

# Understanding Ongoing Risk in Patients with a Prior Heart Attack

## THE FACTS

**Heart attacks**, also referred to as myocardial infarctions (MI), are caused by blocked blood flow and decreased oxygen supply to the heart muscle. This can result in damage or death of the heart muscle.<sup>1</sup>

**ONCE YOU'VE HAD A HEART ATTACK, YOU ARE AT HIGHER RISK FOR A RECURRENT CARDIOVASCULAR (CV) EVENT, EVEN AFTER THE FIRST YEAR.<sup>2,3</sup>**

## HEART ATTACKS ARE A SIGNIFICANT BURDEN IN THE UNITED STATES



IN 2015, IT IS ESTIMATED THAT  
**735,000 HEART ATTACKS**  
**WILL OCCUR.<sup>3</sup>**

**210,000 OF THESE HEART ATTACKS**  
**ARE RECURRENT.<sup>3</sup>**



Approximately every **2.5 minutes**, someone in the United States has a recurrent heart attack.<sup>3</sup>

## AFTER A HEART ATTACK, RISK STILL REMAINS

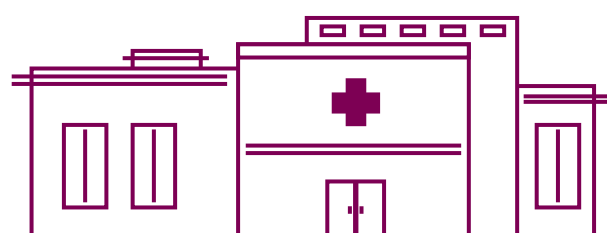


RISK OF A RECURRENT  
CV EVENT OR DEATH IN  
THE FIRST YEAR<sup>3\*, 4\*</sup>



RISK OF A RECURRENT  
CV EVENT IN THE  
SUBSEQUENT 3 YEARS  
IN PATIENTS WHO WERE  
EVENT-FREE 1 YEAR  
POST-HEART ATTACK<sup>4\*</sup>

## KEY RISK FACTORS FOR A REPEATED CV EVENT IN PATIENTS WITH A PRIOR HEART ATTACK INCLUDE:<sup>5-10</sup>



- ✓ Patient characteristics such as older age and smoking
- ✓ Severity of disease
- ✓ Medical history
- ✓ Comorbidities such as diabetes, obesity, dyslipidemia, hypertension, and chronic kidney disease

## PATIENTS WHO HAVE HAD A HEART ATTACK MAY RECEIVE THE FOLLOWING MEDICATIONS FOR LONG-TERM SECONDARY PREVENTION:<sup>11,12</sup>



**HYPOTHESIS:** Could adding a P2Y<sub>12</sub> Inhibitor to the standard of care further reduce recurrent CV risk in patients with a prior heart attack?

Patients should talk to their health care providers about risk factors and how to help lower the risk of having a recurrent heart attack.

ACE Inhibitors: Angiotensin-Converting Enzyme Inhibitors  
ARBs: Angiotensin II Receptor Blockers

\* Data from 3 pooled databases (Framingham Heart Study, Atherosclerosis Risk in Communities, and Cardiovascular Health Study) in patients ≥45 years of age, after their first MI. Incidence in different populations may be higher or lower. From the AHA Heart Disease and Stroke Statistics 2015 Update, a publication of statistics on heart disease, stroke, other vascular disease, and their risk factors from the AHA, CDC, NIH, and other government agencies.

\* The APOLLO HELICON analysis was a retrospective cohort study that included 108,315 patients from a national Swedish registry with a primary diagnosis of acute MI between July 2006 and June 2011. The primary composite end point was risk for non-fatal MI, non-fatal stroke, or CV death. The cumulative 1-year incidence of the primary end point was 18.3%. In patients who were event free (without recurrent MI or stroke) at 1 year, the cumulative incidence of the primary endpoint was 20% after the 3 subsequent years.

## REFERENCES

- American Heart Association. About Heart Attacks. [http://www.heart.org/HEARTORG/Conditions/HeartAttack/AboutHeartAttacks/About-Heart-Attacks\\_UCM\\_002038\\_Article.jsp](http://www.heart.org/HEARTORG/Conditions/HeartAttack/AboutHeartAttacks/About-Heart-Attacks_UCM_002038_Article.jsp). Published October 20, 2012. Accessed July 24, 2015.
- National Heart, Lung, and Blood Institute. Life After a Heart Attack. <http://www.nhlbi.nih.gov/health/health-topics/topics/heartattack/lifeafter>. Published December 17, 2013. Accessed July 9, 2015.
- Mozaffarian D, Benjamin EJ, Go AS, et al. Heart disease and stroke statistics—2015 update: a report from the American Heart Association. *Circulation*. 2015;131(4):e29-e322.
- Jernberg T, Hasvold P, Henriksson M, et al. Cardiovascular risk in post-myocardial infarction patients: nationwide real world data demonstrate the importance of a long-term perspective. *Eur Heart J*. 2015;36:1163-1170.
- Kikkert WJ, Hoehers LP, Damman P, et al. Recurrent myocardial infarction after primary percutaneous coronary intervention for ST-segment elevation myocardial infarction. *Am J Cardiol*. 2014;113:229-235.
- Nakatani D, Sakata Y, Suna S, et al. Incidence, predictors, and subsequent mortality risk of recurrent myocardial infarction in patients following discharge for acute myocardial infarction. *Circ J*. 2013;77:439-446.
- Ulvénstam A, Kajermo U, Modica A, et al. Incidence, trends, and predictors of ischemic stroke 1 year after an acute myocardial infarction. *Stroke*. 2014;45:3263-3268.
- Thune JJ, Signorovitch JE, Kober L, et al. Predictors and prognostic impact of recurrent myocardial infarction in patients with left ventricular dysfunction, heart failure, or both following a first myocardial infarction. *Eur J Heart Fail*. 2011;13:148-153.
- Leander K, Wiman B, Hallqvist J, et al. Primary risk factors influence risk of recurrent myocardial infarction/death from coronary heart disease: results from the Stockholm Heart Epidemiology Program (SHEEP). *Cardiovasc Prev Rehabil*. 2007;14:532-537.
- Rea T, Heckbert S, Kaplan R, et al. Smoking status and risk for recurrent coronary events after myocardial infarction. *Ann Intern Med*. 2002;137:494-500.
- National Heart, Lung, and Blood Institute. How Is a Heart Attack Treated? <http://www.nhlbi.nih.gov/health/health-topics/topics/heartattack/treatment#>. Published December 17, 2013. Accessed September 2, 2015.
- Smith SC Jr, Benjamin EJ, Bonow RO, et al. AHA/ACC secondary prevention and risk reduction therapy for patients with coronary and other atherosclerotic vascular disease: 2011 update: a guideline from the American Heart Association and American College of Cardiology Foundation endorsed by the World Heart Federation and the Preventive Cardiovascular Nurses Association. *J Am Coll Cardiol*. 2011;58(23):2432-2446.