



Hypertrophic Cardiomyopathy Protocols

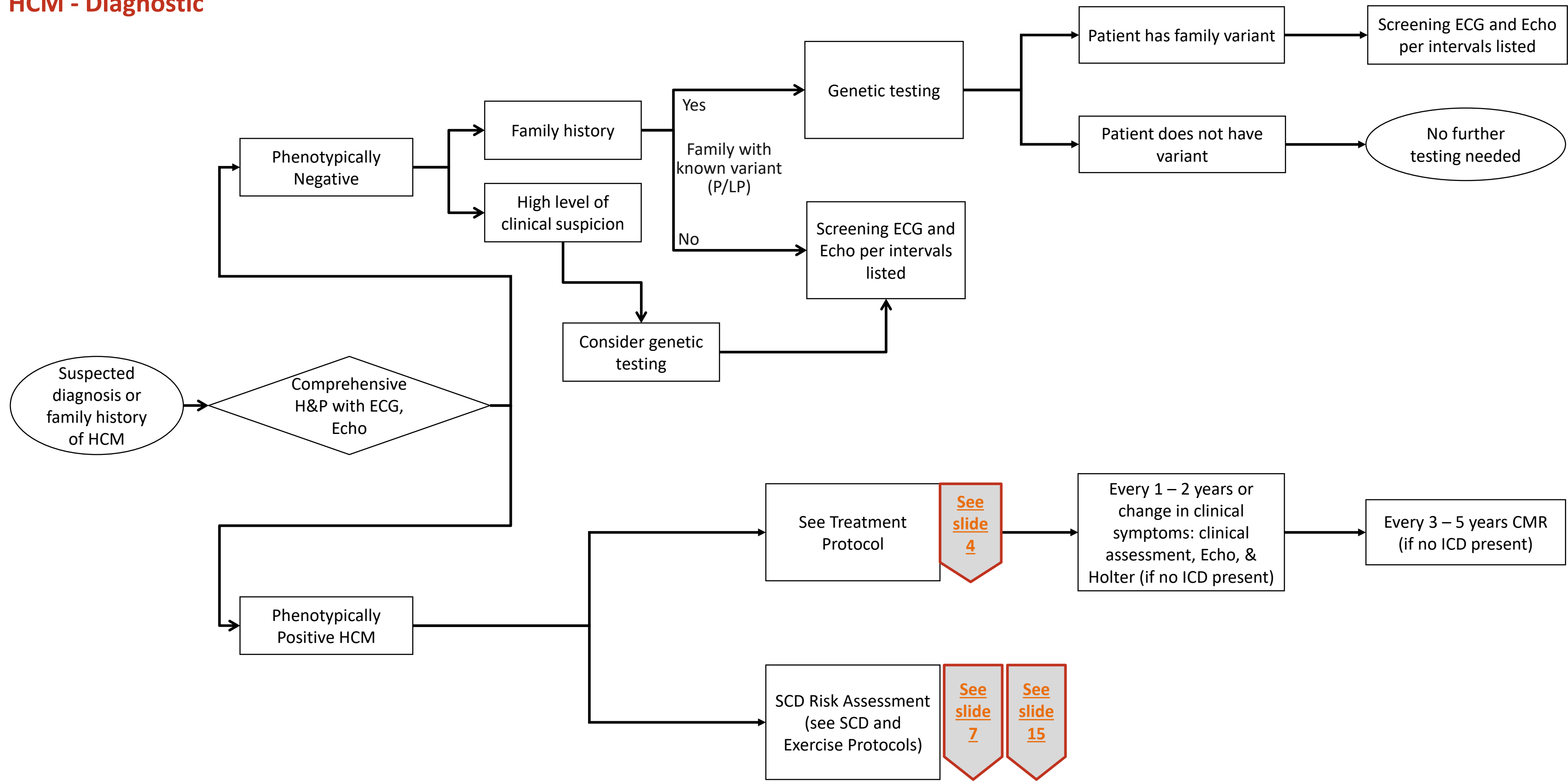
Revised 10/7/2023

- Diagnosis and Treatment
- Imaging
- Exercise
- Cardiac Myosin Inhibitors

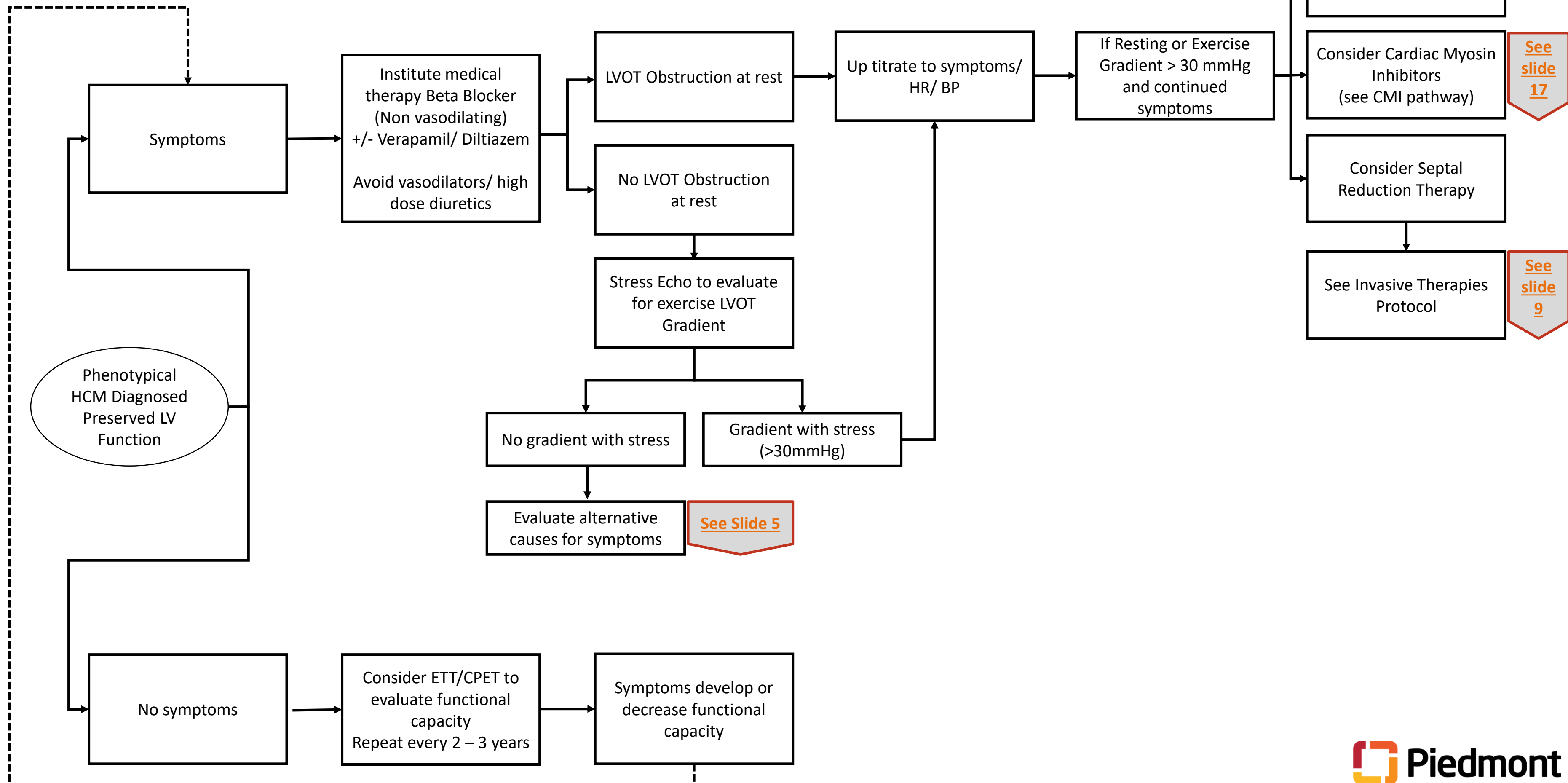
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Diagnosis and Treatment

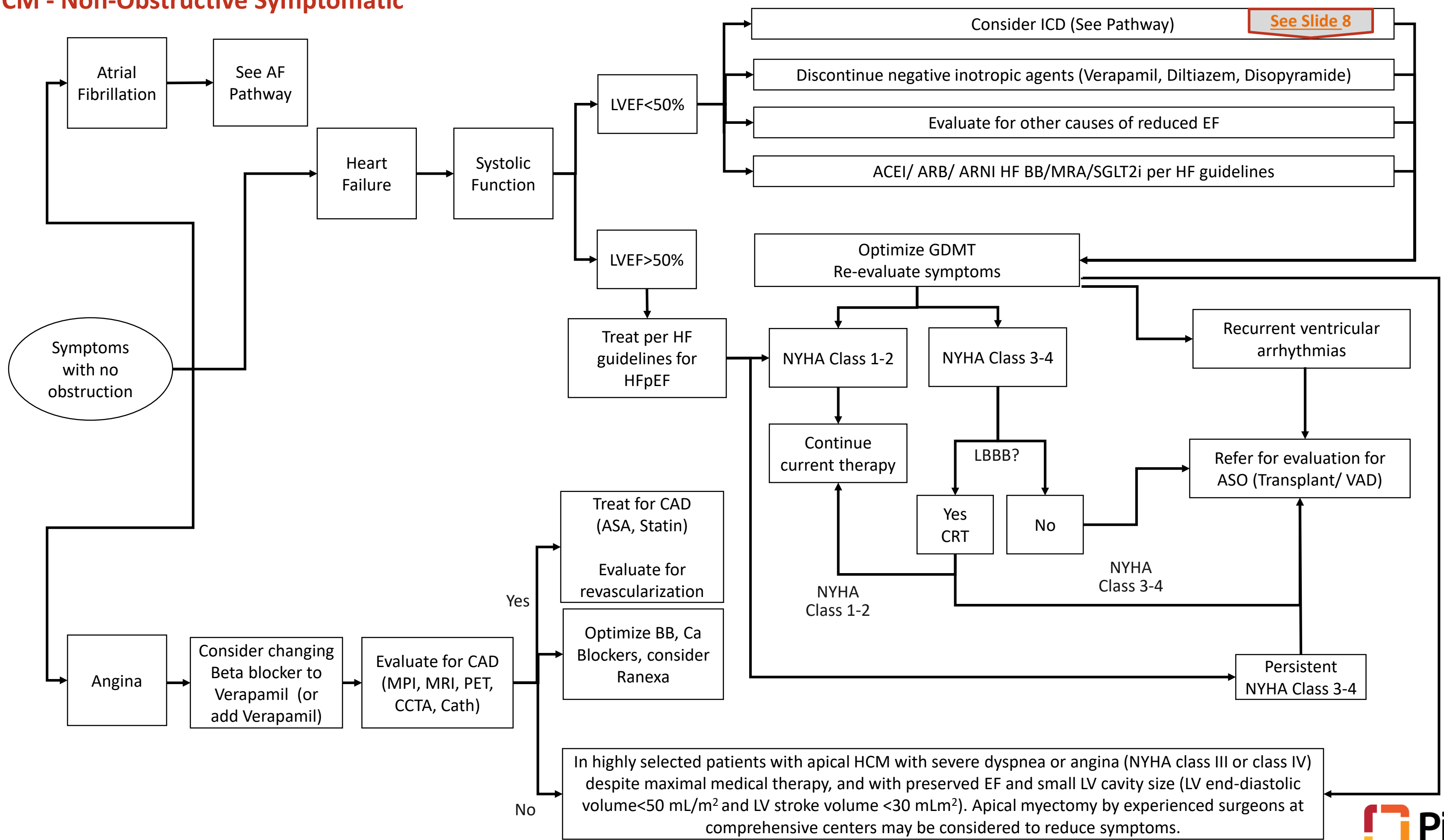
HCM - Diagnostic



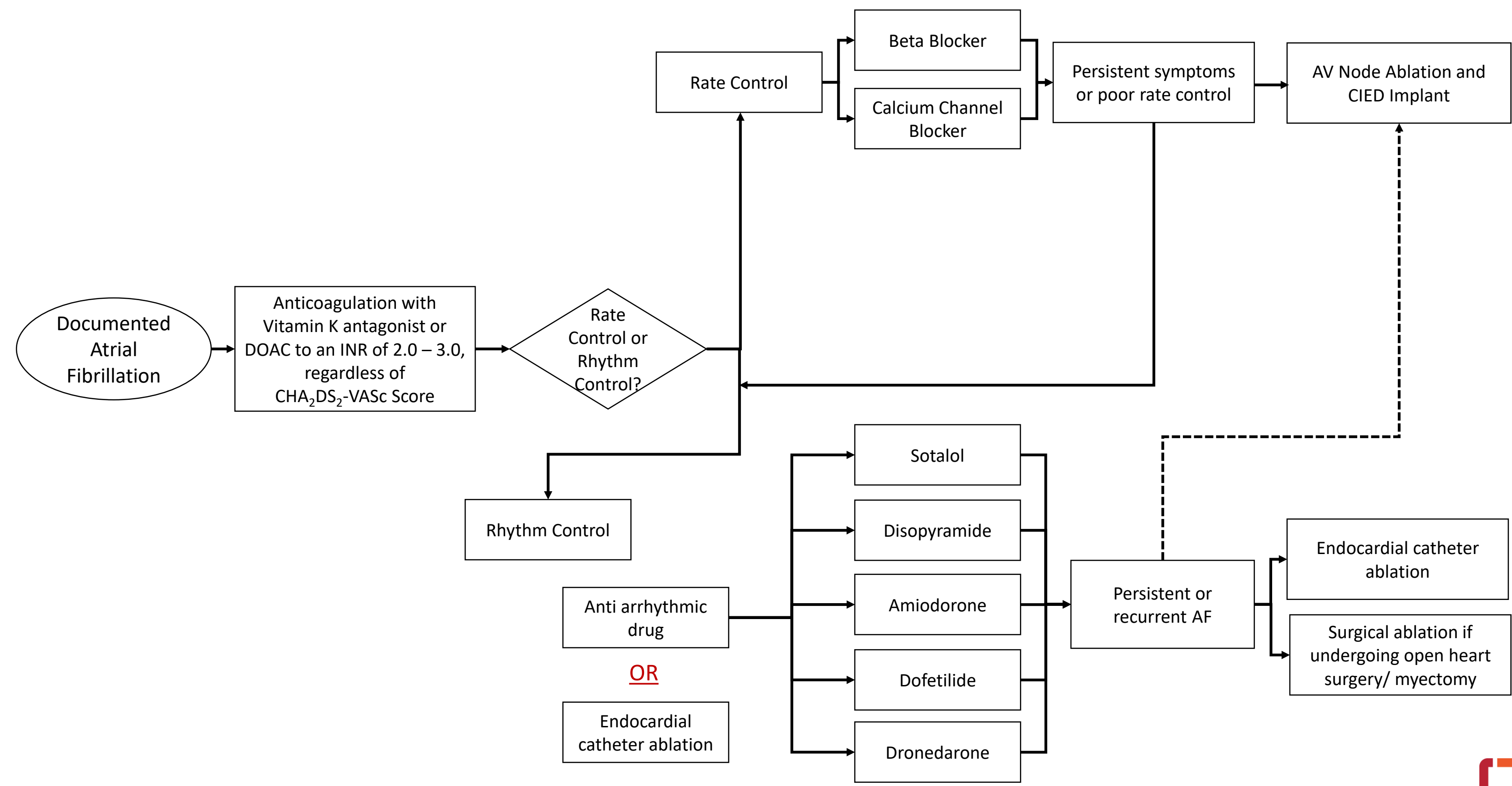
HCM - Treatment



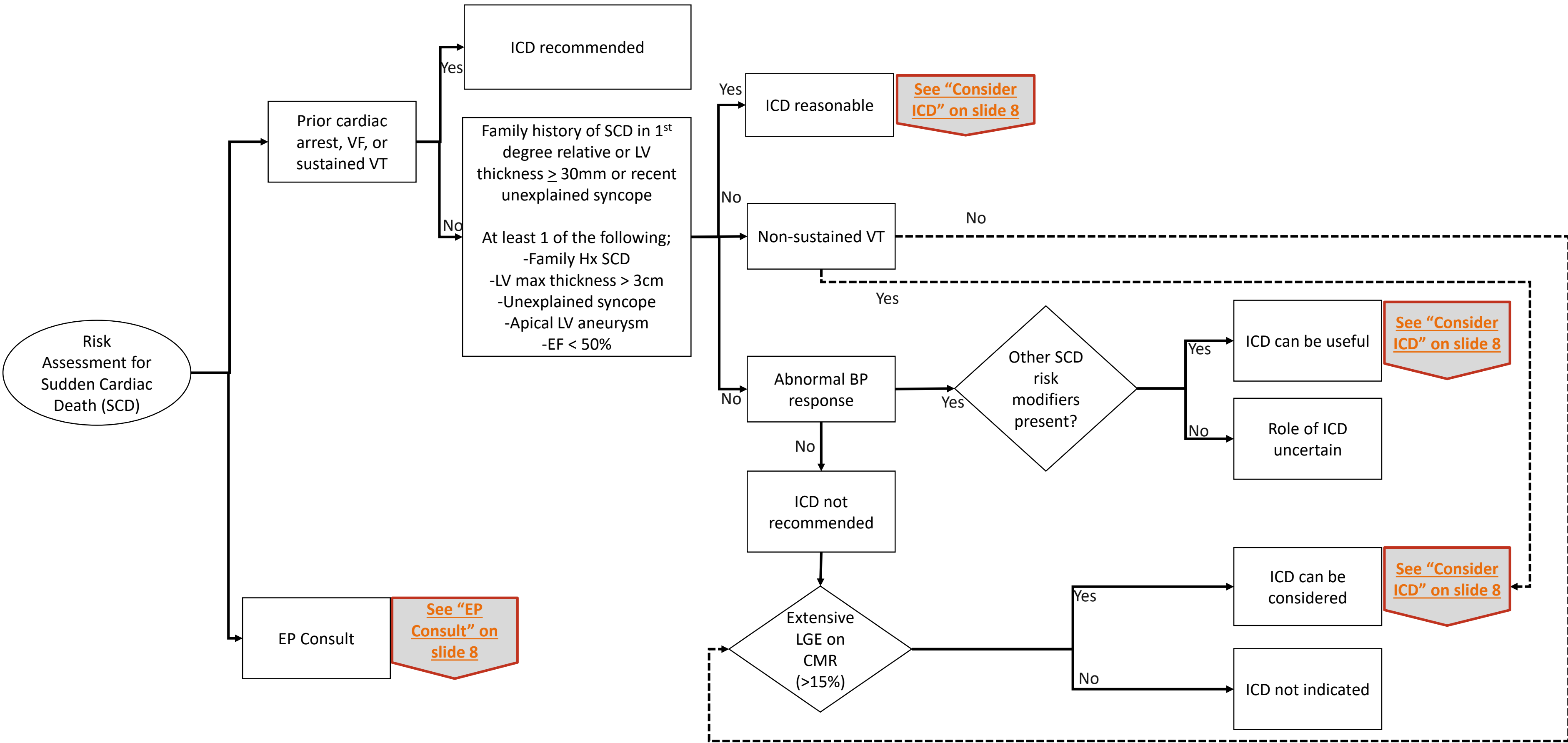
HCM - Non-Obstructive Symptomatic



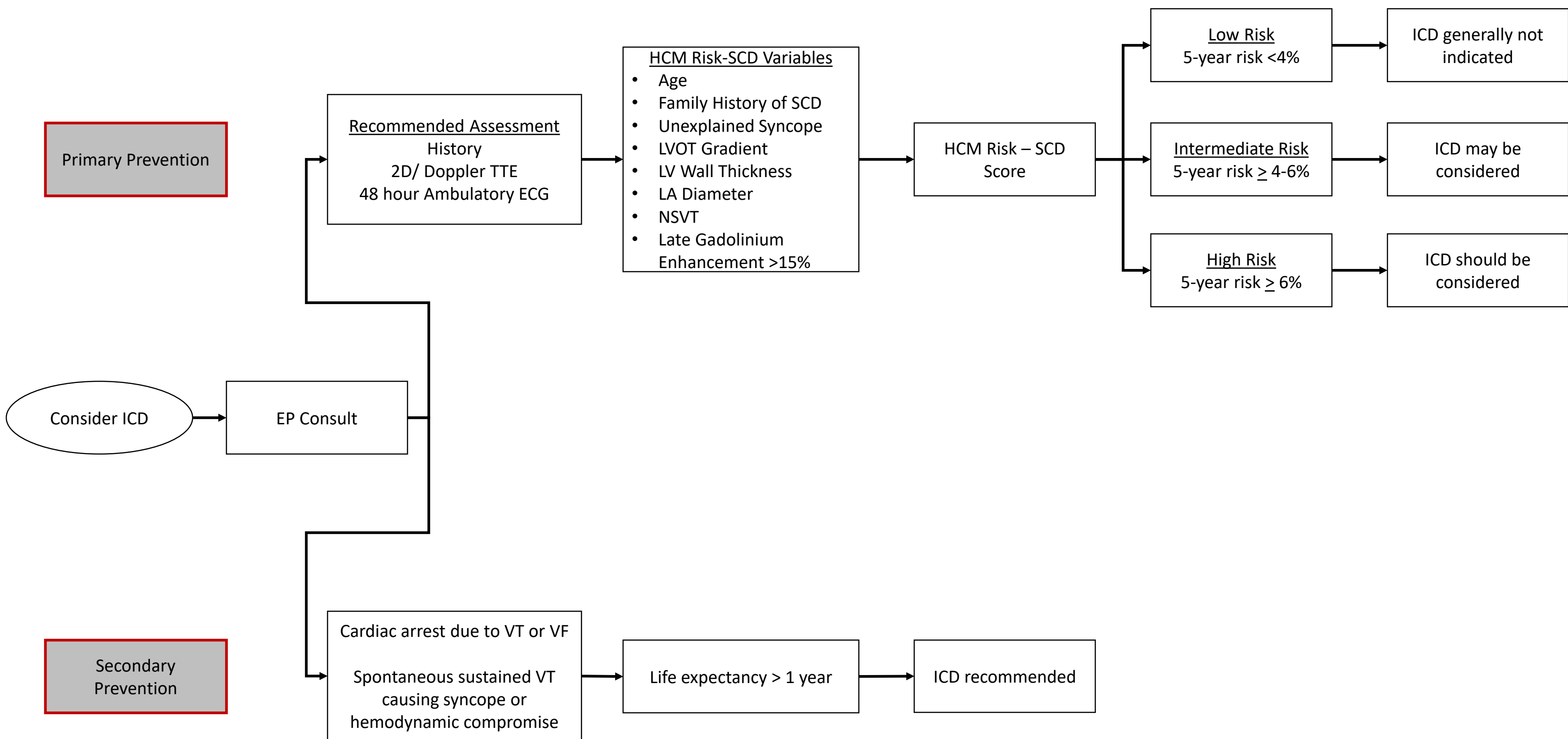
HCM - Management of Atrial Fibrillation



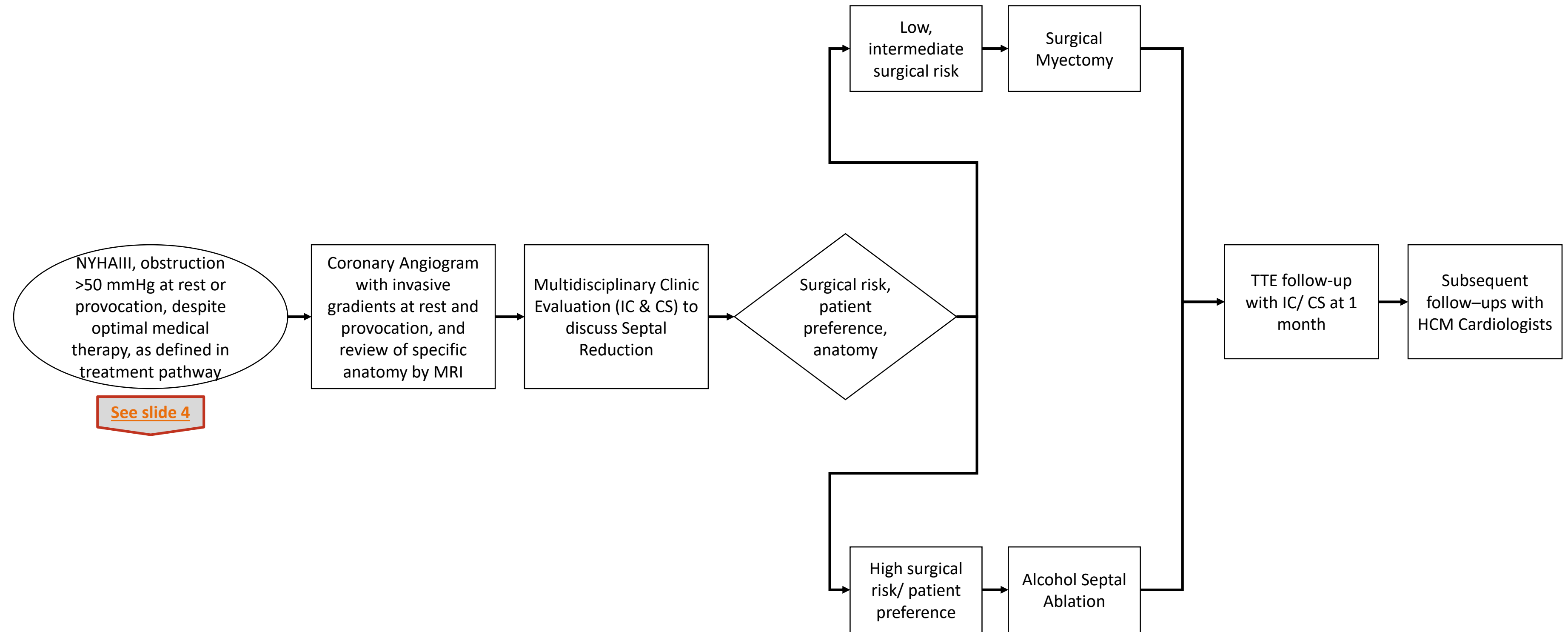
HCM - Risk Assessment for Sudden Cardiac Death



HCM – ICD-Risk SCD Model

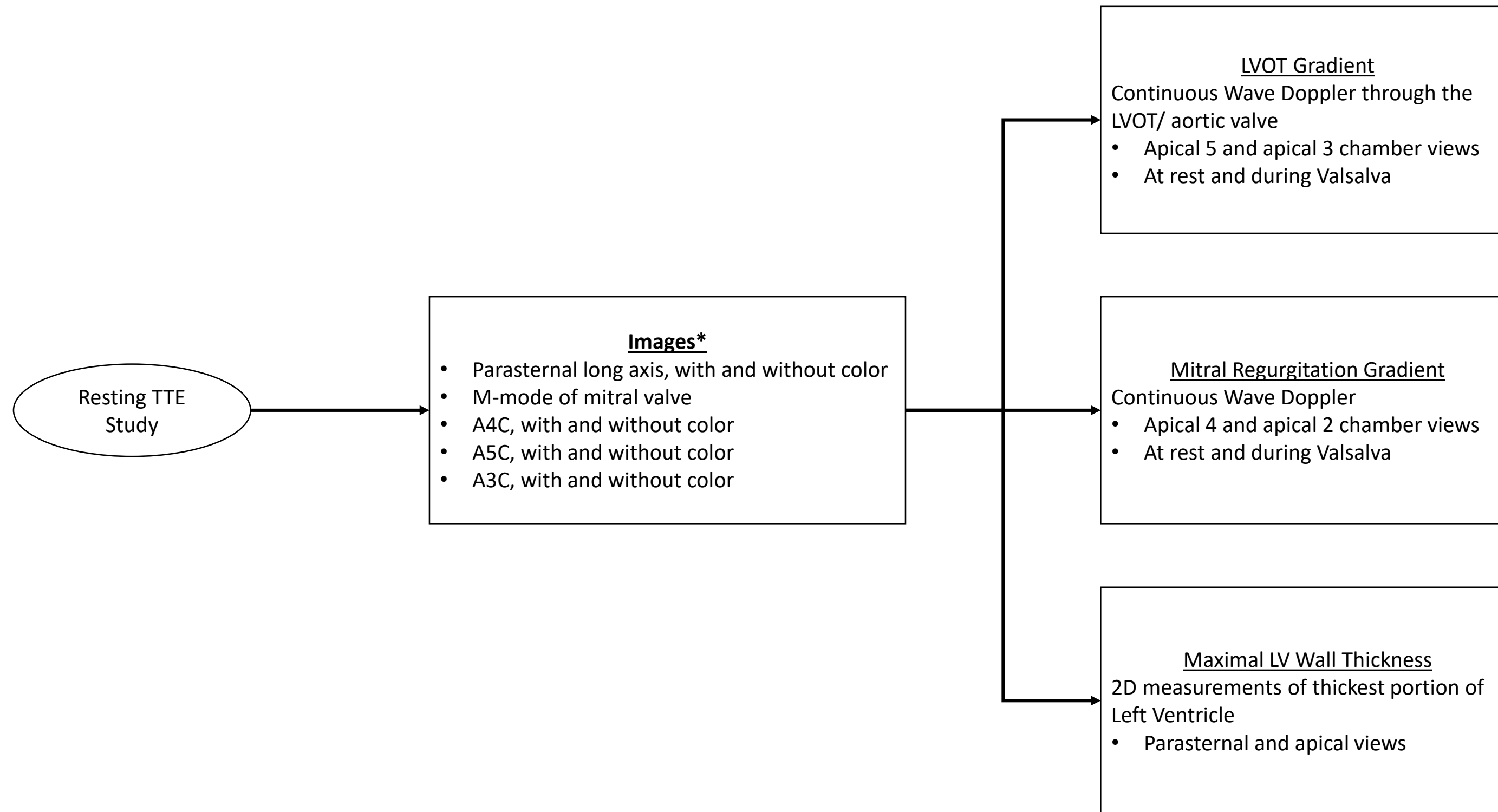


HCM - Invasive Therapies



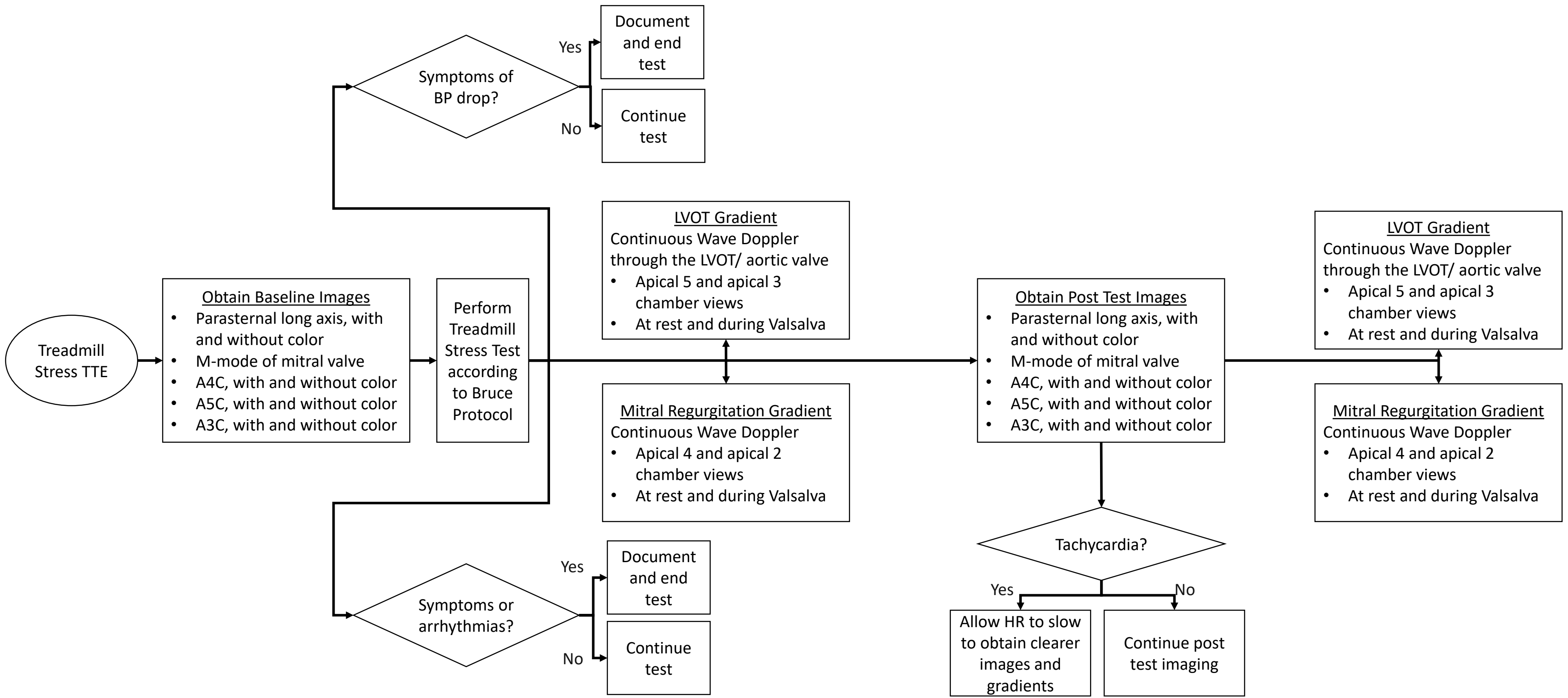
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Imaging



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

HCM - Stress TTE



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

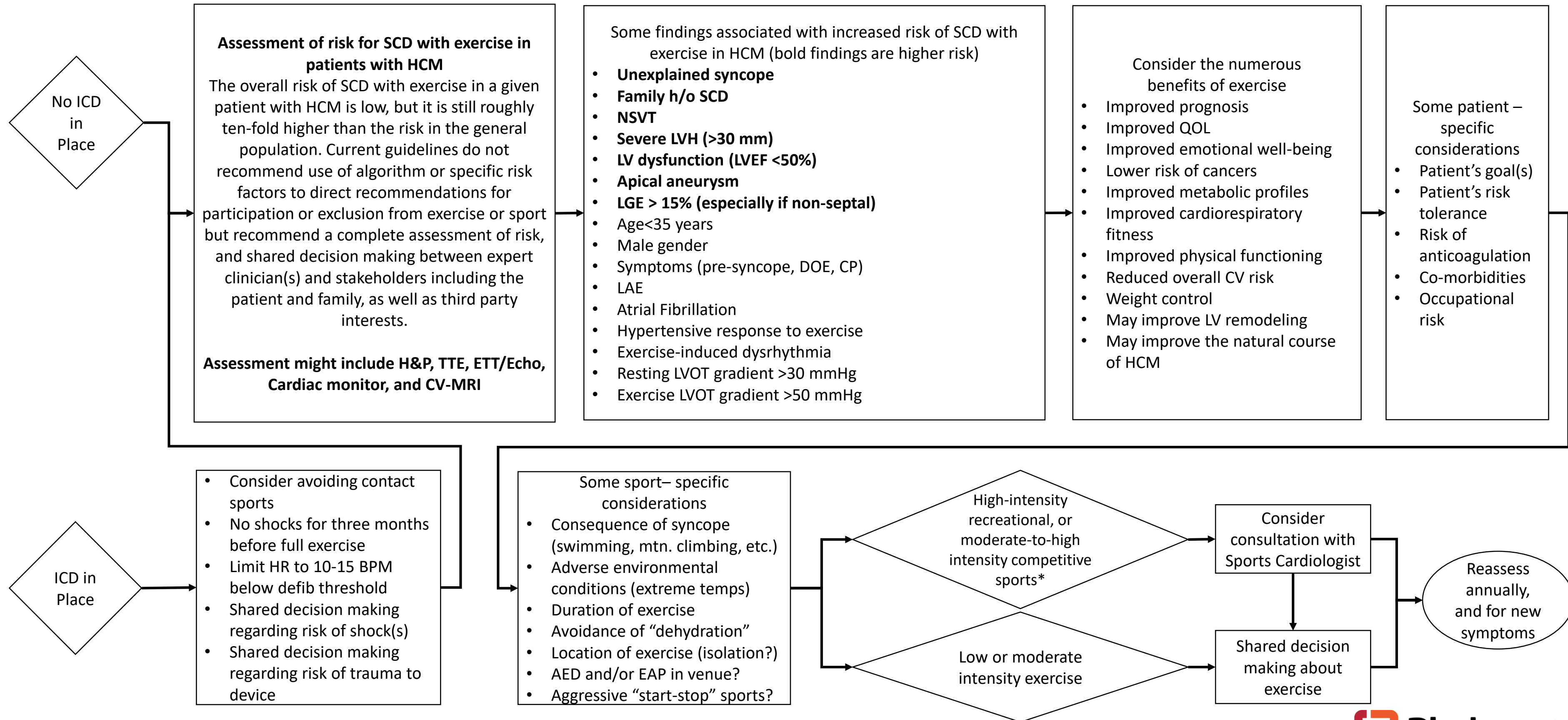
11. HASTE (Half-Fourier Acquisition Single-shot Turbo Spin Echo) &
 - TRUFI (TRUe Fast Imaging with steady state precession) free breathing chest survey
 - 40-50 slices; 5mm/ 0mm Gap
12. Stress and rest perfusion on all patients with HCM
13. Gadolinium administration
 - 0.15 mmol/kg total dose given 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)

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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% MPPHR, or perceived exertion >15 (Borg Scale)

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Cardiac Myosin Inhibitors

HCM – Cardiac Myosin Inhibitors

