Early discharge in low-risk patients hospitalized for acute coronary syndromes: feasibility, safety and reasons for prolonged length of stay

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Purpose

- **European Society of Cardiology (ESC) guidelines recommend for the management of ST-segment elevation myocardial infarction (STEMI), early discharge (within approximately 72 hours) in selected patients at low risk of complications, if early rehabilitation and adequate follow-up have been planned (class IIb, level of evidence B).**
- **Early discharge is poorly implemented in clinical practice, with only ¼ to 1/3 early discharge.**
- **The aim of the study is to assess the feasibility, the safety and the reasons of prolonged length of stay.**

Methods

•We analyzed prospectively collected data of patients included in the SPUM-ACS (Special Program University Medicine - Acute Coronary Syndrome) cohort at the Geneva University Hospitals from 1st July 2013 to 30th June 2015

•We classified eligibility for early discharge using the Zwolle index score. The Zwolle index score is a validated and recommended score to identify patients at low risk of complications after ACS, stratifying patients into 2 groups: low risk (≤ 3 points) and high risk (> 3 points).

•We assessed the feasibility, the safety and the reasons of prolonged LHS.

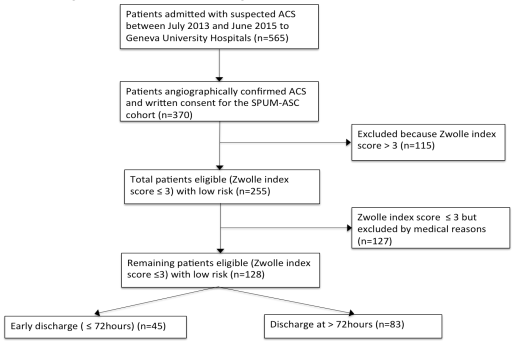
Results

Clinical events at 30 days in 45 ACS patients with early discharge and in 83 ACS patients with standard discharge

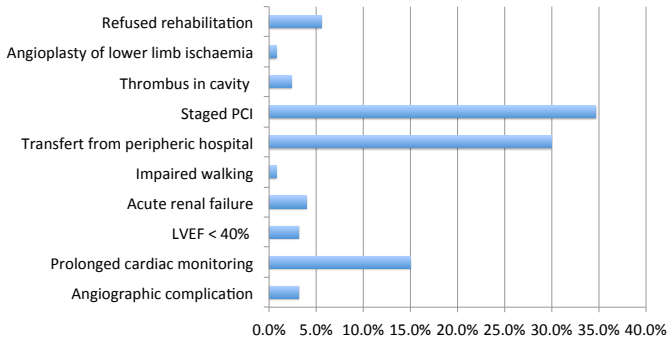
Clinical events at 30 days	Early discharge N=45	Standard discharge N=83	p value
Total	2.2% (n=1)	3.6% (n=3)	p=0.67
Death	0	0	
Myocardial infarction	0	1	
Unplanned revascularization	0	1	
Major bleeding (BARC 3 or 5)	0	0	
Minor bleeding (BARC 2)	1	1	

All clinical events were adjudicated by a panel of three certified cardiologists blinded to the discharge strategy.
8 missing values for clinical events

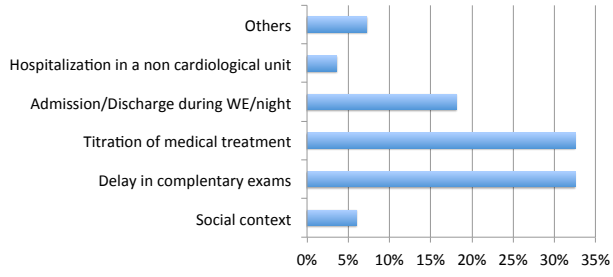
Inclusion process of ACS patients admitted in Geneva University Hospitals between July 2013 and June 2015



Clinical reasons for not applying early discharge in 127 ACS patients with a Zwolle index score ≤ 3 points



Reasons for prolongation of hospitalization in 83 patients with a Zwolle index score ≤ 3 points and without clinical reasons



Conclusions

• Early discharge is successfully performed in 35.1% of ACS patients at low risk of complications in Geneva Universitary Hospital.

• Early discharge appears safe and highly appreciates by the patients.

• The rate of major adverse cardiovascular events at 30 days is of 2.2% (1/45) in early discharge group and 3.6% standard group.

•The leading causes for prolonged hospitalization is a staged procedure (34.6%) with a second coronary lesion requiring PCI, and cardiac monitoring (15.0%).

Acknowledgment/Declaration of Interest

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