NON-SYNDROMIC CARDIOMYOPATHIES Requisition

Ship to:
Genetics Diagnostic Laboratory
401 Smyth Road, Rm w3401
Ottawa, ON, K1H 8L1
Tel: (613) 738-3230 Fax: (613) 738-4814
https://www.cheo.on.ca/en/clinics-services-programs/genetics-diagnostic-laboratory.aspx

Patient Name: _____
Last First Initial
Health Card Number: _____
DOB: (yy/mm/dd) _____
Address: _____
_____
Telephone: _____
Sex (circle one): ○ Male ○ Female

ALL SECTIONS MUST BE COMPLETED
Collection Date: _____
Collection Centre: _____
CHEO Pedigree Number: _____

Sample Requirements

Blood
☐ Blood 2x 6 mL EDTA ☐ Blood 2x 3 mL EDTA (child) ☐ Blood 3 mL EDTA (infant ≤1 year)
For any other sample types, please contact the laboratory directly.

Health Care Provider Requesting Test

Name: _____
Registration Number: _____
Address: _____
_____
Telephone: _____
FAX: _____

Copy to: Name: _____
Registration Number: _____
Address: _____
_____
Telephone: _____
FAX: _____

Test Requested (see next page for the clinical testing criteria and a list of the genes included in each panel)

□ ARVC panel *(7 genes; see page 2 for details)*
□ Pan Cardiomyopathy panel *(30 genes; see page 2 for details)* ***Note: most appropriate for DCM, or overlapping or atypical phenotypes.***
□ Single gene testing (Specify Gene): _____

□ Store DNA for future testing *(DNA will be stored for 2 years then discarded)*

☐ Family Variant Specific Test
(Include a copy of the family member's genetic test report. A positive control is recommended if testing was performed in a different lab)
Gene(s)_____
Variant(s) _____
Proband name:_____
Proband date of birth:_____
Relationship to proband:

Note: there is different requisition for hypertrophic cardiomyopathy genetic testing; it is available at https://www.cheo.on.ca/en/clinics-services-programs/requisitions-and-forms.aspx

Clinical Information

Clinical Diagnosis: □ HCM (Age of dx:___) □ DCM (Age of dx:___) □ ARVC (Age of dx:___) □ LVNC (Age of dx:___)
□ Sudden cardiac arrest < 50 years old □ Other:_____

Cardiovascular Features:
Hypertension (treated with medication) □ Yes □ No □ Unknown **Ejection Fraction <40%** □ Yes □ No □ Unknown
Pacemaker/ implantable defibrillator □ Yes □ No □ Unknown **Peripartum onset** □ Yes □ No □ Unknown
Ventricular tachycardia □ Yes □ No □ Unknown

Ethnicity (be as specific as possible; this is important as the frequency of rare DNA changes can vary between ethnic backgrounds):
□ Ashkenazi Jewish □ Black/African □ East Asian □ European □ First Nations □ French Canadian
□ Hispanic □ Middle Eastern □ South Asian □ Other _____

Positive Family History (1st and 2nd degree relatives only) □ Yes (specify below) □ No □ Unknown
□ HCM (Age of dx:___) □ DCM (Age of dx:___) □ ARVC (Age of dx:___) □ LVNC (Age of dx:___)
□ Sudden cardiac arrest/death < 50 years old □ Cardiac transplant
Other:_____
_____

NON-SYNDROMIC CARDIOMYOPATHIES TEST DETAILS

Methodology of genetic testing:

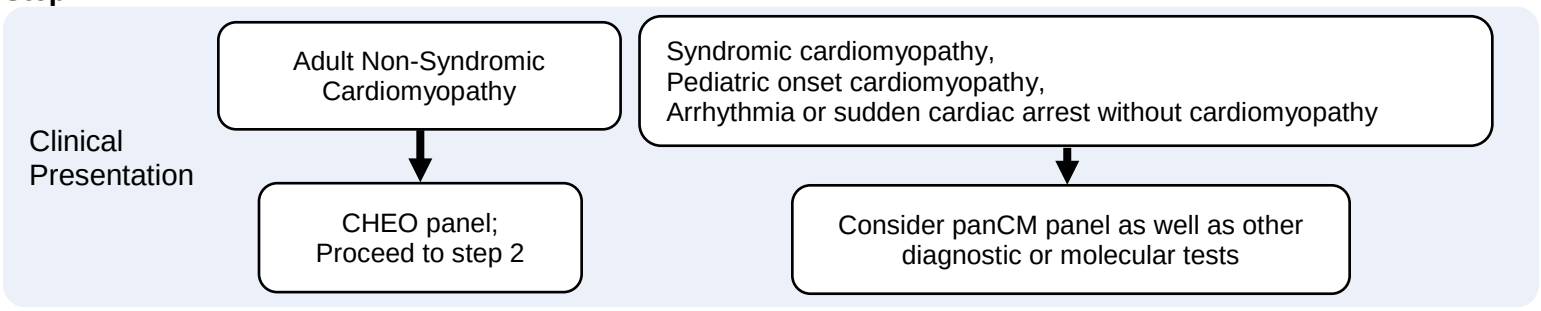
1) Sequencing: next-generation sequencing analysis of coding sequences of the relevant genes and 10 base pairs immediately adjacent to each exon. In addition, several deep intronic regions are analyzed for the presence of specific clinically relevant variants.
2) MLPA: to detect large genomic deletions and duplications, multiplex ligation-dependent probe amplification (MLPA) is performed for certain genes.

Arrhythmogenic Right Ventricular Cardiomyopathy (ARVC) Panel
Genes included in panel: *DSC2, DSG2, DSP, FLNC, JUP, PKP2,* and *TMEM43* (c.1073C>T mutation only)
Analysis includes sequencing as described above, and MLPA of *PKP2*.

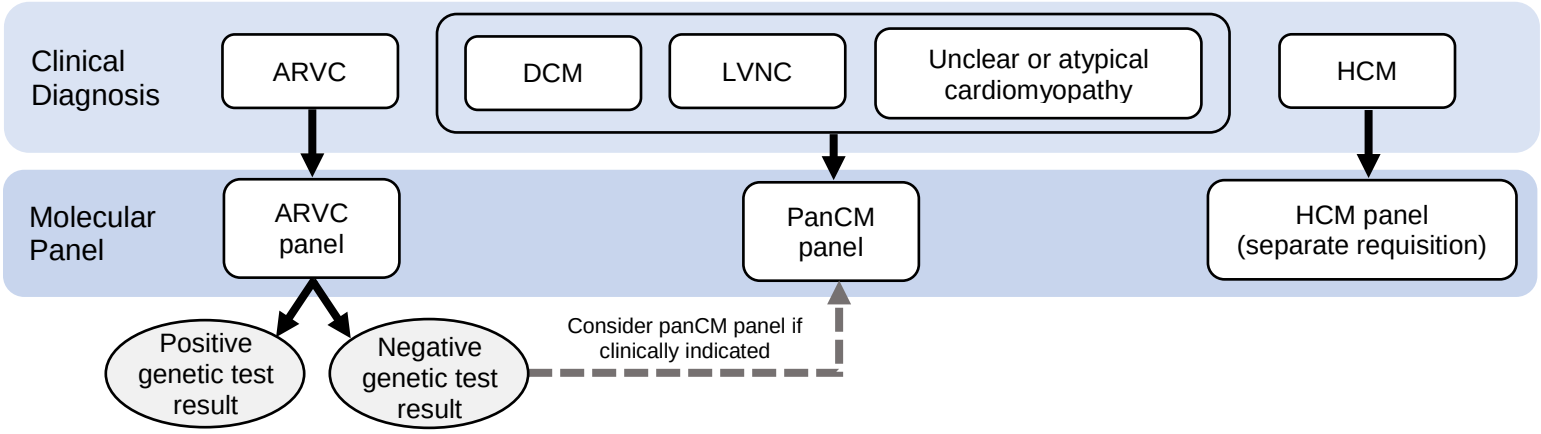
Pan Cardiomyopathy Panel
Genes included in panel: *ACTC1, ACTN2, BAG3, DES, DSC2, DSG2, DSP, FLNC, GLA, JUP, LAMP2, LMNA, MYBPC3, MYH7, MYL2, MYL3, NEXN, PKP2, PLN, PRKAG2, RBM20, SCN5A, TMEM43* (c.1073C>T mutation only)*, TNNC1, TNNI3, TNNT2, TPM1, TTN, TTR*, and *VCL*
Analysis includes sequencing as described above*,* and MLPA of *BAG3, MYH7, MYBPC3, PKP2,* and *TNNT2*.

Selecting a CHEO panel

Step 1:



Step 2:



Other considerations:

- LVNC: If additional cardiac anomalies such as congenital heart disease, consider additional tests.
- DCM: If extra-cardiac signs, such as muscle weakness, hearing/vision loss or if arrhythmia > cardiomyopathy, consider other etiologies and tests
- HCM: In patients with a family history of non-HCM cardiomyopathy or sudden cardiac death, consider the panCM panel if indicated. Consider syndromic causes of HCM, particularly in young patients with severe disease. If there is uncertainty as to which panel to order or there are additional cardiac anomalies or family history, please speak with the lab genetic counsellor.