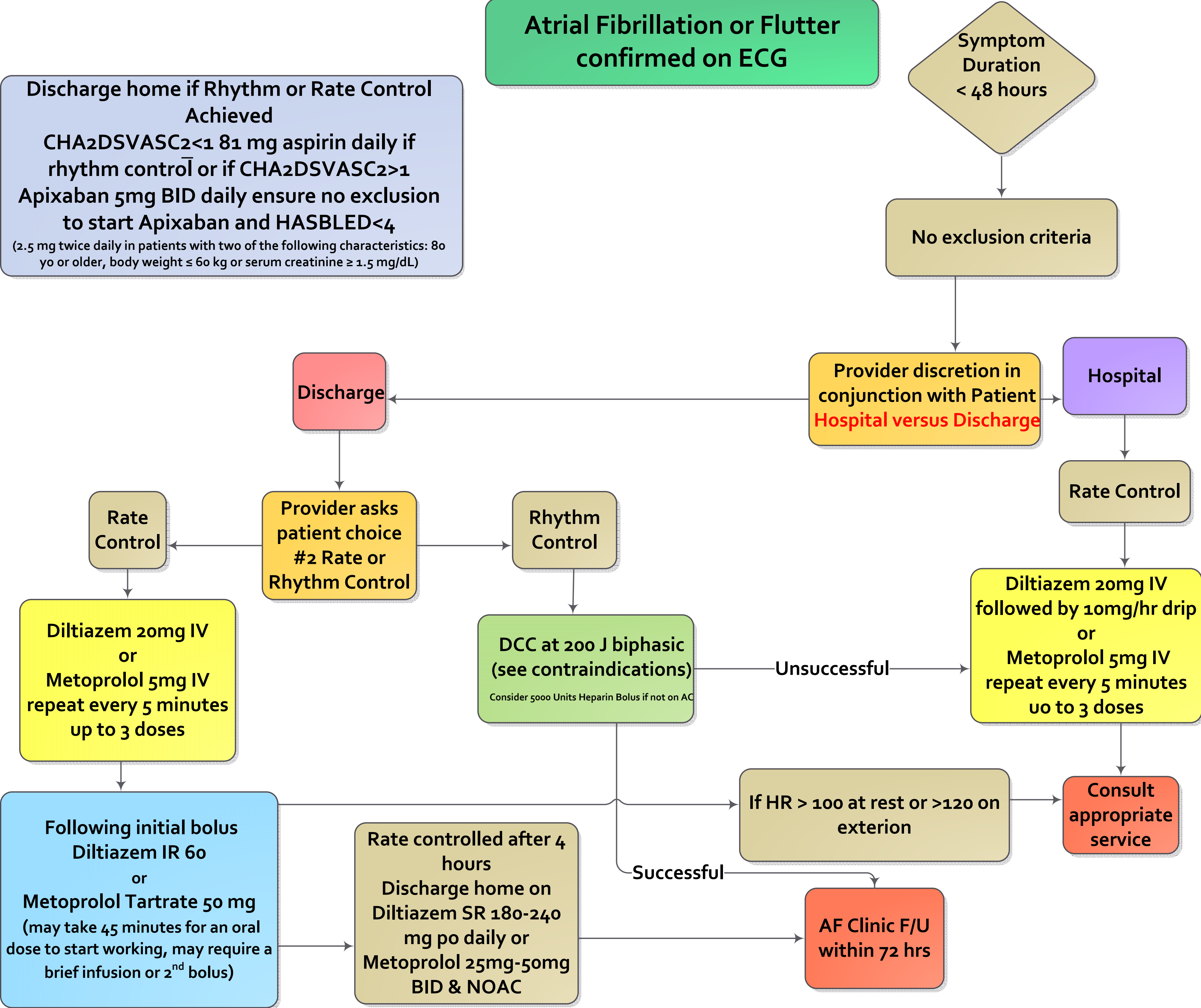
Atrial Fibrillation or Flutter confirmed on ECG
Symptom Duration < 48 hours
No exclusion criteria
Discharge home if Rhythm or Rate Control Achieved
CHA2DSVASC2<1 81 mg aspirin daily if rhythm control or if CHA2DSVASC2>1
Apixaban 5mg BID daily ensure no exclusion to start Apixaban and HASBLED<4
(2.5 mg twice daily in patients with two of the following characteristics: 80 yo or older, body weight ≤ 60 kg or serum creatinine ≥ 1.5 mg/dL)
Provider discretion in conjunction with Patient
Hospital versus Discharge
Discharge
Hospital
Rate Control
Provider asks patient choice #2 Rate or Rhythm Control
Rate Control
Rhythm Control
Diltiazem 20mg IV
or
Metoprolol 5mg IV
repeat every 5 minutes
up to 3 doses
DCC at 200 J biphasic
(see contraindications)
Consider 5000 Units Heparin Bolus if not on AC
Unsuccessful
Diltiazem 20mg IV followed by 10mg/hr drip
or
Metoprolol 5mg IV
repeat every 5 minutes
uo to 3 doses
Following initial bolus
Diltiazem IR 60
or
Metoprolol Tartrate 50 mg
(may take 45 minutes for an oral dose to start working, may require a brief infusion or 2nd bolus)
If HR > 100 at rest or >120 on exterion
Consult appropriate service
Successful
Rate controlled after 4 hours
Discharge home on Diltiazem SR 180-240 mg po daily or Metoprolol 25mg-50mg BID & NOAC
AF Clinic F/U within 72 hrs

Dr. Hoyt/Carreon version August 2017

Mercy Hospital approach to Atrial Fibrillation ER management of symptomatic/rapid Atrial fibrillation (Rapid is average ventricular rate > 110)

IV Diltiazem (20 mg rapid bolus over 2 min then **10 mg/hr infusion)** for rate/acute symptom control and the initiation of oral rate control agent early immediately or early in ER visit to allow discontinuation of IV Diltiazem and maintain rate control (see discussion of oral rate control medications)

Oral rate control:

- Diltiazem immediate release 60 mg ASAP in ER to maintain Diltiazem level when drip is turned off. Allow drip to overlap PO dose by 30 min, then 6 hours later (i.e. at home) start **diltiazem SR 180-240 q 24** hours (depending on atrial fibrillation rate and patients' size/wt.)
    - ***Diltiazem: oral dose = [IV rate (mg/hr) x 3 + 3] x 10; 5mg/hr = 180mg daily, 7 mg/hr = 240, 11 mg/hr = 360.***

- Or Metoprolol Tartrate 50 mg initially and then 25-50mg Q12 or 25 mg Q8 depending on heart rate/ expected tolerance for beta-blocker.
    - ***Metoprolol 2.5mg PO : 1mg IV; chronic dose of 25mg BID (50mg daily) = 5mg IV Q6 hrs.***

<u>This does not cover strategies for antiarrhythmic drug dosing for "pharmacologic cardioversion"</u>

Determine if patient is eligible for immediate electrical cardioversion (AF <48 hours or on therapeutic anticoagulation > past 21 days) or better suited to rate/control anticoagulation with **Atrial fibrillation Clinic** follow-up, which are end-points for the ER visit.

In general AF > 48 hours on therapeutic anticoagulation should be treated with rate control and continuation of therapeutic anticoagulation since the timing and preparation for cardioversion (such as pre-treatment with antiarrhythmic) needs cardiology review. There may be some exceptions where immediate cardioversion is appropriate, but cardiology consult is preferred. If TEE guided cardioversion is desired obtain cardiology consult, to assume care. TEE is not routinely available on short notice for AF cardioversion indication.

Cardiology triage nurses can assist in providing NOAC samples to bridge the patient until **Atrial fibrillation Clinic** visit without formal ER Cardiology consult. At the **Atrial fibrillation Clinic** visit an echo will be obtained if needed, plans for elective outpatient cardioversion if needed, arrangements for other cardiac evaluation such a treadmill stress after return of sinus rhythm, as well as decisions on long term treatment strategy and follow-up.

Complete as many elements of the **Atrial fibrillation Clinic** workup as can be done efficiently in the ER. Most private-pay patients will require a Cardiology consult (office or in ER) to preauthorize an echocardiogram. Medicare/Medicaid patients may are typically covered to have an echo done during their ER visit if available during routine business hours.

Testing:

- CBC
- BMP
- TSH
- Troponin
- CXR
- EKG

Important history will be CHA2DS2VASc score, HASBLED score, history of sleep apnea, and recognition of heart or chest/pulmonary disease.

Patient –specific factors which will influence Cardiology consult/admission vs. ER discharge and outpatient management

Favors hospital admission:

- Arrival by ambulance
- Severe symptoms associated with the afib (crushing chest pain/acute dyspnea/syncope)
- Inability to achieve symptom control or average resting HR of < 110 on PO medication in ER
- Distance > 60 miles/drive time to ER > 1 hour
- Chest pain/coronary risk factors needing overnight “rule out MI”
- Expected not to tolerate NAOC medication

Favors immediate electrical cardioversion by ER physician or Cardiologist:

- AF symptoms definitely < 48 hours
- AF < 48 hours and pt. unable to take anticoagulant
- Patient already on mostly effective antiarrhythmic drug, with rare breakthrough AF episode
- Pt. consents to cardioversion
- Hardship if AF continues (such as needing to be at work the next day