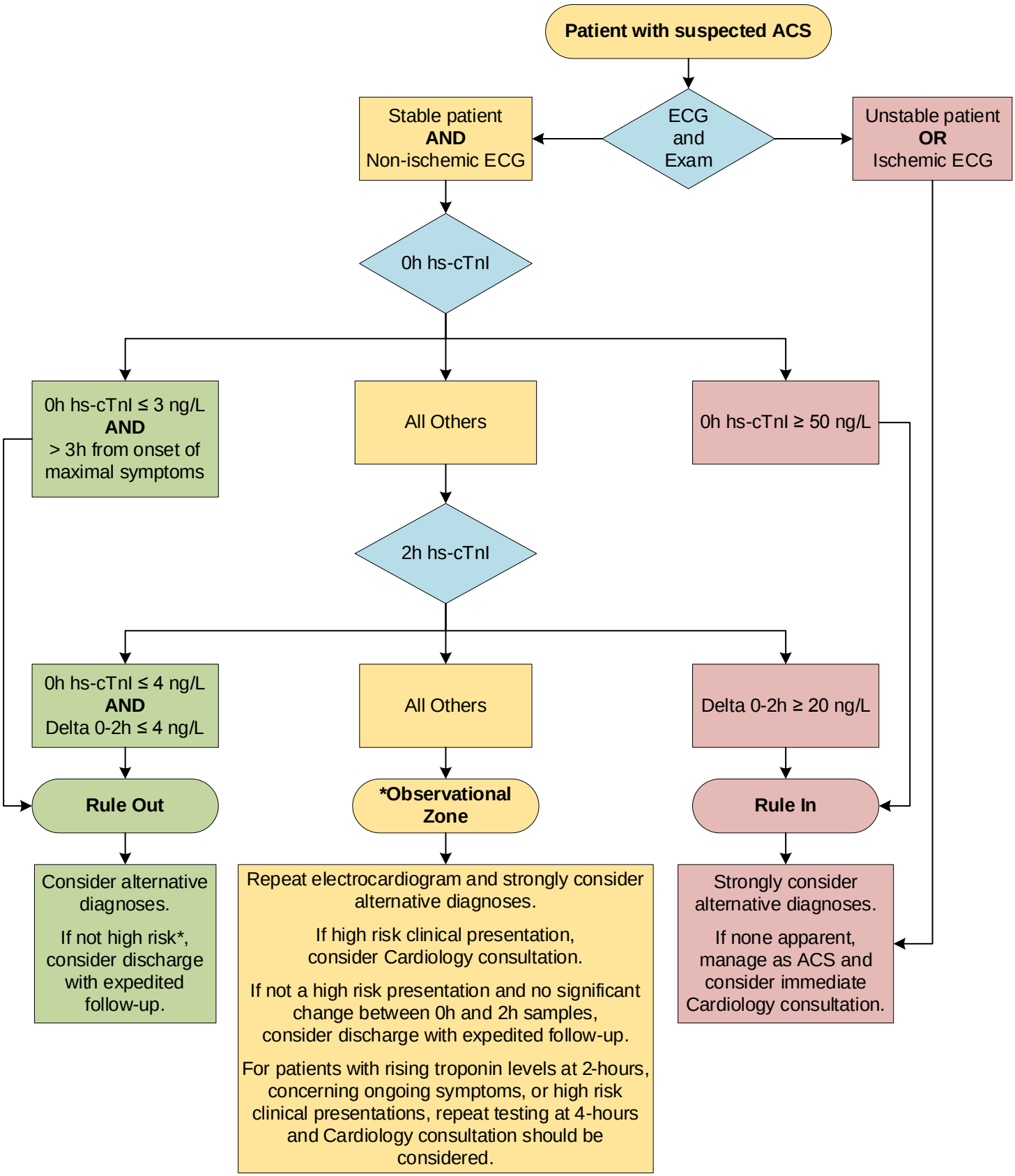
ALBERTA PRECISION LABORATORIES
Leaders in Laboratory Medicine

2-Hour Chest Pain Pathway for High Sensitivity Troponin I (hs-TnI) - Beckman Access



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Note:
*For all patient with abnormal hs-cTnI results, check the medical record for prior results. Many patients have stable abnormalities in hs-cTnI and measured concentrations similar to the patient's baseline are reassuring.

For patients presenting >6 hours from symptoms onset, ESC Guidelines advise that patients are unlikely to have an acute MI if:
- hs-cTn < Upper Limit of Normal (i.e. hs-cTnI <18 ng/L) AND,
- >6 hours since symptom onset AND,
- pain-free AND,
- the clinical presentation is Low Risk.

However, coronary ischemia has not been definitively excluded and unstable angina must be considered. Disposition after a single hs-cTnI <18 ng/L should only be considered for low risk patients with >6 hours since symptoms onset and should be used cautiously.

All patients presenting <6 hours since symptom onset, with active symptoms or presentations that are not clearly low risk, should have repeat hs-cTnI testing at 2 hours. For patients with rising troponin levels at 2 hours, concerning ongoing symptoms, or high risk clinical presentations, repeat testing at 4 hours and Cardiology consultation should be considered. Clinicians may consider using a structured risk score such as the HEART score to guide decision making for patients in the observational zone.

HEART Score Calculation				
History		Highly suspicious	**2**	
		Moderately suspicious	**1**	
		Slightly suspicious	**0**	
ECG		Significant ST-depression	**2**	
		Non-specific repolarization disturbance, LBBB, LVH, Paced	**1**	
		Normal	**0**	
Age		≥ 65 years	**2**	
		45-64 years	**1**	
		≤ 44 years	**0**	
Risk Factors	☐ Diabetes ☐ Current smoker ☐ Obesity ☐ Family hx CAD ☐ HTN (diagnosed) ☐ HL (diagnosed)	≥ 3 risk factors or history of atherosclerotic disease	**2**	
		1 or 2 risk factors	**1**	
		No risk factors known	**0**	
hs-cTnI (peak)		> 3x normal limit (55 ng/L or greater)	**2**	
		1-3x normal limit (18-54 ng/L)	**1**	
		< normal limit (< 18 ng/L)	**0**	
			Total (10 maximum)	
HEART Score Interpretation				
			Low Risk	**0-3**
			Moderate Risk	**4-6**
			High Risk	**7-10**