CPH Troponin Testing Algorithm

Detectable level of troponin (but within normal)

Zero hour < 99th Percentile

99th percentile: Female 14ng/L, Male 22ng/L

- **Pain onset greater than 6 hours**
- **Pain onset less than 6 hours**

Two hour RETEST

- **HEART Score**
- **Change at 2 hours < 8ng/L**
- **Change at 2 hours ≥ 8ng/L**

- **HEART 0-3**
- **HEART greater than or equal to 4**

- **Discharge: Outpatient workup Consider non-cardiac work up**
- **Shared Decision making: 1) Discharge with close follow up (within 72 hours) 2) Observation: confirmatory testing**
- **Shared Decision making: Observation: confirmatory testing**

Elevated level of troponin

Zero hour >99th percentile but <100ng/L

99th percentile: Female 14ng/L, Male 22ng/L

Two hour RETEST

- **Change at 2 hours < 8ng/L**
- **Change at 2 hours ≥ 8ng/L**

- **Workup Differential Diagnoses**

Diagnostic high level of troponin

Zero hour >100 ng/L

Admission/ Cardiology Consult

* ng/L = Nanogram/Liter
** Please see attached document
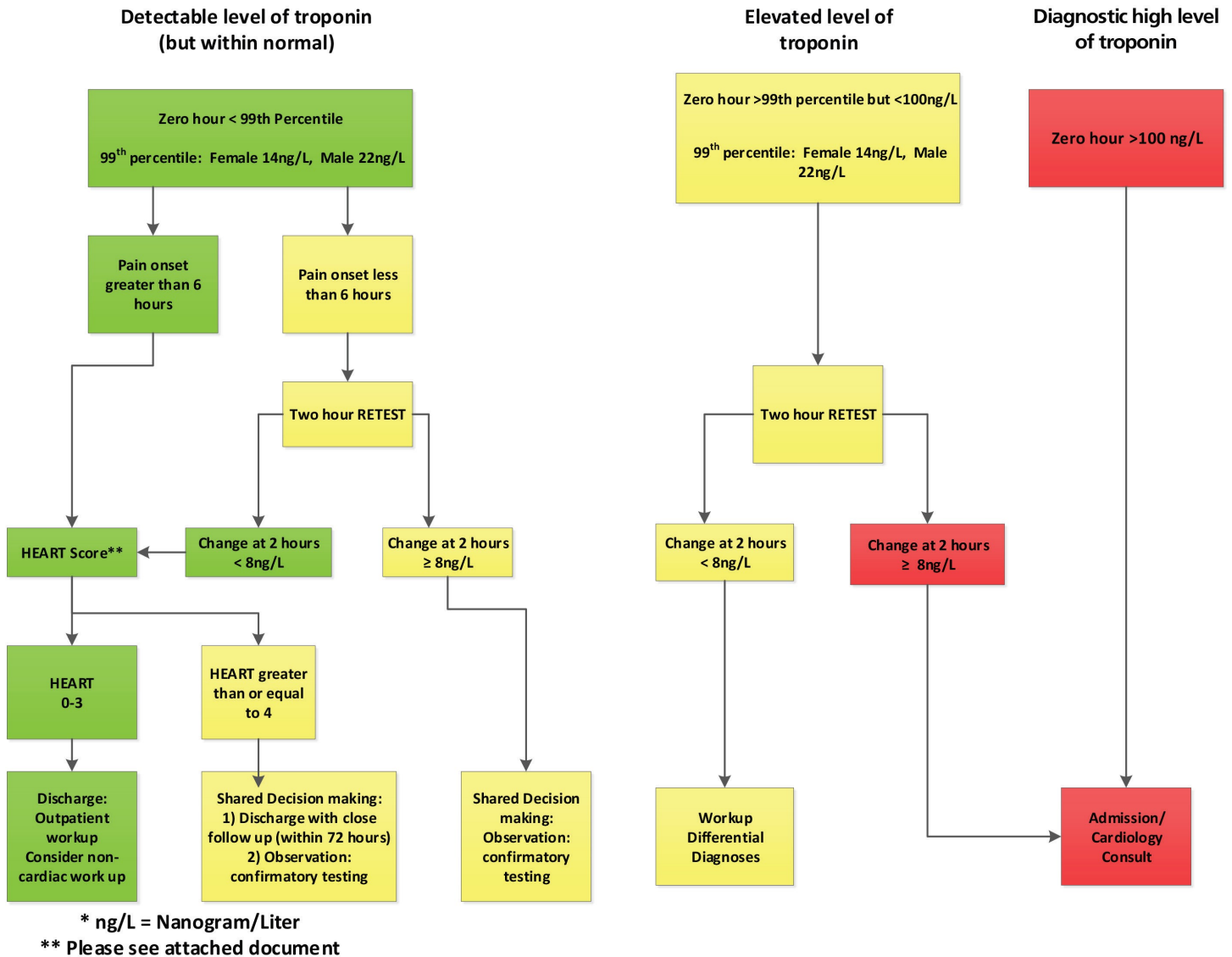
Note: Diagnosis of Myocardial Infarction is made with acute changes in cTn concentrations with at least one serial sample above the 99th percentile upper reference limit (URL), interpreted in the context of clinical symptoms and ECG changes. Elevated concentrations of cTn can also occur in other clinical conditions such as myocarditis, heart contusion, pulmonary embolism, and drug-induced cardiotoxicity.

HEART Score

History		
Slightly suspicious		**0**
Moderately suspicious		+1
Highly suspicious		+2

EKG
1 point: No ST depression but LBBB, LVH, repolarization changes (ex. digoxin).
2 points: ST depression/elevation not due to LBBB, LVH, or digoxin.

EKG		
Normal		**0**
Non-specific repolarization disturbance		+1
Significant ST depression		+2

Age		
<45 0	45-64 +1	>65 +2

Risk Factors
Risk factors: HTN, hypercholesterolamia, DM, obesity (BMI>30 kg/m2) smoking (current, or smoking cessation ≤ 3 mo), positive family history (parent or sibling with CVD before age 65); atherosclerotic disease: prior MI, PCI/CABG, CVA/TIA, or peripheral arterial disease.

Risk Factors		
No know risk factors		**0**
1-2 risk factors		+1
≥3 risk factors or history of atherosclerotic disease		+2

Initial troponin
Use local assays and corresponding cutoffs.

Initial troponin		
≤ normal limit		**0**
1-3x normal limit		+1
> 3x normal limit		+2