

La Gestione della Sincope in Dipartimento di Emergenza

La Stratificazione del Rischio

Giorgio Costantino



Oggi voglio mangiare...

- Melanzane alla parmigiana!
- Prima cosa decidere cosa vogliamo!



Che rischio dobbiamo stratificare?

- Rischio di aritmie gravi come causa di sincope (posizionamento di PM, defibrillatore)
- Rischio di patologie cardiovascolari acute (dissezione aortica, TEP, SCA)
- Rischio di emorragia acuta
- Rischio di emorragia subaracnoidea
- Rischio di traumi conseguenti a caduta
- Rischio di morte



Stratificare il rischio

- | | |
|------------------------|------------------|
| • Mortalità 10 gg | 0.7% (0.4-1.3) |
| • Mortalità 30 gg | 1.6% (1.2-2.1) |
| • Eventi avversi 10 gg | 6.9% (3.7–12.6) |
| • Eventi avversi 30 gg | 11.4% (5.7–21.5) |

Mortalità a breve termine per polmonite 8%

Solbiati Europace 2015



se non ho troppo tempo per fortuna...



Stratificazione del rischio della sincope: Scores Prognostici

OESIL RISK SCORE

(Colivicchi F et al. Eur Heart J 2003;24:811-819)

- | | |
|--------------------------------------|-----------|
| ✓ età > 65 anni | = 1 punto |
| ✓ storia di malattie cardiovascolari | = 1 punto |
| ✓ sincope senza prodromi | = 1 punto |
| ✓ elettrocardiogramma anomalo | = 1 punto |

ricovero consigliato per score ≥ 2

EGSYS Score

(Del Rosso A, et al. Heart 2008;94:1620-26)

- | | |
|--|------|
| ✓ Palpitations before syncope | (+4) |
| ✓ Abnormal ECG or heart disease | (+3) |
| ✓ Syncope during effort | (+3) |
| ✓ Syncope while supine | (+2) |
| ✓ Autonomic prodrome | (-1) |
| ✓ Predisposing or precipitating factor | (-1) |

ricovero se score ≥ 3



Stratificazione del rischio della sincope: Scores Prognostici

Rose Rule

(Reed M et al. JACC 2010;55:713-21)

- ✓B BNP>300 or
Bradycardia<50 bpm
- ✓R Rectal examination showing fecal occult blood if suspected
- ✓A Anemia (Hb<9g/dl)
- ✓C Chest pain associated with syncope
- ✓E ECG showing Q wave not in lead III
- ✓S Saturation <94% in room air

✓

ricovero se presenza di almeno 1 fattore

San Francisco Syncope Rule

(Quinn JV et al. Ann Emerg Med 2006;47:448-454)

- ✓C Congestive heart failure
- ✓H Haematocrit <30%
- ✓E ECG abnormal
- ✓S Shortness of breath
- ✓S Systolic blood pressure < 90 mm Hg

ricovero se presenza di almeno 1 fattore



Category	Points
Clinical evaluation	
Predisposition to vasovagal symptoms*	-1
History of heart disease†	1
Any systolic pressure reading < 90 or > 180 mm Hg‡	2
Investigations	
Elevated troponin level (> 99th percentile of normal population)	2
Abnormal QRS axis (< -30° or > 100°)	1
QRS duration > 130 ms	1
Corrected QT interval > 480 ms	2
Diagnosis in emergency department	
Vasovagal syncope	-2
Cardiac syncope	2
Total score (-3 to 11)	—

Total score	Estimated risk of serious adverse event,§ %	Risk category
-3	0.4	Very Low
-2	0.7	Very Low
-1	1.2	Low
0	1.9	Low
1	3.1	Medium
2	5.1	Medium
3	8.1	Medium
4	12.9	High
5	19.7	High
6	28.9	Very High
7	40.3	Very High
8	52.8	Very High
9	65.0	Very High
10	75.5	Very High
11	83.6	Very High







Syncope Risk Stratification Tools vs Clinical Judgment: An Individual Patient Data Meta-analysis

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ABSTRACT

BACKGROUND: There have been several attempts to derive syncope prediction tools to guide clinician decision-making. However, they have not been largely adopted, possibly because of their lack of sensitivity and specificity. We sought to externally validate the existing tools and to compare them with clinical judgment, using an individual patient data meta-analysis approach.

METHODS: Electronic databases, bibliographies, and experts in the field were screened to find all prospective studies enrolling consecutive subjects presenting with syncope to the emergency department. Prediction tools and clinical judgment were applied to all patients in each dataset. Serious outcomes and death were considered separately during emergency department stay and at 10 and 30 days after presenting syncope. Pooled sensitivities, specificities, likelihood ratios, and diagnostic odds ratios, with 95% confidence intervals, were calculated.

RESULTS: Thirteen potentially relevant papers were retrieved (11 authors). Six authors agreed to share individual patient data. In total, 3681 patients were included. Three prediction tools (Osservatorio Epidemiologico sulla Sincope del Lazio [OESIL], San Francisco Syncope Rule [SFSR], Evaluation of Guidelines in Syncope Study [EGSYS]) could be assessed by the available datasets. None of the evaluated prediction tools performed better than clinical judgment in identifying serious outcomes during emergency department stay, and at 10 and 30 days after syncope.

CONCLUSIONS: Despite the use of an individual patient data approach to reduce heterogeneity among studies, a large variability was still present. Current prediction tools did not show better sensitivity, specificity, or prognostic yield compared with clinical judgment in predicting short-term serious outcome after syncope. Our systematic review strengthens the evidence that current prediction tools should not be strictly used in clinical practice.

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ORIGINAL RESEARCH

International Validation of the Canadian Syncope Risk Score

A Cohort Study

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Background: The Canadian Syncope Risk Score (CSRS) was developed to predict 30-day serious outcomes not evident during emergency department (ED) evaluation.

Objective: To externally validate the CSRS and compare it with another validated score, the Osservatorio Epidemiologico della Sincope nel Lazio (OESIL) score.

Design: Prospective cohort study.

Setting: Large, international, multicenter study recruiting patients in EDs in 8 countries on 3 continents.

Participants: Patients with syncope aged 40 years or older presenting to the ED within 12 hours of syncope.

Measurements: Composite outcome of serious clinical plus procedural events (primary outcome) and the primary composite outcome excluding procedural interventions (secondary outcome).

Results: Among 2283 patients with a mean age of 68 years, the primary composite outcome occurred in 7.2%, and the composite outcome excluding procedural interventions occurred in 3.1% at 30 days. Prognostic performance of the CSRS was good for both 30-day composite outcomes and better compared with the OESIL score (area under the receiver-operating characteristic curve [AUC] 0.85 [95% CI, 0.83 to 0.88] vs. 0.74 [CI, 0.71 to 0.78] and 0.80 [CI, 0.75 to 0.84] vs. 0.69 [CI, 0.64 to 0.75], respectively). Safety of triage, as measured by the frequency of

the primary composite outcome in the low-risk group, was higher using the CSRS (19 of 1388 [0.6%]) versus the OESIL score (17 of 1104 [1.5%]). A simplified model including only the clinician classification of syncope (cardiac syncope, vasovagal syncope, or other) variable at ED discharge—a component of the CSRS—achieved similar discrimination as the CSRS (AUC, 0.83 [CI, 0.80 to 0.87] for the primary composite outcome).

Limitation: Unable to disentangle the influence of other CSRS components on clinician classification of syncope at ED discharge.

Conclusion: This international external validation of the CSRS showed good performance in identifying patients at low risk for serious outcomes outside of Canada and superior performance compared with the OESIL score. However, clinician classification of syncope at ED discharge seems to explain much of the performance of the CSRS in this study. The clinical utility of the CSRS remains uncertain.

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† For members of the BASEL IX Investigators, see the Appendix (available at Annals.org).



INGREDIENTI

946,7 Kcal

Calorie per porzione

[+info](#)

- Melanzane ovali nere 1,7 kg
- Mozzarella 500 g
- Cipolle dorate 1
- Olio extravergine d'oliva q.b.
- Passata di pomodoro 1 kg
- Parmigiano Reggiano DOP (da grattugiare) 150 g
- Basilico q.b.
- Sale fino q.b.

PER FRIGGERE

- Olio di semi di arachide q.b.



Stratificare il rischio

- Diagnosi presunta
- Caratteristiche dell'episodio sincopale
- Caratteristiche del paziente (compreso ECG)



Caratteristiche dell'episodio sincopale

Alto rischio	Basso rischio
Palpitazioni prima dell'episodio	Prodromi autonomici
Sincope durante esercizio o in posizione supina	Fattori ambientali predisponenti
Dolore toracico, dispnea o desaturazione	Episodi precedenti con caratteristiche simili
Assenza di prodromi o trauma*	



Caratteristiche del paziente

Alto rischio	Basso rischio
Età avanzata*	Giovane età*
ECG anomalo	
Anamnesi positiva per patologia cardiovascolare	
Anamnesi familiare positiva per morte improvvisa in giovane età	



Riscontri all'esame obiettivo

Alto rischio	Basso rischio
Ipotensione clinostatica (<90 mmHg)	Ipotensione ortostatica*
Anomalie all'esame obiettivo (soffi non noti, edemi periferici, aritmie etc)	



Alto rischio

Tachiaritmie sopraventricolari

TV non sostenuta

Bradicardia asintomatica (>40 bpm) senza cause apparenti

BAV I grado ($PR >300$ ms)

BAV II grado Mobitz I (non in atleti o giovani)

Blocco di Branca, IVS deviazione assiale maggiore di -30 o 100

Onde Q

QT lungo o corto o pattern da pre-eccitazione o Brugada o ACM



- Basso rischio: nessun fattore di rischio
- Alto rischio: caratteristiche del paziente e dell'episodio ad alto rischio → diagnosi
- Rischio indeterminato: caratteristiche miste



PREPARAZIONE

COME PREPARARE LA PARMIGIANA DI MELANZANE



Per preparare la parmigiana di melanzane cominciate dal sugo. Pulite e tritate la cipolla **1**, versatela in un tegame dove avrete scaldato l'olio (che copra il fondo). **2**. Lasciatela rosolare per un paio di minuti mescolando spesso per non farla bruciare, poi unite la passata di pomodoro **3**.



Passare da una stratificazione del rischio istantanea a una gestione del rischio



avere sempre a chi chiedere...!

