

Table of Contents

1	Abbreviations	4
2	Abstract	6
3	Introduction	7
3.1	Coronary Artery Disease	7
3.2	Acute Myocardial Infarction	9
3.3	Acute Coronary Syndrome	11
3.4	Diagnosis of Acute Myocardial Infarction	13
3.5	History and Physical Examination	14
3.6	Differential Diagnosis of Acute Chest Pain	15
3.7	Electrocardiography (ECG)	16
3.8	Biomarker of Cardiomyocyte Damage	17
3.9	Troponin	19
3.10	Differential Diagnosis of Troponin Increase	21
3.11	Copeptin	22
3.12	Aim of the Study	23
4	Methods	24
4.1	Study Design and Population	24
4.2	Routine Clinical Assessment	24
4.3	Adjudicated Final Diagnosis and clinical endpoints	25
4.4	Measurement of hs-cTnI and hs-cTnT concentrations	26
4.5	Fourteen rapid rule-out strategies	27
4.6	Statistical analysis	28
5	Results	30
5.1	Patient characteristics	30
5.2	Performance of the seven rule-out strategies using hs-cTnT	33
5.3	Performance of the seven rule-out strategies using hs-cTnI	33
5.4	Prognostic performance of rule-out strategies by 30-day MACE	34
5.5	Subgroup analysis in early presenting patients	34
6	Discussion	41
7	Acknowledgments	44
8	References	45
9	Deklaration	49