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Committee for Practice Guidelines
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SYNCOPE

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ESC ESSENTIAL MESSAGES
ESC GUIDELINES FOR THE DIAGNOSIS AND MANAGEMENT OF SYNCOPE

Task Force for the Diagnosis and Management of Syncope of the European Society of Cardiology (ESC)
Developed in collaboration with the European Heart Rhythm Association (EHRA),
the Heart Failure Association (HFA) and the Heart Rhythm Society (HRS)
Endorsed by the following societies: European Society of Emergency Medicine (EuSEM),
European Federation of Internal Medicine (EFIM), European Union Geriatric Medicine Society (EUGMS),
American Geriatrics Society (AGS), European Neurological Society (ENS), American Autonomic Society (AAS),
European Federation of Autonomic Societies (EFAS).

Chairperson:
Angel Moya (Spain)
Hospital Vall d’Hebron
P Vall d’Hebron 119-129
08035 Barcelona - Spain
Phone: +34 93 2746166
Fax: +34 93 2746002
Email: amoya@comb.cat

Co-Chairperson:
Richard Sutton (UK)
Imperial College
St Mary’s Hospital, Praed Street
W2 1NY London UK
Phone: +44 20 79351011
Fax: +44 20 79356718
Email: r.sutton@imperial.ac.uk

Task Force Members
1. Michele Brignole†, Lavagna (Italy) *
2. Jean-Jacques Blanc, Brest (France) *
3. Fabrizio Ammirati, Roma (Italy)
4. Johannes B Dahm, Göttingen (Germany)
5. Jean Claude Deharo, Marseille (France)
6. Jacek Gajek, Wroclaw (Poland)
7. Knut Gjesdal‡, Oslo (Norway)
8. Andrew Krahn‡, London (Canada)
9. Martial Massin, Brussels (Belgium)
10. Mauro Pepi, Milan (Italy)
11. Thomas Pezawas, Vienna (Austria)
12. Ricardo Ruiz-Granell, Valencia (Spain)
13. Francois Sarasin§, Geneva (Switzerland)
14. Andrea Ungar§, Firenze (Italy)
15. J. Gert van Dijk‡, Leiden (The Netherlands)
16. Edmond P Walma, Schoonhoven (The Netherlands)
17. Wouter Wieling, Amsterdam (The Netherlands)

* Writing Committee Member
† External contributor: Haruhiko Abe, Kitakyushu (Japan); David G Benditt, Minneapolis (USA);
Wyatt W Decker, Rochester (USA); Blair P Grubb, Toledo (USA); Horacio Kaufmann§, New York (USA);
Carlos Morillo, East Hamilton (Canada); Brian Olshansky, Iowa City (USA); Steve Parny, Newcastle upon Tyne
(UK); Robert Sheldon, Calgary (Canada); Win K Shen, Rochester (USA)

ESC Staff:
1. Veronica Dean, Sophia Antipolis, France
2. Catherine Després, Sophia Antipolis, France

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Table of contents

Section 1 - Take home messages

Section 2 - Major gaps in evidence
Syncope is a transient loss of consciousness (T-LOC) due to transient global cerebral hypoperfusion characterized by
- rapid onset,
- short duration, and
- spontaneous complete recovery.

Syncope can be classified as
- neurally-mediated (reflex syncope),
- secondary to orthostatic hypotension or
- secondary to cardiac causes.

Reflex syncope traditionally refers to a heterogeneous group of conditions in which cardiovascular reflexes that are normally useful in controlling the circulation become intermittently inappropriate, in response to a trigger.

Orthostatic intolerance syndromes are a common cause of syncope in elderly population, and are usually secondary to autonomic failure, to the use of vasodilator drugs or to volume depletion.

Arrhythmias are the most common cause of cardiac syncope, but structural cardiovascular disease can also cause syncope in some circumstances.

There is a bimodal distribution of patient age on presentation: in adolescents and young adults a reflex mechanism is the most common and above the age of 65 a cardiac cause or orthostatic hypotension should be suspected.

The initial evaluation after T-LOC consists of:
- a careful history,
- physical examination, including orthostatic blood pressure measurements
- and electrocardiogram (ECG).
- Based on these findings, simple additional examinations such as, carotid sinus massage, echocardiogram, ECG monitoring or orthostatic challenge can be indicated.
Take home messages

8. The initial evaluation can define the cause of syncope in 23-50% of patients and should answer three key questions:
   - Is it a true syncopal episode or not?
   - Has the aetiological diagnosis been determined?
   - Are there findings suggestive of a high risk of cardiovascular events or death?

9. Increased cardiac risk may be indicated by:
   - severe structural or coronary heart disease,
   - syncope on exertion or supine,
   - palpitations at the time of syncope,
   - family history of sudden cardiac death or non sustained ventricular tachycardia,
   - abnormal ECG (see full text).
   - Patients with high risk criteria require prompt hospitalization or intensive evaluation.

10. In low risk patients the degree of investigation depends on the frequency of syncope and its impact on quality of life. In those low risk patients with T-LOC of unknown origin and frequent recurrences, either a strategy consisting on early implant of a loop recorder and wait for new T-LOC or to perform cardiac or neurally mediated tests, can be followed.

11. The principal goals of treatment for patients with syncope are to prolong survival, mainly by decreasing the risk of sudden cardiac death, limit physical injuries, and prevent recurrences. The importance and priority of these different goals depend on the cause of syncope.

12. Evaluation of T-LOC should ideally be performed by Syncope Management Units: The main objectives of such units are to provide state-of-the-art guideline-based assessment of symptomatic patients, in order to risk-stratify them, obtain an accurate aetiological diagnosis and assess prognosis.
Major gaps in evidence

1. The literature on syncope evaluation and treatment is largely composed of case series, cohort studies, or retrospective analyses of already existing data.

2. The impact of these approaches on guiding therapy and reducing syncope recurrences is difficult to discern without randomization and blinding. For some of the recommendations related to diagnostic processes, controlled trials have never been performed.

3. Consequently, some of these recommendations are based on brief observational studies, accepted clinical practice, expert consensus and sometimes common sense. In those cases, according to the current format of recommendations, a level of evidence C is given.