Survey on the Management of Syncope Patients
performed by the ESC Council for Cardiology Practice

A survey on the use of ESC Guidelines on Syncope by Cardiologists

Report from:
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Background

To evaluate implementation of the ESC Guidelines on Syncope we developed a survey based on a questionnaire to submit to cardiologists who have subscribed to the Council's Newsletter and to the Council's E-Journal of Cardiology Practice. The aims were:

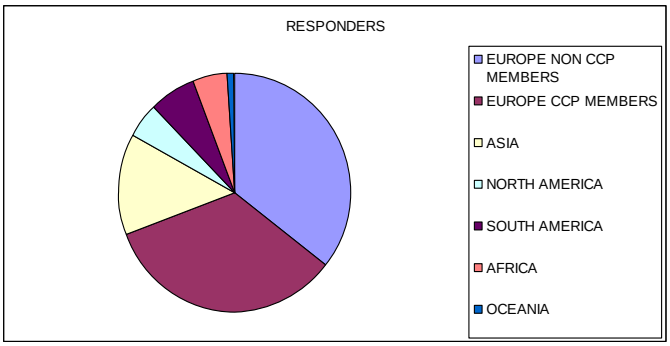
1) To analyse the knowledge and the application of current ESC Guidelines on Syncope
2) To analyse the behaviour of cardiologists on this topic
3) To verify future modifications with a similar survey.

Method

The questionnaire was sent to 50,840 cardiologists who have subscribed to our E-journal and/or electronic Newsletter, with a link to the website hosting the questionnaire. Data collected were anonymous.

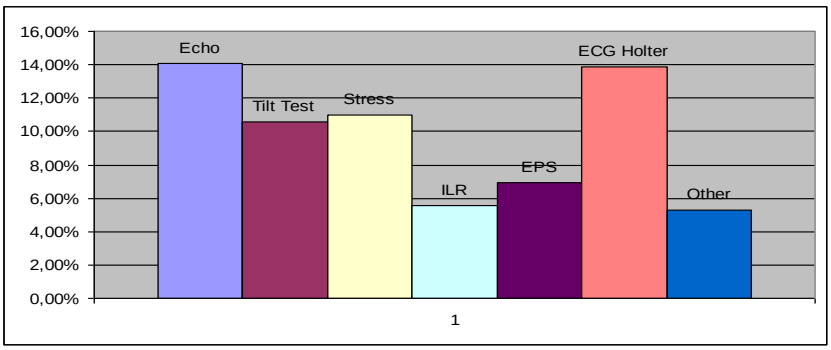
Results

There were 1,910 respondents to the questions of the survey (2.6% of the base population, 70.4% male, 65.6% from 30 to 50 years old, 66.3% from Europe, 62.2% working in hospital and 20.4% cardiologists in practice).



Out of 1,910 respondents, 1,474 of them (77.18%) completed the questionnaire.
To the question: "What is in your experience the most important diagnostic tool for syncope?" 83.9% of the respondents chose the response "careful history and physical examination" from the options proposed.

To the question “Do you routinely do an orthostatic challenge?” as many as 33.2% of the answers are negative and only 41.5% of respondents know its positivity criteria. Furthermore only 33.2% routinely perform a carotid sinus massage in patients aged over 40 years.
39.1% routinely do electroencephalographic registrations and ultrasound of neck arteries.
Question 10 was: “For the last ten patients who consulted for syncope, how many did you ask to perform the following diagnostic tests?” We obtained 10,318 responses of 14,740 theoretical patients (some respondents provided incomplete data or input for less than ten patients). Of these, 3,374 patients (32.70%) were not submitted to any test. The other 6,944 underwent Echocardiography (14.04% of the total), ECG Holter Monitoring (13.88%), Stress Test (11.02%) and Tilt Table Test (10.56%). Less frequently they were submitted to EPS (6.94%), ILR implantation (5.54%) and to other tests (5.31%)



53.9% of cardiologists have the possibility to submit patients with syncope of unknown origin to an Implantable Loop Recorder (ILR).
36.3% gave positive answers to the question “Do you routinely indicate specific treatment for vasovagal syncope?” About two thirds of respondents don't give at least the explanation of the diagnosis, the provision of reassurance and the explanation of risk recurrence, all simple undeniable recommendations.
(81.5%) of respondents declare that they follow the ESC Guidelines on Cardiac Pacing for syncope patients.

Discussion

The European Society of Cardiology organized and is still now actively leading surveys about the implementation of clinical guidelines in various settings; examples include surveys on prevention like the series of EUROASPIRE or on heart failure and on atrial fibrillation.
These surveys are generally multi-centre retrospective analysis of the management of a specific aspect of cardiology, realized using data-base of the patients followed in a specific time in a selected hospital setting.
The survey presented by the Council of Cardiology Practice, unlike the commonly published surveys, is based on the direct interview of a population of cardiologists with a wide dissemination of geographic and professional conditions (mainly hospital setting) and not on data derived from patient databases. This way of collecting information about a clinic topic is somewhat different and in our thinking represents a sort of “intention to treat” questionnaire.
Given the fact that responses to the CCP survey were derived from around the world, interesting practitioners from Europe (both in CCP member countries and

in non CCP member countries) and from all around the world, it is clear that there is a widespread interest in better understanding syncope and its current management.

The survey provides an overview of the clinical practice of syncope management. There were 4 principal observations.

1) >80% of respondents indicated that they applied the ESC syncope guidelines in their clinical practice. This suggests that a substantial portion of the respondents were familiar with the presence of practice guidelines, although other findings indicate that the application of recommendations was often questionable.

2) The responding physicians were well aware that detailed history taking is a crucial step in establishing a syncope diagnosis. In this context, almost 84% of respondents identified the importance of this clinical step.

3) The majority of respondents were aware of the potential importance of orthostatic testing in the clinic. However, among those who did not identify the importance of this inexpensive test, the word "routinely" in the question may have deflected their response.

4) The survey once again illustrated that many physicians continue to use procedures that have little merit in the evaluation of 'true' syncope (e.g., EEG and/or carotid ultrasound). Once again, however, it is crucial that the physicians be familiar with the appropriate definition of syncope as a subset of TLOC.

The ESC Guidelines emphasize the crucial role of the history of the patient, the description of the TLOC episode and a careful physical examination in order to first determine whether the episode is a true syncope. Thereafter, with eventually the aid of selected testing, it is recommended the effort to reach an aetiological diagnosis and to evaluate the risk of the patient.

The fact that a large majority of respondents recognized these recommendations is encouraging and we could conclude that this essential message of the literature and the guidelines is sufficiently understood by the medical community.

In terms of orthostatic testing, the phrasing of the question may have misled some respondents. Routine use of such testing may not be required if the history points clearly in another direction, but should be done if the diagnosis remains thoroughly in doubt. Two-thirds of the respondents answered affirmatively that they routinely do an orthostatic challenge, whereas 33% don't perform this simple test routinely, either because unaware of its utility or because they employ it on a selective basis, if an orthostatic hypotension is suspected. Also its positivity criteria caused problems: only 41.5% of the respondents chose the right answer.
Among survey respondents, 33.2% routinely are performing a carotid sinus massage (CSM) in patients with syncope aged more than 40 years as recommended by ESC guidelines. In this regard, some physicians may believe that age 40 years is too young for such testing despite the guidelines. Others may be unconvinced by the determination of 'positivity'. In any event, given the fact that only one-third of respondents seem to be employing this test on a regular basis, additional emphasis on its appropriate usage may be appropriate.

The continued use of electroencephalographic (EEG) recordings and ultrasound of neck arteries was both a surprise and quite disappointing. Among survey respondents, about 40% continue to routinely prescribe such tests in patients with syncope despite the fact that the practice guidelines consider EEG and Echo of neck arteries a class III indication (evidence level B). This result demonstrates that many physicians have not fully understood the difference between a true syncope and other kind of TLOC (e.g., seizures, concussion, etc). Additionally, perhaps in some instances the choice of tests is driven by defensive medicine practices and the fear of malpractice complaints; however this approach may lead to misdiagnosing the cause of the patient's spells, and thereby to a lack of correct treatment and also to unbearable costs.

A relatively high percentage (53.9%) of responding practitioners indicated that they had the capability of implanting an Insertable Loop Recorder (ILR) if they felt that it would be helpful. This approach (i.e. ILR implant) was a key recommendation of the 2009 syncope guidelines; specifically the guideline pointed out that greater ILR use offers the opportunity to reduce the number of patients with syncope of unknown origin and diminishing in-hospital duration of care; both could substantially reduce ultimate cost of care.

In regard to reflex syncope, the question posed was non-specific and may have misled some respondents. Consequently, its interpretation must be undertaken with care. In any case, about two-thirds of answering cardiologists apparently do not provide specific recommendations of any kind to patients suspected of reflex faints: this is a potentially worrisome observation in need of additional insight. From the ESC guideline perspective, all physicians should be aware of the importance of providing both an explanation of the diagnosis, and reassurance and the explanation of risk recurrence. We conclude that additional emphasis in education directed toward this weakness in the care profile is essential.

In terms of familiarity of respondents with the ESC Guidelines, a large majority of respondents (81.5%) affirmed that they apply the ESC Clinical Practice Guidelines on Cardiac Pacing and Cardiac Resynchronization Therapy for syncope patients; this result is encouraging. However nearly 2 cardiologists in 10 declared that they are not willing to follow guidelines on pacing. Once again an educational effort is needed.

Limitations

The survey reported here had a number of limitations that importantly affect interpretation of the results.

1) Only a few questions were asked and consequently only a small range of syncope-related diagnostic issues were addressed.
2) The response rate was low (2.6%) and as with all surveys, the respondent motivations cannot be assessed.
3) Several questions were constructed in a manner that may have confused readers. In particular the use of the term "routinely" may have been a liability.
4) Given the multi-national nature of the respondents, language barriers may have played an important role in determining who responded and who did not.

Conclusions

ESC syncope guidelines have been published periodically since 2001 with the last version published in 2009. The text has been translated into many languages of European and non-European countries, presented and discussed in many scientific sessions of congresses and meetings of the European Society of Cardiology and of National Societies of Cardiology, and after five years they should have reached a sufficient level of diffusion and implementation. However, our data show that there is a large gap between formulation of guidelines and their subsequent effective dissemination and teaching about their contents. This problem is common to other guidelines and generally speaking to the whole field of the dissemination and improvement of the knowledge of medicine; it represents a very difficult challenge for the ESC and its Constituent Bodies and for all National Scientific Societies.

Special thanks to all the colleagues that with their participation answering to the questionnaire of the Survey permitted us to reach these results.