

SYNCOPE TRANSIENT LOSS OF CONSCIOUSNESS

Full Clinical Guideline

Reference no.: CG-CLIN/4267/23

1. Introduction

ED assessment of syncope is to make a firm diagnosis where possible and identify those who may have cardiac cause and refer these for further treatment and management. This group has a 20-30% 1 year mortality.

2. Aim and Purpose

The aim is to facilitate an increase in risk assessment on initial clinical evaluation and stratify the patients into low and high-risk groups using established minor, moderate and major risk features. Identify low risk patients presenting with syncope for discharge from the ED with referral to the medical same day emergency care (mSDEC) for follow-up (if < 65 years old) and to the Older Person Syncope Clinic (if > 65 years old).

This will reduce misdiagnosis, avoidable medical admissions, improve cost effectiveness, appropriate investigations and referral patterns. It will also ensure timely, safe and appropriate referral to the right place, at the right time with follow-up plans, improving patients' experience and or outcome as well as enhance the clinical care delivered to them.

3. Definitions, Keywords

Syncope is a symptom not a disease. It is defined as below and is one of many causes of transient loss of consciousness.

Syncope is defined as transient loss of consciousness due to cerebral hypoperfusion, characterized by a rapid onset, short duration, and spontaneous complete recovery.

Transient Loss of Consciousness(TLOC) is defined as a state of real or apparent LOC with loss of awareness, characterized by amnesia for the period of unconsciousness, abnormal motor control, loss of responsiveness, and a short duration.

TLOC is probably syncope when:

- (i) there are signs and symptoms specific for reflex syncope, syncope due to OH, or cardiac syncope, and
- (ii) signs and symptoms specific for other forms of TLOC (head trauma, epileptic seizures, psychogenic TLOC, and/or rare causes) are absent.

Presyncope is used to indicate symptoms and signs that occur before unconsciousness in syncope. It is often used to describe a state that resembles the prodrome of syncope, but which is not followed by LOC.

4 Main body of Guidelines

Initial Assessment of Syncope in ED:

In Pitstop/ Streaming

- A brief history and focused examination,
- ECG, VBG, BHCG and lying and standing BP/Pulse – after lying flat for 5 mins, take BP at 0, 1 and 3 mins after standing should be carried out.
- Ask about Occupation.
- If there is suspicion of an underlying problem causing TLOC, carry out relevant investigations for example, check blood glucose levels if diabetic hypoglycaemia is suspected, or haemoglobin levels if anaemia or bleeding is suspected. It is useful to identify these high-risk group.
- FBC, U&E and Troponin have low yield in syncope with only 2-3% of patients having causal findings in these basic bloods. Troponin is not indicated in syncope unless there was chest pain and possible new ECG changes.
- ECG is a simple cheap test which will identify causal factors in around 7% but will help direct further risk stratification and investigation in many more.
- BHCG should be performed in all women of childbearing age.
- CT head is not indicated unless there is clear suspicion of a non-syncopal cause of TLOC – such as SAH or CVA, in which case this pathway is not appropriate. Note that mild headache is quite common in vasovagal syncope.

Further Work up in ED:

History, examination and the above baseline tests will allow the rest of the work up to be determined. The most important further workup is a complete history from the patient, a witness, and full examination.

The key 3 questions for the clinician are:

- **Is this a case of TLoC syncope?**
- **Is there a clear diagnosis?**
- **Is this possibly cardiac syncope?**

In many patients seen in the ED with syncope, the aetiology of this will not be evident. Further investigation is dictated by risk features noted from physical examination, blood results and ECG changes.

- ✓ **Patients presenting with Syncope associated with Major High-Risk Features** as indicated should be transferred to Resus for close cardiac monitoring and management. They require inpatient medical admission under cardiology or general medicine. Involve Cardiac Outreach Specialist Nurses/ Cardiology on call.
- ✓ **Patients presenting with Syncope associated with Moderate Risk Features** with history of abnormal ECG and structural heart disease including undiagnosed systolic murmur in suspected AS or HOCM, new dyspnoea, evidence of cardiac failure, chest pain, recurrent and/or unexplained syncope should be transferred to Majors area for cardiac monitoring and medical admission is required under cardiology.

- ✓ Those with paroxysmal AF / SVT <150/min should be referred to medical same day emergency care (mSDEC).
- ✓ **Patients with suspected pacemaker or ICD malfunction** should have a chest x-ray to ensure correct position. If they experience shock or defibrillation, they should be discussed with the pacing clinic /electrophysiologists for interrogation. Out of hours they should be admitted pending this.
- ✓ **Older Patients presenting with Low-Risk Features:** a clear history of vasovagal or situational or post prandial, orthostatic or carotid sinus syncope, in absence of abnormal ECG changes or structural heart disease, who have made a full recovery, should have:
 - Their medications reviewed.
 - Discuss with patient to establish if they want further investigations.
 - If yes, refer to the Older Person Syncope Clinic [See form on page 12].
 - If no, give patient advice leaflet on Postural Hypotension on discharge (this can be found on NET).
 - If still symptomatic, medical admission is advised.
- ✓ **Low risk features in young patients:** Single episode with clear history of reflex or vasovagal or situational syncope, Inappropriate sinus tachycardia in absence of structural heart disease or abnormal ECG changes, should be reassured and safely discharged from ED with advice leaflet on vasovagal syncope. No further evaluation is required.
- ✓ **Patients with unexplained and/or recurrent syncope:** if symptoms and/or ECG changes are consistent with arrhythmic syncope, should be admitted for 24-hour inpatient monitoring. If unexplained syncope, serum cortisol levels should also be checked.
- ✓ In unexplained syncope, if recurrent, with normal ECG and in absence of structural heart disease, discuss with patient and establish if they want further investigations.
- ✓ If further investigation is required and patient age over 65 years, then refer to the older person syncope clinic otherwise refer to medical SDEC.

Clinical features that can suggest a diagnosis on initial evaluation.

Neurally Mediated Syncope (vasovagal, situational, carotid sinus hypersensitivity) :

- Long history of recurrent syncope, in particular occurring before the age of 40 years.
- After unpleasant sight, sound, smell, or pain
- Prolonged standing
- During meals
- Being in crowded and/or hot places.
- In response to specific situation such as swallowing, cough, micturition, defaecation.
- With head rotation or pressure on carotid sinus (as in tumours, shaving, tight collars)
- Autonomic activation before syncope: pallor, sweating, and/or nausea/vomiting
- Absence of heart disease

Syncope due to Orthostatic Hypotension:

- While or after standing
- Prolonged standing,
- Standing after exertion
- Post-prandial hypotension
- Temporal relationship with start or changes of dosage of Vaso depressive drugs or diuretics leading to hypotension.
- Presence of autonomic neuropathy or parkinsonism

Cardiac or Arrhythmic syncope:

- No warning symptoms or short prodrome less than 10 seconds.
- During exertion or when supine
- Sudden onset palpitation immediately followed by syncope.
- Family history of unexplained sudden death at young age
- Presence of structural heart disease or coronary artery disease
- ECG findings suggesting arrhythmic syncope as listed in the flow chart. See page 4.
(Please refer to Major and Moderate risk features boxes on the flow chart)

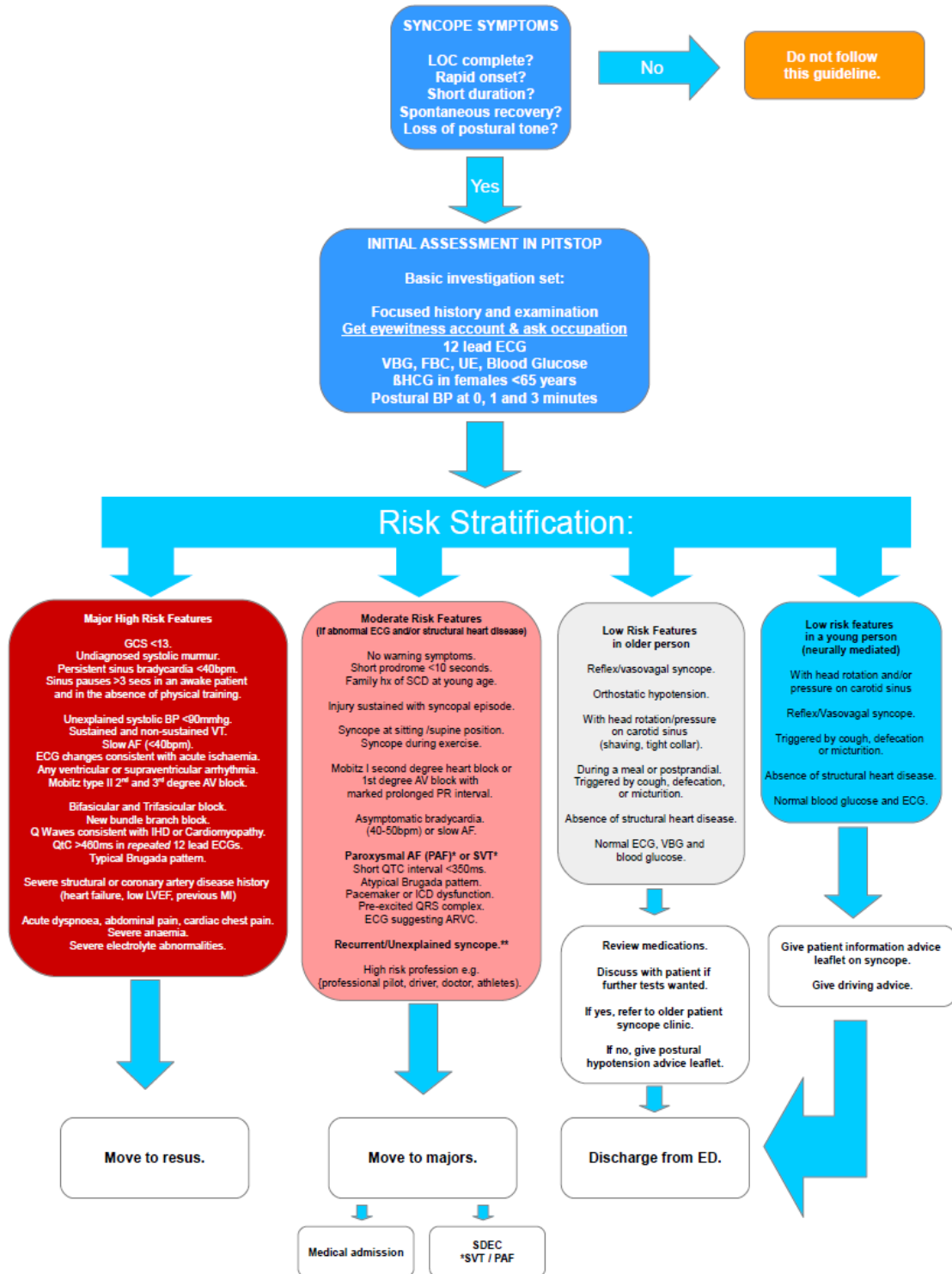
Driving advice (DVLA) assessing fitness to drive in syncope:

Please note the DVLA have published driving advice for medical professionals regarding syncope (see pages 21 -26).

It can be accessed via the following link:

www.gov.uk/government/publications/at-a-glance

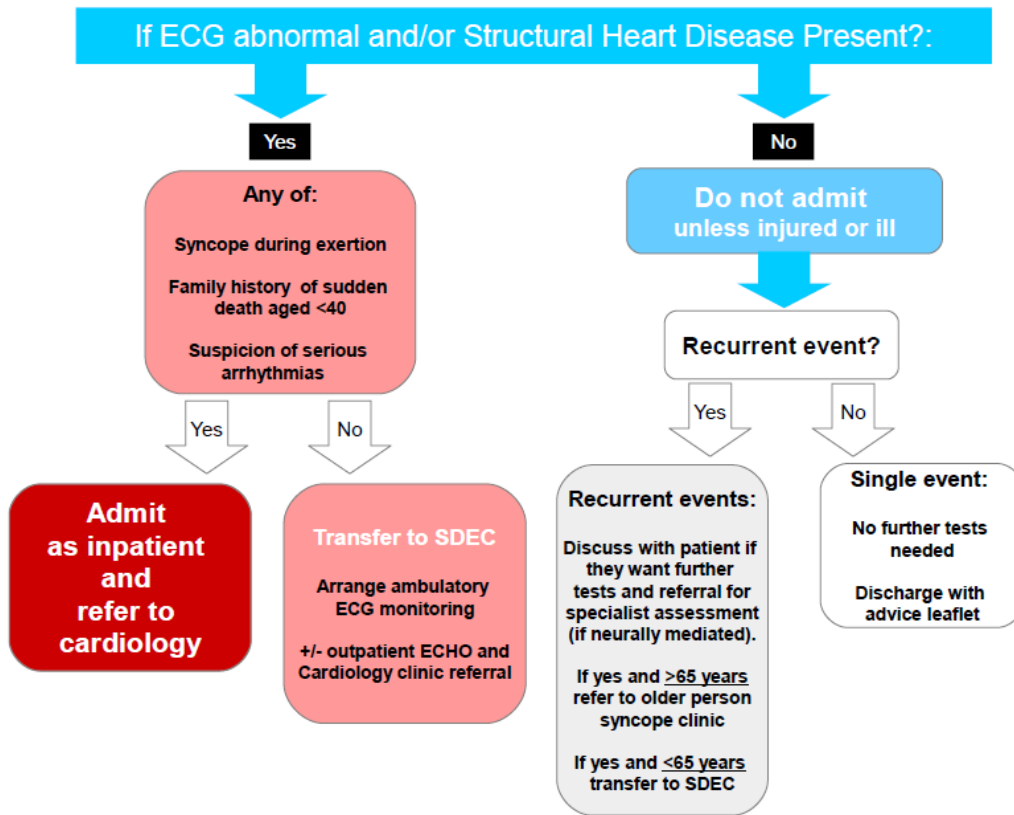
Syncope TLOC Pathway



*See full risk stratification guideline text

** Use additional "unexplained syncope" pathway to guide outcome

Unexplained Syncope Pathway



This pathway is to be used in conjunction with the "SYNCOPE TLOC PATHWAY" when the suspected cause of syncope is unexplained.

4. References

- 1.** 2018 Guidelines for Diagnosis/Management of Syncope, European Society of Cardiology Clinical Practice Guidelines, 19 March 2018.
- 2.** Transient loss of consciousness ('blackouts') in over 16s, Clinical guideline [CG109]
Published: 25 August 2010 Last updated: 01 September 2014
- 3.** Blackout and collapse in the acute setting by Dr Nicola Cooper. Acute Medicine Part 2 of 2, Vol 45:3 March 2017,page 144-149. 2017 Elsevier Ltd. All rights reserved.
- 4.** Standard Operating Procedure for Patients Presenting with Syncope, BARTS HEALTH NHS TRUST. Trust Core Guideline 2014.

5. Documentation Controls

Reference Number CG-T/2014/001	Version: 2.0		Status Draft or Final		Final
Version / Amendment History	Version	Date	Author		Reason
	1.0	18/10/18	Dr Jane Youde		
	2.0	13/03/23	Dr Obiageli Ngwuocha		Due for Review
Intended Recipients: The Clinical Guideline is aimed at – Adult ED / Acute Doctors and Advanced Clinical Practitioners.					
Training and Dissemination: Guideline will be available on the intranet.					
Development of Guideline: Dr Obiageli Ngwuocha Job Title: ED Consultant					
Consultation with: Dr Jane Youde, Consultant Physician (Department of Medicine for the Elderly) Dr Nauman Ahmed, Consultant Cardiologist & Assistant Clinical Director (ACD) Cardiology Dr Nicola Cooper, Consultant Physician & Clinical Associate Professor in Medical Education Dr Kanwaldeep Singh Atwal, Consultant Physician (Clinical Lead, medical Same Day Emergency Care) Dr Abu Tariq Taher, Consultant Cardiologist					
Linked Documents					
Keywords: Syncope, Presyncope, Transient loss of Consciousness,					
Business Unit Sign Off			Groups: ED- 12/01/2023 DME-12/01/2023 Acute Medicine-12/01/2023 Cardiology-12/01/2023		
Divisional Sign Off			Group: Medicine Division Date: 22/6/2023		
Date of Upload			22/6/2023		
Review Date			June 2026		
Contact for Review			Dr Obiageli Ngwuocha, ED Consultant		

ADVICE FOR PEOPLE WITH VASO-VAGAL SYNCOPE

(fainting)

Advice for people with Vaso-vagal syncope

Vaso-vagal syncope (pronounced 'sin-cope-ee') is the medical term for fainting. All of us faint at some time in our lives, but some people tend to faint more than others.

When we stand up, blood pools in our legs because of gravity. The body makes sure enough blood still gets to our head by tightening the blood vessels in our legs. However, in some people, the body's way of adjusting when they stand up is not very effective – what happens is that blood pools in their legs after standing for a while and this causes the blood pressure to fall.

This stimulates a reflex which causes a further fall in blood pressure and/or a slow pulse. The person may start to feel hot, nauseated and dizzy because there is not enough blood getting to their head and they may black out.

Some people tend to faint for no reason. Other people may be on medication that makes them prone to fainting. Others may have a problem with the nerves that tighten blood vessels when they stand. For some people, it is a 'one-off', but for others it can be a recurring problem. Whatever the cause, Vaso-vagal syncope may be inconvenient, but it is not dangerous or life-threatening. Injuries are rare in vasovagal syncope. As soon as you faint or lie down, blood can get back to your head and you recover.

Understanding Vaso-vagal syncope can help you avoid situations when you might faint, and help you know what to do when you start to get warning symptoms.

General measures

Everybody is different, so your doctor will explain which of these measures apply to you.

- Some of your medications may be making this problem worse. Your doctor will go through these and may reduce or even stop some of them.
- Drink plenty of fluids (water) each day
- Caffeinated drinks also help (not more than 6 cups a day though!)
- Avoid alcohol as this tends to make things worse
- Avoid prolonged standing, especially when it is warm – move your legs or walk about
- Support stockings (grade 2) can be helpful in certain people
- Some people should increase salt in their diet (NOT if you have high blood pressure or are taking pills for high blood pressure)

What to do if you feel faint

- If you can, find somewhere to lie down, preferably with your feet up
- You might not have a place to lie down, so try crossing your thighs over each other and clenching them together several times
- Or try pumping your calf muscles by rocking to and fro, from the toes to the heels of your feet
- Drink something cold (this puts your blood pressure up)
- When you feel better, remember to get up slowly. Most people find these measures helpful, and symptoms tend to reduce over time.

This information is provided by Dr Nicola Cooper, Consultant

Web Figure 35 Most common counter-pressure manoeuvres: leg crossing, hand gripping, and arm tensing.



Eur Heart J, Volume 39, Issue 21, 01 June 2018, Pages e43–e80, <https://doi.org/10.1093/eurheartj/ehy071>
The content of this slide may be subject to copyright: please see the slide notes for details.



PATIENT INFORMATION LEAFLET ON SYNCOPE TRANSIENT LOSS OF CONSCIOUSNESS - DRIVING GUIDELINES.

You have had an episode of loss of consciousness or syncope.

You are having tests to try to find out the exact cause.

You have been advised by the doctor in the clinic today that you should not drive any vehicle.

You are legally required to notify the DVLA of this.

DVLA contact details:

Telephone: 0300 790 6806

Monday to Friday, 8am to 5.30pm

Saturday, 8am to 1pm

Email: <https://www.gov.uk/contact-the-dvla/my/driving-and-medical-issues>

**Royal Derby Hospital
Emergency Department**

Referral Form for Dr Youde

Patient details here

Date:

ED Consultant:

Dear Dr Youde,

I would be grateful if you could see this person in your clinic who came to ED with syncope due to hypotension:

Their Past Medical History is:

Their medication is:

I have requested the following investigations:

Yours sincerely,

Name: