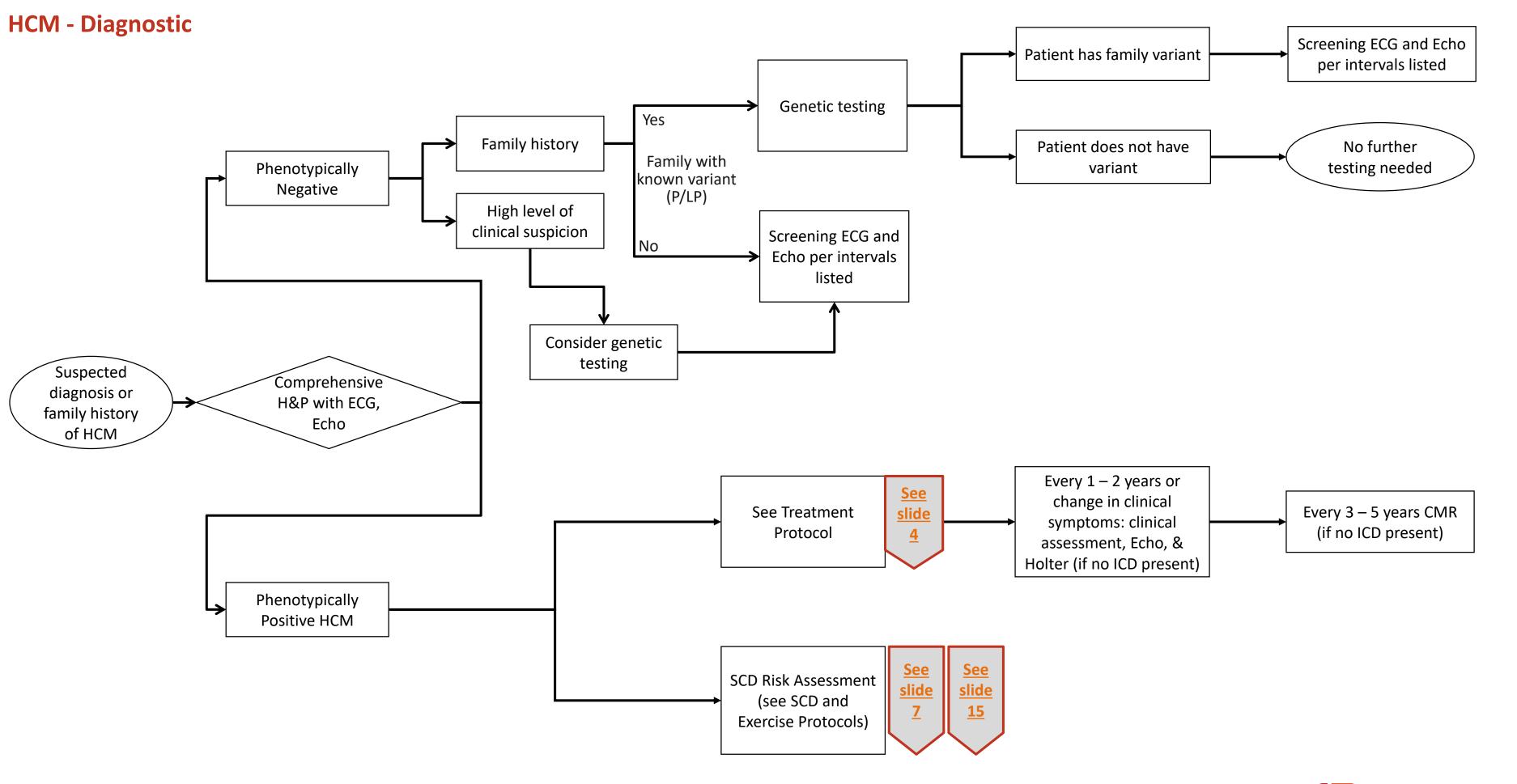


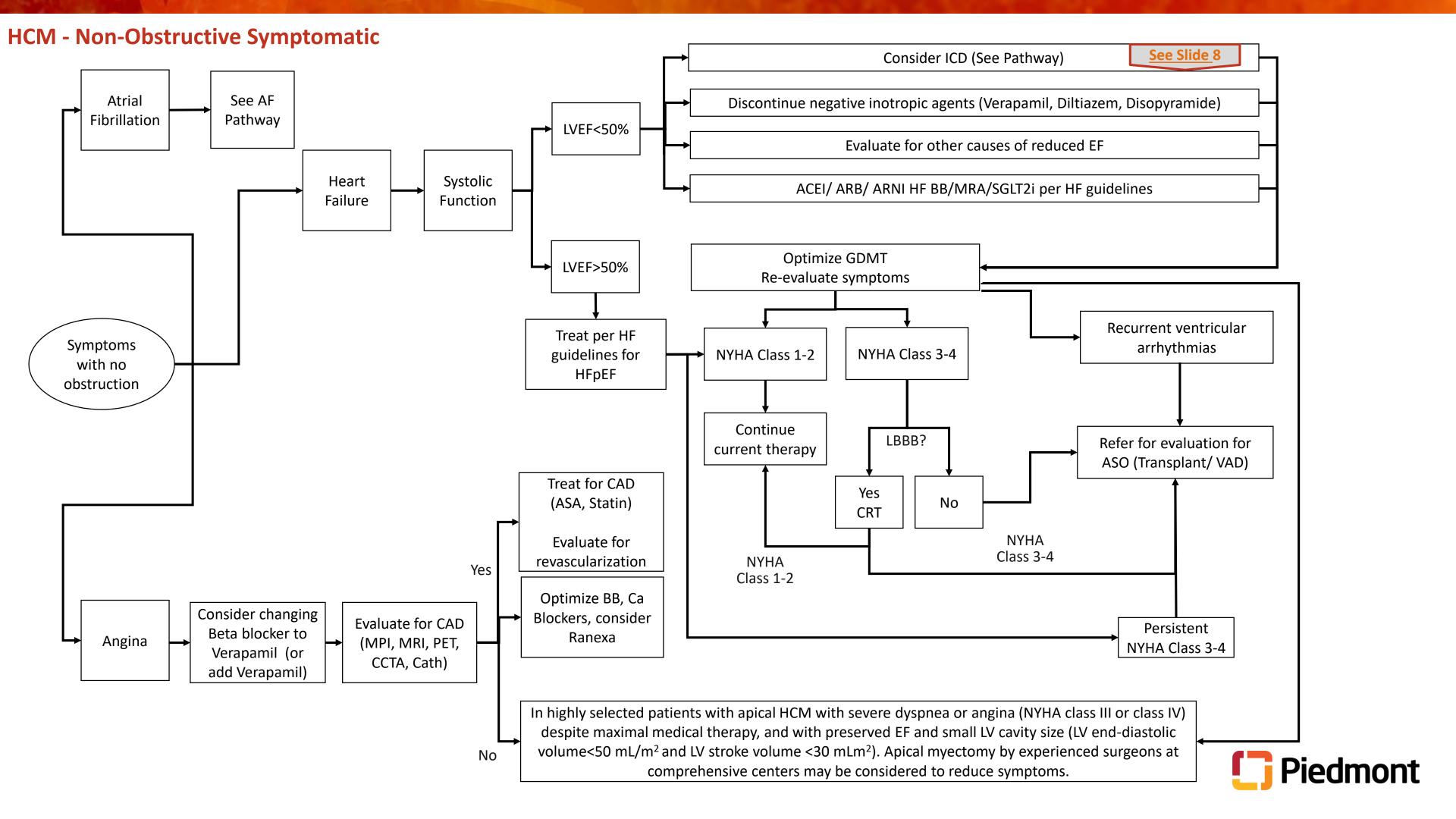
Diagnosis and Treatment



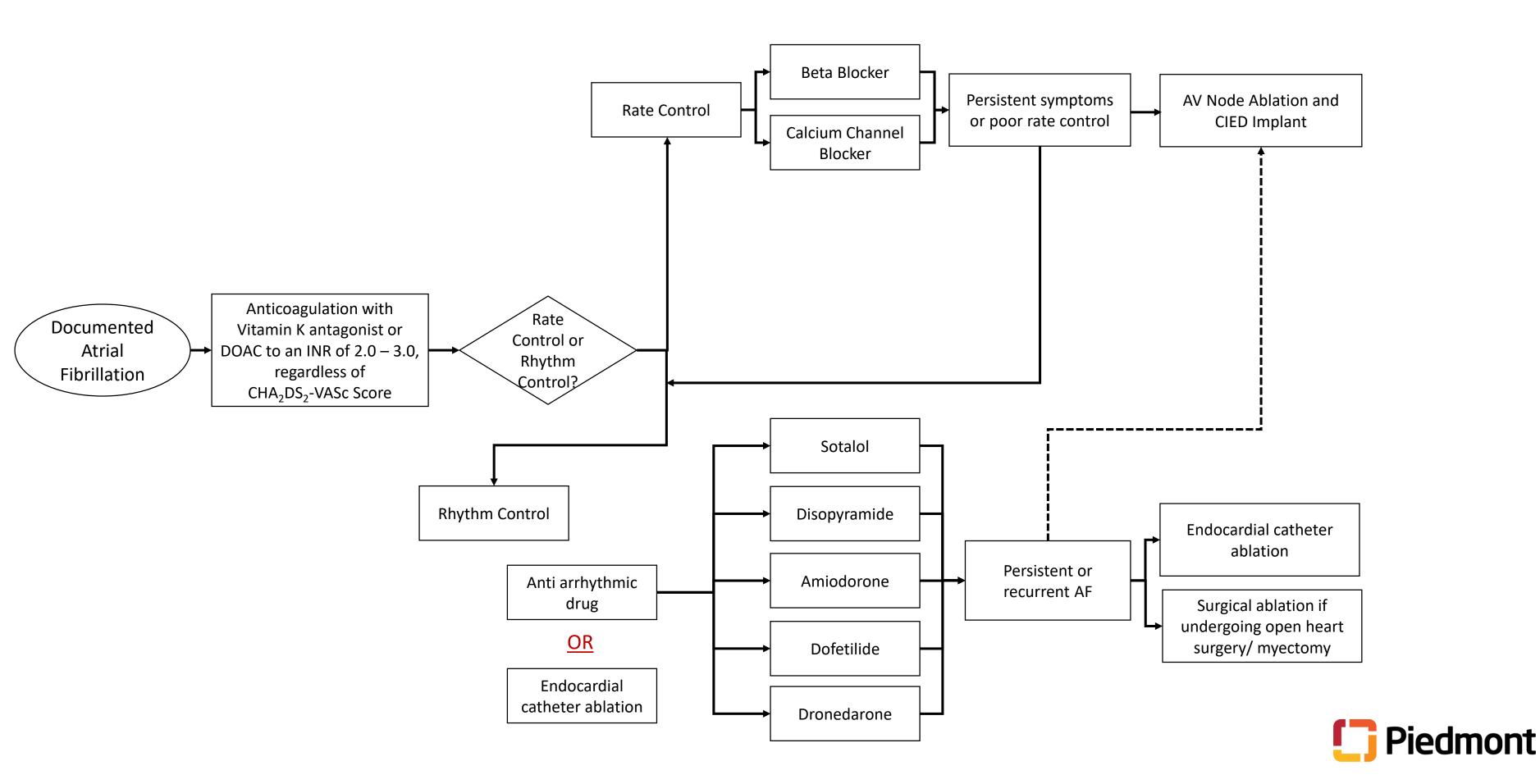




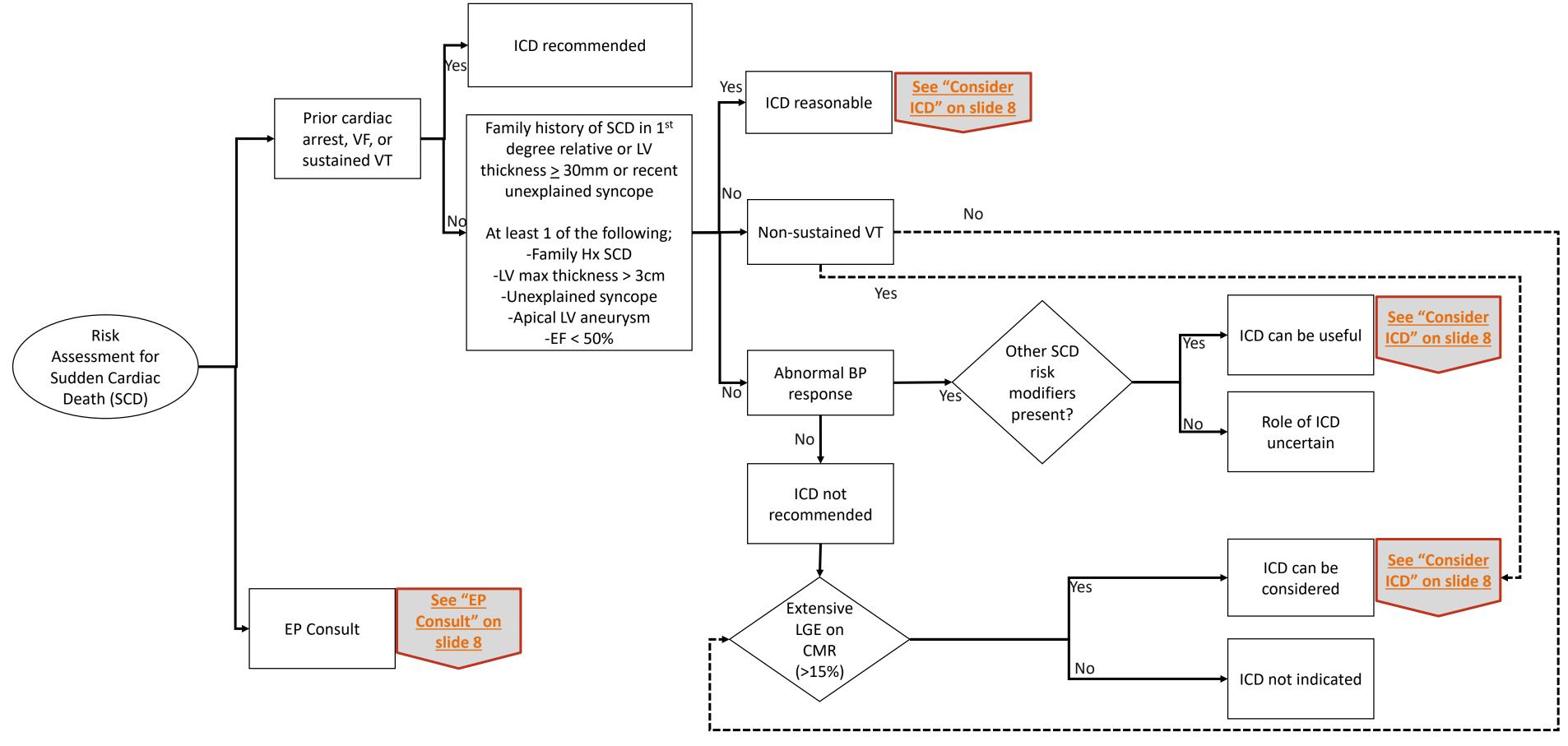
HCM - Treatment Consider Disopyramide If Resting or Exercise <u>See</u> Consider Cardiac Myosin Gradient > 30 mmHg <u>slide</u> Up titrate to symptoms/ Institute medical Inhibitors LVOT Obstruction at rest HR/BP and continued <u>17</u> therapy Beta Blocker (see CMI pathway) symptoms (Non vasodilating) +/- Verapamil/ Diltiazem Symptoms **Consider Septal** Avoid vasodilators/ high No LVOT Obstruction **Reduction Therapy** at rest dose diuretics <u>See</u> Stress Echo to evaluate See Invasive Therapies slide for exercise LVOT Protocol Gradient Phenotypical **HCM** Diagnosed Preserved LV **Gradient with stress** No gradient with stress Function (>30mmHg) **Evaluate alternative** See Slide 5 causes for symptoms Consider ETT/CPET to Symptoms develop or evaluate functional decrease functional No symptoms capacity capacity Repeat every 2 – 3 years Piedmont



HCM - Management of Atrial Fibrillation

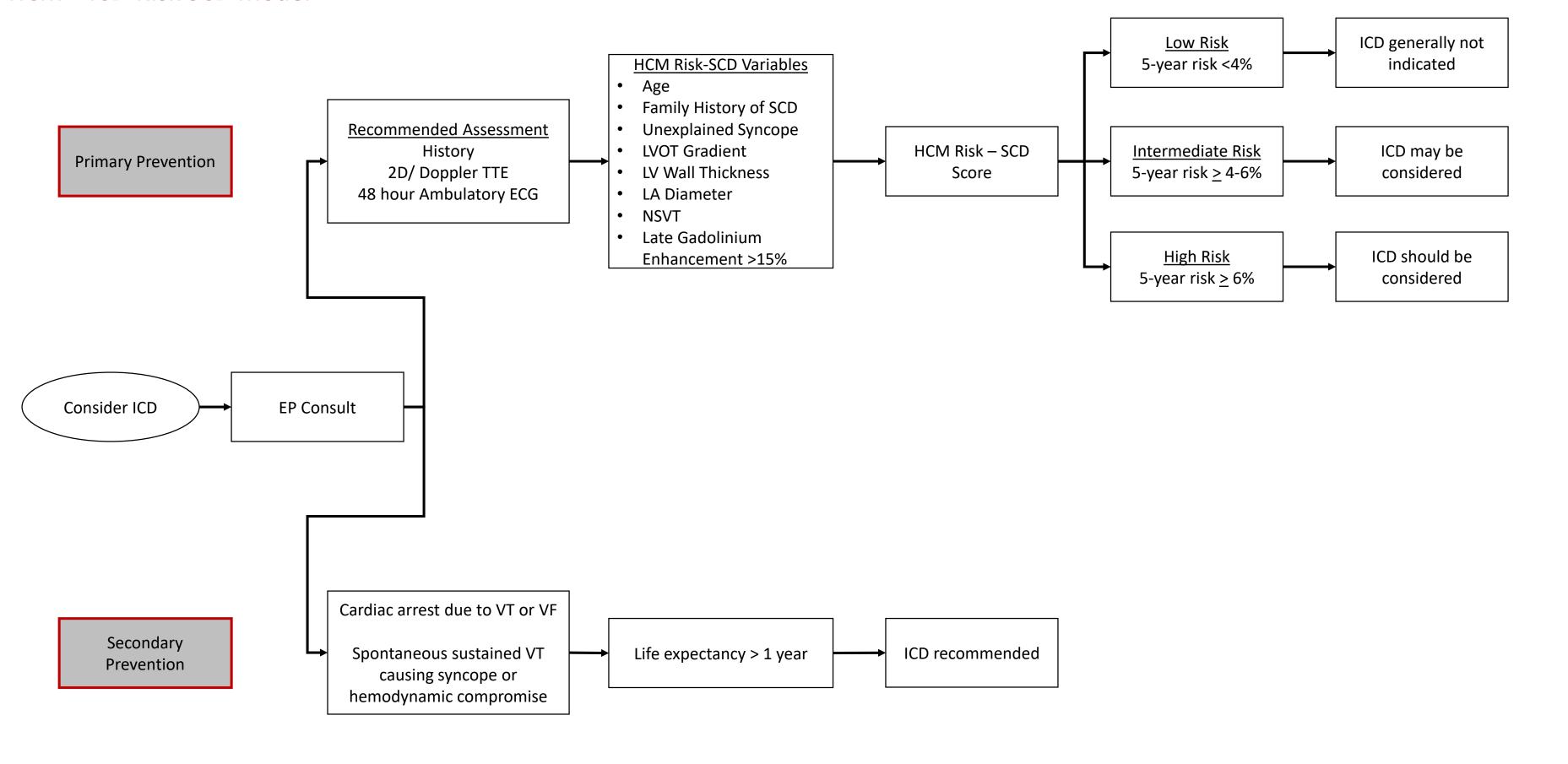


HCM - Risk Assessment for Sudden Cardiac Death



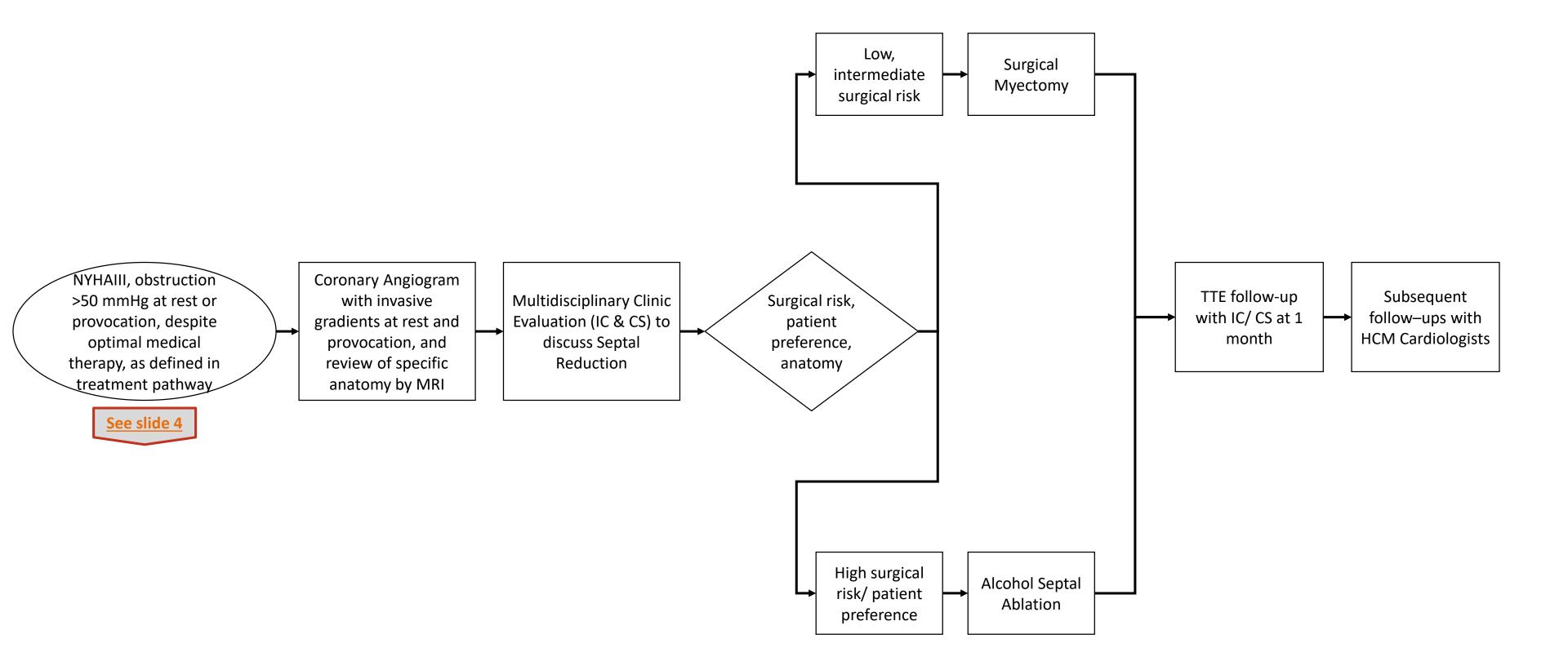


HCM – ICD-Risk SCD Model





HCM - Invasive Therapies

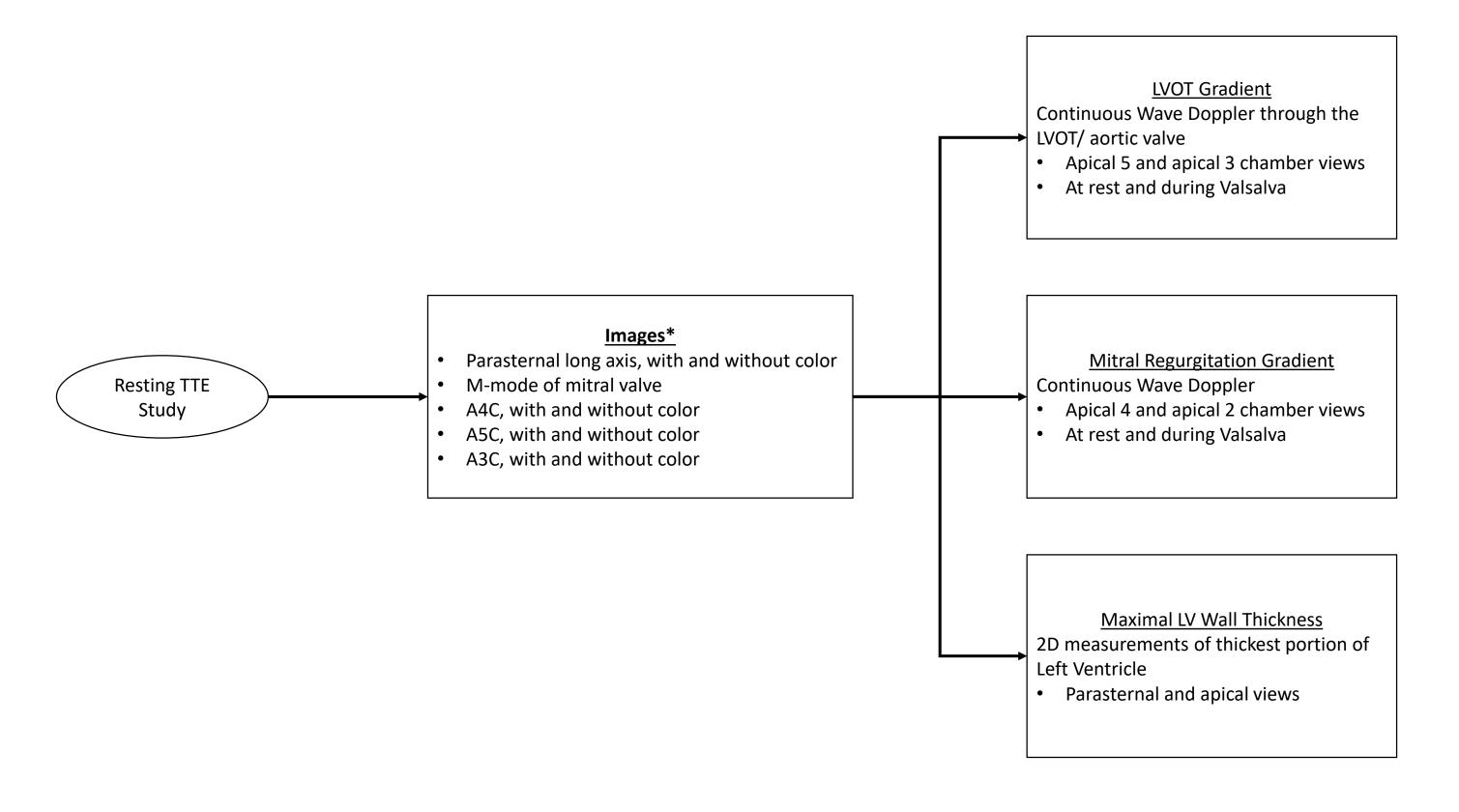




Imaging



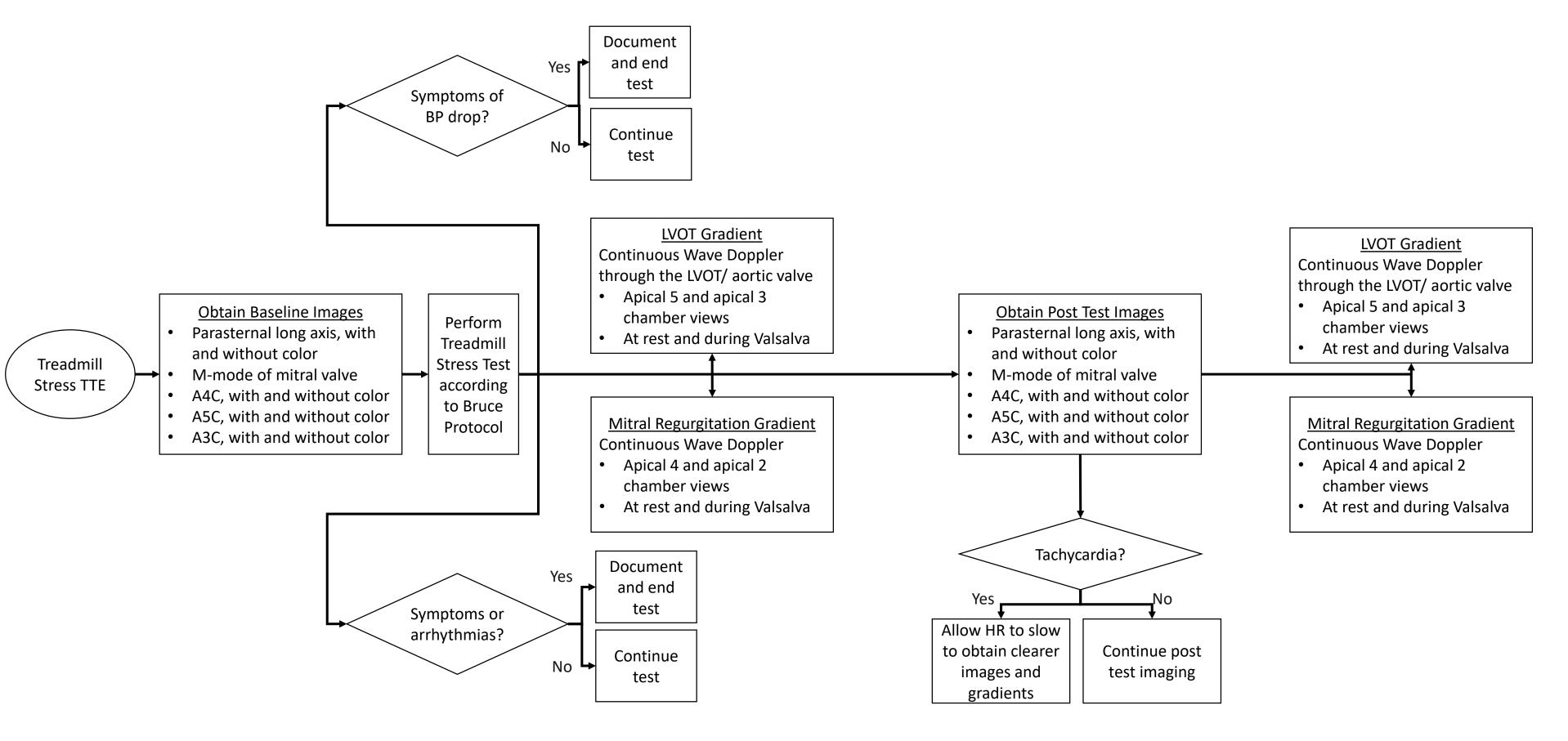
HCM - Resting TTE



^{*}Consider using ultrasound enhancing agents in patients with apical HCM- to better assess apical hypertrophy and also assess for apical aneurysm.



HCM - Stress TTE





HCM - CV - MR

- 1. Initial Localizing sequence/ 3 plane scout
 - Sagittal Plane
 - Coronal Plane
 - Axial Plane
- 2. Vertical long axis (VLA)/ 2 chamber scout
- 3. Horizontal long axis (HLA)/ 4 chamber scout
- 4. Short axis (SAX) scout
- 5. Short axis (SAX) cine stack:
 - Whole # slice shift position
 - 6mm/4mm Gap
- 6. Long axis (LAX) cines (use short axis cine stack to prescribe long axis views)
 - 3 chamber
 - 4 chamber
 - 2 chamber
 - Left ventricular outflow tract (LVOT) 3 chamber (LA-MV-AOT)
 - RV inflow view
 - RVOT views
- 7. Hi resolution aortic valve
 - Small FOV
- 8. Hi resolution mitral valve imaging
 - A1P1, A2P2, and A3P3
- 9. Tagged cines of mid short axis and 4 chamber
- 10. Pre-contrast T1 and T2 MOLLIS
 - Mid short slice above mid SAX and 4 chamber
 - Dependent on the relaxation of protons in the magnetic field

- 11. HASTE (Half-Fourier Acquisition Single-shot Turbo Spin Echo) &
 - TRUFI (TRUe Fast Imaging with steady state precession) free breathing chest survey
 - 40-50 slices; 5mm/ 0mm Gap
- 12. Stress and rest perfusion on all patients with HCM
- 13. Gadolinium administration
 - 0.15 mmol/kg total dose given at 1 mL/sec followed by 20 mL normal saline flush
 - Contraindicated with renal failure or allergy to contrast agent
 - Record volume and time of injection
- 14. Perform phase contrast imaging
 - Aorta
 - Pulmonary Artery
 - Mitral Valve
 - Plane phase contrast imaging of the 3 chamber view to demonstrate flow acceleration in LVOT in HCM patients
- 15. Late Gadolinium Enhancement sequences
 - Single shots (short and long axis views)
 - Segmented acquisition (short and long axis views)
- 16. TI 600 msec imaging of LV short axis and 2 chamber stack with 0 Gap
- 17. Post contrast T1 MOLLIs (copy the pre-contrast images



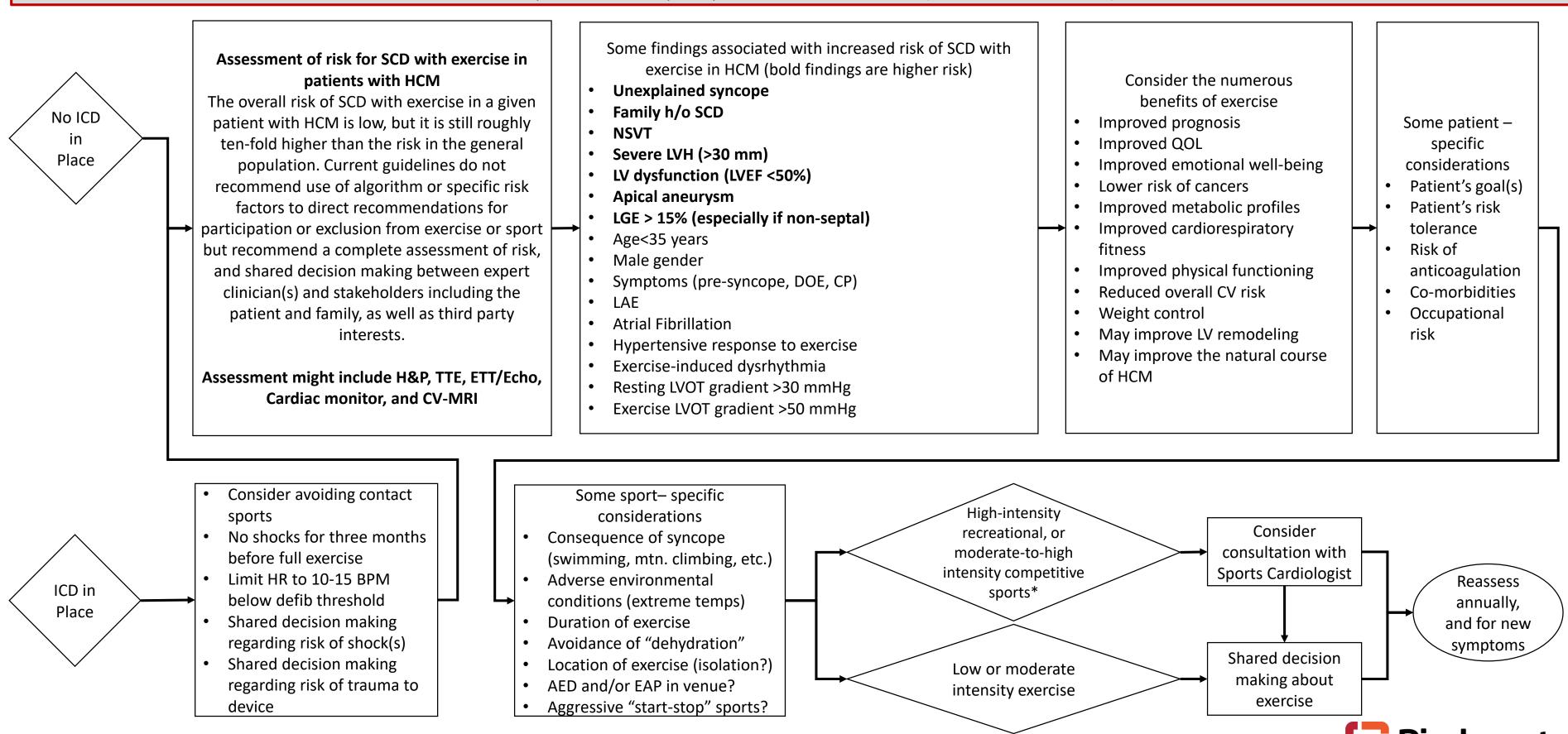
Exercise



HCM - Exercise Recommendations

Consider EP consultation to help assess risk of SCD, and to engage in shared decision making regarding ICD implantation for primary or secondary prevention of SCD.

Do **NOT** implant ICD to allow participation in exercise or athletics (Class III recommendation).



*High intensity exercise can refer to >6 METS, HR > 70% MPHR, or perceived exertion >15 (Borg Scale)

Cardiac Myosin Inhibitors



HCM – Cardiac Myosin Inhibitors

Inclusion Criteria

- Symptomatic Obstructive HCM
- Resting or Exercise Gradient > 30 mmHg ON maximally tolerated GDMT (BB or Ca Blocker)
- NYHA Class 2 3 symptoms
- Female patients must not be pregnant or lactating and, if sexually active, must be using highly effective birth control method
- LVEF by Echo within 3 months of > 55%

Exclusion Criteria

- Known infiltrative or storage disorder causing cardiac hypertrophy that mimics HCM, such as Fabry disease, amyloidosis, or Noonan syndrome with LV hypertrophy
- Current or planned treatment with Verapamil or Diltiazem will need to be discussed with HCM specialist and dose reduction may be needed.

