

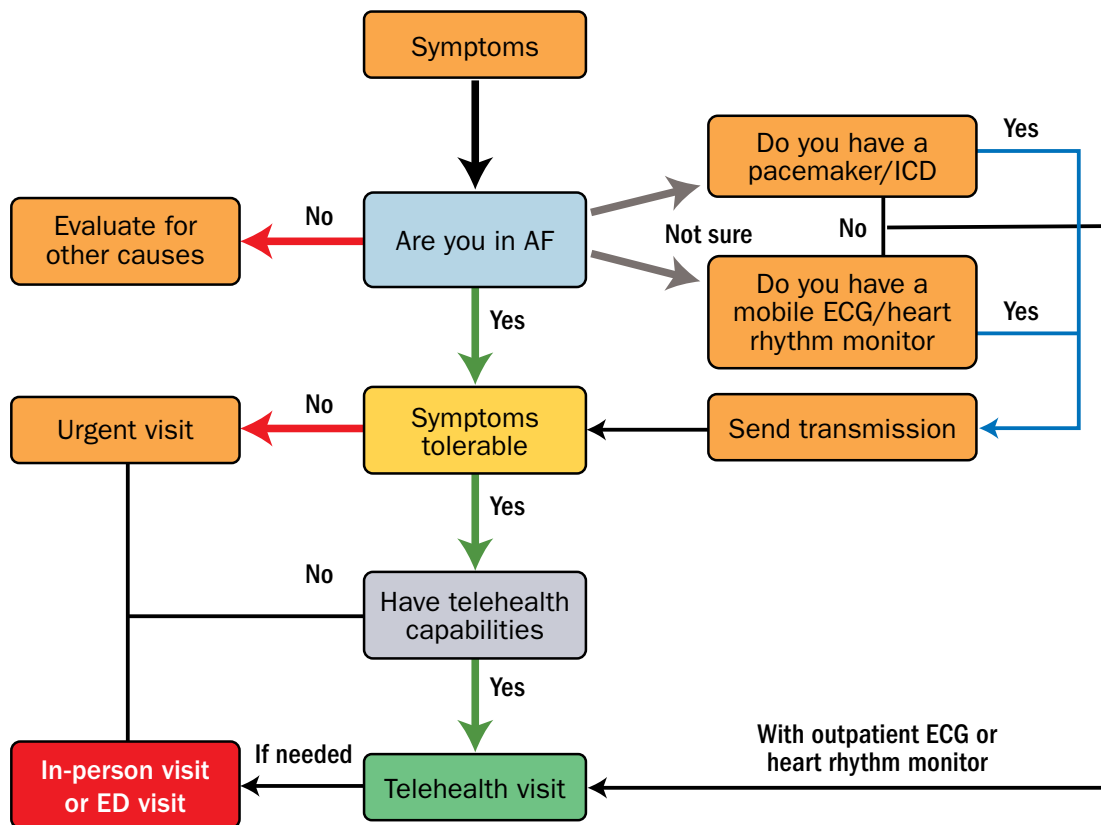


Pre-visit: Defining the Patient

An atrial fibrillation (AF) visit can be an urgent care telehealth visit (sudden onset of AF in patients who were in sinus rhythm or for uncontrolled AF in someone who with previously well controlled rates or developed worsening symptoms) or can be a routine follow-up visit. The reason for the visit needs to be established prior to the encounter whenever possible. Careful triage of patient's eligibility for a telehealth visit versus in-person visit needs to be performed.

Figure 1

Algorithm for Triageing Patients for a Telehealth Visit



AF = atrial fibrillation; ECG = electrocardiogram; ED = emergency department; ICD = Implantable Cardioverter Defibrillator

A review of resources available (Internet, smartphone/laptop/tablet, access to HIPAA compliant communication platform, wearable technology, blood pressure (BP) cuff, pulse oximetry, wireless single or multiple lead electrocardiogram (ECG) devices) is recommended prior to the visit.

- Transmit remote monitoring for cardiovascular implantable electronic devices (CIEDs) prior to the visit
- Send ECG strips from wearable or consumer devices prior to the visit

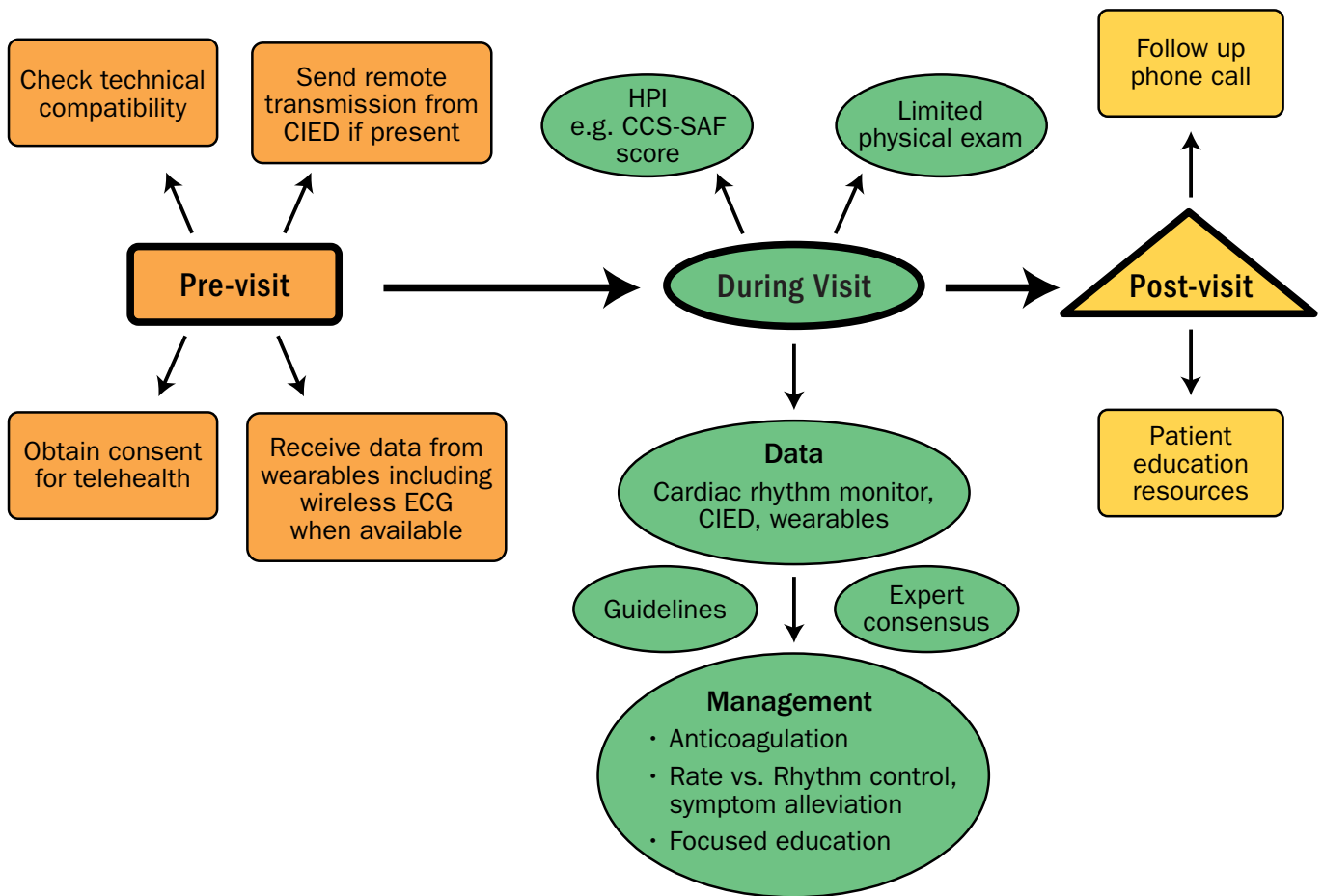
It may be optimal to ensure compatibility to various telehealth platforms including mobile apps, online web-based platforms etc. prior to the visit, so alternate arrangements can be made ahead of the visit when necessary.





Figure 2

A Detailed Flow Chart Outlining the Steps for Telehealth Visit in Management of Atrial Fibrillation



AF = atrial fibrillation; CCS-SAF score = Canadian Cardiovascular-Society Severity of Atrial Fibrillation Score; CIED = cardiovascular implantable electronic devices; ECG = electrocardiogram; HPI = history of present illness

*Patients on antiarrhythmic therapy may need 12-lead ECG to measure intervals



During Visit (preferably video visit):

The goal of the telehealth visit is to:

- 1) Assess symptom burden from AF and its management
and
 - 2) Assess need for in-person assessment or procedures like cardioversion
and/or ablation when necessary.
- A detailed history including recent events should be obtained. It is important to ascertain if patient thinks or knows if they are now in AF. Symptom assessment scales like **Canadian Cardiovascular-Society Severity of Atrial Fibrillation Score (CCS-SAF)** scale can be used to quantify patient's symptoms accurately.¹ History should also include any recent bleeding events or any interruption in oral anticoagulation if the patient is on anticoagulation.
 - Assessment of symptom severity should be made to identify patients who would benefit from in-person assessment and/or possible cardioversion.
 - Review of available digital health data (wearable HR monitor trends, single lead wireless ECG rhythm strips, BP, pulse oximetry readings, any signs of irregular pulse on monitors, photoplethysmography devices) and any home labs (such as home INR monitoring) that were sent prior to the visit
 - Review of BP, pulse, weight data, medications list supplied by patient
 - Physical examination via telehealth is limited to observation findings. Examples include signs of heart failure like jugular venous distention, presence of pedal edema, cyanosis, increased respiratory rate, and signs of labored breathing, such as use of accessory muscles of respiration, irregular pulsations when prominent carotid pulsations are seen and examining of CIED site

¹. Dorian P, Guerra PG, Kerr CR, et al. Validation of a New Simple Scale to Measure Symptoms in Atrial Fibrillation. *Circulation: Arrhythmia and Electrophysiology*. 2009;2:218-24.





During Visit:

(Continued)

Management of AF via telehealth:

- After careful triage of patients who are eligible for telehealth visit, management of AF involves management of symptoms from AF, control of ventricular rates, and also addressing risk of thromboembolism.
- Outpatient initiation of antiarrhythmic medications like flecainide, propafenone, dronedarone and amiodarone can be considered in select symptomatic patients with documented AF on home-based rhythm monitoring with a recent ECG and appropriate duration of uninterrupted anticoagulation.
- Addressing potential need for some patients to obtain 12-lead ECG (e.g., for monitoring on QT prolonging drugs).
- Addressing anticoagulation involves assessment of risk of thromboembolism and also the risk of bleeding. Traditional risk scoring systems like CHA₂DS₂-VASc and HAS-BLED can be utilized to assess the risk-benefit of anticoagulation. A detailed discussion with patients on the risk versus benefit of oral anticoagulation is warranted in all AF patients.

Anticoagulation resources:

- [Stroke and Bleeding Risk Calculator](#)
- [DOAC Dosing](#)
- [Perioperative Management of Anticoagulation](#)
- [Manage Anticoagulation Toolkit](#)
- [Choosing Blood Thinners or Left Atrial Appendage \(LAA\) Closure](#)

Guidelines for management:

- [2019 AHA/ACC/HRS Focused Update of the 2014 AHA/ACC/HRS Guideline for the Management of Patients with Atrial Fibrillation](#)
- [2020 ACC Expert Consensus Decision Pathway for Anticoagulant and Antiplatelet Therapy in Patients with Atrial Fibrillation or Venous Thromboembolism Undergoing Percutaneous Coronary Intervention or With Atherosclerotic Cardiovascular Disease](#)
- [2020 ACC Expert Consensus Decision Pathway on Management of Bleeding in Patients on Oral Anticoagulants](#)
- [2017 ACC Expert Consensus Decision Pathway for Periprocedural Management of Anticoagulation in Patients with Nonvalvular Atrial Fibrillation](#)
- [2020 Update to the 2016 ACC/AHA Clinical Performance and Quality Measures for Adults With Atrial Fibrillation or Atrial Flutter: A Report of the American College of Cardiology/American Heart Association Task Force on Performance Measures.](#)





Post-visit:

- Follow-up phone call from clinic staff where possible is recommended. Additional patient educational resources can be sent to the patient.
- Cardiac event monitor or continuous ambulatory monitoring can be performed if post-visit rhythm monitoring is required, with simple single lead patch-based systems which can be applied by patients on their own. Where possible, smartphone device-based single or multiple lead ECG systems can also be utilized to document heart rhythm during symptomatic episodes.
- If indicated, in-person visit can be arranged for better assessment and/or plan for cardioversion where necessary.

Patient education resources:

- [Atrial Fibrillation \(also known as Afib\)](#)
- [What is Atrial Fibrillation?](#)
- [Atrial Fibrillation, Stroke & Blood Thinners](#)

