Memorandum

Date: April 28, 2020

To: Emergency Physicians and PCN's in the Calgary Zone

From: Cardiac Diagnostics and Cardiac Ambulatory Clinics, Calgary Zone

Re: Guidelines for Referring to Cardiac Diagnostics/Cardiac Ambulatory Clinics in the Calgary Zone during Pandemic ONLY

Cardiac Diagnostic and Cardiac Ambulatory services listed below will communicate postponed procedures/visits to the referring physician's office.

Ongoing care of all patients whose procedures/visits have been postponed will remain the responsibility of the most responsible health care practitioner (MRHP). If patient condition deteriorates the MRHP is encouraged to re-refer the patient for testing or clinic assessment.

When communication for reentry to regular practice is received all postponed referrals will be reviewed for rescheduling appropriateness.

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CARDIAC CATHETERISATION LAB

Referrals may continue to be sent via regular referral route and will be triaged by the triage office and physician lead.

ECG/HOLTER

Urgent Outpatient ECG/Holter referrals:

All routine testing has been postponed. Referring physicians should only request an urgent 12-lead ECG where the result will have an **immediate impact on patient management or patient safety**. Urgent referrals will be assessed using the following criteria as a guide. If a referring physician has an urgent referral that does not meet these criteria, they should telephone the ECG Department to discuss the referral with a physician.

Patients with **recurrent** episodes of suspected cardiogenic syncope, occurring **more than once per week**, particularly in the following circumstances:

- Patients with known heart failure or reduced LV ejection fraction (<35%).
- Patients with prior MI, CABG, angioplasty/stenting.
- Patients with other structural heart disease, for example hypertrophic cardiomyopathy, congenital heart disease or severe valvular heart disease.
- Patients with suspected bradycardia or pauses (e.g. intermittent AV block or sinus node dysfunction).
- Patients with a known “electrical” cardiomyopathy (e.g. long QT syndrome, Brugada, ARVC).
- Patients with episodes of sustained palpitation (> 30 s) occurring **more than once per week**, and associated with significant symptoms (e.g. light-headedness, chest pain).
- Patients with atrial fibrillation or flutter and active heart failure and/or angina where it is suspected that uncontrolled rates are contributing to their condition. Note that a resting ECG with a heart rate in AF/AFL >100 bpm should be sufficient grounds to increase rate-control **without** needing an urgent Holter.
- Patients with pacemakers / ICDs where device malfunction is strongly suspected and cannot be confirmed by remote device interrogation.

Note that patients with a **structurally normal heart**, a **normal resting ECG** and a clinical history suggesting **vasovagal syncope** should **not** require an urgent Holter, even if the episodes are frequent.

ECHO

Urgent Outpatient ECHO referrals:

Only urgent referrals for outpatient echocardiograms are currently being accepted. An urgent referral is generally considered as one in which the results would be reasonably expected to prevent an adverse patient outcome or hospital/Emergency Department visit within a period of <4 weeks. Examples include (but are not limited to): suspected severe symptomatic aortic stenosis, symptomatic new or progressive heart failure.

It is recognized that multiple patient specific factors may influence the urgency of an echo referral, and that a case-by-case approach may be required.

Acceptance of urgent referrals requires a discussion between the triaging Echocardiologist and the referring physician/MRHP. All referring physicians/MRHPs are required to call the appropriate Echo Lab site at the number listed below and ask to speak with the triaging Echocardiologist for the referral to be considered.

Urgent Inpatient/Emergency Room ECHO Referrals:

All inpatient/emergency room referrals are reviewed by the triaging Echocardiologist to determine priority in addition to risk of viral transmission.

Referring physicians/MRHPs of echo referrals considered to be lower priority or of high risk of viral transmission will be contacted by the triaging Echocardiologist to discuss the urgency of the referral, and the referral may be postponed. It is requested that echo referrals for patients whose COVID-19 status is pending have their echo postponed, if it is safe to do so, until the test result is known.

AHS Calgary Zone ECHO Lab Contact Numbers:

Foothills Medical Center (FMC): 403-944-1189
Rockyview General Hospital (RGH): 403-943-3385
South Health Campus (SHC): 403-956-2613
Peter Lougheed Center (PLC): 403-943-4325

ELECTROPHYSIOLOGY SERVICES AND CARDIAC ELECTRODIAGNOSTICS

Continue to refer patients as current practice. All referrals will be internally triaged with communication back to referring physician of the referral requires postponing. Most new referrals will be managed over the phone, and seen in person only if required.

HEART FAILURE CLINIC

Urgent Outpatient HF Clinic referrals:

Please see below referral criteria for patients requiring the Heart Failure Clinic.

- Recent Discharges with PRE DISCHARGE NT BNP > 3000 or did not drop by 30% in hospital (this means they have TWO BNP levels drawn, consistent with provincial pathway).
- NYHA Class 3 or 4 symptoms despite treatment.
- Patients with HF intolerant of HF Medications.
- NYHA 2- 4 HF with chest pain or recent MI.
- HF with syncope.

Patients still require a primary Cardiologist who will accept them to care in the Heart Failure Clinic.

Alberta Health Services

NUCLEAR CARDIOLOGY

Urgent Cardiac CT referrals:

All urgent referrals require consultation with the Cardiac CT imager on call.

Urgent Outpatient MPI referrals:

If there is need for an outpatient to be done in an urgent fashion (where the results are expected to immediately impact management and/or outcome) the referring physician must contact the cardiologist on call/ specialist link cardiologist or nuclear cardiologist for the day to obtain approval. Indications and urgency must be clearly stated on the requisition.

Urgent Inpatient/Emergency Department MPI referrals:

We will continue to provide service for select urgent inpatient/emergency room MPIs. These referrals will be required to come from a cardiologists or upon consultation with the cardiology service.

MPI ordering guidelines:

1. Symptomatic patients only.
2. Patients with known CAD if they present with symptom changes/escalation.
3. Consider ordering for VERY SELECT chest pain patients:
    - Intermediate risk with TYPICAL chest pain: Consider proceeding with the test if it is anticipated it will impact management and/or outcome.
    - Intermediate risk with ATYPICAL chest pain.
    - High risk: Reasonable to order the test if it will impact management and/or outcome.

Use the above chest pain recommendations in a patient with symptoms strongly suspected to be an anginal equivalent (i.e. exertional dyspnea, jaw pain, shoulder/arm pain).

4. If the patient has a more likely alternate cause for these symptoms (i.e. dyspnea explained by COPD, asthma, deconditioning etc.), recommend postponing testing.
5. Patients with new onset heart failure with LVEF <45% in whom CAD is strongly suspected.
6. Patients with UA/NSTEMI/STEMI who are medically managed (no coronary angiography performed) if the result is expected to impact management and/or outcome, and is expected to expedite discharge.

The following reasons would suggest the test be postponed:

1. Palpitations, syncope, or dizziness.
2. Patients with mildly elevated troponins (and no clear pattern of ACS), which can be explained by an alternative cause.
3. Chest pain that is very low or low risk.
4. Chest pain of intermediate risk with NONANGINAL chest pain.

Urgent Inpatient/Emergency Department MUGA referrals:

- Outpatient MUGAs will not be performed at this time.
- Inpatient/emergency room MUGAs will continued to be performed upon request by the cardiology service.

Technetium Pyrophosphate:

Tests will not be performed unless requested by cardiology.

Cardiac MRI

Urgent Outpatient CMRI referrals:

During the COVID-19 pandemic period only urgent referrals for outpatient cardiac MRI are being accepted. Urgent CMR indications are those where failure to provide services may lead to an adverse patient outcome or hospital/Emergency Department visit within a period of <4 weeks.

The following are appropriate urgent indications for Cardiac MRI. This list is aimed to provide a guide for the selection of patients; however, other similar priority indications will be considered.

- New-onset heart failure of unknown cause.
- Suspected acute myocarditis*.
- Ventricular arrhythmia of unknown cause / requiring management guidance.
- Suspected severe cardiomyopathy (cardiac amyloid, sarcoid, HCM).
- Chest pain requiring urgent risk stratification (stress perfusion MRI).
- Congenital heart lesion requiring urgent intervention.
- Cardiac mass.

*Patients with suspected myocarditis should have COVID-19 testing considered and status of testing should be provided at time of referral.

The CMR service is maintaining two Stress Perfusion CMR days per week (Monday and Thursday) to address elevated demand for appropriate and urgent risk stratification assessments (in and outpatients).

Referrals received during this time will each be individually reviewed and triaged by a CMR physician. Non-urgent referrals will be responded to by way of a standard letter-based response that indicates that the case will not be scheduled until after the ambulatory care slow-down has been lifted.

Urgent Inpatient/Emergency Department CMRI Referrals:

All inpatient/emergency room referrals are continuing to be processed and are being routinely triaged by CMR physicians.

For patients suspected or known to have COVID-19 we ask that you contact the CMR reader of the day to discuss the case to establish that the study is required prior to lifting of patient isolation requirements.

AHS Calgary Zone CMR Contact Numbers:
Foothills Medical Center (FMC): 403-944-1825
South Health Campus (SHC): 403-956-2617