I percorsi diagnostico gestionali

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Key points:
• 1- Cosa dicono le linee guida
• 2- Modelli di syncope unit
• 3- Real world
Syncope is a common phenomenon in general practice.

A very small fraction of patients with syncope in the general population, present in any clinical setting.
Management of syncope in general practice

• In this setting recurrent typical VVS is the most common diagnosis
• The diagnosis is based upon a carefully taken medical history and the context of the event
• An active search for alarming symptoms is recommended: syncope during exertion, syncope in the lying position, family history of SCD, or slow recovery from syncope
Management of syncope in general practice

• If the diagnosis remain uncertain and there is a potential risk of dangerous consequences then the patient should be referred to cardiologist, internist, neurologist, psychologist/psychiatrist as appropriate or to a specialized syncope facility if available
Management of syncope in Emergency Department

The evaluation of syncope in ED has changed from attempts to make a diagnosis of the cause of syncope to risk stratification in order to:

- Recognize high risk patients and admit them
- Recognize low risk patients and discharge them and refer later to local syncope facilities
- Recognize those who do not need any further evaluation and treatment
- Choose a timing and setting where further diagnostic tests should be performed in patients with inconclusive initial evaluation
Strategy of the assessment of T-LOC
The opinion of the Task Force is that a cohesive, structured care pathway delivered within a single syncope facility or as a more multifaceted service is optimal for quality service delivery.
Existing models of Syncope Management Units
Existing models of Syncope Management Units

- A single ‘one site – one stop’ syncope facility
- A multifaceted service with many specialists
Existing models of Syncope Management Units

The Newcastle experience

- The *Rapid Access Falls and Syncope Service* (FASS) adopted by this group is a rapid access, multidisciplinary approach, based on standardized algorithms is a rapid access for adults with syncope and falls.

- There is a rapid access pathway for inpatients and for those attending the ED

- As many investigation as possible are completed at the initial assessment

- FASS has a full range of equipment as well as specialized nurses and physicians
Existing models of Syncope Management Units

The Manchester experience

• It is a model of a *T-LOC Facility* where cardiologist (with an interest in syncope) and neurologists (with an interest in epilepsy developed a multidisciplinary model for the evaluation of T – LOC with a special emphasis on differential diagnosis between syncope, epilepsy, and psychogenic episodes
Proposed models of Syncope Management Units
Proposed models of Syncope Management Units

• The model of care delivery should be that which is most appropriate to existing practice and resources

• Referral sources, extent of screening prior to presentation at the facility, and presenting age are issues which influence the model of care delivery
Objectives of syncope units

- provide state of the art guidelines based assessment of symptomatic patients in order to risk stratify them, then obtain an accurate etiological diagnosis and assess prognosis

- Physicians in charge of the syncope facility lead the process of comprehensive management

- Reduce hospitalizations

- Set standards for clinical excellence in adherence to the recommendations on syncope

- Experience and training in key components of cardiology, neurology, emergency and geriatric medicine are pertinent
Syncope: ED and Observation Unit
Syncope Evaluation in the Emergency Department Study (SEEDS)
Circulation 2004

Syncope Observational Unit in the ED

Valutazione iniziale (anamnesi, esame obiettivo, ECG)

- Telemetria cardiaca fino a 6 ore
- Ogni ora: controllo dei segni vitali e misurazione della PA in ortostatismo
- Ecocardiogramma se indicato
- Massaggio del seno carotideo
- Tilt test
- Consulenza elettrofisiologica se indicata

Ricovero
Follow-up ambulatoriale
## Sincope di natura indeterminata e Observational Syncope Unit

<table>
<thead>
<tr>
<th></th>
<th>Observational Syncope Unit (51 pazienti)</th>
<th>Braccio di controllo (52 pazienti)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosi eziologica</td>
<td>34</td>
<td>5</td>
</tr>
<tr>
<td>Sincope indeterminata</td>
<td>17</td>
<td>47</td>
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<tr>
<td>Ricoverati</td>
<td>22</td>
<td>51</td>
</tr>
<tr>
<td>Dimessi</td>
<td>29</td>
<td>1</td>
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</table>

**Conclusioni.** La resa diagnostica è stata molto più alta e i ricoveri più ridotti nel gruppo “syncope unit” rispetto al gruppo di controllo. Questo studio dimostra come la syncope unit in Pronto Soccorso ed un approccio multidisciplinare in presenza di risorse appropriate consenta una gestione della sincope efficace ed efficiente.
Real World
Organizing the Management of Syncope

Initial evaluation

- Diagnosis certain
  - Discharge or Treatment

- Syncope-like condition
  - Refer to Neurology/Psychiatry as appropriate

- Diagnosis suspected or unexplained
  - Syncope facility ("Syncope Unit")
  - Full access to cardiological and autonomic tests and specialists’ consultancies
Pronto Soccorso e Syncope Unit

- Una volta che i pazienti afferiscono alla Syncope Unit (SU) dovrebbero essere stratificati per il rischio in modo da immettere i pazienti a basso rischio nel percorso ambulatoriale della SU mentre quelli ad alto rischio possono essere ricoverati in OBI.
Pronto Soccorso e Syncope Unit

- I sistemi di stratificazione del rischio che sembrano essere i più adatti a questo scopo sono l’OESIL score e l’EGSYS score.
- L’OESIL score ha il vantaggio di facile utilizzo, ma determina il ricovero di molti pazienti. L’EGSYS score ha il vantaggio di poter essere anche utilizzato per la valutazione della probabilità di sincope cardiaca (diagnosi), che per la valutazione del rischio di eventi avversi a due anni (prognosi)
Transient Loss of Consciousness/Syncope

Presenting to Emergency Department

Suspected or Unexplained diagnosis

Risk Stratification

OESIL score

- Età > 65 aa 1 p
- Assenza di prodromi 1 p
- ECG anomalo 1 p
- Anamnesi di malattia cv 1 p

score ≥ 2

EGSYS score

- Palpitazioni prima della sincope 4 p
- ECG anomalo o cardiopatia o ambo 3 p
- Sincope da sforzo 3 p
- Sincope in posizione supina 2 p
- Fattori prec/pred o ambo -1 p
- Prodromi di tipo autonomico -1 p

score ≥ 3

Brignole & Shen, 2007 (modificato)
Initial evaluation

- **173 pts (53%)**
  - Diagnosis certain
  - Discharge or Treatment

- **20 pts**
  - Syncope-like condition
  - Refer to Neurology/Psychiatry as appropriate

- **133 pts**
  - Diagnosis suspected or unexplained
  - Syncope facility ("Syncope Unit")

**326 total patients referred from 15 March to 15 September 2008**
Syncope facility ("Syncope Unit")

133 pts

Risk stratification

Oesil score < 2
EGSYS score < 3

- discharged
- 42 pts
- 11 pts

Early assessment in OPD

- 35 Unexplained
- 24 pts

OU 24-48 hrs

- 91 pts

67 Diagnosis Certain

31 Diagnosis Certain

ESC Guidelines on Management of Syncope – Update 2004
Causes of Loss of Consciousness

Data pooled from 4 recent population-based studies (total 1640 patients)

Neurally-Mediated
- Vasovagal
- Carotid Sinus
- Situational
  - Cough
  - Micturition
  - Defaecation
  - Swallow
  - Others

Orthostatic hypotension
- Drug Induced
- ANS Failure
  - Primary
  - Secondary
- Volume depletion

Cardiac Arrhythmia
- Brady
  - Sick sinus
  - AV block
- Tachy
  - VT
  - SVT
- Inherited

Structural Cardio-Pulmonary
- AMI
- Aortic Stenosis
- HOCM
- Pulmonary hypertension
- Others

Non-syncopal
- Metabolic
- Epilepsy
- Intoxications
- Drop-attacks
- Psychogenic
- TIA
- Falls

Unknown Cause = 20%

ESC Guidelines on Management of Syncope – Update 2004
Causes of Loss of Consciousness

541 ED patients

Neurally-Mediated
1. Vasovagal
2. Carotid Sinus
3. Situational
   - Cough
   - Micturition
   - Defaecation
   - Swallow
   - Others

66%

Orthostatic hypotension
2. Drug Induced
3. ANS Failure
   - Primary
   - Secondary
4. Volume depletion

10%

Cardiac Arrhythmia
3. Brady
   - Sick sinus
   - AV block
4. Tachy
   - VT
   - SVT
5. Inherited

11%

Structural Cardio-Pulmonary
4. AMI
   - Aortic Stenosis
5. HOCM
   - Pulmonary hypertension
6. Others

5%

Non-syncopal
5. Metabolic
6. Epilepsy
7. Intoxications
8. Drop-attacks
9. Psychogenic
10. TIA
11. Falls

6%

Unknown Cause = 2%

EGSYS 2 2005