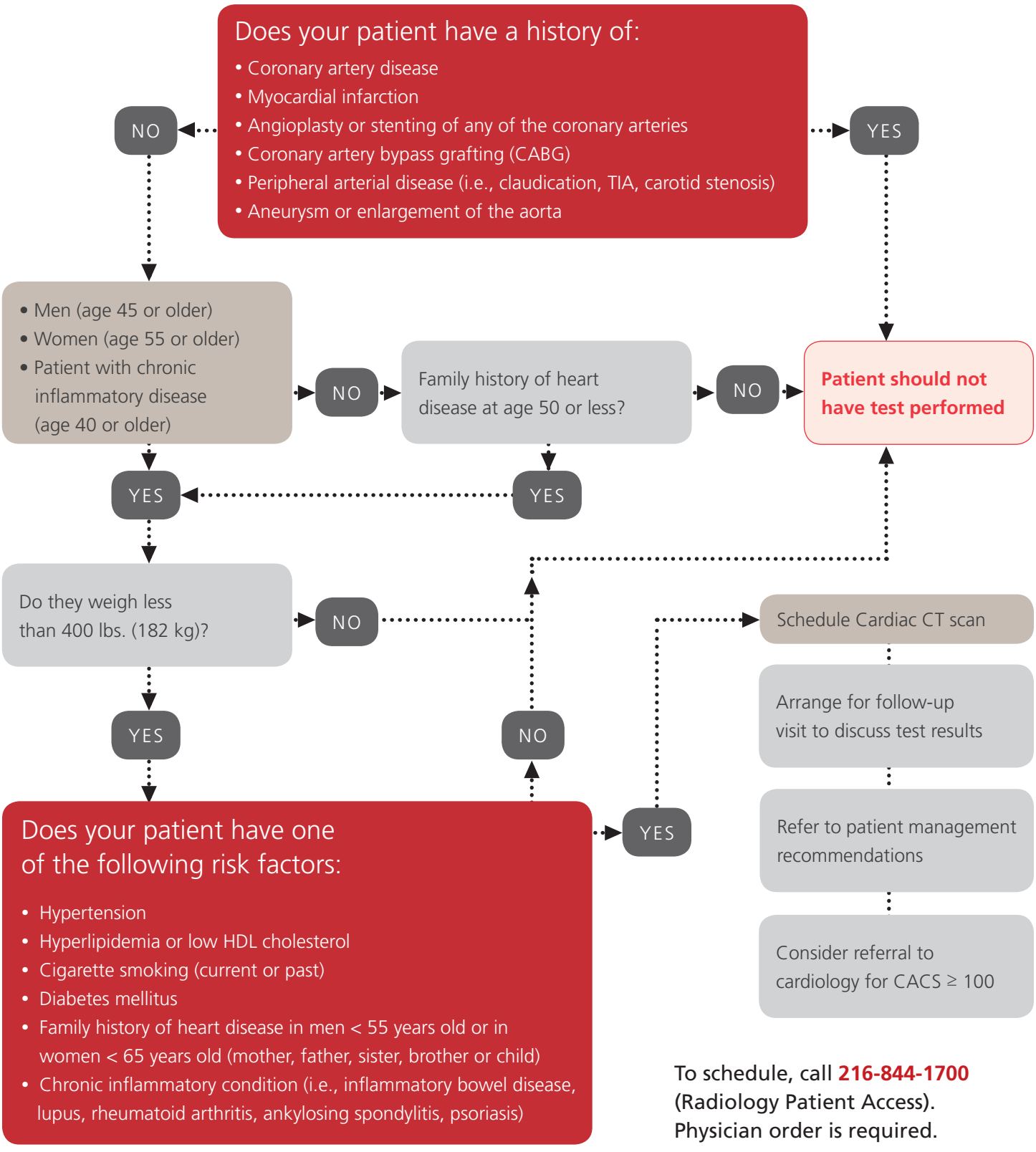
University Hospitals
Harrington Heart & Vascular Institute

Updated October 2016

Cardiac CT Scan for Coronary Artery Calcium Scoring:
Appropriateness Algorithm



To schedule, call **216-844-1700** (Radiology Patient Access). Physician order is required.

Patient Management Recommendations

For patients with CACS of 0:

1. LDL-C goal <130 mg/dL.
2. If triglycerides 200 – 499 mg/dL: non-HDL goal [total – (HDL-C) <160 mg/dL].
3. Therapeutic lifestyle change (TLC) therapy for six to 12 months; consider statins as first-line drugs for those with persistent LDL-C ≥160 mg/dL after six to 12 months.

For all patients with any detectable coronary calcium:

1. Diet, regular cardiovascular exercise, weight reduction to body mass index <25.
2. Complete smoking cessation.
3. Blood pressure <140/90 mm Hg; for type 2 DM: ≤130/80.

For patients with CACS 1 – 99:

1. LDL-C goal <130 mg/dL; optional <100.
2. If triglycerides 200 – 499 mg/dL: non-HDL-C goal <160 mg/dL; optional <130.
3. TLC therapy for six months; statins first-line drugs for those with persistent LDL-C ≥130 mg/dL after six months.
4. For persistent elevation in non-HDL-C consider high-intensity statin; or add fibrate, Niacin ER or ezetimibe.
5. Consider ASA 81 mg daily in males.

For patients with CACS 100 – 399:

1. LDL-C goal <100 mg/dL; optional <70.
2. If triglycerides 200 – 499 mg/dL: non-HDL-C goal <130 mg/dL; optional <100.
3. TLC therapy for three months; consider statins as first-line drugs for those with LDL-C >100 mg/dL after three months.
4. For persistent elevation in non-HDL-C consider high-intensity statin; or add fibrate, Niacin ER or ezetimibe.
5. Aspirin 81 mg daily.
6. Consider referring to cardiology (216-844-3800) for overview of risk factor management strategy and to explore research options.

For patients with CACS ≥400:

1. LDL-C goal <70 mg/dL.
2. If triglycerides 200 – 499 mg/dL: non-HDL-C goal <100 mg/dL.
3. Begin TLC therapy and usually higher dose statin therapy concomitantly.
4. For persistent elevation in non-HDL-C consider high-intensity statin; or add fibrate, Niacin ER or ezetimibe.
5. Combination therapy often necessary.
6. Aspirin 81 mg daily.
7. Stress echocardiography advised.
    a. No ischemia detected: continue aggressive CHD risk factor management.
    b. Ischemia detected, not strongly positive: anti-ischemic medical therapy plus aggressive risk factor management.
    c. Profound ischemia detected (≥2.5 mm ST depression; ST elevation; ≥20 mm Hg in systolic BP at peak exercise, severely impaired exercise capacity (<3 minutes on a standard Bruce protocol in absence of orthopedic limitations): recommend cardiology consultation.
8. Consider referring to cardiology (216-844-3800) for overview of risk factor management strategy and to explore research options.