Acute Coronary Syndrome

Care After a Patient Event and Strategies to Improve Adherence

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KEYWORDS

• Ischemic heart disease • Acute coronary syndrome • Myocardial infarction
• Adherence • Compliance

KEY POINTS

- Appropriate and timely medical management of a patient after an ischemic event has occurred is paramount.
- Following current guidelines and recommendations for appropriate testing increases greater accuracy for diagnosis, and appropriate office follow-up is key.
- Methods to improve patient adherence to medical and lifestyle change recommendations greatly impact overall success and improvement in wellness.

A 62-year-old man presents to you as his primary care provider 1 month after requiring 2 stents in his left anterior descending coronary artery. His history is significant for hypertension and hypercholesterolemia, both of which have been somewhat poorly controlled because of the patient's admitted noncompliance with strictly adhering to his medication regimen and routine office visits. He also continues to smoke a pack of cigarettes daily. This scenario is relatively common, and it is vital that the provider understand the current recommendations for managing a patient after a myocardial infarction (MI). Equal importance should also be placed on understanding the barriers to treatment adherence and to the methods that can be used to overcome these barriers and improve long-term outcomes.

MEDICATION THERAPY IN THE POST–MYOCARDIAL INFARCTION OR POSTINTERVENTION PATIENT

Antiplatelet therapy is crucial to the successful outcome of a patient after a recent event. If the patient had not previously been on aspirin, it should be started immediately

Disclosure Statement: Nothing to disclose.
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Physician Assist Clin 2 (2017) 623–631
http://dx.doi.org/10.1016/j.cpha.2017.06.005 **physicianassistant.theclinics.com**

and continued indefinitely, assuming there are no allergy or bleeding complications. A dose of 75 to 81 mg daily can be as effective as 325 mg in secondary prevention without the increased risk of gastrointestinal bleeding associated with the higher dose. In addition to aspirin, either clopidogrel, 75 mg daily, or ticagrelor, 90 mg twice daily, should be started and ideally maintained for 12 months. These recommendations are the same regardless of whether the patient is male or female or whether the event was managed medically or a stent was placed. Patients undergoing a coronary artery bypass graft (CABG) should have clopidogrel or ticagrelor restarted if they had been on it before the procedure; however, there is less convincing evidence for initiating one of these agents after CABG. Currently, clopidogrel has a class IIb (may be reasonable) recommendation, and ticagrelor has no recommendation. The preferred agent for patients with chronic kidney disease is ticagrelor. Patients with atrial fibrillation or heart valve replacements that require anticoagulation therapy should be prescribed a proton pump inhibitor, and a reduction in the 12-month timeframe for clopidogrel or ticagrelor should be considered. If there is an allergy or gastrointestinal intolerability to aspirin, clopidogrel or ticagrelor at the same dosing is recommended.[1–3]

Antihypertensive medication selection requires careful consideration. The most recent recommendations from the Joint National Committee, Detection, Evaluation, and Treatment of High Blood Pressure (JNC7) advises a systolic blood pressure of less than 140/90 mm Hg for most patients with the exception of those who also have diabetes or chronic kidney disease, in which case, the target should be lowered to less than 130/80 mm Hg. More intensive lowering has not been found to improve outcomes.

- A β-blocker (carvedilol, metoprolol succinate, or bisoprolol) is recommended for all patients unless contraindicated. The choice of additional agents is largely based on what additional medical history a patient has.
- An angiotensin-converting enzyme inhibitor should be added in patients with a recent MI who also have underlying hypertension, diabetes, heart failure, or a left ventricular ejection fraction of less than 40%.
- An angiotensin receptor blocker is an adequate substitute if an angiotensin-converting enzyme inhibitor is not tolerated.
- A calcium channel blocker other than verapamil or diltiazem, added to a regimen, may be beneficial for patients with angina.

In many cases, more than one medication may be required to adequately control blood pressure or angina symptoms. When a dosage adjustment is required, the β-blocker dose should be maximized before adjustment of any other medication.[1,3]

Diabetes should be managed with a target hemoglobin A1c of less than 7%, but a range of 7% to 9% is acceptable in some cases. The results of one study showed that metformin was superior to insulin plus a sulfonylurea with regard to complications related to diabetes, MI, and death. Patients whose blood sugars were well controlled before a cardiac event, should be maintained on their original medications with the possible exception of those taking rosiglitazone. Studies have found an increase in cardiovascular complications associated with this thiazolidinedione, and it is therefore advised against starting it in patients with ischemic heart disease. Those whose conditions were well controlled with the medication before a cardiac event might be maintained on it, but a discussion with the patient regarding potential adverse effects should be had, and it is advised to strongly consider use of a different medication.[1]

Nitroglycerine sublingual tablets or spray should be prescribed for all patients who have had an event to be used for angina episode relief or preactivity prevention of angina as needed. The patient should be aware that the tablets need to be kept in