Prise en charge de la syncope en 2023

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(1)Epidémiologie et pronostic

(2)Definition et classification

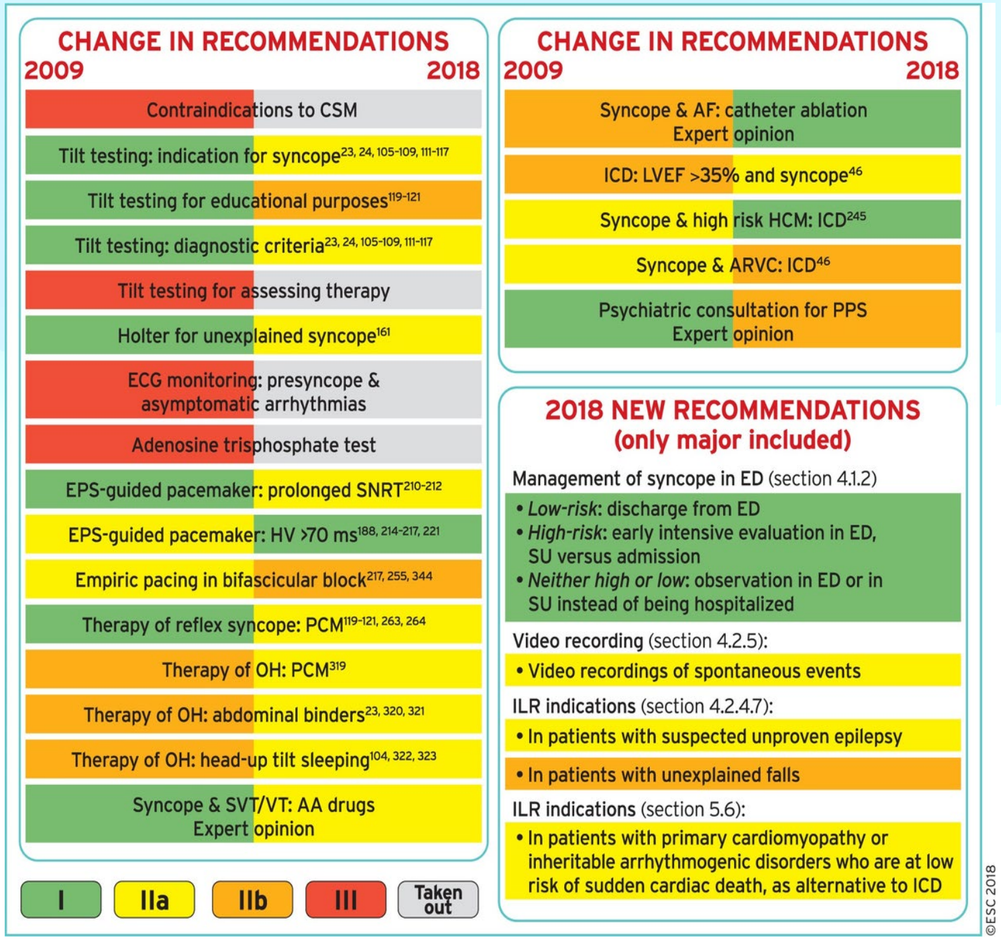
(3)Affirmer le diagnostic de syncope

(4)Evaluation initiale et stratification du risque

(5)Bilan en unité syncope

(6)Traitement

(7)Algorythme décisionnel

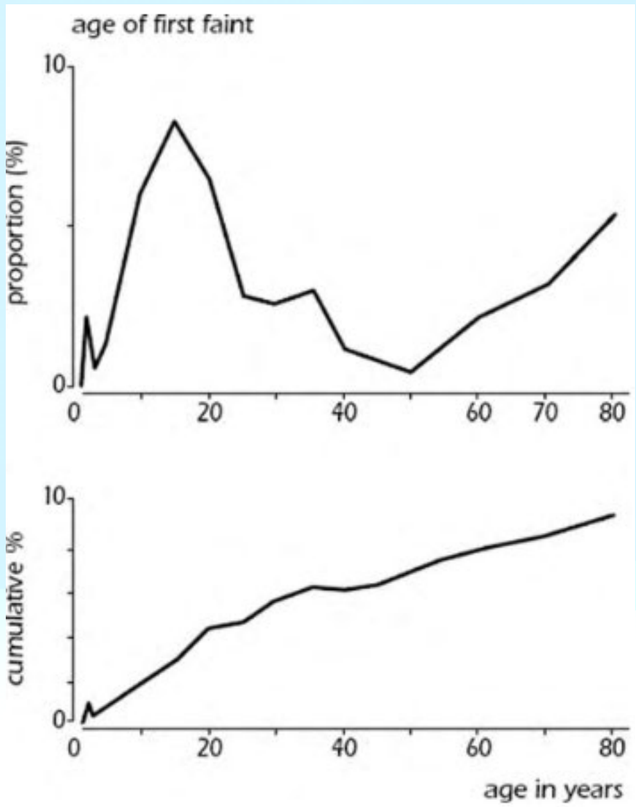


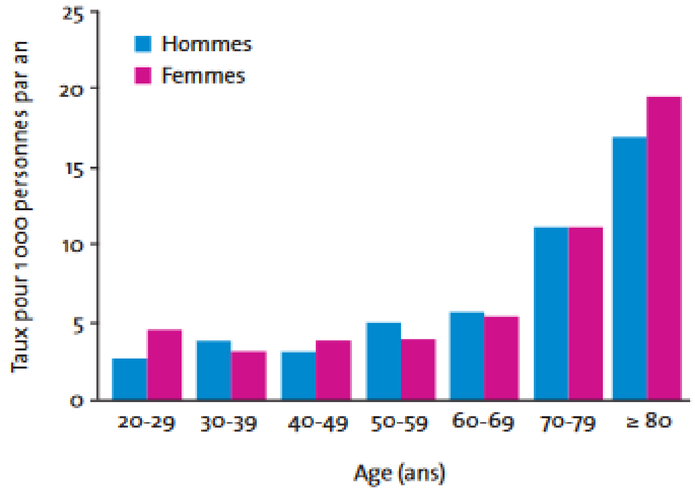
2018 ESC Guidelines for the diagnosis and management of syncope
European Heart Journal, Volume 39, Issue 21, 01 June 2018, Pages 1883–1948

(1) EPIDEMIOLOGIE

- Incidence annuelle entre 6,2 et 9,3 pour 1000 habitants (1,2) => 8000/an à La Réunion (1/h)
- L'incidence suit une courbe bimodale.

- La Prévalence augmente avec l'âge
- 3 à 5% des admissions dans les services d'urgences (3) et 1 à 6% des hospitalisations

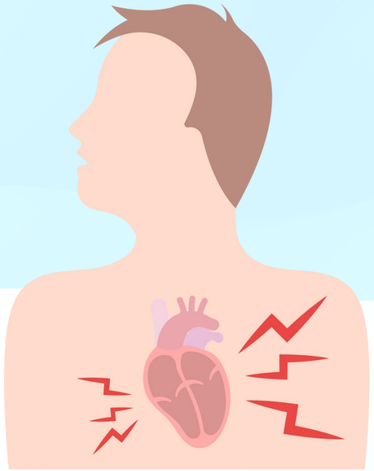




1 : Soteriades S : Incidence and prognosis of Syncope in the framingham Study. N Engl J Med 2002.347
2 : Ganzeboom KS : cumulative incidence of syncope in the general population. J Cardiovasc Electrophysiol 2006;17:1172 –1176.
3 : Blanc J-J : Prospective evaluation and outcome of patients admitted for syncope. European Heart journal (2002)

Le plus souvent bénin mais…

Risque de décès après syncope cardiaque de 1,31 fois plus élevés que les sujets sans syncope (1)
Incidence élevées de mort subite après syncope d'origine cardiaque : 24% à 1 an (1)
Syncope reflexe : excellent pronostic avec survie identique à la population générale



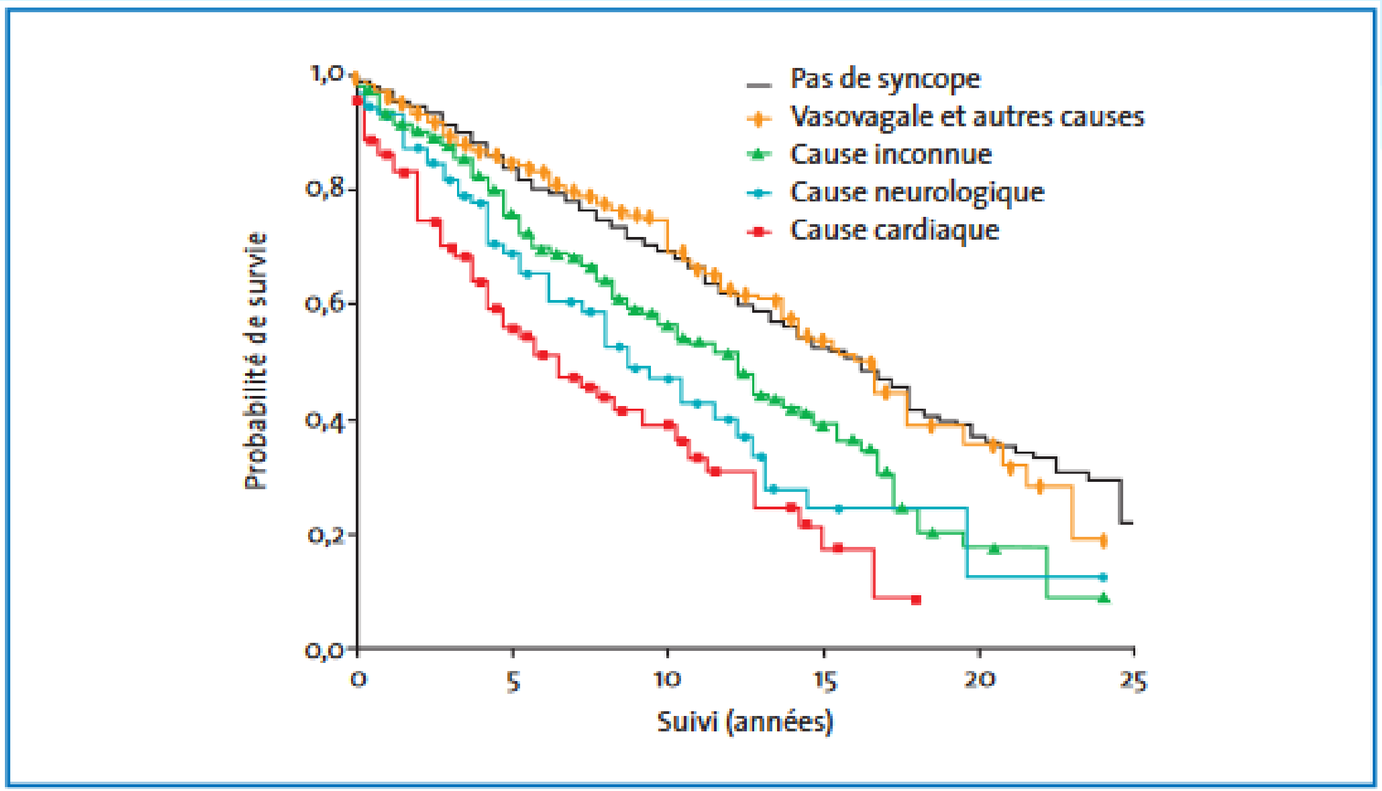
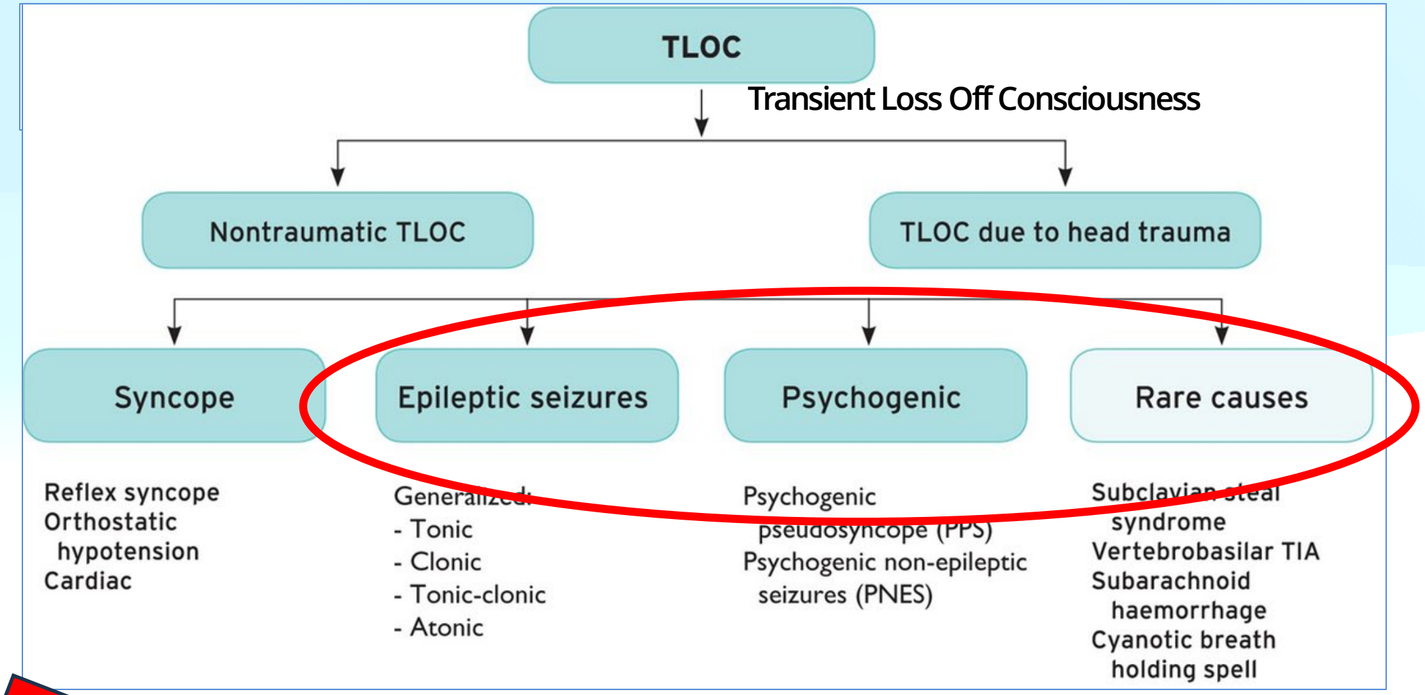


FIG. 5 : Signification pronostique des syncopes en fonction des différentes étiologies d'après Soteriades *et al.* [1].

1 : Soteriades S : Incidence and prognosis of Syncope in the framingham Study. N Engl J Med 2002.347

(2)DEFINITION :

- ✓ Perte de connaissance transitoire,brève
- ✓ Sans traumatisme cranien
- ✓ spontanément résolutive
- ✓ s'accompagnant d'une perte de tonus postural
- ✓ retour rapide à un état de conscience normale



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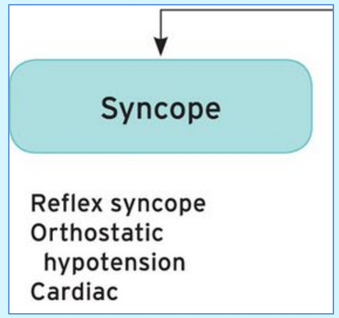

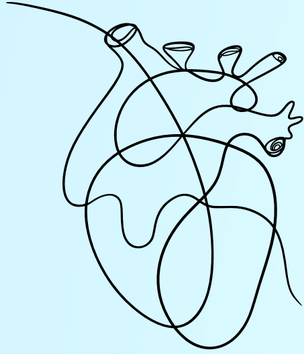

(1)Syncope reflexes

-Syncope vaso-vagale

-Hypersensibilité sino-carotidienne

-Situationnelle : miction, douleur intense, stimulation gastro-instestinale

(2)Hypotension orthostatique

-Médicamenteuse

-Dysautonomie : Alcool, Parkinson, neuropathie diabétique

-Hypo volémie

(3)Causes cardiaques

-Rythmique : +++

Bradycardie : Dysfonction sinusale, BAV complet

Tachycardie : TV/FV, TSV

-Structurelles : RAO, CMHO, Embolie pulmonaire, HTAP, myxome …

Table 3 Classification of syncope

Reflex (neurally mediated) syncope
Vasovagal: - orthostatic VVS: standing, less common sitting - emotional: fear, pain (somatic or visceral), instrumentation, blood phobia Situational: - micturition - gastrointestinal stimulation (swallow, defaecation) - cough, sneeze - post-exercise - others (e.g. laughing, brass instrument playing) Carotid sinus syndrome Non-classical forms (without prodromes and/or without apparent triggers and/or atypical presentation)
Syncope due to OH
Note that hypotension may be exacerbated by venous pooling during exercise (exercise-induced), after meals (postprandial hypotension), and after prolonged bed rest *(deconditioning).* Drug-induced OH (most common cause of OH): - e.g. vasodilators, diuretics, phenothiazine, antidepressants Volume depletion: - haemorrhage, diarrhoea, vomiting, etc. Primary autonomic failure (neurogenic OH): - pure autonomic failure, multiple system atrophy, Parkinson's disease, dementia with Lewy bodies Secondary autonomic failure (neurogenic OH): - diabetes, amyloidosis, spinal cord injuries, auto-immune autonomic neuropathy, paraneoplastic autonomic neuropathy, kidney failure
Cardiac syncope
Arrhythmia as primary cause: Bradycardia: - sinus node dysfunction (including bradycardia/tachycardia syndrome) - atrioventricular conduction system disease Tachycardia: - supraventricular - ventricular Structural cardiac: aortic stenosis, acute myocardial infarction/ischaemia, hypertrophic cardiomyopathy, cardiac masses (atrial myxoma, tumours, etc.), pericardial disease/tamponade, congenital anomalies of coronary arteries, prosthetic valve dysfunction Cardiopulmonary and great vessels: pulmonary embolus, acute aortic dissection, pulmonary hypertension

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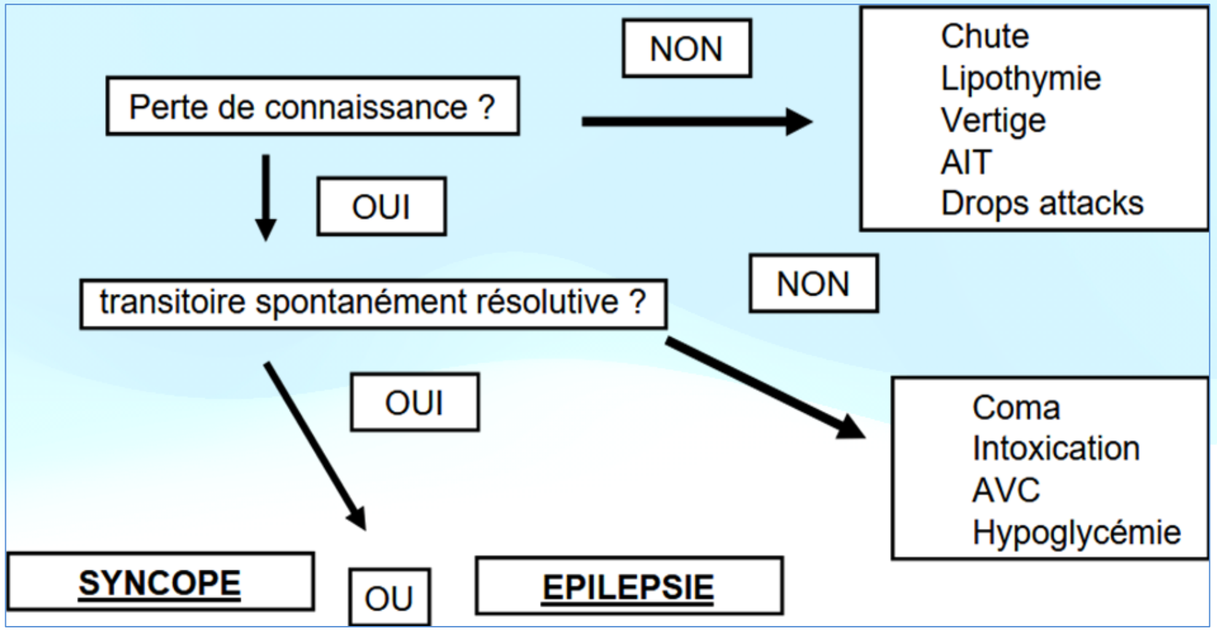
(3) Affirmer le diagnostic de syncope : évaluation initiale : repose quasi exclusivement sur l'interrogatoire

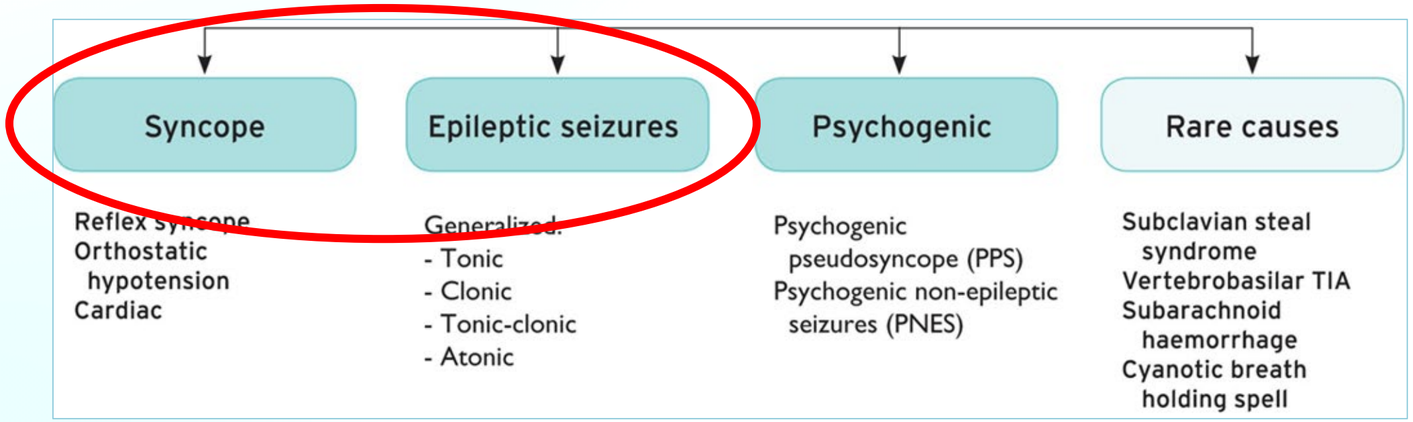
- Y a-t-il eu perte de connaissance complète (TLOC = Transient loss off consciousness) ?

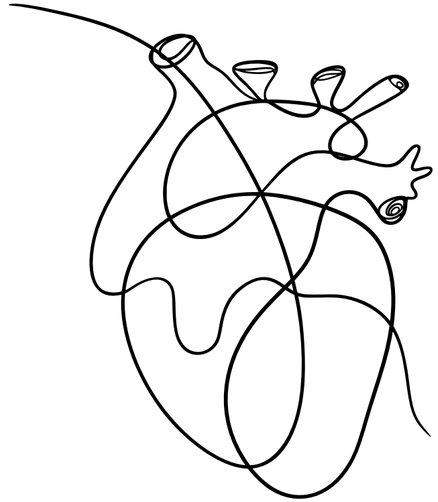
- Transitoire et spontanément résolutive?
- Si la réponse est oui :

=>Syncope

=>TLOC non syncopal => épilepsie

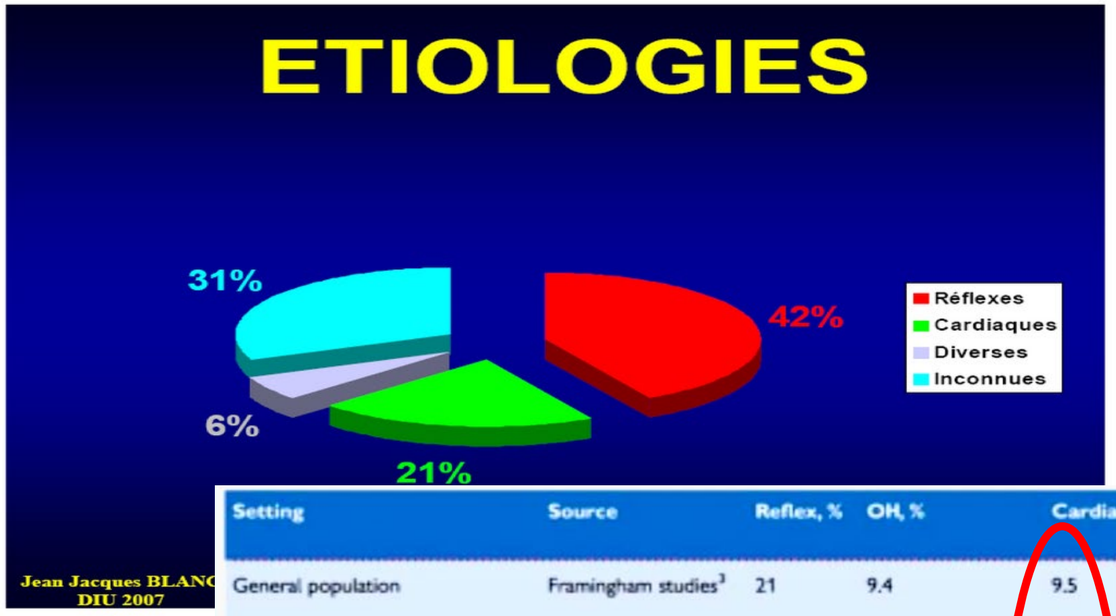


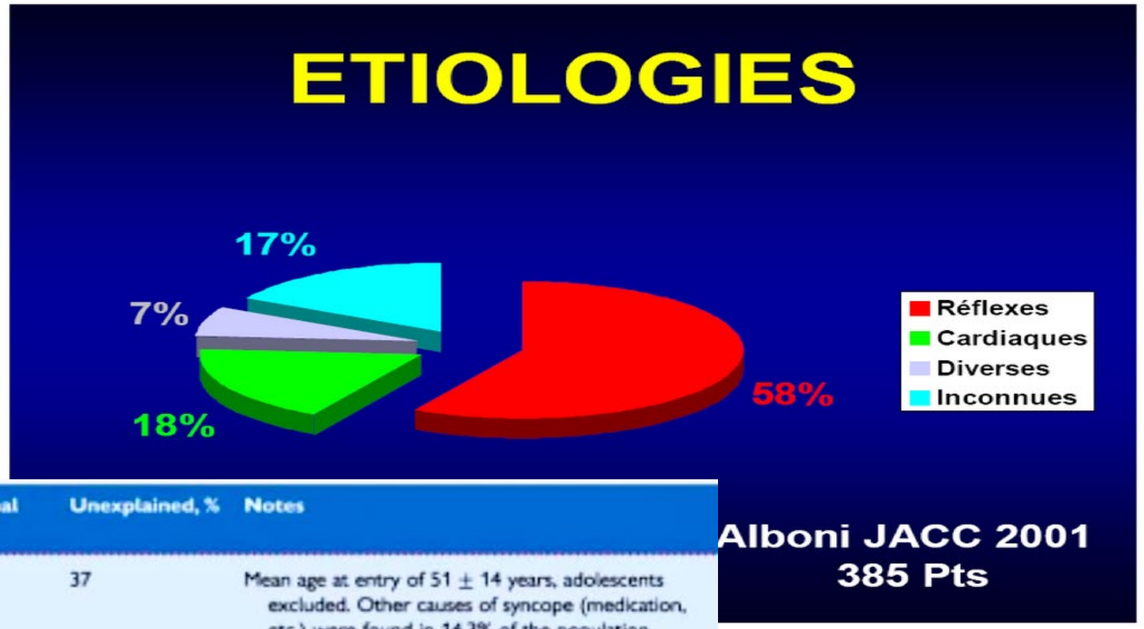




Syncope ou épilepsie ?

En faveur de :	syncope	Epilepsie
Avant la PDC	Nausées, vomissements, froid, sueurs, douleurs abdo	Aura (visuelle, auditive, olfactive), cri
Pendant la PDC	Durée courte (1 à 2 minutes) Perte de contact complète Mouvements tonicocloniques brefs (<15sec) qui débutent après la PDC	Durée prolongée Mouvements tonico cloniques prolongées qui coïncident avec le début de la PDC Mouvements automatiques (mastications) Mouvements cloniques d'un hémicorps Morsure de langue
Après la PDC	Nausées, pâleur	Confusion, amnésie, courbature





Setting	Source	Reflex, %	OH, %	Cardiac, %	Non-syncopal T-LOCs, %	Unexplained, %	Notes
General population	Framingham studies[3]	21	9.4	9.5	9	37	Mean age at entry of 51 ± 14 years, adolescents excluded. Other causes of syncope (medication, etc.) were found in 14.3% of the population. Furthermore, 44% of population did not seek a medical visit
ED	Ammirati[29]	35	6	21	20	17	
	Sarasin[35]	38*	24*	11	8	19	*Some differences in diagnostic definitions
	Blanc[30]	48	4	10	13	24	
	Disertori[34]	45	6	11	17	19	
	Olde Nordkamp[28]	39	5	5	17	33	
	Range	35–48	4–24	5–21	8–20	17–33	
Syncope Unit (dedicated facility)	Alboni[68]	56	2	23	1	18	In the Cardiology Department.
	Chen[36]	56	6	37	3	20	In the Cardiology Department. Total percentage is >100% because 18.4% of the patients had multiple diagnoses
	Shen[213]	65	10	6	2	18	In the ED
	Brignole[64]	65	10	13	6	5	Multicentre study of 19 syncope units with referral from Emergency Department and standardized diagnostic pathway (interactive decision-making software and central monitoring)
	Ammirati[62]	73	1	6	2	18	Out-patient referral
	Range	56–73	1–10	6–3	1–6	5–20	

ED = Emergency Department; OH = orthostatic hypotension; T-LOC = transient loss of consciousness.

2009 ESC Guidelines for the diagnosis and management of syncope. European Heart Journal

(4)Evaluation initiale

Evaluation initiale :

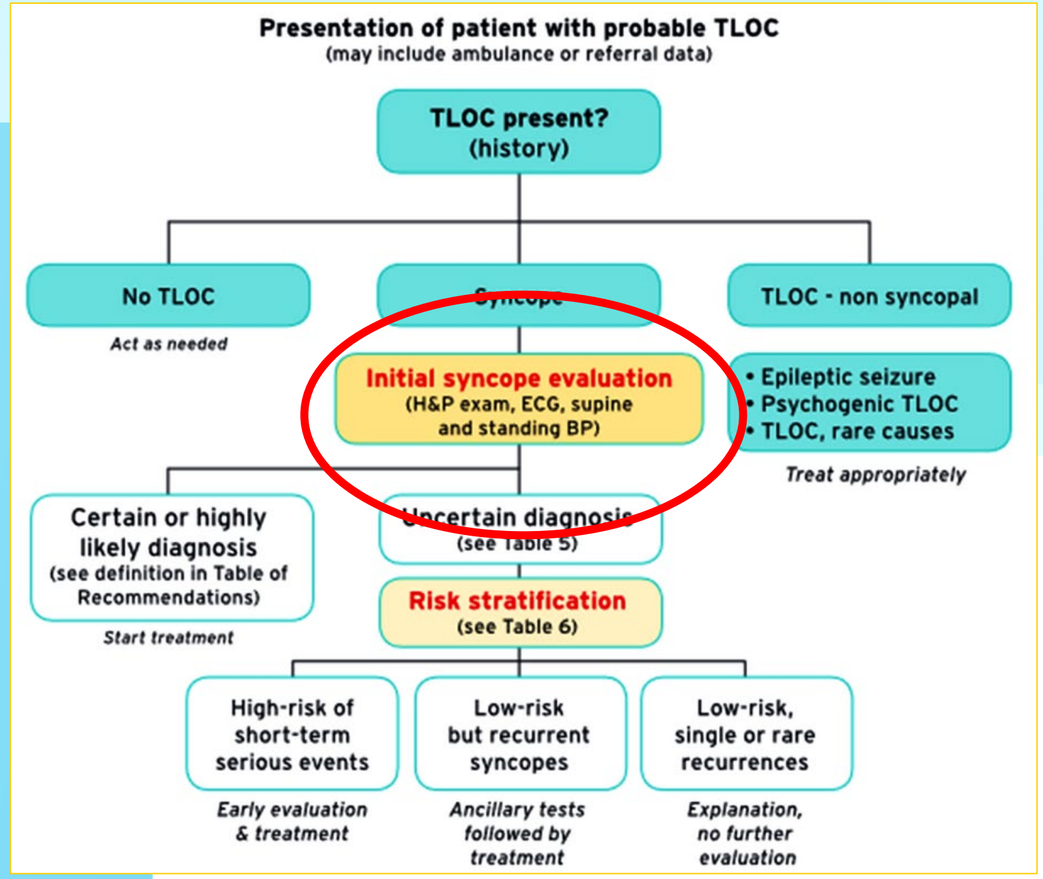
- Interrogatoire avec arbre généalogique
- Examen clinique avec recherche d'hypo TA orthostatique et MSC
- ECG
- Biologie selon orientation clinique

Question 1 : Présentations stéréotypées ?

- Syncope reflexe
- Hypotension orthostatique

Question 2 : Quel est le risque rythmique ?

- Faible : sortie possible et prise en charge ambulatoire
- Risque élevé : nécessité d'hospitalisation (unité syncope)



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(4)Evaluation initiale

Cardiac sinus massage

Recommendations	Class[a]	Level[b]
Indications		
CSM is indicated in patients >40 years of age with syncope of unknown origin compatible with a reflex mechanism.[92–94]	I	B
Diagnostic criteria		
CSS is confirmed if CSM causes bradycardia (asystole) and/or hypotension that reproduce spontaneous symptoms, and patients have clinical features compatible with a reflex mechanism of syncope.[89,90,92,93,98–102]	I	B

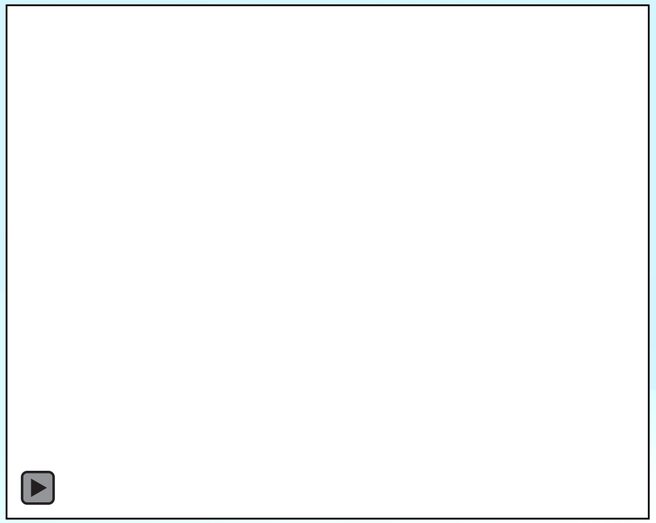
Active standing

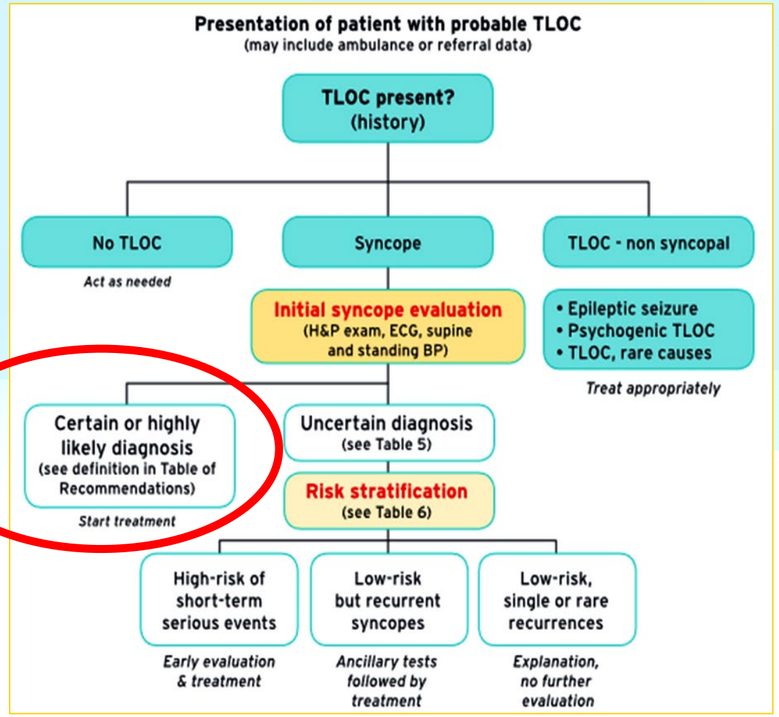
Recommendations	Class[a]	Level[b]
Indications		
Intermittent determination by sphygmomanometer of BP and HR while supine and during active standing for 3 min are indicated at initial syncope evaluation.[20,103,104]	I	C

Diagnostic criteria		
Syncope due to OH is confirmed when there is a fall in systolic BP from baseline value ≥20 mmHg or diastolic BP ≥10 mmHg, or a decrease in systolic BP to <90 mmHg that reproduces spontaneous symptoms.[6,20,103,104]	I	C
Syncope due to OH should be considered likely when there is an asymptomatic fall in systolic BP from baseline value ≥20 mmHg or diastolic BP ≥10 mmHg, or a decrease in systolic BP to <90 mmHg, and symptoms (from history) are consistent with OH.[6,20,103,104]	IIa	C

Questions 1 : Présentations stéréotypées ?

- Syncope reflexe





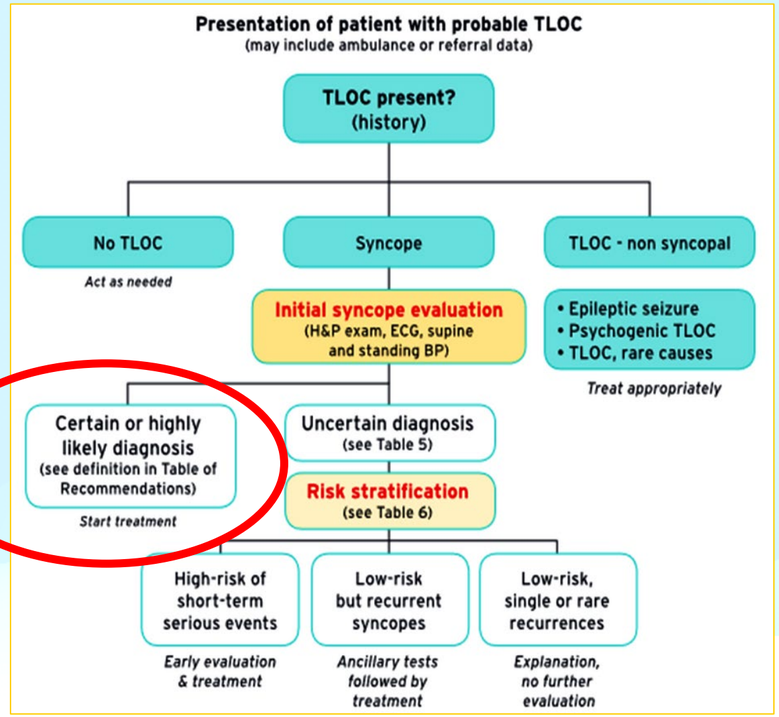
Diagnostic criteria with initial evaluation

Recommendations	Class[a]	Level[b]
Reflex syncope and OH		
VVS is highly probable if syncope is precipitated by pain, fear, or standing, and is associated with typical progressive prodrome (pallor, sweating, and/or nausea).[8,13–17]	I	C
Situational reflex syncope is highly probable if syncope occurs during or immediately after specific triggers, listed in *Table 3*.[8,13–17]	I	C
Syncope due to OH is confirmed when syncope occurs while standing and there is concomitant significant OH.[18–24]	I	C
In the absence of the above criteria, reflex syncope and OH should be considered likely when the features that suggest reflex syncope or OH are present and the features that suggest cardiac syncope are absent (see *Table 5*).	IIa	C

Questions 1 :Présentations stéréotypées ?

- Hypotension orthostatique

- Sujet âgé
- Passage en orthostatisme
- Traitement hypotenseur
- Dysautonomie : Maladie de parkinson, diabète, éxogénose chronique
- Hypovolémie
- Peut être confirmé par la recherche d'une hypotension orthostatique



Active standing

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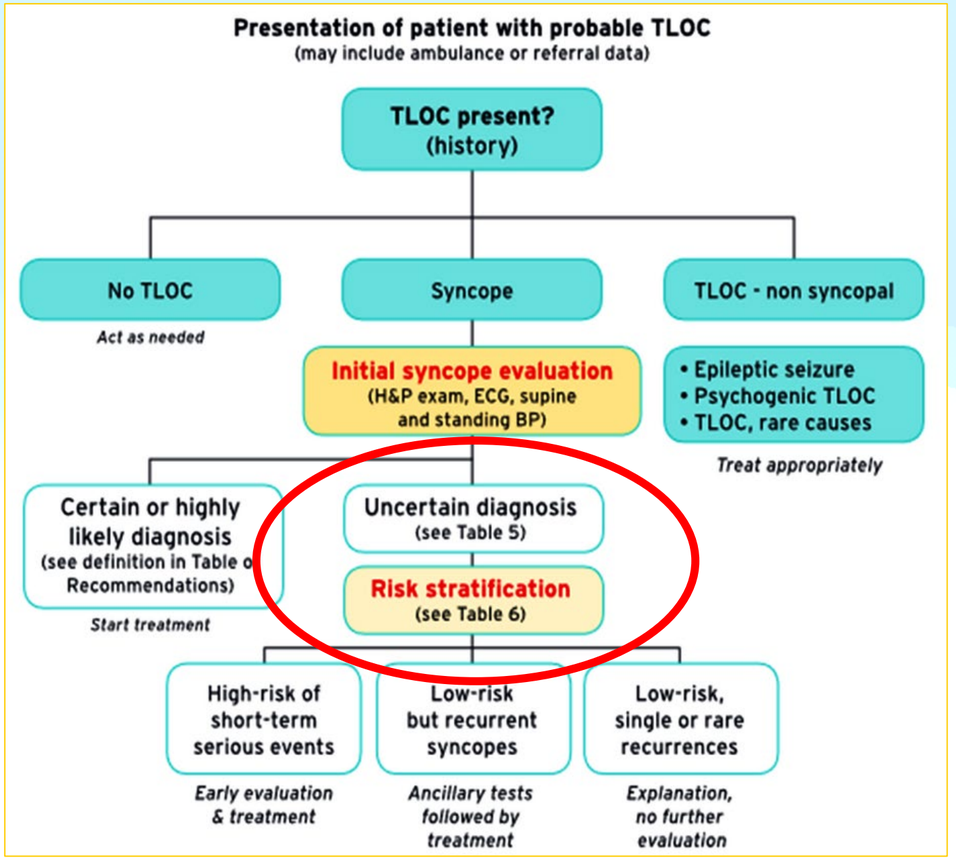
Intermittent determination by sphygmomanometer of BP and HR while supine and during active standing for 3 min are indicated at initial syncope evaluation.[20,103,104]	I	C
Diagnostic criteria		
Syncope due to OH is confirmed when there is a fall in systolic BP from baseline value ≥20 mmHg or diastolic BP ≥10 mmHg, or a decrease in systolic BP to <90 mmHg that reproduces spontaneous symptoms.[6,20,103,104]	I	C
Syncope due to OH should be considered likely when there is an asymptomatic fall in systolic BP from baseline value ≥20 mmHg or diastolic BP ≥10 mmHg, or a decrease in systolic BP to <90 mmHg, and symptoms (from history) are consistent with OH.[6,20,103,104]	IIa	C

Présentations non stéréotypées = diagnostic incertain
Question 2 : Quel est le risque rythmique ?

- 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:
  - Bifascicular block (defined as either left or right BBB combined with left anterior or left posterior fascicular block)
  - Other intraventricular conduction abnormalities (QRS duration ≥0.12 s)
  - Mobitz I second-degree AV block and 1° degree AV block with markedly prolonged PR interval
  - Asymptomatic mild inappropriate sinus bradycardia (40–50 b.p.m.) or slow atrial fibrillation (40–50 b.p.m.) in the absence of negatively chronotropic medications
  - Non-sustained VT
  - Pre-excited QRS complexes
  - Long or short QT intervals
  - Early repolarization
  - ST-segment elevation with type 1 morphology in leads V1-V3 (Brugada pattern)
  - Negative T waves in right precordial leads, epsilon waves suggestive of ARVC
  - Left ventricular hypertrophy suggesting hypertrophic cardiomyopathy



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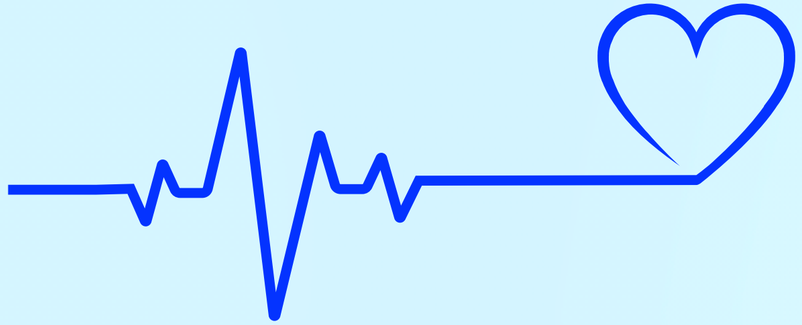
Présentations non stéréotypées : diagnostic incertain
Question 2 : Quel est le risque rythmique ?



Anamnèse

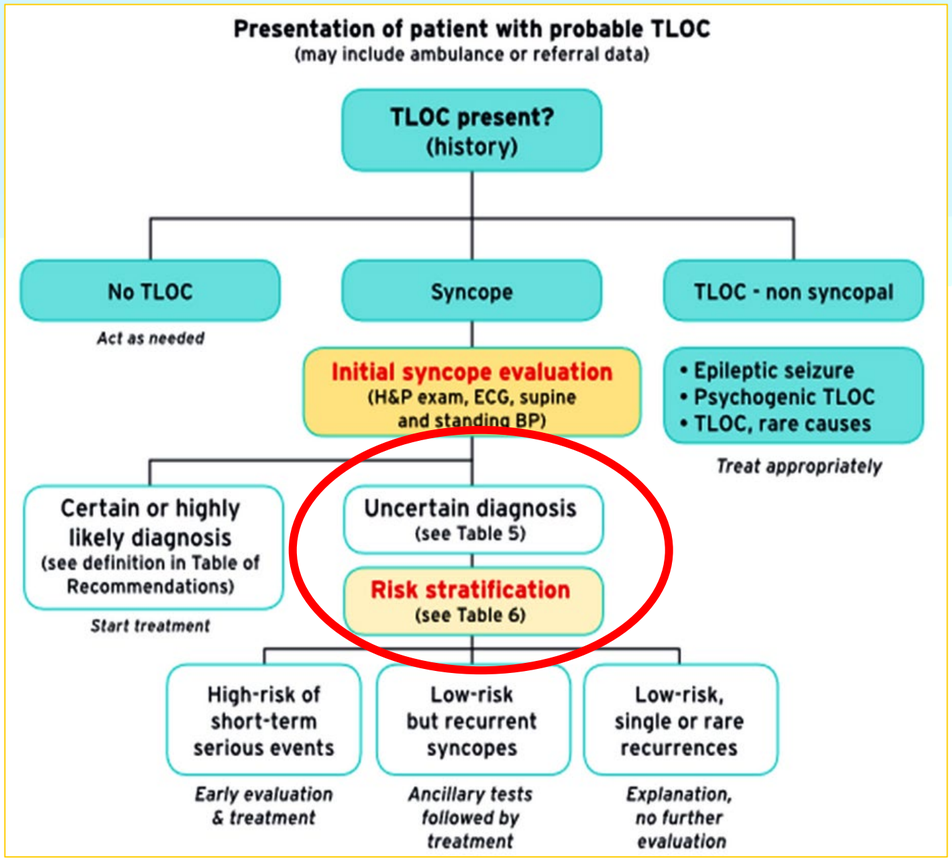
- ATCD d'IDM +++, de coronaropathie ou de cardiopathie structurelle : CMH, CMD, RAO
- ATCD de mort subite familiale

Clinique

- Douleur thoracique d'apparition récente
- Syncope à l'effort +++, Palpitations associées
- Souffle non connu

ECG

- Trouble conductifs : Bloc Bifascilaire
- Dysfonction sinusale avec FC < 40-50 bpm
- Pré-excitation
- Canalopathie : QT long
- T négatif dans 2 dérivation différentes (en dehors de V1 et AVR), onde epsilon
- HVG électrique



2009 ESC Guidelines fort he diagnosis and management of syncope

L’ELECTROCARDIOGRAMME

mangry

22/09/2023 07:23:15

Clinique Sainte Clotilde

Bon 6

18/09/2023 07:23:59

56·4

BD 142/73

96%

BG 116/77

ledoyen 15/09/2023 13:49:40

Né 11/09/1958 65 Ans

FC	51	. Rythme sinusal..... axe P normal, fréqu.V 50- 99
		. Extrasystole auriculaire.....complexe supravent. avec R-R court
PR	158	. HVG+retard cond.intra.V.& trble repol.sec....nb critères,QRS large,anomalies ST-T
QRSD	117	
QT	494	
QTc	456	

--AXES--

P	66
QRS	11
T	174

- ECG ANORMAL -

12 dériv. ; position standard

Unconfirmed Diagnosis

D1 aVR V1 V4

D2 aVL V2 V5

D3 aVF V3 V6

D3

Dispos. Vit. : 25 mm/s Périph: 10 mm/mV Préc : 10,0 mm/mV F 50~ 0,15-

V2

V3

V4

V5

V6

Examen :

Dispos. Vit. : 25 mm/s Périph: 10 mm/mV Préc : 10,0 mm/mV F 50~ 0,15-100 Hz 100B CL P?

Bas risque (stéréotypées)

- Associé à prodrome de syncope réflexe
- Après une douleur, vue, odeur...
- Lors d'une station debout prolongée, chaleur, foule
- Pendant repas ou post pandial
- Déclanchée par la toux, défécation, miction
- Lors de rotation de la tête, pression du sinus carotidien
- Passage de la position allongée/assise, debout

•Haut risque : (diagnostic incertain)

•<u>Anamnèse</u>
- ATCD d'IDM +++, de coronaropathie ou de cardiopathie structurelle : CMH, CMD, RAO
- ATCD de mort subite familiale

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- Trouble conductifs : Bloc Bifascilaire
- Dysfonction sinusale avec FC < 40-50 bpm
- Pré-excitation
- Canalopathie : QT long ….
- T négatif dans 2 dérivation différentes (en dehors de V1 et AVR), onde epsilon
- HVG électrique

Management of syncope in the ED		
It is recommended that patients with low-risk features, likely to have reflex or situational syncope or syncope due to OH, are discharged from the ED.[27,35,36,49–54,58,62,69]	I	B
It is recommended that patients with high-risk features receive an early intensive prompt evaluation in a syncope unit or in an ED observation unit (if available), or are hospitalized.[26,27,35,36,44–46,50,55–57,59,60,70–76]	I	B
It is recommended that patients who have neither high- nor low-risk features are observed in the ED or in a syncope unit instead of being hospitalized.[40,63–65,77]	I	B

UNITE SYNCOPE

ECG monitoring

Immediate in-hospital monitoring (in bed	*Table 6*).	I C

Exercise testing

Recommendations	Class[a]	Level[b]
Indications		
Exercise testing is indicated in patients who experience syncope during or shortly after exertion.	I	C
Diagnostic criteria		
Syncope due to second- or third-degree AV block is confirmed when the AV block develops during exercise, even without syncope.[253–257]	I	C

Echocardiography

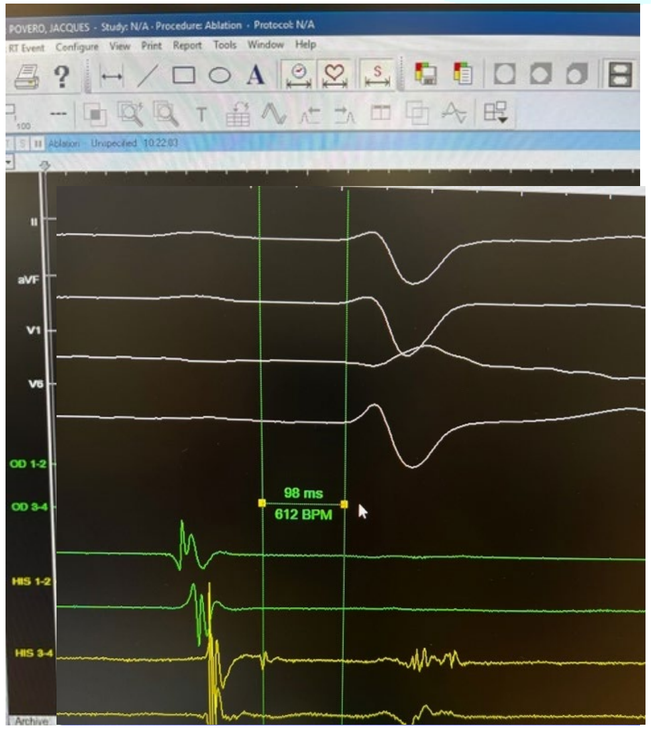
Recommendations	Class[a]	Level[b]
Indications		
Echocardiography is indicated for diagno	art disease.[235,236]	I B
Two prov or p		

Tilt testing

Recommendations	Class[a]	Level[b]
Indications		
Tilt testing should be considered in patients with suspected reflex syncope, OH, POTS, or PPS.[23,24,105–109,111–117]	IIa	B
Tilt testing may be considered to educate patients to recognize symptoms and learn physical manoeuvres.[119–121]	IIb	B

Exploration électrophysiologique

EPS		
In patients with syncope and previous myocardial infarction or other scar-related conditions, EPS is indicated when syncope remains unexplained after non-invasive evaluation.[218]	I	B
In patients with unexplained syncope and bifascicular BBB, a pacemaker is indicated in the presence of either a baseline H-V interval of ≥70 ms, second- or third-degree His-Purkinje block during incremental atrial pacing, or with pharmacological challenge.[188,214–217,221]	I	B
In patients with unexplained syncope and previous myocardial infarction or other scar-related conditions, it is recommended that induction of sustained monomorphic VT is managed according to the current ESC Guidelines for VA.[46]	I	B
In patients without structural heart disease with syncope preceded by sudden and brief palpitations, it is recommended that the induction of rapid SVT or VT, which reproduces hypotensive or spontaneous symptoms, is managed with appropriate therapy according to the current ESC Guidelines.[46,222]	I	C

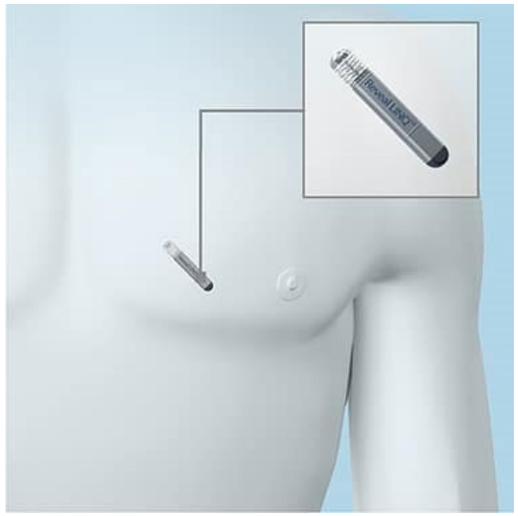


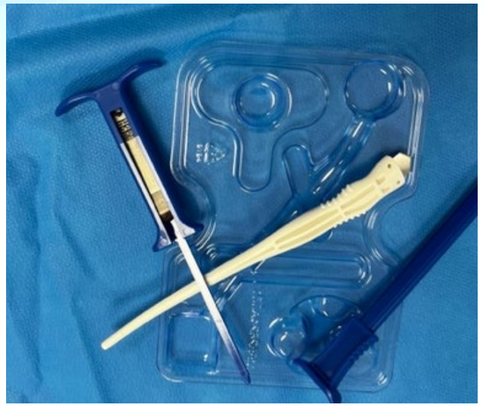
- Bloc bifasciculaire
  - -Bloc de branche droit et HBAG ou HBPG
  - -Bloc de branche gauche
- Antécédent d'IDM
- Palpitations précédents la syncope

Holter implantable

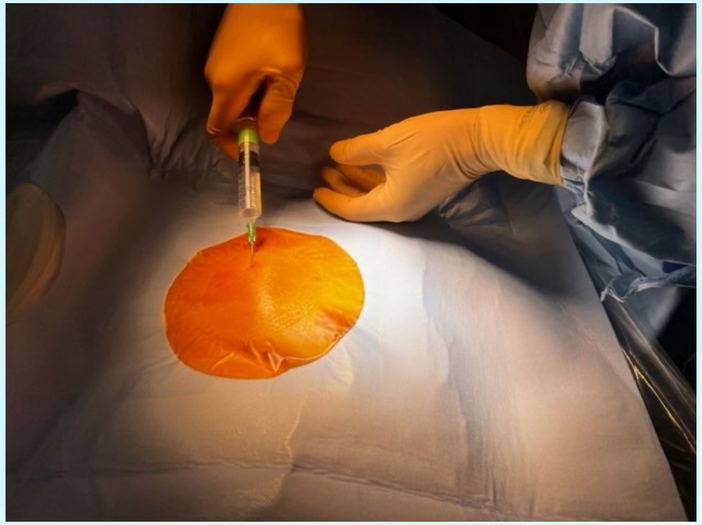
ILR is indicated in an early phase of evaluation in patients with recurrent syncope of uncertain origin, absence of high-risk criteria (listed in *Table 6*), and a high likelihood of recurrence within the battery life of the device.[175,176,181–184,202], *Supplementary Data Table 5*	I	A
ILR is indicated in high-risk (criteria listed in *Table 6*) patients in whom a comprehensive evaluation did not demonstrate a cause of syncope or lead to a specific treatment, and who do not have conventional indications for primary prevention ICD or pacemaker indication.[174,180,187,188,195], *Supplementary Data Tables 5 and 6*	I	A

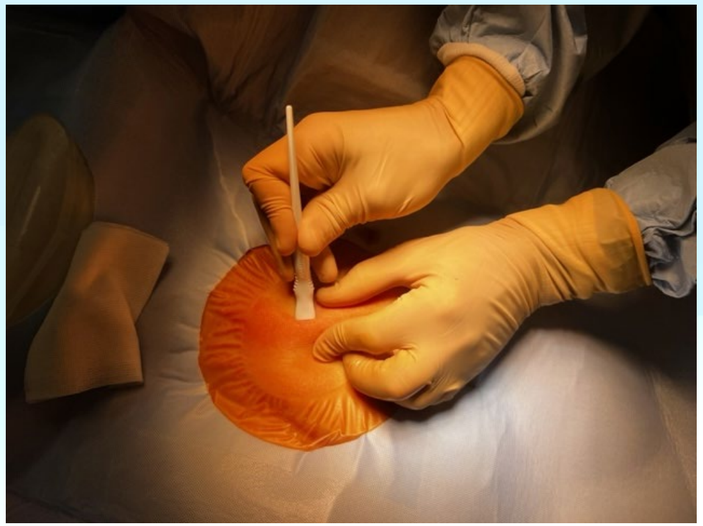
- Syncopes à haut risque inexpliquées
- Syncopes à bas risque récidivantes

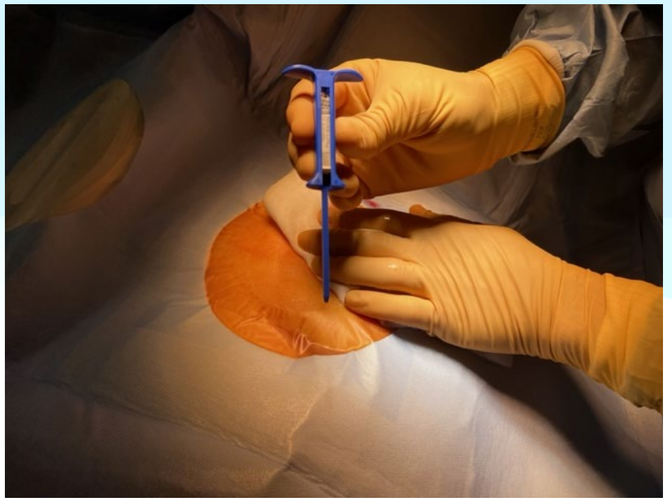


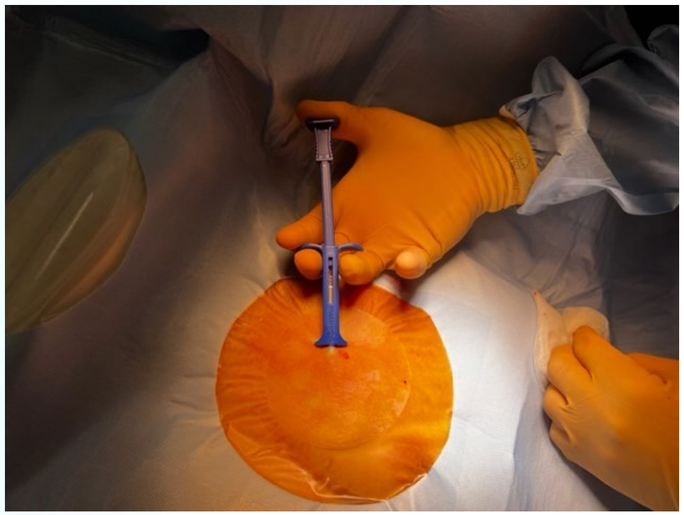


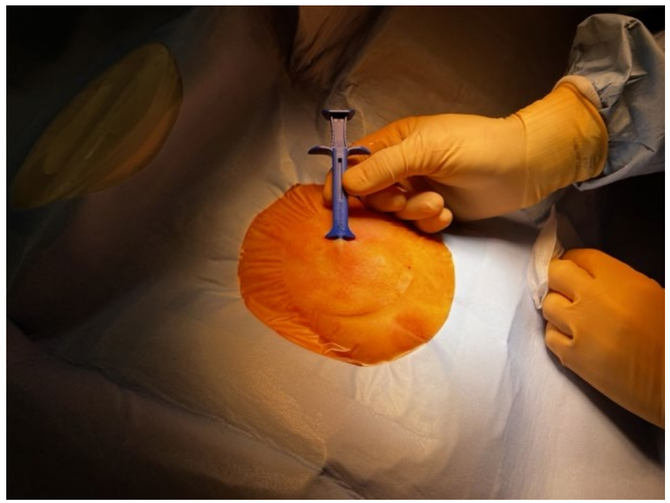
Holter implantable











PERTE DE CONNAISSANCE TRANSITOIRE BRÈVE (TLOC)

NON

- coma
- hypoglycémie
- chute mécanique
- Vertige ORL
- AVC /AIT

OUI

Syncope

- épilepsie
- psychogène
- causes rares

Non syncopale

Evaluation initiale

incluant MCS et recherche hypoTA hypostatique

DIAGNOSTIC ETIOLOGIQUE CERTAIN

Hypotension orthostatique

Syncope réflexe

- prise en charge ambulatoire
- éducation du patient.
- arrêt des médicaments ou diminution des traitements hypotenseurs
- contention
- traitement spécifique Fludocortisone , Milodrine

DIAGNOSTIC ETIOLOGIQUE INCERTAIN

Evaluation du risque rythmique

Haut risque

hospitalisation requise (syncope unit)

Bas risque

bilan cardiologique ambulatoire

EVALUATION DU RISQUE RYTHMIQUE

Haut risque

Hospitalisation en cardiologie (ou syncope unit):

1. <u>Explorations fonctionnelles</u>:
- monitoring par télémétrie
- échographie cardiaque
- épreuve d'effort
- tests pharmacologiques
- tilt test

2. <u>Explorations invasives</u>:
- Exploration électrophysiologique ± stimulation ventriculaire programmée
- Coronarographie

Antécédent :

Clinique :

Palpitations, angor, effort

ECG

Bas risque

Bilan cardiologique ambulatoire:
- Holter ECG
- échographie cardiaque
- épreuve d'effort

Si récidive

Diagnostic incertain

Holter implantable

Diagnostic établi

- stimulateur cardiaque
- défibrillateur automatique implantable
- traitement spécifique de la cardiopathie mise en évidence

MERCI de votre ATTENTION

Treatment of reflex syncope		
Explanation of the diagnosis, provision of reassurance, and explanation of the risk of recurrence and the avoidance of triggers and situations are indicated in all patients. *Supplementary Data Table 10*	I	B
Beta-adrenergic blocking drugs are not indicated.[279,280]	III	A
Cardiac pacing is not indicated in the absence of a documented cardioinhibitory reflex.[299,300]	III	B
Treatment of OH		
Explanation of the diagnosis, provision of reassurance, and explanation of the risk of recurrence and the avoidance of triggers and situations are indicated in all patients.	I	C
Adequate hydration and salt intake are indicated.[310,311]	I	C

Treatment of syncope due to cardiac arrhythmias		
Cardiac pacing is indicated when there is an established relationship between syncope and symptomatic bradycardia.[200,210–212,255,334–338,341]	I	B
Cardiac pacing is indicated in patients with intermittent/paroxysmal intrinsic third- or second-degree AV block (including AF with slow ventricular conduction), although there is no documentation of a correlation between symptoms and ECG.	I	C
Cardiac pacing is not indicated in patients when there are reversible causes for bradycardia.	III	C
Cardiac pacing is indicated in patients with syncope, BBB, and a positive EPS or ILR-documented AV block.[188,217]	I	B
Catheter ablation is indicated in patients with syncope due to SVT or VT in order to prevent syncope recurrence.	I	C
An ICD is indicated in patients with syncope due to VT and ejection fraction ≤35%.[46]	I	A
An ICD is indicated in patients with syncope and previous myocardial infarction who have VT induced during EPS.[218]	I	C
ICD indications in patients with unexplained syncope and left ventricular systolic dysfunction		
ICD therapy is recommended to reduce SCD in patients with symptomatic heart failure (NYHA class II–III) and LVEF ≤35% after ≥3 months of optimal medical therapy, who are expected to survive for ≥1 year with good functional status.[46] **systolic dysfunction**	I	A