

Search strategies of literature databases

Search strings

1. PubMed (MEDLINE & PMC)

#1: (("st elevat*[Title/Abstract] OR "st segment"[Title/Abstract] OR "with st segment"[Title/Abstract] OR "with st elevat*[Title/Abstract] OR "Q-Wave"[Title/Abstract]) AND ("Myocardial Ischemia"[MeSH Terms:noexp] OR "myocardial isch*[Title/Abstract] OR "myocardial infarction"[MeSH Terms:noexp] OR "myocardial infarction*[Title/Abstract] OR "acute coronary syndrome*[Title/Abstract] OR "ACS"[Title/Abstract] OR "acute coronary syndrome"[MeSH Terms] OR "ischemic syndrome*[Title/Abstract] OR "coronary disease"[MeSH Terms] OR "coronary disease*[Title/Abstract] OR "coronary artery disease*[Title/Abstract])) OR "non st elevated myocardial infarction"[MeSH Terms] OR "st elevation myocardial infarction"[MeSH Terms] OR "STEMI"[Title/Abstract] OR "STEACS"[Title/Abstract] OR "STE-ACS"[Title/Abstract] OR "Q-wave-MI"[Title/Abstract] OR "acute myocardial Infarction"[Title/Abstract] OR "chest pain"[Title/Abstract] OR "unstable angina*[Title/Abstract] OR "angina, unstable"[MeSH Terms]

#2: "catheterization lab*[Title/Abstract] OR "Catheterization team"[Title/Abstract] OR "cath lab*[Title/Abstract] OR "pci lab*[Title/Abstract] OR "catheter lab*[Title/Abstract] OR "heart cent*[Title/Abstract] OR "heart team*[Title/Abstract] OR "catheterization capab*[Title/Abstract] OR (("first medical contact"[Title/Abstract] OR "FMC"[Title/Abstract]) AND ("balloon"[Title/Abstract] OR "device"[Title/Abstract] OR "PCI"[Title/Abstract] OR "percutaneous coronary"[Title/Abstract] OR "reperfusion"[Title/Abstract])) OR ("door-to-balloon"[Title/Abstract] OR "D2BT"[Title/Abstract] OR "DTBT"[Title/Abstract] OR "door-to-catheter"[Title/Abstract] OR "door-to-PCI"[Title/Abstract] OR "door-to-device"[Title/Abstract] OR "door-to-reperfusion"[Title/Abstract] OR "door-to-wire"[Title/Abstract] OR "D2B"[Title/Abstract] OR "DTB"[Title/Abstract]) OR ("PCI"[Title/Abstract] OR "percutaneous coronary intervention"[MeSH Terms] OR "percutaneous coronary intervention*[Title/Abstract] OR "percutaneous intervention*[Title/Abstract] OR "PTCA"[Title/Abstract] OR "revascularization"[Title/Abstract] OR "Myocardial Revascularization"[MeSH Terms:noexp] OR "angioplast*[Title/Abstract] OR "angioplasty"[MeSH Terms] OR "atherectomy"[MeSH Terms] OR "atherectom*[Title/Abstract] OR "invasive management"[Title/Abstract] OR "invasive strateg*[Title/Abstract] OR "Coronary Artery Bypass"[MeSH Terms] OR "Bypass grafting"[Title/Abstract] OR "CABG"[Title/Abstract] OR "early percutaneous"[Title/Abstract] OR "early invasive"[Title/Abstract] OR "primary invasive"[Title/Abstract] OR "early coronary artery bypass*[Title/Abstract] OR "early aortocoronary bypass*[Title/Abstract] OR "primary coronary artery bypass*[Title/Abstract] OR "primary aortocoronary bypass*[Title/Abstract] OR "early reperfusion therapy"[Title/Abstract] OR "reflow"[Title/Abstract])

#3: #1 or #2

#4: "emergency medical services"[MeSH Terms:noexp] OR "ambulances"[MeSH Terms] OR "air ambulances"[MeSH Terms] OR "transportation of patients"[MeSH Terms:noexp] OR "emergency medical service*[Title/Abstract] OR "emergency service*[Title/Abstract] OR "ems system*[Title/Abstract] OR "emergency health service"[Title/Abstract] OR "prehospital emergency*[Title/Abstract] OR "Prehospital EMS"[Title/Abstract] OR "doctor car*[Title/Abstract] OR "rapid response car"[Title/Abstract] OR "rapid response vehicle"[Title/Abstract] OR "helicopter emergency"[Title/Abstract] OR "HEMS"[Title/Abstract] OR "ambulance*[Title/Abstract] OR "SMUR"[Title/Abstract] OR "physician-staffed"[Title/Abstract] OR "physician response vehicle*[Title/Abstract] OR "emergency medical technician*[Title/Abstract] OR "EMT"[Title/Abstract] OR "EMT-P"[Title/Abstract] OR "paramedic*[Title/Abstract] OR "emergency responder*[Title/Abstract] OR "nurse*[Title/Abstract] OR

"paramedics"[MeSH Terms] OR "emergency technician*" [Title/Abstract] OR "Nurses"[MeSH Terms:noexp] OR "rescue personnel"[Title/Abstract] OR "Emergency Responders"[MeSH Terms:noexp] OR "prehospital"[Title/Abstract] OR "pre-hospital"[Title/Abstract] OR "out-of-hospital"[Title/Abstract]

#5: "Electrocardiography"[MeSH Terms:noexp] OR "electrocardiogra*" [Title/Abstract] OR "ECG"[Title/Abstract] OR "EKG"[Title/Abstract] OR "cardioscope*" [Title/Abstract] OR "mobile app*" [Title/Abstract] OR "smartphone*" [Title/Abstract] OR "tablet app*" [Title/Abstract] OR "iphone*" [Title/Abstract] OR "ipad*" [Title/Abstract] OR "android*" [Title/Abstract] OR "Mobile Applications"[MeSH Terms] OR "Software"[MeSH Terms:noexp]

#6: "prehospital electrocardiogra*" [Title/Abstract] OR "pre hospital electrocardiogra*" [Title/Abstract] OR "Prehospital ECG"[Title/Abstract] OR "Pre-hospital ECG"[Title/Abstract] OR "PH-ECG"[Title/Abstract] OR "out-of-hospital ECG"[Title/Abstract] OR "PHECG"[Title/Abstract]

#7: (#4 AND #5) OR #6

#8: #3 AND #7

2. Web of Science (Science Citation Index Expanded(SCIE))

#1: (((TS="st elevat*") OR (TS="st segment") OR (TS="with st segment") OR (TS="with st elevat*") OR (TS=Q-Wave)) AND ((TS="myocardial isch*") OR (TS="myocardial infarcTson*") OR (TS="acute coronary syndrome*") OR (TS=ACS) OR (TS="ischemic syndrome*") OR (TS="coronary disease*") OR (TS="coronary artery disease*"))) OR (TS=STEMI) OR (TS=STEACS) OR (TS=STE-ACS) OR (TS=Q-wave-MI) OR (TS="acute myocardial InfarcTson") OR (TS="chest pain") OR (TS="unstable angina*")

#2: (TS="catheterizaTson lab*") OR (TS="CatheterizaTson team") OR (TS="cath lab*") OR (TS="pci lab*") OR (TS="catheter lab*") OR (TS="heart cent*") OR (TS="heart team*") OR (TS="catheterizaTson capab*") OR (((TS="first medical contact") OR (TS=FMC)) AND ((TS=balloon) OR (TS=device) OR (TS=PCI) OR (TS="percutaneous coronary") OR (TS=reperfusion))) OR ((TS=door-to-balloon) OR (TS=D2BT) OR (TS=DTBT) OR (TS=door-to-catheter) OR (TS=door-to-PCI) OR (TS=door-to-device) OR (TS=door-to-reperfusion) OR (TS=door-to-wire) OR (TS=D2B) OR (TS=DTB)) OR ((TS=PCI) OR (TS="percutaneous coronary intervenTson*") OR (TS="percutaneous intervenTson*") OR (TS=PTCA) OR (TS=revascularizaTson) OR (TS=angioplast*) OR (TS=atherectom*) OR (TS="invasive management") OR (TS="invasive strateg*") OR (TS="Bypass grafTsnng") OR (TS=CABG) OR (TS="early percutaneous") OR (TS="early invasive") OR (TS="primary invasive") OR (TS="early coronary artery bypass*") OR (TS="early aortocoronary bypass*") OR (TS="primary coronary artery bypass*") OR (TS="primary aortocoronary bypass*") OR (TS="early reperfusion therapy") OR (TS=reflow))

#3: #1 OR #2

#4: (TS="emergency medical service*") OR (TS="emergency service*") OR (TS="ems system*") OR (TS="emergency health service") OR (TS="prehospital emergency*") OR (TS="Prehospital EMS") OR (TS="doctor car*") OR (TS="rapid response car") OR (TS="rapid response vehicle") OR (TS="helicopter emergency") OR (TS=HEMS) OR (TS=ambulance*) OR (TS=SMUR) OR (TS=physician-staffed) OR (TS="physician response vehicle*") OR (TS="emergency medical technician*") OR (TS=EMT) OR (TS=EMT-P) OR (TS=paramedic*) OR (TS="emergency responder*") OR (TS=nurse*) OR (TS="emergency technician*") OR (TS="rescue personnel") OR (TS=prehospital) OR (TS=pre-hospital) OR (TS=out-of-hospital)

#5: (TS=electrocardiogra*) OR (TS=ECG) OR (TS=EKG) OR (TS=cardioscope*) OR (TS="mobile app*") OR (TS=smartphone*) OR (TS="tablet app*") OR (TS=iphone*) OR (TS=ipad*) OR (TS=android*) OR (TS=Software*)

#6: (TS="prehospital electrocardiogra*") OR (TS="pre hospital electrocardiogra*") OR (TS="Prehospital ECG") OR

(TS="Pre-hospital ECG") OR (TS=PH-ECG) OR (TS="out-of-hospital ECG") OR (TS=PHECG)

#7: (#4 AND #5) OR #6

#8: #3 and #7

3. Cochrane Library (Cochrane Central Register of Controlled Trials(CENTRAL))

#1: (((("st" NEXT elevat*):ti,ab,kw OR "st segment":ti,ab,kw OR "with st segment":ti,ab,kw OR ("with st" NEXT elevat*):ti,ab,kw OR Q-Wave:ti,ab,kw) AND ([mh ^"Myocardial Ischemia"] OR ("myocardial" NEXT isch*):ti,ab,kw OR [mh ^"myocardial infarction"] OR ("myocardial" NEXT infarction*):ti,ab,kw OR ("acute coronary" NEXT syndrome*):ti,ab,kw OR ACS:ti,ab,kw OR [mh "acute coronary syndrome"] OR ("ischemic" NEXT syndrome*):ti,ab,kw OR [mh "coronary disease"] OR ("coronary" NEXT disease*):ti,ab,kw OR ("coronary artery" NEXT disease*):ti,ab,kw)) OR [mh "non st elevated myocardial infarction"] OR [mh "st elevation myocardial infarction"] OR STEMI:ti,ab,kw OR STEACS:ti,ab,kw OR STE-ACS:ti,ab,kw OR Q-wave-MI:ti,ab,kw OR "acute myocardial Infarction":ti,ab,kw OR "chest pain":ti,ab,kw OR ("unstable" NEXT angina*):ti,ab,kw OR [mh "angina, unstable"]

#2: ("catheterization" NEXT lab*):ti,ab,kw OR "Catheterization team":ti,ab,kw OR ("cath" NEXT lab*):ti,ab,kw OR ("pci" NEXT lab*):ti,ab,kw OR ("catheter" NEXT lab*):ti,ab,kw OR ("heart" NEXT cent*):ti,ab,kw OR ("heart" NEXT team*):ti,ab,kw OR ("catheterization" NEXT capab*):ti,ab,kw OR (("first medical contact":ti,ab,kw OR FMC:ti,ab,kw) AND (balloon:ti,ab,kw OR device:ti,ab,kw OR PCI:ti,ab,kw OR "percutaneous coronary":ti,ab,kw OR reperfusion:ti,ab,kw)) OR ("door to balloon":ti,ab,kw OR D2BT:ti,ab,kw OR DTBT:ti,ab,kw OR "door to catheter":ti,ab,kw OR "door to PCI":ti,ab,kw OR "door to device":ti,ab,kw OR "door to reperfusion":ti,ab,kw OR "door to wire":ti,ab,kw OR D2B:ti,ab,kw OR DTB:ti,ab,kw) OR (PCI:ti,ab,kw OR [mh "percutaneous coronary intervention"] OR ("percutaneous coronary" NEXT intervention*):ti,ab,kw OR ("percutaneous" NEXT intervention*):ti,ab,kw OR PTCA:ti,ab,kw OR revascularization:ti,ab,kw OR [mh ^"Myocardial Revascularization"] OR angioplast*:ti,ab,kw OR [mh angioplasty] OR [mh atherectomy] OR atherectom*:ti,ab,kw OR "invasive management":ti,ab,kw OR ("invasive" NEXT strateg*):ti,ab,kw OR [mh "Coronary Artery Bypass"] OR "Bypass grafting":ti,ab,kw OR CABG:ti,ab,kw OR "early percutaneous":ti,ab,kw OR "early invasive":ti,ab,kw OR "primary invasive":ti,ab,kw OR ("early coronary artery" NEXT bypass*):ti,ab,kw OR ("early aortocoronary" NEXT bypass*):ti,ab,kw OR ("primary coronary artery" NEXT bypass*):ti,ab,kw OR ("primary aortocoronary" NEXT bypass*):ti,ab,kw OR "early reperfusion therapy":ti,ab,kw OR reflow:ti,ab,kw)

#3: #1 OR #2

#4: [mh ^"emergency medical services"] OR [mh ambulances] OR [mh "air ambulances"] OR [mh ^"transportation of patients"] OR ("emergency medical" NEXT service*):ti,ab,kw OR ("emergency" NEXT service*):ti,ab,kw OR ("ems" NEXT system*):ti,ab,kw OR "emergency health service":ti,ab,kw OR ("prehospital" NEXT emergency*):ti,ab,kw OR "Prehospital EMS":ti,ab,kw OR ("doctor" NEXT car*):ti,ab,kw OR "rapid response car":ti,ab,kw OR "rapid response vehicle":ti,ab,kw OR "helicopter emergency":ti,ab,kw OR HEMS:ti,ab,kw OR ambulance*:ti,ab,kw OR SMUR:ti,ab,kw OR physician-staffed:ti,ab,kw OR ("physician response" NEXT vehicle*):ti,ab,kw OR ("emergency medical" NEXT technician*):ti,ab,kw OR EMT:ti,ab,kw OR EMT-P:ti,ab,kw OR paramedic*:ti,ab,kw OR ("emergency" NEXT responder*):ti,ab,kw OR nurse*:ti,ab,kw OR [mh paramedics] OR ("emergency" NEXT technician*):ti,ab,kw OR [mh ^Nurses] OR "rescue personnel":ti,ab,kw OR [mh ^"Emergency Responders"] OR prehospital:ti,ab,kw OR pre-hospital:ti,ab,kw OR out-of-hospital:ti,ab,kw

#5: [mh ^Electrocardiography] OR electrocardiogra*:ti,ab,kw OR ECG:ti,ab,kw OR EKG:ti,ab,kw OR cardioscope*:ti,ab,kw OR ("mobile" NEXT app*):ti,ab,kw OR smartphone*:ti,ab,kw OR ("tablet" NEXT app*):ti,ab,kw OR iphone*:ti,ab,kw OR ipad*:ti,ab,kw OR android*:ti,ab,kw OR [mh "Mobile Applications"] OR [mh ^Software]

#6: ("prehospital" NEXT electrocardiogra*):ti,ab,kw OR ("pre hospital" NEXT electrocardiogra*):ti,ab,kw OR "Prehospital ECG":ti,ab,kw OR "Pre hospital ECG":ti,ab,kw OR "PH ECG":ti,ab,kw OR "out of hospital ECG":ti,ab,kw OR PHECG:ti,ab,kw

#7: (#4 AND #5) OR #6

#8: #3 AND #7

Author	Year	Journal	Country	No. sites	No. patients	Age	% Male	% mortality	Mean D2B, min
Nelson	2025	Prehosp Emerg Care	USA		1852 vs 1301	65.2	67.4%	No data	55 vs 74.5
Wei	2024	Technol Health Care	China	1	73 vs. 217	56/62	58.9% vs 69.1%	30-day: 2.73% vs 4.14%	64.3 vs 75.3
Yufu	2024	Circ J	Japan		123 vs 117	70/70	76% vs 72%	Rural: 5.6% vs 7.1% Urban: 3.5% vs 3.9%	Rural: 64 vs 88 Urban 61 vs 76
Tan	2023	Technol Health Care	China	1	87 vs 68 vs 74	65.7/64/0/63.4	75.9%/75.0%/81.1%	4.6% vs. 5.9% vs. 4.1%	67 vs. 61 vs. 57
Savage	2023	J Am Heart Assoc	Australia	8	666 vs. 1832	62.2	79.2%	30-day: 6.6% vs.1.6% 1-y: 10.2% vs. 3.4%	86 vs. 34
Arinaga	2022	Medicina	Japan	1	23 vs 25	76/78	69.6% vs 76.0%	4.3% vs 0%	49 vs 59
Park	2020	Korean Circ J	Korea		20 vs 95	64/62	90% vs 77.9%	No data	45 vs 58