

# FOR LIFE AFTER MYOCARDIAL INFARCTION

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INTRODUCTION	BASELINE CHARACTERISTICS				
<p>In the present era of primary PCI, STEMI patients' survival to hospital discharge improved dramatically. Those patients, who survive to hospital discharge, are at risk for early post discharge hospital readmission. Predictors of 30-day readmission for STEMI patients have not been well studied. However, findings underline that readmissions are quite heterogeneous in nature, and some issues can be resolved, not with more medical procedures, but with education and standardized communication. Patients, who have a clear understanding of their after-hospital care instructions, including how to take their medication, a good knowledge of signs and symptoms of the disease, diet and lifestyle requirements, are 30 percent less likely to be readmitted or visit the emergency department than those who lack this information. Optimization of lifestyle factors by quitting smoking, losing weight, eating right and starting an exercise regimen, including optimal medical treatment with anti-platelets and statins, is the cornerstone of early secondary prevention after myocardial infarction. Patients discharged from the hospital with a clear guideline-oriented treatment recommendation, a checklist of measures to ensure risk modification, can better understand the importance of risk modification and lifestyle change.</p> <p><b>PURPOSE</b></p> <p>The aim of a survey is to provide effective nurse assisted patients' education intervention at a discharge from a primary PCI hospital by signing a patient discharge letter followed by complex interventions - education sessions at 1, 6 and 12 month, evaluating patients' adherence to his own contractual risk factors objectives.</p> <p><b>METHODS</b></p> <p>An international survey For Life After Myocardial Infarction (FLAMI) targeting selected European hospitals with an interest in an early secondary prevention after acute myocardial infarction was performed in four countries where effective regional STEMI systems of care are in place: the Czech Republic, Greece, Catalonia (Spain) and Portugal to assess the effect of standardized nurse-assisted educational intervention on STEMI patients' adherence to his own set of modifiable risk factors objectives. Hospitalized STEMI patients were enrolled in the survey during 3 months period, followed by 1, 6, and 12 month follow-up sessions. Post-MI education tool-kit was developed including a patient information brochure, a patient discharge contract, and a nurse checklist. Data were collected using an electronic database. STEMI patients treated by revascularization aged 30 – 85 years were enrolled in three survey groups, prospective educated group, prospective non-educated group and retrospective group. STEMI patients with a cardiogenic shock, resuscitation and/or sever complications and concomitant disorders were excluded from a survey.</p>	PROSPECTIVE EDUCATED n=187	PROSPECTIVE NON-EDUCATED n=140	RETROSPECTIVE n=251	p	
	Age (yrs)	61.6±10.4	65.6±12.5	61.9±11.5	0.079
	Male gender (%)	79.7	65.7	62.2	0.191
	BMI	28.2±4.3	28.6±4.9	28.2±4.6	0.865
	Waist (cm)	102.3±11.8	NA	103.9±13.0	0.843
	Weight (kg)	81.7±13.8	82.5±14.3	84.0±14.3	0.398
	SBP (mmHg)	132.5±20.3	135.8±30.5	136.8.9±24.3	0.744
	DBP (mmHg)	77.9±14.2	79.1±16.2	78.3±14.5	0.886
	Heart rate (min <sup>-1</sup> )	75.2±12.9	76.2±17.5	76.4±15.0	0.789
	Total chol. (mmol/l)	5.0±1.3*	4.5±1.1*	5.0±1.2*	0.018
LDL (mmol/l)	3.3. ±1.0*	2.8±1.0*	3.2±1.1	0.018	
HDL (mmol/l)	1.1±0.3	1.1±0.3	1.1±0.3	0.975	
Tg (mmol/l)	1.3±1.0	1.6±1.4	1.5±1.2	0.194	
Glycaemia (mmol/l)	7.9±3.7*	9.5±4.0*	8.3±3.0	0.012	
Creatinin (µmol/l)	75.6±23.0	84.8±37.3	77.6±21.2	0.079	

PATIENT'S DISCHARGE CONTRACT	PROSPECTIVE EDUCATED GROUP					
	BASELINE	1 MONTH	6 MONTHS	12 MONTHS	P	
	LDL (mmol/l)	3.3±1.0	1.8±0.8*	2.1±1.0*	2.1±0.8*	0.0001
	Smoking (%)	44.4	16.6*	16.1*	17.5*	0.01
	PROSPECTIVE NON-EDUCATED GROUP					
	BASELINE	1 MONTH	6 MONTHS	12 MONTHS	P	
	LDL (mmol/l)	2.8±1.0			2.6±1.0	0.202
Smoking (%)	36.2			21.4	0.02	
	RETROSPECTIVE GROUP					
	BASELINE	1 MONTH	6 MONTHS	12 MONTHS	P	
	LDL (mmol/l)	3.2±1.1			2.3±0.9*	0.0001
Smoking (%)	46.8			18.7	0.01	

RESULTS	DECREASE OF LDL CHOLESTEROL			
<p>We analysed the data from the Czech Republic cohort of STEMI patients included in FLAMI survey, who were hospitalized from January 1st to March 31st 2016 and successfully completed 1, 6 and 12 months follow-up sessions after discharge. Prospective educated (187 patients), prospective non-educated (140 patients) and retrospective (251 patients) groups did not differ in baseline characteristics: age, male gender, weight, BMI, systolic and diastolic blood pressure, heart rate and creatinin. They differed in baseline total cholesterol, LDL cholesterol and in glycaemia.</p>	PRO EDU	PRO NON -EDU	RETRO	P
	LDL (mmol/l)	1.2±1.0*	0.2±1.0*	0.9±0.9

We have observed change of LDL cholesterol at baseline to 1, 6 and 12 months in prospective educated group. Values at 1, 6 and 12 months did not differ. The decrease of LDL cholesterol was higher in prospective educated group vs prospective non-educated group at 12 months follow up. There was a clear decrease of smoking in all 3 groups. All-cause (0% vs 7.9% vs 2.1%) and cardiac mortality (0% vs 7.9% vs 0.7%) were lower (p=0.011) in prospective educated group.

**CONCLUSION**

Standardized nurse assisted education including behavioural intervention and self-awareness program led to higher decrease of LDL cholesterol in patients after MI treated by primary PCI during 12 months follow up period. Findings underline that patient education and standardized communication should become an integral part of the STEMI patients' treatment.