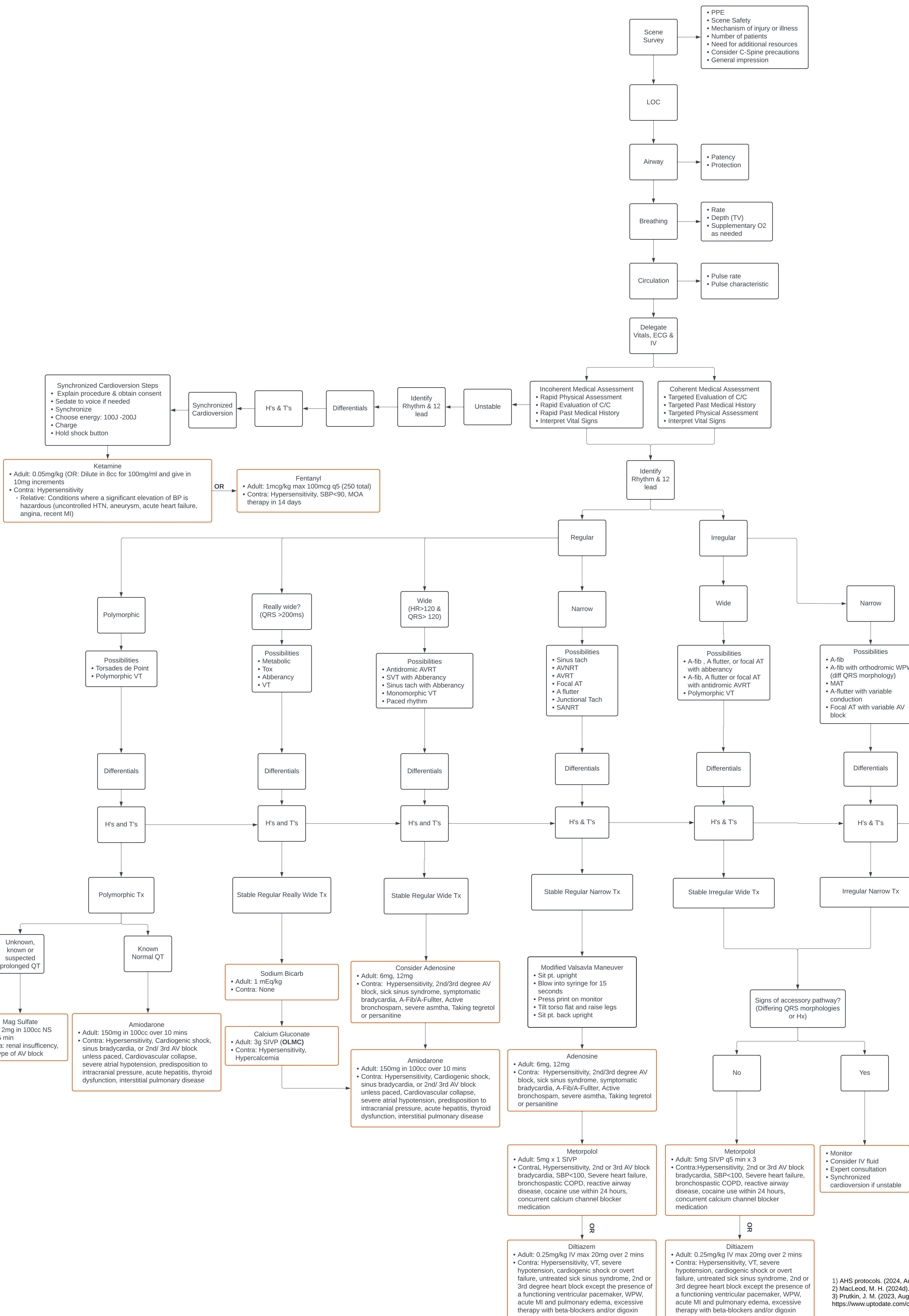


## Stable/ Unstable Tachycardia



Condition	Common associated clinical findings & key history (Hx) & V (ACLS Reversible Causes)	ECG	Cardiac Arrest Findings	Treatment
Hypoxia	Common associated clinical findings associated with hypoxia: hyperventilation (CNS depression, neuro muscular distress), pulmonary edema	P-R-T wave changes C and aVR lead C and aVR lead	Normal sinus rhythm Normal bradycardic breath sounds	PRV, 100% O <sub>2</sub> , advanced airway, specific treatments
Hypovolemia (fluid loss)	Significant trauma, diabetes, gastrointestinal losses, malnutrition, sepsis	Compensated tachy (HR > 100)	1 CV	Fluid boluses
Hypovolemia (Arterial)	Arteriovenous fistula, retroperitoneal bleeding, nutritional deficiencies, recent trauma	Compensated tachy (HR > 100), conjunctival pallor	JVP	Fluid boluses until blood products available
→ Hypertrophic cardiomyopathy (HCM)	Long QTc, drug overuse (alcohol, stimulants), severe metabolic acidosis (renal failure), hemiparesis, hallowale, major wall to wall tumor, tumor like syndrome, excessive physical training	ECG changes: prolonged PR interval, ST depression, prolonged QTc	Adequate Mx, NaHCO <sub>3</sub>	Adequate Mx, NaHCO <sub>3</sub>
Hypokalemia	Alcohol abuse, diabetes mellitus, diuretics, drug abuse, profound gastrointestinal losses	ECG changes: Prolonged PR interval, ST depression, prolonged QTc	Adequate Mx, NaHCO <sub>3</sub>	Rapid transfer for management of potassium levels
Hypothermia	Alcohol intoxication, significant trauma, drowning, drug overdose, hypothermia, endocrine disease, environmental exposure, spinal cord disease, trauma	ECG changes: Prolonged PR interval, ST depression, prolonged QTc	Hyperthermic	Warm
Toxins (Poisoning)	History of alcohol or drug abuse, altered mental status, classic tracheal signs, hypothermia, tachypnea, cyanosis, apneustic, pyramidal disease	See BChM - Toxidrome Chart below		Specific treatment / antidotes
Tamponade cardiac	Pericardial effusion, tamponade, post myocardial infarction, pericarditis, trauma	JVD, muffled heart sounds, ECG may show voltage, or electrical alternans	1 CV	PI bolus, pericardiocentesis
Coronary	Coronary vessel catheter, mechanical ventilation, pulmonary disease (eg asthma, chronic obstructive pulmonary disease), recent thoracotomy, thoracic trauma	1 CV Low voltage pressure, JVD asymmetrical lung sounds if CxR		Needs decompression
→ Thrombosis - Pulmonary embolism	Immobolized patient, recent surgical procedure, risk factors for thrombosis, recent trauma, presentation consistent with acute pulmonary embolism	ECG changes: Sinus tach (HR > 100), PRV, ST wave T wave changes ECG changes: R wave in V1, P pulmonale, SI, QD, T wave changes, anterior, any arrhythmias (B & N - specific ST segment and T wave changes associated with depression (S) and elevation (E))	ECG, CXR, central re thrombolysis or catheterization to lyse	CLM, CMX, central re thrombolysis or catheterization to lyse
Thrombosis - Coronary MI	Cardiac arrest	ECG achromia, or a pain with major risk factors for CVD, arrhythmias. Correlates with CXR, crackles associated with pulmonary edema	ECG, CXR, central re thrombolysis or catheterization to lyse	CLM, CMX, central re thrombolysis or catheterization to lyse

(MacLeod, 2024d)

## References

- 1) AHS protocols. (2024, August 8). <https://www.ahsems.com/public/protocols/templates/desktop/#home>
- 2) MacLeod, M. H. (2024d). ACLS Reversible Causes – Hs & Ts.
- 3) Prutkin, J. M. (2023, August 31). *Overview of the acute management of tachyarrhythmias*. UpToDate. <https://www.uptodate.com/contents/overview-of-the-acute-management-of-tachyarrhythmias#H1041109>