ClinicalTrials.gov Protocol Registration and Results System (PRS) Receipt
Release Date: July 3, 2017

ClinicalTrials.gov ID: NCT03208153

Study Identification

Unique Protocol ID:	MOSCA-II
Brief Title:	the Invasive and Conservative Strategies in Elderly Frail Patients With Non-ST Elevation Myocardial Infarction (MOSCA-FRAIL)
Official Title:	Randomized Comparison Between the Invasive and Conservative Strategies in Elderly Frail Patients With Non-ST Elevation Myocardial Infarction: The MOSCA-FRAIL Clinical Trial
Secondary IDs:	

Study Status

Record Verification:	July 2017
Overall Status:	Recruiting
Study Start:	June 30, 2017 [Actual]
Primary Completion:	December 31, 2019 [Anticipated]
Study Completion:	December 31, 2021 [Anticipated]

Sponsor/Collaborators

Sponsor:	University of Valencia
Responsible Party:	Principal Investigator Investigator: Juan Sanchis [jsanchis] Official Title: Professor Affiliation: University of Valencia
Collaborators:	Spanish Society of Cardiology INCLIVA

Oversight

U.S. FDA-regulated Drug:	No
U.S. FDA-regulated Device:	No
U.S. FDA IND/IDE:	No
Human Subjects Review:	Board Status: Approved Approval Number: 25.05.2017 Board Name: CEIC Board Affiliation: UNIVERSITY CLINIC HOSPITAL OF VALENCIA Phone: +3400961973536 Email: mpeiro@incliva.es

Address:

Blasco Ibáñez 17. 46010 Valencia. Spain

Data Monitoring: Yes

FDA Regulated Intervention: No

Study Description

Brief Summary: The role of a routine invasive strategy in frail patients with non-ST-segment elevation acute myocardial infarction is currently uncertain. We hypothesize that a routine invasive strategy will improve outcomes. The aim of the trial is to evaluate the efficacy and safety of a routine invasive strategy in increasing the number of days alive at home during the first year and improving cardiovascular outcomes.

Detailed Description: There is a lack of evidence for the best management of frail patients with non-ST-elevation myoardial infaarction (NSTEMI). Clinical practice guidelines recommend a routine invasive strategy in NSTEMI in the majority of patients (Roffi Eur Heart 2016). Nevertheless, invasive management is underused in frail and patients with comorbidity (Ekerstad Circulation 2011, Sanchis Mayo Clin Proceed 2011, Graham Can J Cardiol 2013,). Furthermore, frail patients undergoing coronary angiography have lower revascularisation rates than non frail counterparts (Ekerstad Circulation 2011, Graham Can J Cardiol 2013). This may be, in part, a reflection of the more complex coronary artery disease, more frequently presenting left main, three vessel disease or proximal coronary artery disease, which may not be amenable to PCI (Singh Circ Cardiovasc Qualit Outco 2011). However, it is also possible that lower rates reflect an aversion to a perceived risk of the intervention in the frail, whereby those with potential to gain benefit may have been deemed not appropriate for coronary intervention. After PCI or cardiac surgery, frailty and comorbidity are associated with adverse long-term outcomes (Singh CircQualitOutco 2011, SundermanEur J Cardio-thoracic Surgery 2011). Comorbid patients, however, could benefit the most from in-hospital revascularization in NSTEMI (Bauer et al Eur Heart J 2007, Palau Clin Cardiol 2012).

A few studies addressed the role of invasive strategy in elderly patients. A routine invasive strategy was not statistically superior to a selective invasive strategy in elderly patients with NSTEMI (Savonito JACC CIV 2012) but the study was underpowered due to the small sample size. The After Eighty randomized trial was a proper-sized study which included patients >80 years with NSTEMI and demonstrated the benefit of the invasive strategy in reducing the composite endpoint of death or cardiovascular events at 1.5 years (Tegn Lancet 2016). It is worth noting that no patient underwent cardiac catheterization under any circumstance in the conservative arm of that study. Furthermore, only 23% of the potential candidates for inclusion were finally randomized, suggesting a bias towards lower risk patients, a very restrictive approach. Recently, the MOSCA randomized trial evaluated the efficacy of an invasive strategy in elderly patients with NSTEMI and comorbidities (Sanchis Eur J Intern Med 2016). Although this was a small trial, the invasive strategy reduced the probability of death or ischemic events at 3 months. This benefit, nonetheless, vanished at 2.5-years follow-up. No clinical trials specifically designed to investigate the management of frail patients in NSTEMI have been conducted so far. In fact, frail patients have usually been excluded from randomized clinical trials. The TRILOGY-ACS trial, for instance, included a remarkably low rate (4.7%) of frail patients (White, Eur Heart J ACC 2016).

On the other hand, while most of the studies mainly focus on death, myocardial infarction, stroke, need for revascularisation or rehospitalisation, patients are also willing to recover an independent life and return to their usual place

for living. The presence of geriatric syndromes (including frailty, cognitive impairment, severe dependence and depression) is not only associated with worse clinical outcomes but with a greater risk of functional decline and need for new social help, that is an increased level of dependence. This has an important impact on the patient quality of life and psychological wellbeing but also frequently becomes a heavy social and economic burden for patients and families. Therefore, one of the real challenges in the management of ACS in very old patients is the prevention of dependence. In this sense, the use of new outcomes especially addressed to measure level of independence and quality of life is especially important (Montilla I, Heart Lung Circ 2016).

The role of a routine invasive strategy in frail patients is currently uncertain. We hypothesize that a routine invasive strategy in frail patients with NSTEMI will improve outcomes. The aim of the trial is to evaluate the efficacy and safety of a routine invasive strategy in increasing the number of days alive at home during the first year and improving cardiovascular outcomes. A prespecified subgroup analysis will be conducted according to comorbidities and Charlson index

Conditions

Conditions: Non-ST Elevation Myocardial Infarction
Frail Elderly Syndrome

Keywords:

Study Design

Study Type: Interventional

Primary Purpose: Treatment

Study Phase: N/A

Interventional Study Model: Parallel Assignment

Number of Arms: 2

Masking: None (Open Label)

Allocation: Randomized

Enrollment: 178 [Anticipated]

Arms and Interventions

Arms	Assigned Interventions
Experimental: Invasive In-hospital routine coronary angiogram and revascularization if anatomically feasible	Procedure/Surgery: Invasive Coronary angiogram and revascularization if anatomically feasible
Active Comparator: Conservative In-hospital coronary angiogram only if poor clinical course	Procedure/Surgery: Conservative Conservative

Outcome Measures

Primary Outcome Measure:

1. number of days alive out of the hospital
   number of days alive out of the hospital

   [Time Frame: 1 year]

2. major adverse cardiac events
   cardiovascular death or myocardial infarction or revascularization

   [Time Frame: 1 year]

Secondary Outcome Measure:

3. all-cause death
   [Time Frame: 1 and 3 years]
4. cardiovascular death
   [Time Frame: 1 and 3 years]
5. myocardial infarction
   [Time Frame: 1 and 3 years]
6. rehospitalization for cardiac and extra-cardiac causes
   [Time Frame: 1 and 3 years]
7. bleeding episodes
   [Time Frame: 1 and 3 years]
8. stroke
   [Time Frame: 1 and 3 years]

Eligibility

Minimum Age:	70 Years
Maximum Age:	
Sex:	All
Gender Based:	No
Accepts Healthy Volunteers:	No
Criteria:	Inclusion Criteria:

- Non-ST-elevation acute myocardial infarction
- Age ≥70 years
- Frailty criteria defined by =>4 points in the Clinical Frailty Scale (Rockwood K CMAJ 2005).

Exclusion Criteria:

- Prior known non-revascularizable coronary artery disease
- Significant concomitant non-ischemic heart disease (i.e. severe heart valve disease, hypertrophic cardiomyopathy…)
- Unable to understand/sign informed consent
- Life expectancy <12 months

Contacts/Locations

Central Contact Person:	Juan Sanchis, Prof Telephone: +34961973807 Email: sanchis_juafor@gva.es
Central Contact Backup:	Marta Peiro, Ph Telephone: +34961973536 Email: mpeiro@incliva.es
Study Officials:	
Locations:	Spain University Clinic Hospital

[Recruiting]
Valencia, Spain, 46010
Contact: Juan Sanchis, Prof +34961973807 sanchis_juafor@gva.es

IPDSharing

Plan to Share IPD: No
No plan

References

Citations: [Study Results] Savonitto S, Cavallini C, Petronio AS, Murena E, Antonicelli R, Sacco A, Steffenino G, Bonechi F, Mossuti E, Manari A, Tolaro S, Toso A, Daniotti A, Piscione F, Morici N, Cesana BM, Jori MC, De Servi S; Italian Elderly ACS Trial Investigators. Early aggressive versus initially conservative treatment in elderly patients with non-ST-segment elevation acute coronary syndrome: a randomized controlled trial. JACC Cardiovasc Interv. 2012 Sep;5(9):906-16. doi: 10.1016/j.jcin.2012.06.008. PubMed 22995877

[Study Results] Tegn N, Abdelnoor M, Aaberge L, Endresen K, Smith P, Aakhus S, Gjertsen E, Dahl-Hofseth O, Ranhoff AH, Gullestad L, Bendz B; After Eighty study investigators. Invasive versus conservative strategy in patients aged 80 years or older with non-ST-elevation myocardial infarction or unstable angina pectoris (After Eighty study): an open-label randomised controlled trial. Lancet. 2016 Mar 12;387(10023):1057-1065. doi: 10.1016/S0140-6736(15)01166-6. Epub 2016 Jan 13. PubMed 26794722

[Study Results] Sanchis J, Núñez E, Barrabés JA, Marín F, Consuegra-Sánchez L, Ventura S, Valero E, Roqué M, Bayés-Genís A, Del Blanco BG, Dégano I, Núñez J. Randomized comparison between the invasive and conservative strategies in comorbid elderly patients with non-ST elevation myocardial infarction. Eur J Intern Med. 2016 Nov;35:89-94. doi: 10.1016/j.ejim.2016.07.003. Epub 2016 Aug 8. PubMed 27423981

[Study Results] Núñez J, Ruiz V, Bonanad C, Miñana G, García-Blas S, Valero E, Núñez E, Sanchis J. Percutaneous coronary intervention and recurrent hospitalizations in elderly patients with non ST-segment acute coronary syndrome: The role of frailty. Int J Cardiol. 2017 Feb 1;228:456-458. doi: 10.1016/j.ijcard.2016.11.151. Epub 2016 Nov 10. PubMed 27870976

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Links:

Available IPD/Information: