

# ED chest pain units and physician discretion may lower stress test use

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Rhode Island Hospital physicians report that managing chest pain patients within an emergency department chest pain unit by both emergency medicine staff and cardiologists is safe and effective and may lower the use of stress testing. A new study indicates that when patients were jointly managed and when stress testing was largely at the discretion of a cardiologist, stress testing use was lower and there was a low rate of 30-day major cardiac events. The study is published online in advance of print in *Clinical Pathways in Cardiology*.

Heart disease is the leading cause of death in the United States. Lead author Anthony Napoli, M.D., an emergency medicine physician and medical director of the Rhode Island Hospital chest pain unit, says that overall mortality has improved and advances have been made in the treatment of cardiovascular disease. However, the most efficient and effective management of patients with undifferentiated chest pain in the emergency department has remained elusive.

Napoli says, "There continue to be "miss rates" of two percent in diagnosing [acute myocardial infarction](#) (AMI) or unstable angina in patients discharged from the emergency department. Even patients with undifferentiated chest pain who are admitted to the hospital may still have significant adverse events within one year."

During the past decade, there has been a rise in chest pain units (CPUs) and protocols surrounding the management of patients for the treatment of undifferentiated chest pain. The CPUs have been shown to provide

efficient and cost-effective care driven by guidelines. The protocols vary widely, but typically include some form of stress testing. These non-selective approaches are associated with relatively low rates of abnormal [stress tests](#), ranging from seven to 14 percent. Even in very low-risk patient populations, some groups have recommended very liberal use of stress testing and evaluation by a cardiologist is often reserved for those patients with positive stress tests only. As a result, the lower rates of missed AMI and [unstable angina](#) are likely the result of liberal use of stress testing.

With this in mind, Napoli and his colleagues conducted an observational study within the Rhode Island Hospital [emergency department](#), a Level I trauma center with a chest pain unit (CPU). Their goal was to determine whether selective use of stress testing in a CPU managed jointly by emergency physicians and [cardiologists](#) was associated with a low incidence of 30-day major adverse [cardiac events](#) while maintaining a low stress test utilization rate.

During an eight-month period, 1,063 patients were included in the study. Napoli says, "To our knowledge, this is one of the largest single center observational trials of 30-day adverse events of CPU patients to date. We found only 51 percent of the patients received a stress test, with very few adverse events."

Napoli adds, "We believe that patients who are seen for chest pain may benefit from the protocol that is used in the Rhode Island Hospital CPU, and this may lower the cost of care through more selective stress test utilization."

Provided by Lifespan

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