

Long Term STEMI Outcome Data Acquisition

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Long Term STEMI Outcome Data Acquisition

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Abstract: (Background / Objectives)

There is growing interest in the long term clinical outcomes for ST-elevation myocardial infarction (STEMI) patients. Studies aimed at the investigation of elements like drug-eluting stents, bare metal stents as well as the efficacy of a growing number of antiplatelet medications rely on accurate long term outcome data in order to obtain the information on which to base important new emerging cardiac treatments. Establishing a process for obtaining this outcome data is an important part of the care and treatment of the STEMI patient population.

Methods:

(Figure 1) Information is routinely collected from patients by our Health Network's medical contact center called "402-CARE". Nurses in the contact center enter various metrics into a database; these metrics are routinely used by our hospital to better understand the healthcare needs of our community. This pre-existing model was selected to acquire long term follow-up STEMI outcome data.

STEMI patients were identified through our Myocardial Infarction (MI) Alert process as well as our IRB approved retrospective database review of our electronic hospital record. The STEMI Coordinator was responsible for collecting and sending demographic data to 402-CARE on STEMI patients as they entered our system of care. The 402-CARE nurse contacted the patients at 30 days and 1 year post discharge.

The standard protocol to reach patients for the 30 day or 1 year follow-up survey was three attempts by phone. If the patient was not reachable at 30 days or 1 year after discharge, a detailed voice message was left. The 402-CARE nurse introduced themselves, stated the reason for call, and provided a toll free number to return the call for follow-up. For patients without a phone a detailed letter was mailed to the patient requesting a call back to complete the follow-up survey (Figure 1).

The 402-CARE nurse contacted the patients by phone at 30 days post discharge using the demographic data received. Once contact was established with the patient or caregiver a series of eighteen questions (Figure 2) were asked. All data collected as well as any additional comments by the patient/caregiver were recorded into the 402-CARE database. After completion of the 30 day survey the patient was marked for a 1 year follow-up survey.

Figures

Figure 1. 402-CARE STEMI Call Process

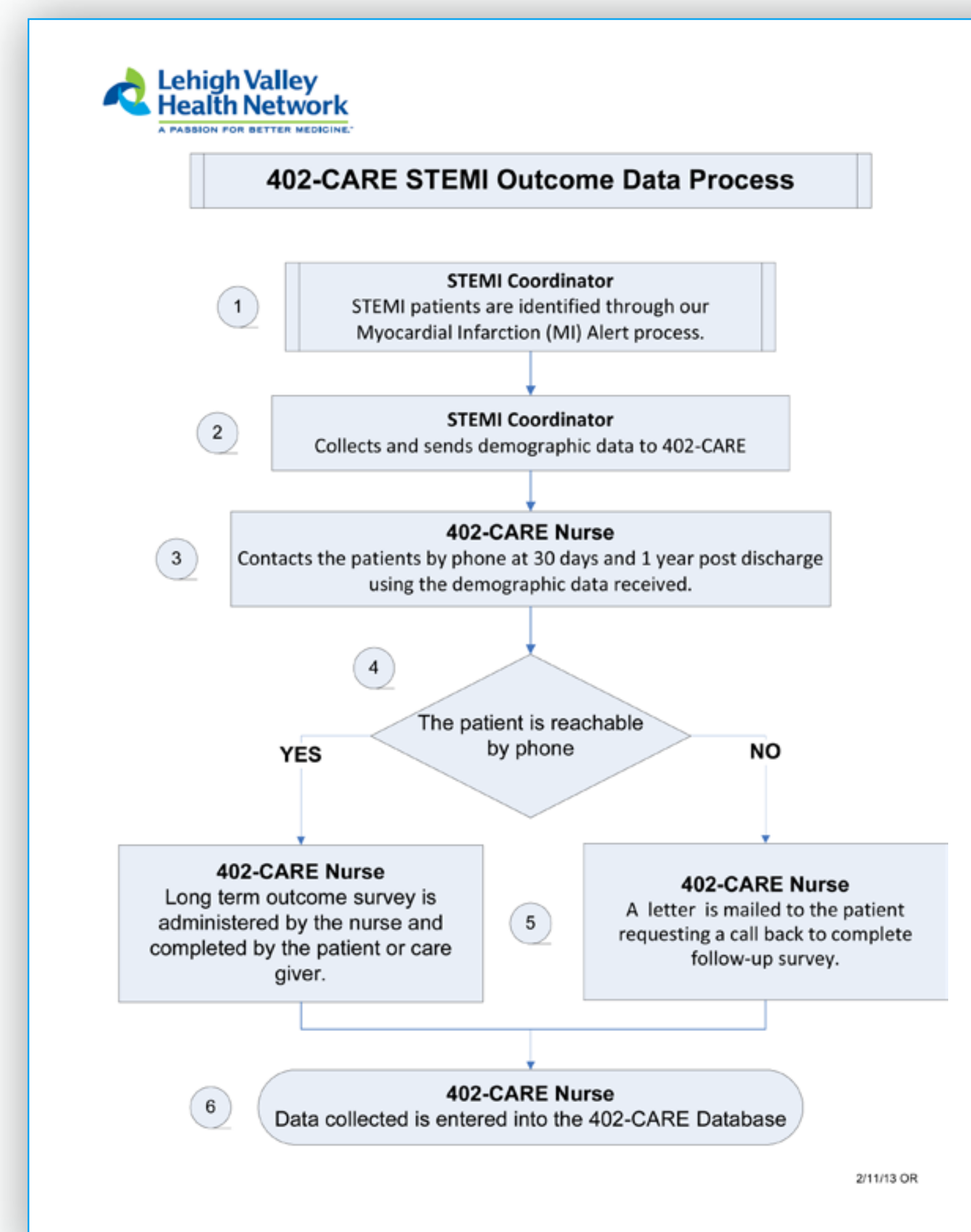
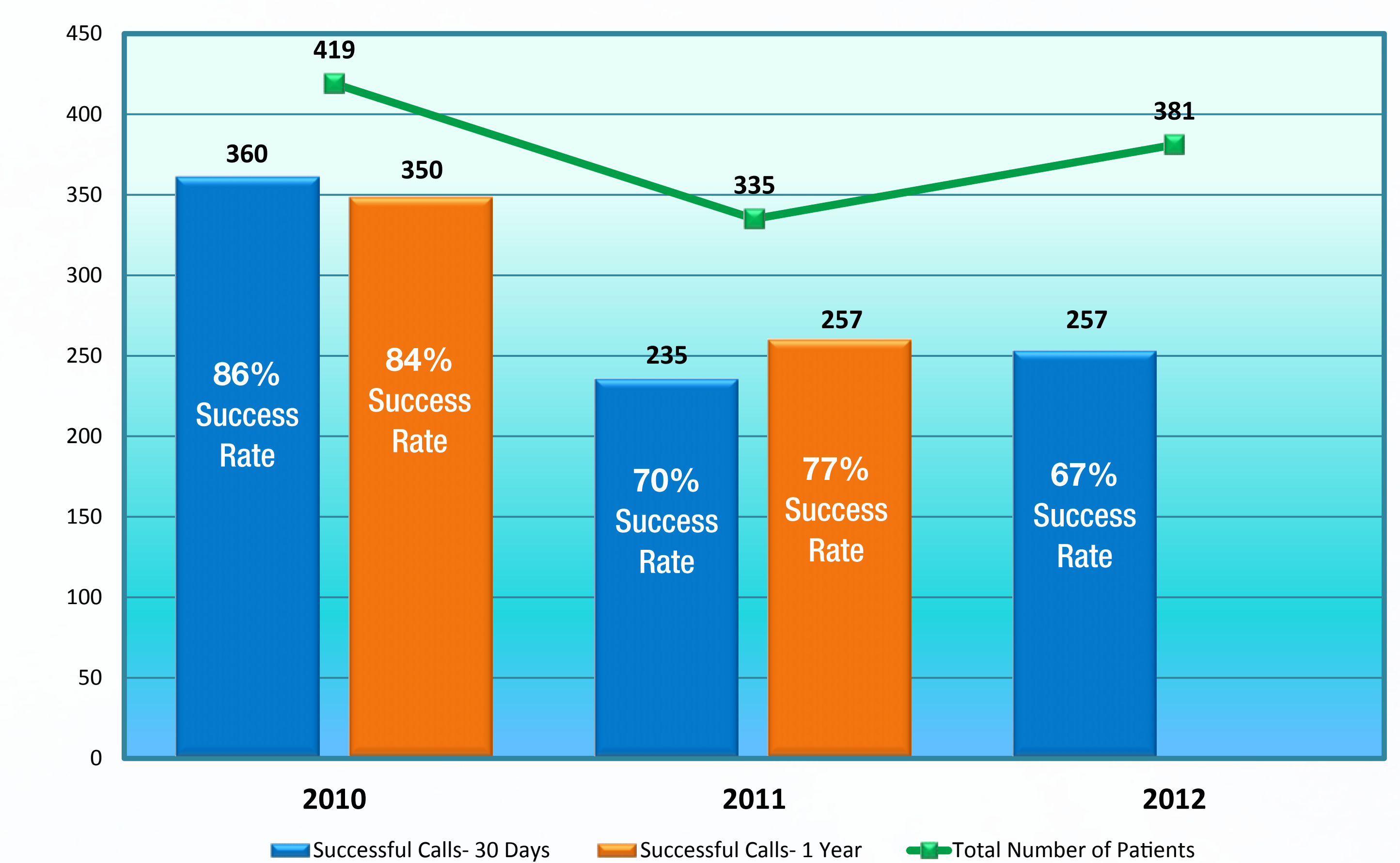


Figure 2. STEMI Survey

STEMI 1 YEAR			
Sequence	Questions & Paragraph Text	Response Type	Skip Logic
Opening Paragraph	Good Morning, afternoon/evening. My name is _____ and I am calling from LVHN. The purpose of my call is to see how you are getting along since you were a patient at our hospital (the following questions will be asked if the patient only).	(Displayed)	
1	May I speak to _____?	Coded "yes/no"	If "Y", SKIP TO 4 If "N", SKIP TO 2
2	If no	Coded "unable to locate/decided not to respond"	
3	If readmitted - diagnosis	Memo (max. length = 500)	
4	Have you had a visit to a hospital emergency room since your hospitalization for more cardiac problems?	Coded "yes/no"	If "Y", SKIP TO 6 If "N", SKIP TO 8
5	If yes, how many times	Coded "1, 2, 3"	
6	Have you readmitted to a hospital with cardiac problems since your hospitalization?	Coded "yes/no"	If "Y", SKIP TO 11
7	If yes, which hospital?	Coded "hospital"	
8	If not admitted to LVHN ask permission for the LVHN attending cardiologist to call patient	Coded "yes/no"	
9	If readmitted to a second hospital, which one?	Coded "hospital"	
10	If not admitted to LVHN ask permission for the LVHN attending cardiologist to call patient	Coded "yes/no"	
11	Have you had another heart catheterization?	Coded "yes/no"	If "N", SKIP TO 13
12	If yes, then did you have a balloon angioplasty or stent placement?	Coded "catheterization"	
13	Did you have heart surgery?	Coded "yes/no"	
14	Have you returned to regular activities?	Coded "yes/no"	If "Y", SKIP TO 16
15	If no, why not?	Memo (max. length = 500)	
16	Did the doctors implant a permanent electronic device? (pacemaker or defibrillator)	Coded "yes/no"	
17	If you were employed before your admission to LVHN have you returned to work?	Coded "yes/no"	
18	Comments	Memo (max. length = 800)	

Figure 3. Success Rate of Long-term Follow-up for STEMI Patients 2010-2012



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Results: (Figure 3)

- 1,113 STEMI patients were contacted by 402-CARE between 2010 and 2012.
- 360 (86%) STEMI patients were successfully surveyed 30 days post discharge in 2010.
- 235 (70%) STEMI patients were successfully surveyed 30 days post discharge in 2011.
- 257 (67%) STEMI patients were successfully surveyed 30 days post discharge in 2012.
- 350 (84%) STEMI patients were successfully surveyed 1 year post discharge in 2010.
- 257 (77%) STEMI patients were successfully surveyed 1 year post discharge in 2011.

Conclusion:

Our results show that using a Medical Contact Center such as 402-CARE can be an effective way to obtain long term outcome data for STEMI patients 30 days and 1 year post hospital discharge. Our model for obtaining long term outcome STEMI data is reproducible and can be implemented by hospitals that currently have a medical contact center model.



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