Should “Confounders” affecting hospital admission and discharge be considered when evaluating the role of hospitalization in syncope prognosis?

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Disclosure none

Background

- Admission rates for adults with syncope range from 12% (Canada), 55% (National U.S) up to 83% (Academic U.S Medical Centers) *(Sun et al; Academic Emergency Medicine, 2012)*

- These inter-country differences are probably due to different approaches to risk stratification or to the possibility to identify an underlying etiology for syncope in ED *(Sandhu RK et al; Canadian Journal of Cardiology, 2016)*

Confounders

Admit or discharge reasons other than syncope

<u>For admission:</u>

- Elderly
- Frailty
- Multiple comorbidities
- Lack of social/familial support

• *Acute disease unrelated to syncope?*

• *Have health insurance* *(L.M. Fischer et al 2013, Brazil)*

<u>For discharge:</u>

- Clinical condition too compromised to be admitted
- Lack of available beds
- Discharge Against Medical Advice (AMA)

Why to search for “Confounders”?

They might create bias in research studies on the role of hospital admission and outcomes.

Aims

- To assess the *main reason for* admitting or discharging of patient with syncope in ED

- To investigate the role of alternative factors not strictly related to syncope in determining the decision of ED physicians i.e. the *"Confounders"*

Study design

- Cross-sectional study in ED
- Consecutive patients (>18 yrs) admitted to ED for syncope
- Five Hospital EDs in Milan metropolitan area (North Italy)
- Enrollment time: up to 2 months *(spring 2017)*

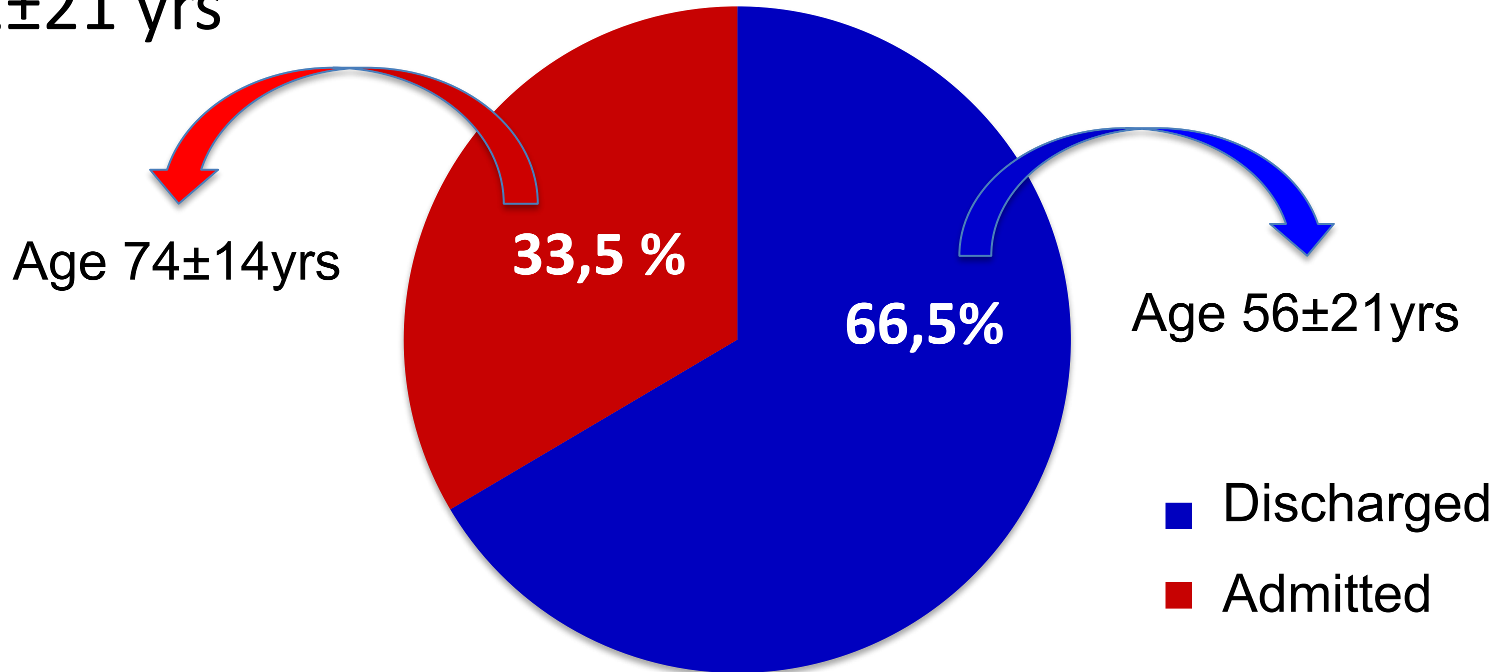
Methods

An anonymous questionnaire to identify the *main final reason* for admit or discharge patients, provided to ED physician by the researchers at the end of each ED syncope clinical workup.

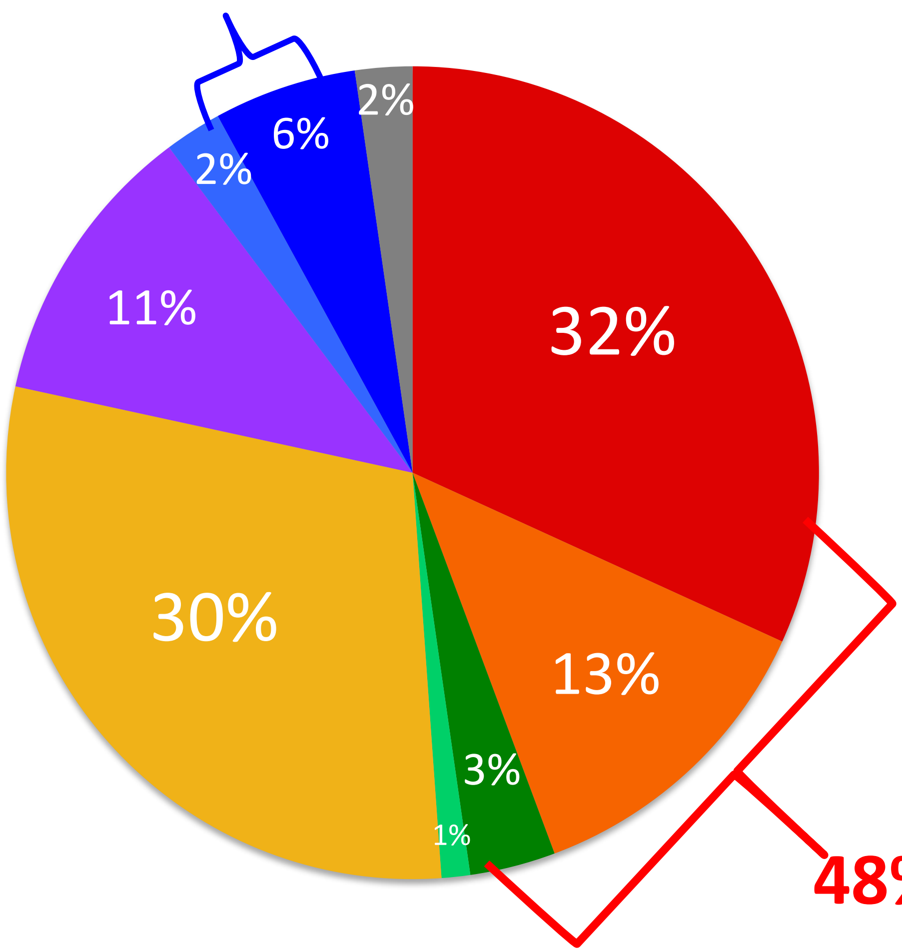
Descriptive statistic analysis.

Results

- 263 patients, 135 (51%) M, 128 (49%)F
- Age 62±21 yrs



Main reason for Hospital admission



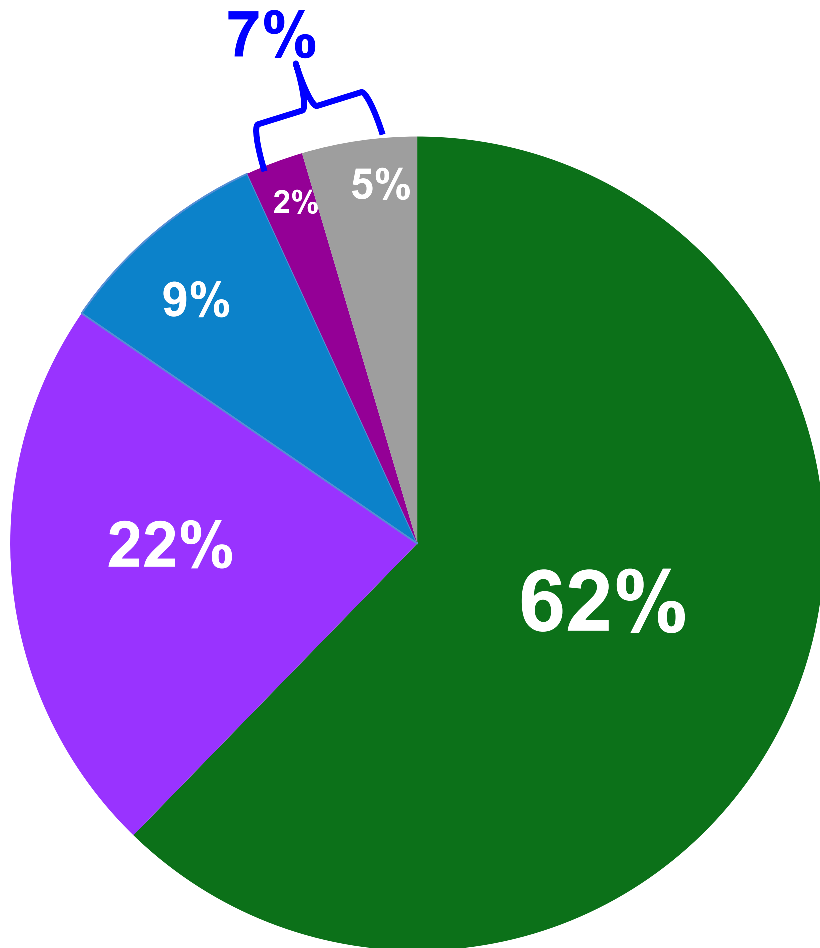
Why admit ?

- Cardiogenic syncope/treatment and observation
- Syncope caused by acute disease diagnosed in ED (i.e. PE, SAH)/treatment and observation
- Carotid sinus syndrome diagnosed in ED/treatment
- Benign syncope with major trauma to be treated
- Undetermined syncope in high risk patient
- Acute disease diagnosed in ED not related to syncope
- Benign syncope in frail patient
- Benign syncope in patient with multiple comorbidities
- Other

None admitted for lack of social/familial support

Main reason for ED discharge

Why discharge ?



- Low risk patient
- No low-risk, diagnostic work-up performed in ED allowed safer discharge
- No low risk, referred to SU
- No low-risk, patients clinically too compromised for admission
- Discharge AMA

None discharged for lack of available beds

Summary

These data indicate that, in Italy, the reasons driving the decision making of ED physicians to admit or discharge patients with syncope are partially unrelated to syncope.

This suggests that “Confounders” should be considered when approaching the role of hospital admission on syncope prognosis.