/min = Avoid DVT and PE – Treatment CrCL ≥ 30mL/min = 150mg BID (after 5-10 days parenteral therapy) CrCL < 30mL/min = Avoid DVT and PE – Reduction in Recurrence Risk CrCL ≥ 30mL/min = 150mg BID CrCL < 30 mL/min = Avoid
Rivaroxaban (Xarelto®)	Atrial Fibrillation CrCL > 50mL/min = 20mg daily with evening meal CrCL 15 - 50mL/min = 15mg daily with evening meal DVT and PE - Treatment CrCL ≥ 30mL/min = 15mg BID for 21 days, then 20mg daily with food CrCL < 30mL/min = Avoid DVT and PE – Reduction in Recurrence Risk (after at least 6 months of treatment) CrCL ≥ 30mL/min = 10mg daily with or without food CrCL < 30mL/min = Avoid DVT and PE – Prophylaxis after Hip or Knee Replacement CrCL ≥ 30mL/min = 10mg daily with or without food (hip 35 days; knee 12 days) CrCL < 30mL/min = Avoid
Apixaban (Eliquis®)	Atrial Fibrillation Consider age (≥ 80 years), weight (≤ 60 kg), and creatinine (≥ 1.5mg/dL) If 0-1 of the above risk factors are present = 5mg BID If ≥ 2 of the above risk factors are present = 2.5mg BID DVT and PE – Treatment 10mg BID for 7 days, then 5mg BID DVT and PE – Reduction in Recurrence Risk (after at least 6 months of treatment) 2.5mg BID DVT and PE – Prophylaxis after Hip or Knee Replacement 2.5mg BID (hip 35 days; knee 12 days)
Edoxaban (Savaysa®)	Atrial Fibrillation CrCL > 95mL/min = Avoid CrCL ≤ 95mL/min = 60mg daily CrCL 15 - 50mL/min = 30mg daily DVT and PE - Treatment CrCL > 50mL/min = 60mg daily (after 5-10 days parenteral therapy) CrCL 15 – 50mL/min = 30mg daily Weight ≤ 60kg = 30mg daily
*Use actual body weight to calculate CrCL for DOAC dosing	

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Switch	Procedure
Warfarin → DOAC	Dabigatran = Stop warfarin and start dabigatran once INR < 2.0 Rivaroxaban = Stop warfarin and start rivaroxaban once INR < 3.0 Apixaban = Stop warfarin and start apixaban once INR < 2.0 Edoxaban = Stop warfarin and start edoxaban once INR ≤ 2.5

If unable to check INR prior to DOAC transition, hold warfarin 2-3 days (depending on last INR result).

Medication	Interactions	Suggestions
Dabigatran	Strong Pg-P inhibitors (dronedarone, ketoconazole) AFib with CrCL 30 – 50mL/min, no dosage adjustment required with concurrent amiodarone, verapamil, clarithromycin, quinidine, ticagrelor)	AFib -CrCL 30 – 50mL/min = Reduce dose to 75mg BID -CrCL 15 – 30mL/min = Avoid VTE -CrCL < 50mL/min = Avoid
Dabigatran	Strong CYP 3A4 inducers (rifampin)	Avoid
Rivaroxaban	Combined Pg-P inhibitors and strong CYP 3A4 inhibitors (ketoconazole, ritonavir)	Avoid
Rivaroxaban	Combined Pg-P inhibitors and moderate CYP 3A4 inhibitors (erythromycin)	CrCL 15 - 80mL/min = Avoid (unless benefits outweigh risks)
Rivaroxaban	Combined Pg-P inducers and strong CYP 3A4 inducers (rifampin, carbamazepine, phenytoin, primidone, St. John's wort)	Avoid
Apixaban	Combined strong Pg-P and CYP 3A4 inhibitors (ketoconazole, itraconazole, ritonavir, clarithromycin)	10mgBID = Reduce 5mg BID 5mg BID = Reduce 2.5mg BID 2.5mg BID = Avoid
Apixaban	Combined strong Pg-P and CYP 3A4 inducers (rifampin, carbamazepine, phenytoin, primidone, St. John's wort)	Avoid
Edoxaban	Strong Pg-P inducers (rifampin)	Avoid
All DOACs	Antiplatelet agents, fibrinolytics, heparin agents, ASA, NSAIDs	Increased bleeding risk when given concomitantly – avoid unless benefits > risks (consider acid suppression therapy to minimize GI bleed risk)

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Phlebotomy Services

Require provider orders for venous INR home draws. Patients must meet certain CMS requirements and be deemed to be medically home bound. Billing is dependent on insurer and services rendered.

NOTE: Limited capacity available at select sites; reserve service when other options have been exhausted.

ILLINOIS

Lab Pro – Harwood Heights
Contact information:
Office: 866-210-3780 (results)
Office: 618-505-0285 (orders)
Fax: 877-297-3214

Life Scan - Skokie
Contact information:
Office: 847-663-8300
Fax: 312-600-4334

Modern Labs – Glendale Heights
Contact information:
Office: 630-933-8101
Fax: 630-933-8105

Central Clinical Labs – Chicago
Contact information:
Office: 773-788-1577
Fax: 773-788-1579

NTL Lab – Des Plaines
Contact information:
Office: 847-669-7100
Fax: 847-669-7797

StarLab– Franklin Park
Contact information:
Office: **847-329-7500**
Fax: **847-807-4403**

WISCONSIN

WI Diagnostic Laboratories
Contact information:
Office: 414-805-7588 (option #2)

ACL Home Draws
SERVICE TO ACL HOME DRAW [NB147] order in Epic

Contact information:
Office: 414-328-7900, option 2 (Home Health)

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Home INR Monitoring Services

An application is required along with a provider signature. Patients must meet CMS criteria. Insurance coverage and process to obtain a home monitor for patient self-testing (PST) are dependent on insurer.

Preferred PST meter: Roche

ILLINOIS and WISCONSIN

Acelis Connected Health (formerly Alere)

Contact information:
877-262-4669

MD-INR (Lincare company)

Contact information:
1-800-877-4910

Roche / CoaguChek Patient Services

Contact information:
1-800-780-0675

Remote Cardiac Services (RCS)

Contact information:
1-800-876-1010

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