

Missed acute myocardial infarction in the emergency department-standardizing measurement of misdiagnosis-related harms using the SPADE method.

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Sharp AL, Baecker A, Nassery N, et al. Missed acute myocardial infarction in the emergency department—standardizing measurement of misdiagnosis-related harms using the SPADE method. *Diagnosis (Berl)*. 2021;8(2):177-186. doi:10.1515/dx-2020-0049.

<https://psnet.ahrq.gov/issue/missed-acute-myocardial-infarction-emergency-department-standardizing-measurement>

The symptom-disease pair analysis of diagnostic error approach, or [SPADE approach](#), measures [diagnostic errors](#) resulting in adverse events using two analytic pathways – the ‘look back’ analysis identifies symptoms associated with adverse events and identifies the symptom-specific harm rate per hospitalization and the ‘look forward’ analysis measures the disease-specific harm rate per symptomatic discharge. Using data from 2009 to 2017, this retrospective analysis looked at Emergency Department (ED) visits within 30 days of a hospitalization for acute myocardial infarction (AMI) to identify symptoms linked to probable missed diagnoses. Within 30 days of a subsequent hospitalization for AMI, common ED discharge diagnoses included chest pain and dyspnea, representing 574 probable missed AMIs. The authors estimate that these results correspond to approximately 10,000 potentially-preventable harms annually in the United States.