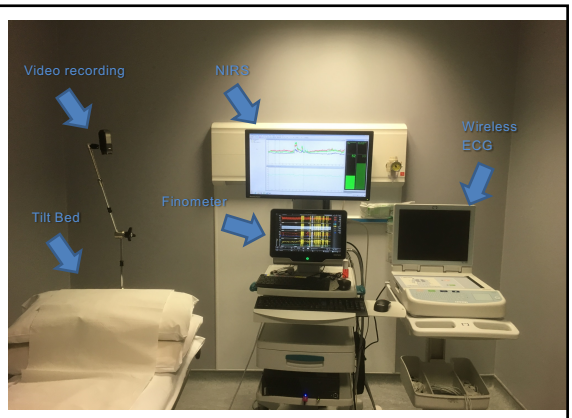
Video Tilt

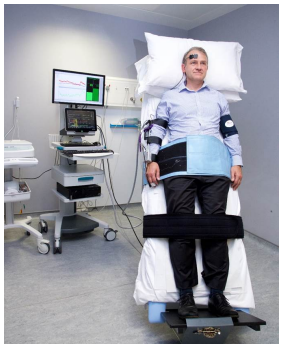
16.5.19

Ciara Rice



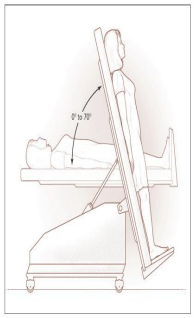
Tilt Test

- Provocative test to try and reproduce a persons symptoms of syncope or presyncope.
- The test measures how your blood pressure and heart rate respond to the force of gravity.
- Tilt-table tests can be used to see if fainting is due to abnormal control of heart rate or blood pressure.



Methodology

- Quiet dim lit room at 21-23°C
- 2 Professionals (Nurse/Doctor)
- Resuscitation equipment
- Rest for 5-10 minutes supine
- Tilt bed to 70°
- Continuous ECG and phasic beat to beat BP monitoring.
- Different protocols.



ESC European Society of Cardiology

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ESC GUIDELINES

2018 ESC Guidelines for the diagnosis and management of syncope

The Task Force for the diagnosis and management of syncope of the European Society of Cardiology (ESC)

Developed with the special contribution of the European Heart Rhythm Association (EHRA)

Endorsed by: European Academy of Neurology (EAN), European Federation of Autonomic Societies (EFAS), European Federation of Internal Medicine (EFIM), European Union Geriatric Medicine Society (EUGMS), European Society of Emergency Medicine (EuSEM)

Authors/Task Force Members: Michele Brignole* (Chairperson) (Italy), Angel Moya* (Co-chairperson) (Spain), Frederik J. de Lange (The Netherlands), Jean-Claude Deharo (France), Perry M. Elliott (UK), Alessandra Fanciulli (Austria), Artur Fedorowski (Sweden), Raffaello Furlan (Italy), Rose Anne Kenny (Ireland), Alfonso Martín (Spain), Vincent Probst (France), Matthew J. Reed (UK), Ciara P. Rice (Ireland), Richard Sutton (Monaco), Andrea Ungar (Italy), and J. Gert van Dijk (The Netherlands)

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
Diagnostic criteria		
Reflex syncope, OH, POTS, or PPS should be considered likely if tilt testing reproduces symptoms along with the characteristic circulatory pattern of these conditions.[23,24,105–109,111–117]	IIa	B
Additional advice and clinical perspectives		
• A negative tilt table response does not exclude a diagnosis of reflex syncope.		
• While sensitivity and specificity are at acceptable levels when measured in patients with VVS and healthy controls, in usual clinical settings of syncope of uncertain origin tilt testing suggests the presence of a *hypotensive susceptibility*, which may exist not only in reflex syncope but also with other causes of syncope including some forms of cardiac syncope. The concept of hypotensive susceptibility rather than diagnosis has important practical utility, because the presence or absence of hypotensive susceptibility plays a major role in guiding pacemaker therapy in patients affected by reflex syncope and in the management of hypotensive therapies, which are frequently present in the elderly with syncope (see sections 5.1 and 5.2).		
• A positive cardioinhibitory response to tilt testing predicts, with high probability, asystolic spontaneous syncope; this finding is relevant for therapeutic implications when cardiac pacing is considered (see section 5.2.6). Conversely, the presence of a positive vasodepressor, a mixed response, or even a negative response does not exclude the presence of asystole during spontaneous syncope.[122,123]		
• Tilt testing may be helpful in separating syncope with abnormal movements from epilepsy.[37]		
• Tilt testing may have value in distinguishing syncope from falls.[23]		
• Tilt testing may be helpful in separating syncope from PPS. In suspected PPS, the tilt test should preferably be performed together with EEG monitoring; a normal EEG helps to confirm the diagnosis.[116,117] In the absence of an EEG, a video recording will be helpful in confirming the diagnosis.		
• Tilt testing should not be used to assess the efficacy of a drug treatment.[118]		

EEG = electroencephalogram; OH = orthostatic hypotension; POTS = postural orthostatic tachycardia syndrome; PPS = psychogenic pseudosyncope; VVS = vasovagal syncope.

Video Tilt

Video recording in suspected syncope

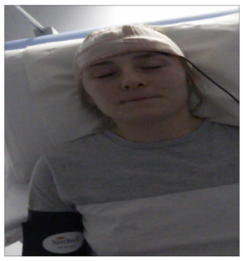
Recommendations	Class[a]	Level[b]
Home video recordings of spontaneous events should be considered. Physicians should encourage patients and their relatives to obtain home video recordings of spontaneous events.[206,208]	IIa	C
Adding video recording to tilt testing may be considered in order to increase the reliability of clinical observation of induced events.[9,116,117,205]	IIb	C

[a]Class of recommendation.
[b]Level of evidence.

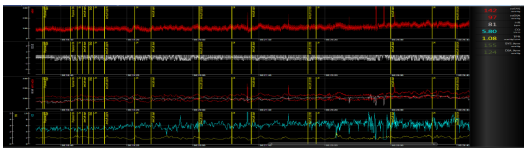
- Review the tilt test with family member (witness) to confirm reproduction of event.
- Psychogenic pseudosyncope diagnosis.

Case 1
March 2019

- 18 year old, referred to ED by GP with 5 episodes of "seizure like activity" over the last 3 months – eyes rolling back, teeth clenching, tries to speak but cant get words out or repeats same word, amnesia after event
- No loss of postural tone.
- 1 episode post argument with her girlfriend.
- Reviewed in ED, detailed history – not suggestive of seizure or syncope, suggestive of psychogenic pseudosyncope.
- Lots of social stressors, leaving cert year.
- Family very concerned as they have witnessed episodes and her sister has a diagnosis of epilepsy.
- Proceeded to plain head up tilt.



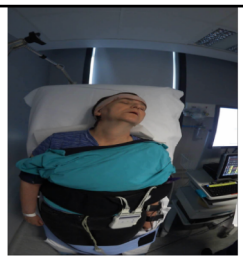
Patient consent to use video.



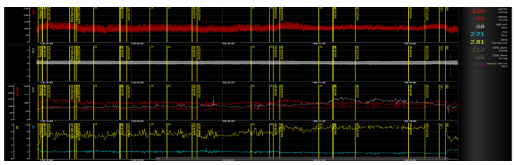
- Video reviewed by father and confirmed correlation with events.
- Several social stressors.
- Has attended ARC services (counselling) but had stopped going prior to episodes starting.
- Accepting of diagnosis agreed to reengage with services.

Case 2
May 2019

- 57 year old, referred with recurrent dizziness, falls and syncope over the last 2 years.
- Severe presyncope a few times a week.
- Multiple attendances to different healthcare specialists.
- Does have Initial OH on active stand but not reproductive of her pre syncope symptoms and BP recovers within 30 seconds.



Patient consent to use video.



Questions?