



PRIMARY AND SECONDARY SURVEY

- ABCDE assessment and stabilization
- Document initial haemodynamic parameters
- Manage injuries from fall
- Escalate if any concern (Ex: unstable, chest pain, breathlessness, severe dehydration, GI bleed, sepsis, major injuries etc.)

IS IT SYNCOPE ?

- ✓ TLOC
- ✓ Rapid onset
- ✓ Brief duration
- ✓ Spontaneous complete recovery
- ✓ Due to cerebral hypoperfusion

***In older adults, consider syncope in unexplained falls or recurrent falls, even if loss of consciousness is not clearly recalled**

BEWARE OF MIMICS/ OTHER CAUSES OF TLOC

- Epileptic seizure
- Psychogenic pseudosyncope/ Psychogenic non - epileptic seizures
- Traumatic TLOC (Ex: concussion)
- Subclavian steal syndrome
- Vertebrobasilar TIA
- SAH
- Hypoglycaemia

***Caveat: brief myoclonus, brief tonic clonic movement, urine incontinence and focal neurological deficit can occur in true syncope too**

BASIC ASSESSMENT IN ALL PATIENTS

History and eye witness account if available, medication review, Lying standing BP, pulse and cardiac examination, brief neurological examination, 12 lead ECG, capillary blood sugar

Targeted tests only if clinically indicated

- Hb/ FBC, serum electrolytes, renal functions, Troponin, D-dimer
- POCUS, 2DE, CTPA
- CSM, Stress test, CA, CTCA, 24 hr ABPM, Holter, TTT, Short cardiac autonomic test, ILR, , Cardiac MRI, Invasive EP studies
- Serum cortisol, short synacthen test or endocrine panel

IS IT CARDIAC SYNCOPE?
Features of cardiac syncope (Box 1)

URGENT CARDIOLOGY/ EP REFERRAL FOR SPECIALISED INVESTIAGTIONS AND MANAGEMENT

Ex: 2DE, Holter, other EP studies, Antiarrhythmic drugs ,PPM, ICD, Catheter ablations etc

NON PHARMACOLOGICAL MANAGEMENT

- Correct precipitating factors (dehydration, anaemia, poor intake, sepsis etc.)
- Review drugs (antihypertensives, diuretics, dopaminergics etc.)
- Physical counter pressure maneuvers
- Slow standing up
- Liberal fluid and salt intake if not contraindicated
- Compression garments up to waist

PHARMACOLOGICAL MANAGMENT

- Volume expanders: Ex: Fludrocortisone
- Sympathomimetics: Ex. Midodrine

IS IT ORTHOSTATIC HYPOTENSION?
Features of orthostatic hypotension (Box 2)

MANAGEMENT OPTIONS

- Trigger avoidance (prolonged standing, hot/ crowded places etc.)
- Physical counterpressure maneuvers, sit or lie down upon early identification of prodrome
- Optimize other factors (hydration, antihypertensives, etc.)
- Tilt training
- Rarely PPM and cardioneuroablation
- Refer if recurrent symptoms, occupational risk or uncertainty
- Medications such as beta-blockers, fludrocortisone, midodrine in selected cases

IS IT REFLEX SYNCOPE?
Features of reflex syncope (Box 3)

DECIDE ON DISPOSITION FROM ED/ OPD/ OFFICE

- Weigh risk vs benefit admission vs discharge of frail elders
- Admit with clear goals. Ex: For acute treatable cause (Ex: sepsis, GI bleeding), to monitor and manage injury following syncopal fall, critical pathology which needs immediate intervention (Ex. PPM for CHB), frailty and social vulnerability (Ex: unsafe home environment, lack surveillance at home)
- Discharge with safety netting until further evaluation: when to return, driving etc.
- Tools such as Canadian Syncope Risk Score can be used to aid decision making

BOX 1: HIGH RISK FEATURES SUGGESTING CARDIAC SYNCOPE

- New onset of chest discomfort, breathlessness
- Syncope during exertion, when supine or in the sitting position
- Sudden onset palpitation immediately followed by syncope
- Presence of structural heart disease or coronary heart disease
- Unexplained systolic BP <90 mmHg
- Persistent bradycardia (<40 bpm) in awake state and in absence of physical training
- Undiagnosed systolic murmur
- No warning symptoms or short (<10s) prodrome
- Family history of SCD at young age
- ECG findings suggesting arrhythmic syncope (Ex: LQTS, SQTS, Brugada, WPW, Higher degree heart blocks, HOCM, sustained or non sustained VT, ARVC, inappropriate sinus bradycardia or slow AF, etc.)

BOX 2: FEATURES SUGGESTING POSSIBLE ORTHOSTATIC HYPOTENSION

- While or after standing
- Prolonged standing
- Standing after exertion
- Post-prandial hypotension episodes
- Temporal relationship with start or change of dosage of antihypertensives or diuretics
- Presence of autonomic neuropathy or parkinsonism

Confirm with lying and standing BP:
Systolic BP fall ≥ 20 mmHg, or
Diastolic BP ≥ 10 mmHg, or
Standing SBP <90 mmHg with symptoms

BOX 3: FEATURES SUGGESTING POSSIBLE REFLEX SYNCOPE

- Long history of recurrent syncope, particularly before 40 years
- After unpleasant sight, sound, smell, pain or emotion
- Prolong standing
- During or after meal
- Triggered by cough, defaecation or micturition
- Being on crowded and/or hot places
- Autonomic activation before syncope: pallor, sweating and/or nausea/ vomiting
- With head rotation or pressure on carotid sinus (ex. shaving, tight colors)
- Absence of heart disease

BOX 4: KEY TO ABBREVIATIONS

24 hr ABPM – 24-hour Ambulatory Blood Pressure Monitoring	ECG – Electrocardiogram	OPD – Outpatient Department
2DE – Two-Dimensional Echocardiography	ED – Emergency Department	POCUS – Point-of-Care Ultrasound
AF – Atrial Fibrillation	EP – Electrophysiology (Study)	PPM – Permanent Pacemaker
ARVC – Arrhythmogenic Right Ventricular Cardiomyopathy	FBC- Full Blood Count	SAH – Subarachnoid Hemorrhage
BP - Blood Pressure	GI - Gastro-intestinal	SCD – Sudden Cardiac Death
CA – Coronary Angiography	Hb – Hemoglobin	SQTS – Short QT Syndrome
CHB- Complete Heart Block	HOCM – Hypertrophic Obstructive Cardiomyopathy	TIA – Transient Ischemic Attack
CSM – Carotid Sinus Massage	ICD – Implantable Cardioverter Defibrillator	TLOC – Transient Loss of Consciousness
CTCA – Computed Tomography Coronary Angiography	ILR – Implantable Loop Recorder	TTT – Tilt Table Test
CTPA – Computed Tomography Pulmonary Angiography	LOC – Loss of Consciousness	VT – Ventricular Tachycardia
	LQTS – Long QT Syndrome	WPW – Wolff–Parkinson–White Syndrome
	MRI – Magnetic Resonance Imaging	

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