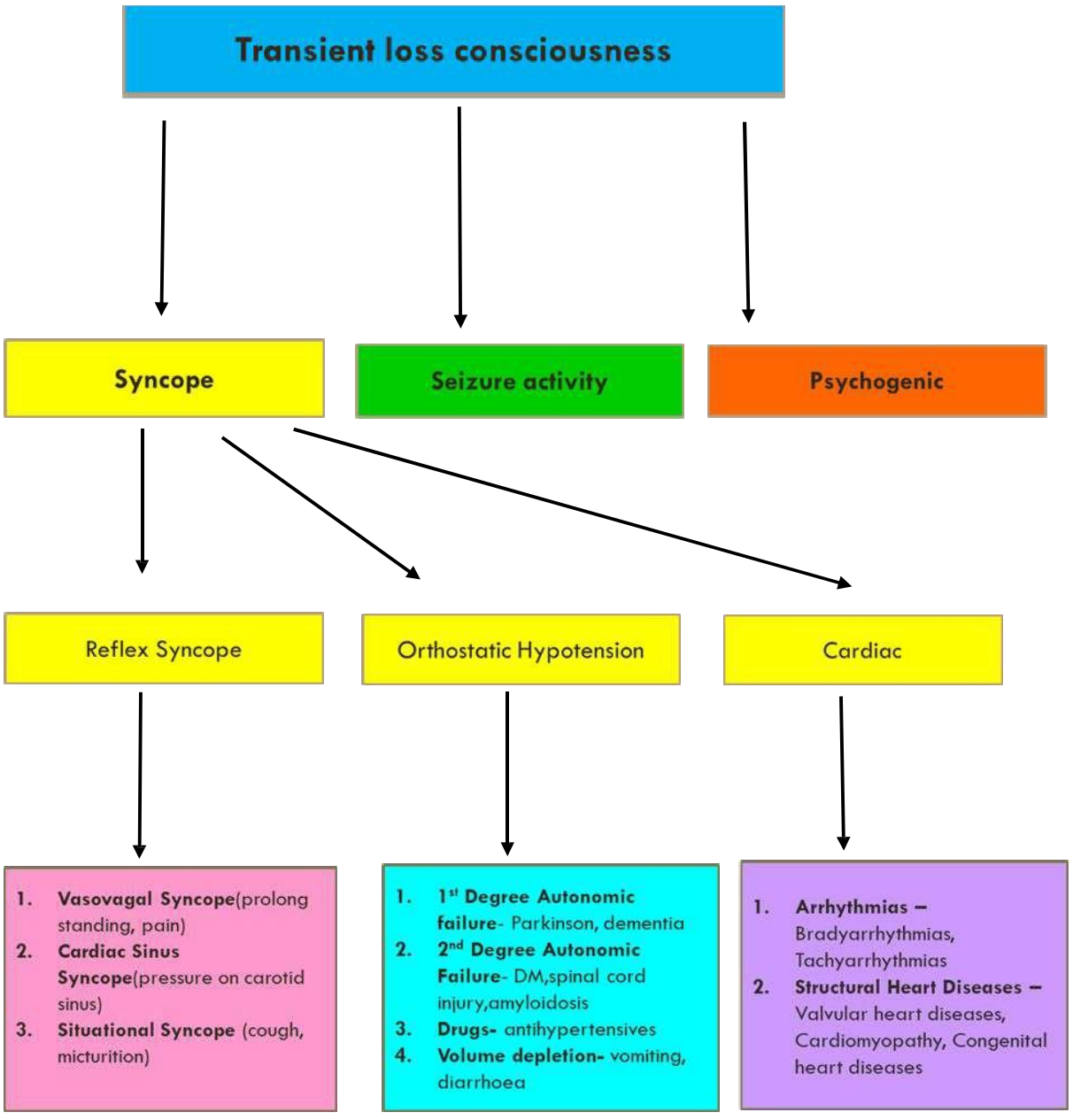
Transient loss of Consciousness Workup (TLOC)

Definition- Sudden, spontaneous, complete loss of consciousness with rapid recovery

Pathophysiology



1. Triage – Eyeball triage- DRSABC- cardiac arrest- CAT1/2- Acute stream

Equipment triage- ABCDE- critically ill and non-critically ill- CAT3/4- Fast track

2. Initial Stabilization-

Manage and stabilize airway and breathing for the TLOC workup

A- Airway patent

B- RR/Auscultation- Spo2- O2

C- PR/BP/12 lead ECG- IV Cannula - **TLOC**

D- AVPU/pupils/pain- RBS

E- rash/wounds- Temperature

3. History/Examination

History	
Onset	Sudden or gradual
Preceding Events	Posture (e.g., standing), exertion, emotional stress, pain
Triggers	Coughing, urination, defecation, swallowing, situational triggers
Warning Symptoms	Lightheadedness, nausea, sweating, palpitations, blurred vision
Duration of Loss of Consciousness	Seconds, minutes? Was recovery spontaneous
Associated Symptoms	Chest pain, palpitations, dyspnea, headache, confusion, weakness
Post-episode Symptoms	Fatigue, confusion, tongue biting, incontinence, slow recovery
Frequency	How often has this happened before? First episode or recurrent
Past Medical History	Cardiac disease, stroke, seizures, diabetes, hypertension
Medications	Antihypertensives, diuretics, antiarrhythmics, or other relevant drugs
Family History	Sudden cardiac death, arrhythmias, seizures, syncope
Social History	Alcohol, smoking, drug use (especially illicit drugs)
Examination	
General Appearance	Pale, diaphoretic, signs of trauma (from fall)
Cardiac Examination	Blood pressure, murmurs, gallops, arrhythmias, signs of heart failure
Neurological Examination	Focal neurological deficits, confusion, seizures

Carotid Sinus Massage	Any hypersensitivity or reproduction of symptoms?
Postural Blood Pressure	Orthostatic hypotension
Gait Examination	Postural stability, evidence of weakness or imbalance?

4. Investigations

- ✓ CBS
- ✓ 12 lead ECG
- ✓ FBC
- ✓ Urine hCG- in females
- ✓ Lying and standing blood pressure

Important ECG findings

- ✓ Rate- Tachycardia (HR>100), Ectopic beats Ischemia- ST
- ✓ WPW syndrome
- ✓ Brugada syndrome
- ✓ ARVD
- ✓ Long / short QT
- ✓ Segments/ T wave abnormalities
- ✓ Red flags-
- ✓ Heart blocks → AV blocks, RBBB/LBBB, Bifascicular block, Trifascicular block
- ✓ ST segments/ T wave abnormalities
- ✓ Ventricular ectopics
- ✓ Bradycardias

5. Problem List

- Major problems – See relevant major presentations workups

- Acute problems- TLOC- if no features of cardiac origin or seizures follow TLOC workup

6. Management plan and Disposition

1. Seizure activity- follow fits and seizures workup

2. Syncope-

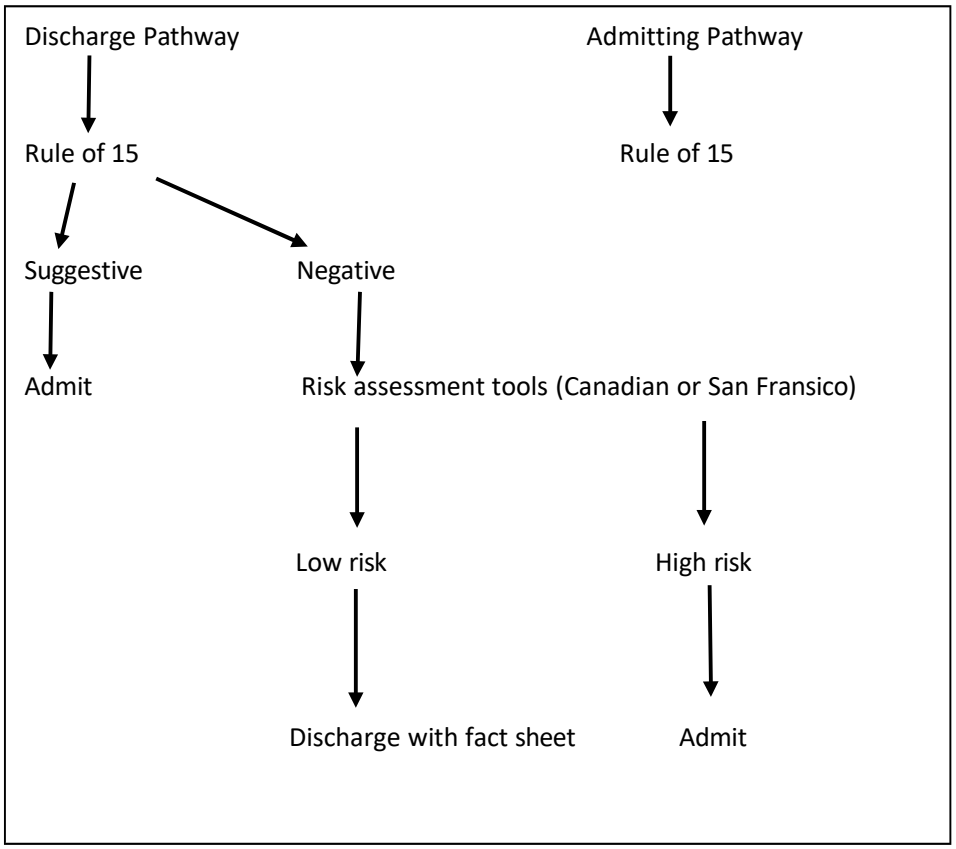
Vasovagal/Situational syncope- if cause found - discharge pathway

Orthostatic hypotension- try to exclude the cause- treat with oral or IV fluids- if cause corrected can discharge, if cause not found admitting pathway

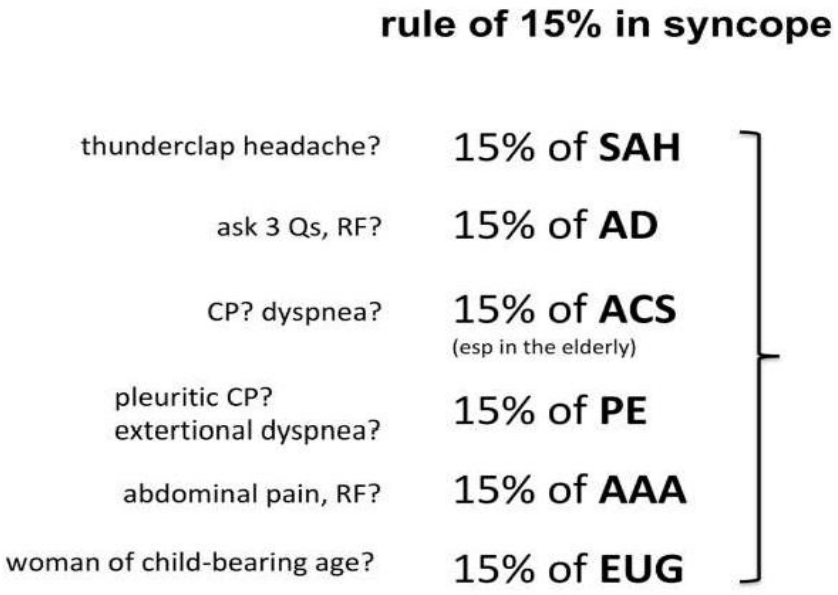
Cardiac syncope- admit pathway

3. Psychogenic – exclude cardiac and seizure activity- if no cardiac or seizure activity consider psychiatry referral

For the patients on the discharge pathway- do the rule of 15



For the patients on the admitting pathway – still apply rule of 15 to exclude any life-threatening presentations



Canadian Syncope Risk Score (CSRS)

Category	Points
Predisposition to Vasovagal Symptoms	-1
History of Heart Disease	1
Any SBP < 90 or >180 mmHg	2
Elevated Troponin (>99th% of Normal)	2
Abnormal QRS Axis (<-30° or >100°)	1
QRS Duration > 130 ms	1
Corrected QT Interval > 480 ms	2
Vasovagal Syncope	-2
Cardiac Syncope	2

Total Score	Estimated Risk of Serious Adverse Event (%)	Risk Category
-3	0.4	Very Low
-2	0.7	
-1	1.2	Low
0	1.9	
1	3.1	Medium
2	5.1	
3	8.1	
4	12.9	High
5	19.7	
6	28.9	Very High
7	40.3	
8	52.8	
9	65.0	
10	75.5	
11	83.6	

REBEL REVIEWS

Thiruganasambandamoorthy V, et al. Duration of Electrocardiographic Monitoring of Emergency Department Patients With Syncope. Circulation. 2019; PMID: 30661373

San Francisco Syncope Rule

Patients with any of the following five "CHESS" predictors* are considered at high risk for serious outcomes† at 7 or 30 days.

1. **C**HF history
2. **H**ct <30%
3. **E**CG or cardiac monitoring abnormal
4. **S**OB history
5. **S**BP <90 mm Hg at triage

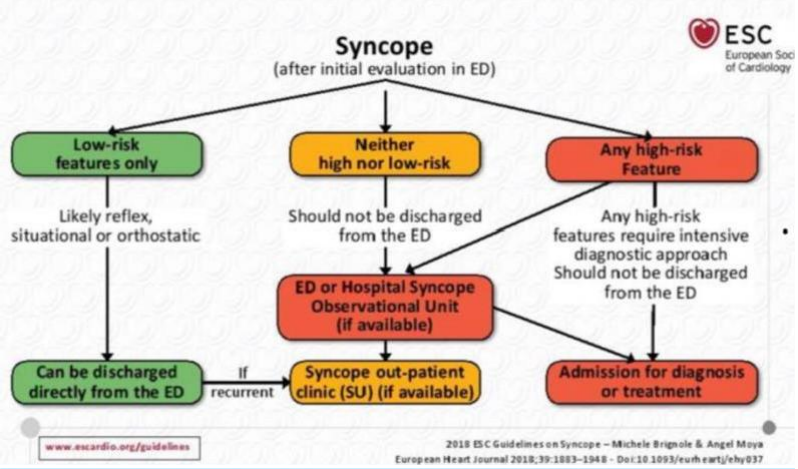
**CHF — congestive heart failure; Hct — hematocrit; ECG — electrocardiogram; SOB — shortness of breath; SBP — systolic blood pressure.*
†Serious outcomes: death, myocardial infarction, arrhythmia, pulmonary embolism, stroke, subarachnoid hemorrhage, significant hemorrhage or return visit to the emergency department or hospital.

Journal WATCH

TLOC

Seizure → refer seizure workup
Psychogenic → OP psychiatry referral if seizure and syncope exluded

Syncope



Indications for admission

1. Definite cardiac syncope on Hx/Ex/Ix
2. Presence of high- risk features (red flags)

High risk features

Major

History and Examination

1. New onset of chest discomfort, breathlessness, abdominal pain or headache
2. Syncope during exertion or when supine
3. Sudden onset palpitations immediately followed by syncope
4. Severe structural or coronary artery disease(heart failure, low LVEF or previous MI)
5. Unexplained SBP in the ED < 90mmHg
6. Suggestion of GI bleed on rectal examination

ECG

1. Persistent bradycardia (< 40bpm) in the awake state in the absence of physical training
2. ECG changes consistent with acute ischameia
3. Mobitz II second and third degree AV block
4. Slow AF (<40bpm)
5. Persistent sinus bradycardia (<40bpm)

6. Bundle branch block or intraventricular conduction defect
7. Q waves consistent with CAD or cardiomyopathy
8. Sustained and non-sustained VT
9. Dysfunction of a pacemaker or ICD
10. Type 1 Brugada pattern
11. Long QT

Minor (high risk only if associated with structural heart disease or abnormal ECG)

History and Examination

1. No warning symptoms or short prodrome (<10s)
2. Family history of SCD at young age
3. Syncope in the sitting position

ECG (only if history suggestive of arrhythmic syncope)

1. Mobitz I second degree AV block and 1st degree AV block with markedly prolonged
2. Asymptomatic inappropriate mild sinus bradycardia or slow AF(rate 40-50bpm)
3. Paroxysmal SVT or AF
4. Pre-excited QRS complex
5. Short QTc interval (less than 340ms)
6. Atypical Brugada patterns
7. Negative T waves suggestive of ARVC

Note

*For all patients warranting admission- Apply rule of 15 to exclude any life-threatening conditions.

Consider discharge from ED

- Vasovagal/ situational syncope- if cause found
- Syncope triggered by pressure on carotids (eg: shaving, tight collars)
- Orthostatic hypotension- treat with oral or IV fluids-can discharge if cause corrected. If cause not found admitting pathway

Note

*For all patients considered for discharge- Apply rule of 15 to exclude any missed life-threatening conditions.