

Syncope • Evaluation & Management

2017 ACC/AHA/HRS
Syncope Guideline
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Initial evaluation, risk stratification & disposition in adults • point-of-care reference for internal medicine

- Class I – recommended ● IIa – reasonable ● IIb – may consider ● III: Harm – do not use

1 First: don't miss the dangerous causes

▲ Serious conditions → hospital evaluation I

Admit / escalate for any (Table 7): sustained or symptomatic VT • Mobitz II or 3° AV block • symptomatic bradycardia / sinus pauses • symptomatic SVT • pacemaker/ICD malfunction • inherited arrhythmia syndromes • cardiac ischaemia • **severe aortic stenosis** • cardiac tamponade • HCM • severe prosthetic-valve dysfunction • **pulmonary embolism** • **aortic dissection** • acute HF • moderate-severe LV dysfunction • severe anaemia / GI bleed.

▲ Syncope is not always benign – flag the cardiac pattern

Favours **cardiac** cause: **exertional or supine** syncope • no/brief prodrome or palpitations just before LOC • known structural/ischaemic disease or low EF • abnormal ECG • age >60 / male • FHx inheritable disease or premature SCD (<50 y). **Cardiac syncope carries a far worse prognosis than reflex syncope.**

2 Initial evaluation – every patient

History + physical exam + 12-lead ECG I

All patients. Orthostatic BP/HR lying → standing (immediate & 3 min); auscultate murmurs/gallops/rubs; basic neuro exam; FHx of SCD.

▼ determine cause & assess risk

Cause certain

→ treat the underlying condition.

Cause uncertain

→ risk-stratify, then disposition below.

▼ serious medical condition present? (Table 7)

YES → Inpatient evaluation I

Telemetry & targeted work-up of the identified condition.

NO ↓ choose by risk & pattern

Presumptive reflex / VVS → manage outpatient IIa

Intermediate-risk, unclear cause → structured ED observation protocol IIa

Selected suspected cardiac, no serious condition → outpatient IIb

3 Cardiac vs noncardiac clues

FAVOURS CARDIAC

- Age >60 y, male
- Known ischaemic/structural HD, prior arrhythmia, low EF
- Brief or **absent prodrome**; sudden LOC
- **Palpitations** immediately before LOC
- Syncope on **exertion** or when **supine**
- Few episodes (1-2)
- Abnormal cardiac exam
- FHx inheritable disease / premature SCD; CHD

FAVOURS REFLEX / NONCARDIAC

- Younger, no cardiac disease
- Only when **standing**; positional change
- Prodrome: **nausea, vomiting, warmth**
- Triggers: dehydration, pain, distress, medical setting
- Situational: cough, laugh, micturition, defecation, swallow
- Frequent recurrence over a long history

Risk scores (San Francisco, OESIL, Boston, ROSE, EGSYS) may be used IIb but have **not outperformed clinical judgement**. Presence of a serious condition (Table 7) – not the score – drives admission.

4 Additional evaluation – guided by the clue (after Hx / exam / ECG)

INITIAL EVALUATION SUGGESTS	FIRST-LINE	FURTHER OPTIONS
Reflex / VVS, unclear	Tilt-table testing IIa	Also to distinguish convulsive syncope & pseudosyncope from epilepsy IIa
Neurogenic OH	Referral for autonomic evaluation IIa	Targeted blood tests when clinically directed IIa
CV / structural	TTE if structural disease suspected IIa	Stress test if exertional IIa • EPS IIa • CT/MRI (ARVC, sarcoid, PE) IIb
Arrhythmic (ambulatory)	Cardiac monitor matched to event frequency I	Holter / external loop / patch / MCOT IIa • implantable cardiac monitor IIa
Hospitalised, cardiac suspected	Continuous in-hospital telemetry I	Yield highest in older patients with HF / structural disease

Don't routinely order III in unselected syncope: broad lab panels • screening echo without suspicion • head CT/MRI without focal deficit or trauma • routine EEG • carotid imaging • EPS with normal ECG & normal heart.

5 Condition-specific management

Vasovagal syncope – stepwise

- 1 Education, reassurance & trigger avoidance I
- 2 Physical counter-pressure manoeuvres IIa
- 3 Midodrine – no HTN/HF/urinary retention IIa
- 4 If recurs: salt & fluid • fludrocortisone • β -blocker if ≥ 42 y • SSRI • orthostatic training IIb
- 5 Dual-chamber pacing – ≥ 40 y, recurrent + documented spontaneous pauses IIb

Orthostatic hypotension

- 1 Acute water ingestion I • fluid resuscitation if dehydrated I
- 2 Reduce / withdraw hypotensive drugs IIa
- 3 Compression garments • counter-pressure • midodrine • droxidopa • fludrocortisone IIa
- 4 Pyridostigmine • octreotide (postprandial) IIb

Structural & inheritable – one-liners

- > Severe AS + syncope → aortic valve replacement (per VHD guideline) I
- > HCM + unexplained syncope → ICD reasonable IIa
- > ARVC / cardiac sarcoid + sustained VA → ICD I; arrhythmic syncope IIa
- > LQTS → β -blocker first-line I; ICD if syncope on/intolerant of BB IIa
- > CPVT → exercise restriction + β -blocker I; flecainide / ICD IIa
- > Brugada → ICD if arrhythmic syncope IIa; not for reflex syncope III

6 Driving & key cautions

PRIVATE DRIVERS – SYMPTOM-FREE WAITING (TABLE 10)

Condition	Restriction
VVS, none in prior year	no restriction
VVS 1-6/yr • OH • situational • undetermined	1 month
SVT pharmacologically suppressed	1 month
SVT / reflex brady / CSS treated by ablation or pacemaker	1 week
LVEF <35% arrhythmic, or VT/VF – with ICD + GDMT	3 months
Untreated nonreflex brady / SVT / VT	not fit

Know local driving laws & reporting duties IIa • Commercial driving is separately (federally) regulated.

Remember

The syncope trap is **under-evaluating the heart**. Get **orthostatic vitals on everyone**; cardiac syncope \neq reflex. Reserve **TTE, EPS, monitors & admission** for a cardiac/structural clue (Table 7) – routine neuro imaging, EEG, carotid studies & broad labs are low-yield. Treat reflex syncope mostly with **education, counter-pressure & lifestyle**.