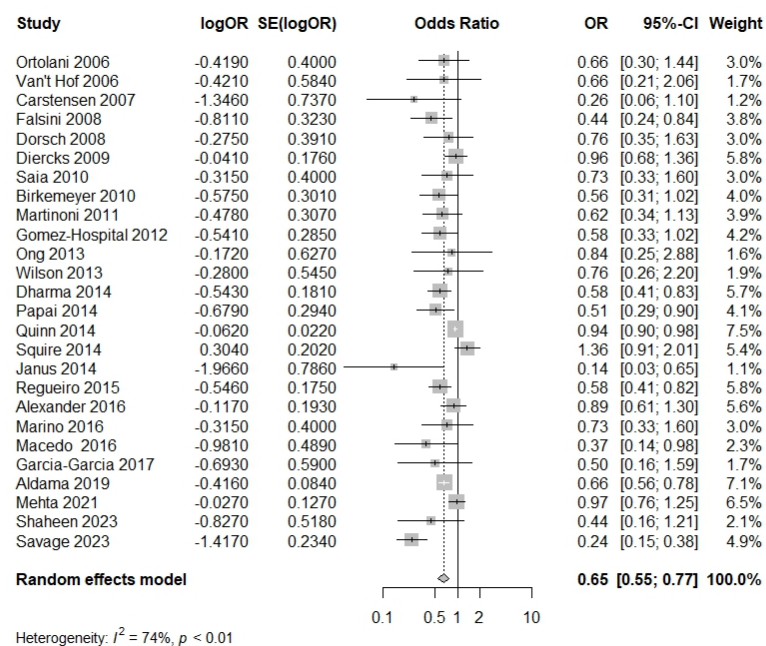




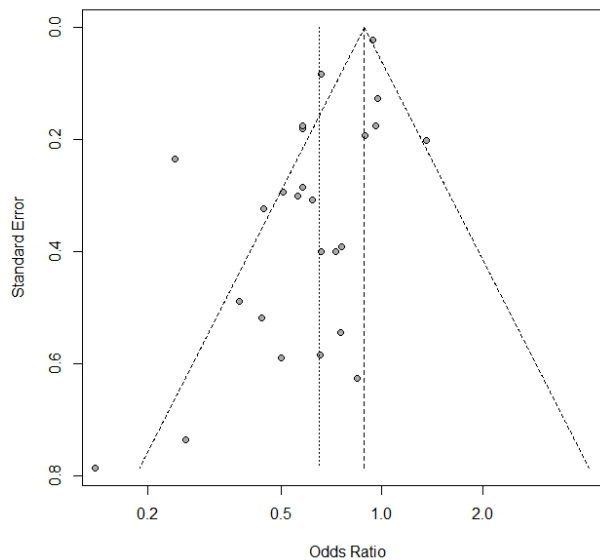
					n																			
Squire <sup>19</sup>	2014	USA	Urban	High	ETS	05/2008-08/2009	485	1448	5.9	8.0	No							73	24	60	22	85	93	
Quinn <sup>20</sup>	2014	UK	Urban	High	Extended Population	01/2005-12/2009	17686	54943	11.4	8.6	Yes													
Janus <sup>21</sup>	2015	Poland	Urban	High	Extended Population	04/2004-10/2006	115	111	23.5	5.4	Yes	32.5	9	No										
Regueiro <sup>22</sup>	2015	Spain	Urban	High	ETS	10/2002-12/2012	356	2140	10.7	6.2	No													
Farshid <sup>23</sup>	2015	Australia	Urban	High	ETS	01/2008-06/2013	592	190				7.9	3.7	Yes				93		40		42.9	57.8	
Alexander <sup>24</sup>	2016	India	Rural	LMIC	Extended Population	08/2012-01/2013	898	1522	5.8	5.6	Yes	17.6	14.2	No				100	84-143	105	80-145			
Marino <sup>25</sup>	2016	Brazil	Rural	LMIC	Extended Population	06/2013-05/2015	214	143	17.2	11.6	Yes							117	60-398	91	60-223			
Langabeer <sup>26</sup>	2016	USA	Rural	High	Extended Population	01/2003-12/2014	206	560							307	162-769	215	130-434	53	32-110	42	17-69		
Macedo <sup>27</sup>	2016	Brazil	Urban	LMIC	ETS	01/2011-12/2014	113	263	8.0	3.0	No													
García-García <sup>28</sup>	2017	Spain	Urban	High	Extended Population	01/2002-06/2009	670	598	7.2	2.5	Yes	10	8.5	Yes										
Aldama <sup>29</sup>	2019	Spain	Urban	High	Extended Population	01/2001-12/2013	2878	3905	15.6	9.1	Yes	21.1	13.5	Yes	321	221-429	250	170-375	156	115-204	135	102-184		
Mehta <sup>30</sup>	2021	International	Rural	LMIC	Extended Population	04/2014-08/2018	1095	1247	9.7	9.4	No													
Shaheen <sup>31</sup>	2023	Egypt	Urban	LMIC	Extended Population	10/2018-09/2019	140	212	6.4	2.8	No							54	33	44	28			
Savage <sup>32</sup>	2023	Australia	Urban	High	Extended Population	01/2017-12/2020	666	1832	6.6	1.6	No	10.2	3.4	No					86	68-113	34	26-46	33.3	62.3

LMIC: Low- middle-income countries; ETS: emergency transport system; SD: Standard deviation; Q2-Q3: interquartile range.

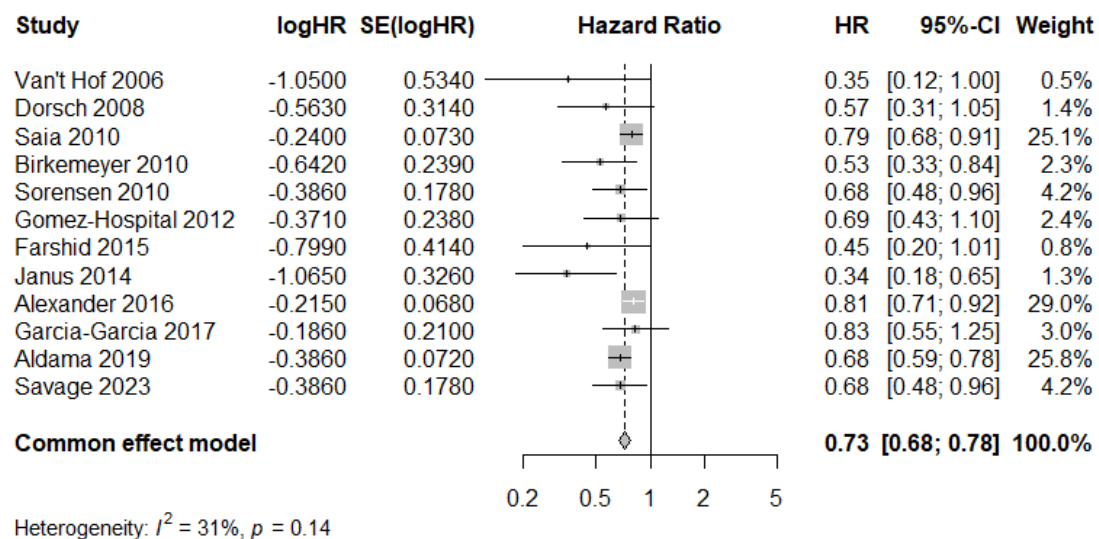
**Figure 1 of the supplementary data.** Forest plot of the association between the implementation of an ST elevation myocardial infarction (STEMI) network and STEMI case-fatality.



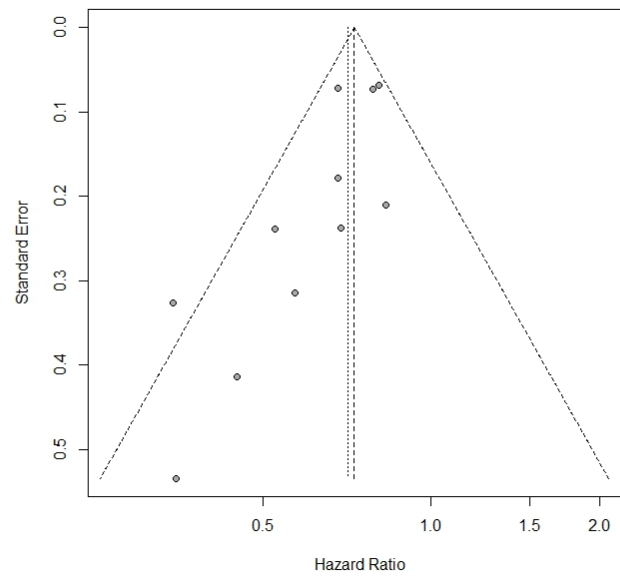
**Figure 2 of the supplementary data.** Funnel plot of the studies analyzing the relation between implementation of an ST elevation myocardial infarction (STEMI) network and case-fatality.



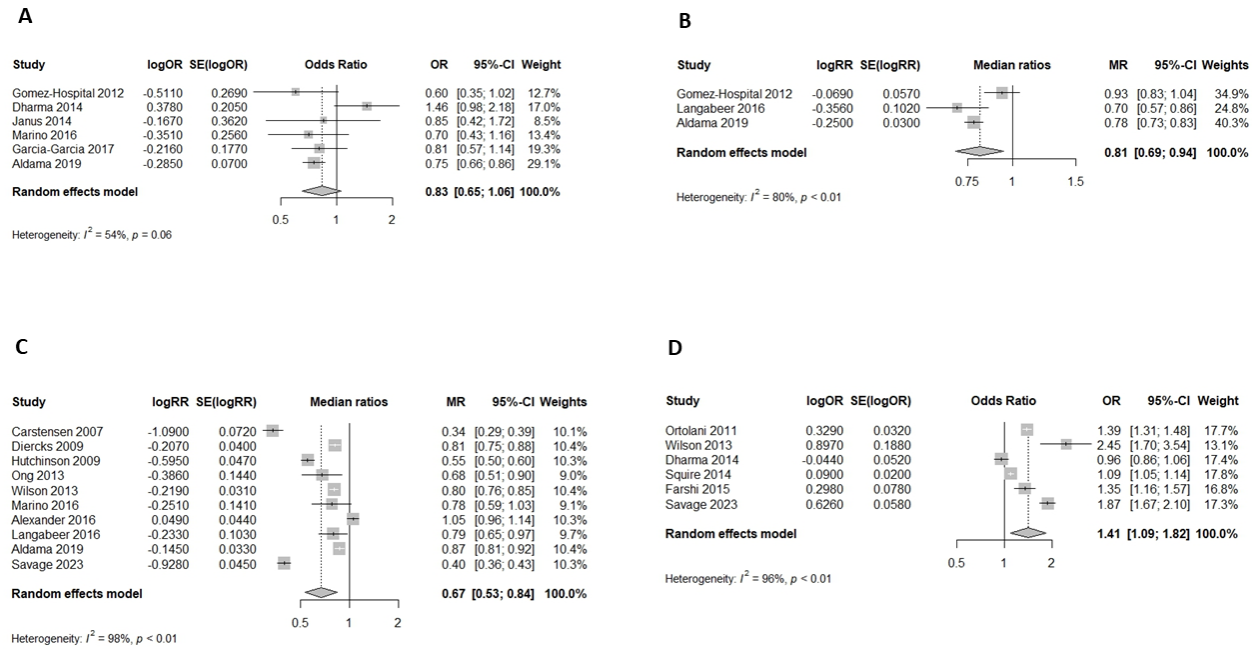
**Figure 3 of the supplementary data.** Forest plot of the association between the implementation of an ST elevation myocardial infarction (STEMI) network and STEMI long-term mortality.



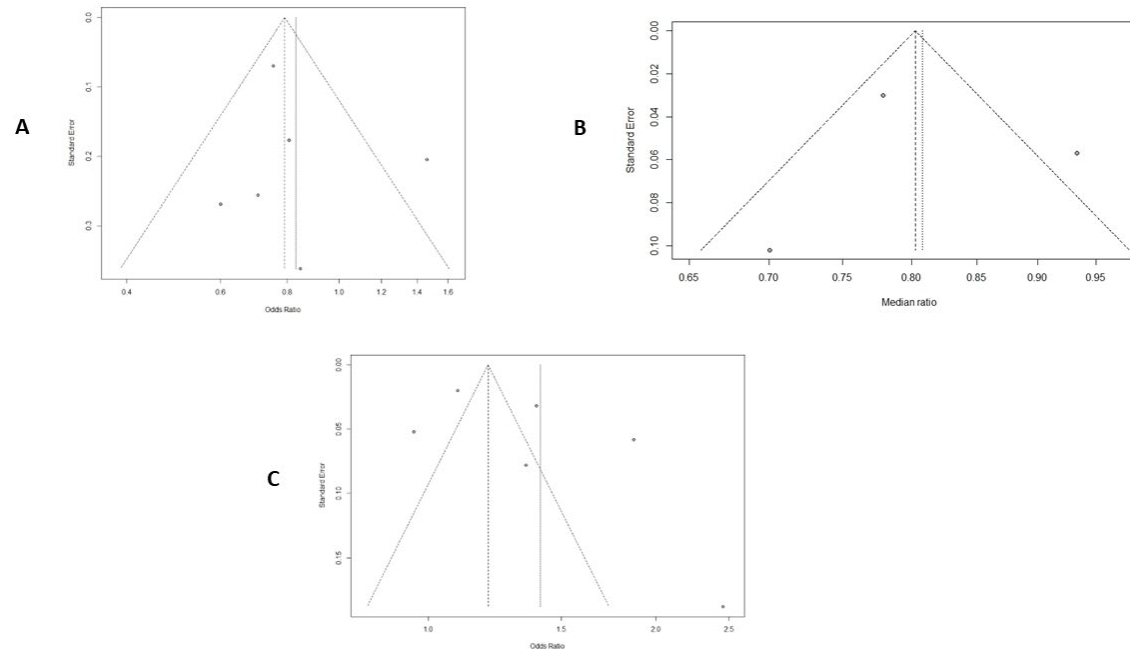
**Figure 4 of the supplementary data.** Funnel plot of the studies analyzing the relation between the implementation of an ST elevation myocardial infarction (STEMI) network and long-term mortality.



**Figure 5 of the supplementary data.** Forest plots of the association between the implementation of an ST elevation myocardial infarction (STEMI) network and secondary outcomes: A. Killip III-IV at admission. B. Ischemia time. C. Door-to-balloon time. D. Proportion of patients with a door-to-balloon time <90 minutes.

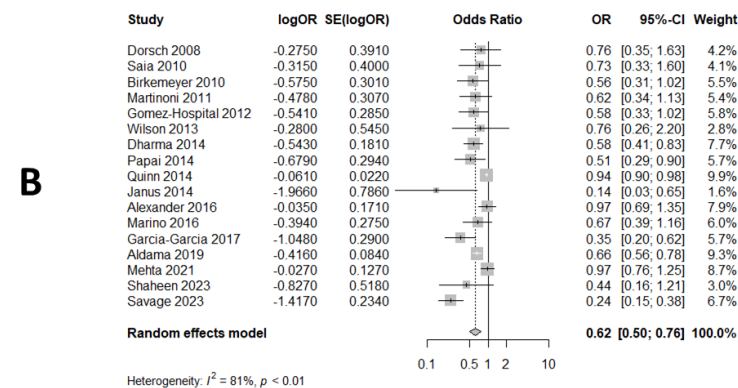
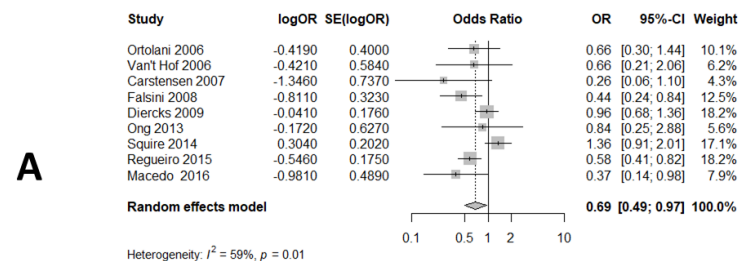


**Figure 6 of the supplementary data.** Funnel plots of the studies analyzing the relation between the implementation of an ST elevation myocardial infarction (STEMI) network and secondary outcomes: A. Killip III-IV at admission. B. Door-to-balloon time. C. Proportion of patients with door-to-balloon time < 90 minutes.

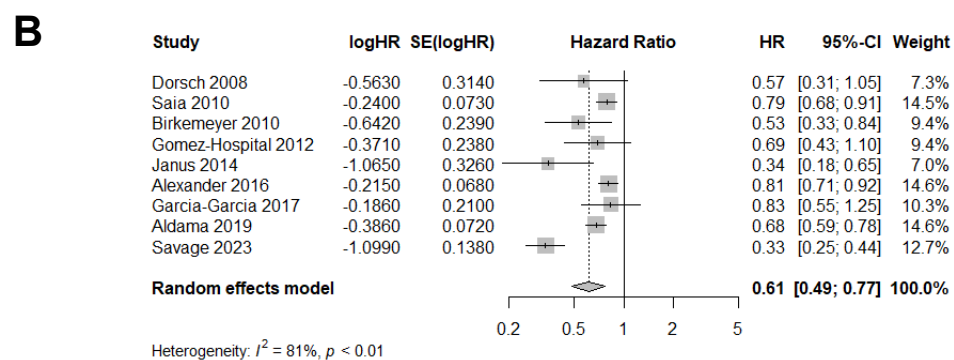
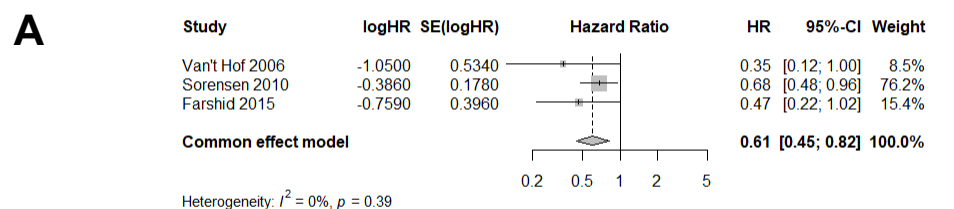




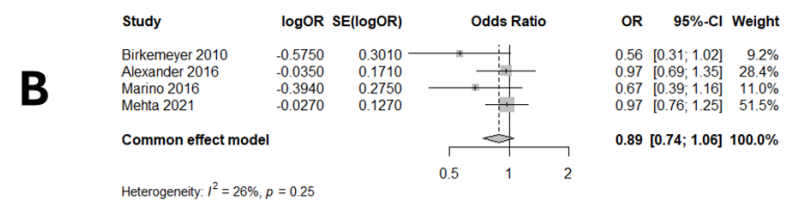
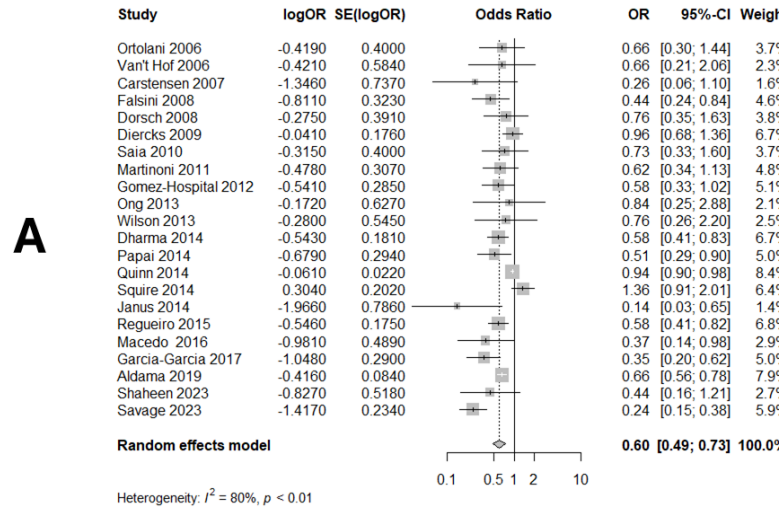
**Figure 7 of the supplementary data.** Forest plots of the association between the implementation of an ST elevation myocardial infarction (STEMI) network and case-fatality in studies based in emergency transport systems equipped with ECG transmission (A) and population-based strategies (B).



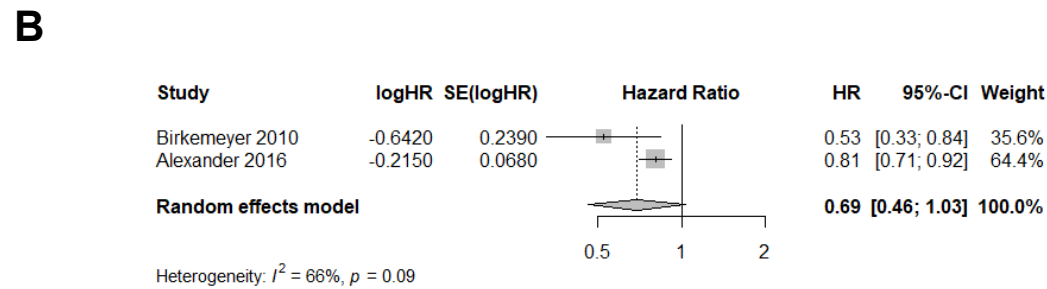
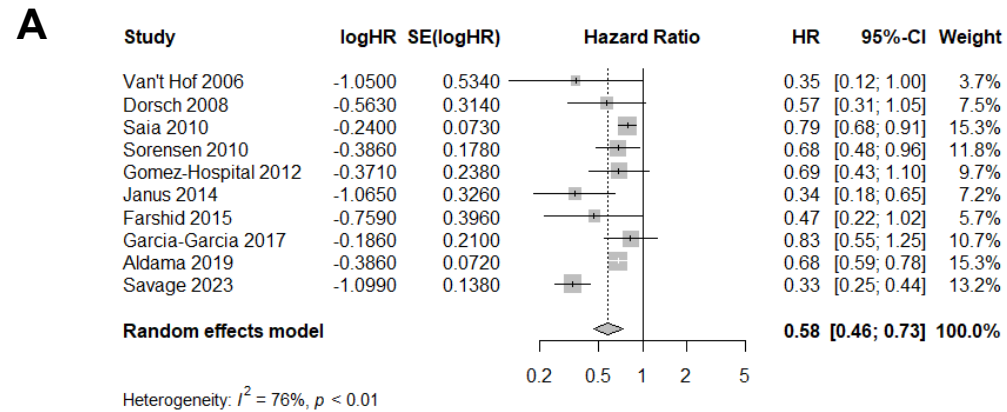
**Figure 8 of the supplementary data.** Forest plots of the association between the implementation of an ST elevation myocardial infarction (STEMI) network and long-term mortality in studies based on emergency transport systems equipped with ECG transmission (A) and in population-based strategies (B).



**Figure 9 of the supplementary data.** Forest plots of the association between the implementation of an ST elevation myocardial infarction (STEMI) network and case-fatality in studies implemented in urban (A) and in rural areas (B).



**Figure 10 of the supplementary data.** Forest plots of the association between the implementation of an ST elevation myocardial infarction (STEMI) network and long-term mortality in studies implemented in urban (A) and in rural areas (B).



**Figure 11 of the supplementary data.** Forest plots of the association between the implementation of an ST elevation myocardial infarction (STEMI) network and case-fatality in studies implemented in high-income (A) and in middle- and low-income countries (B).

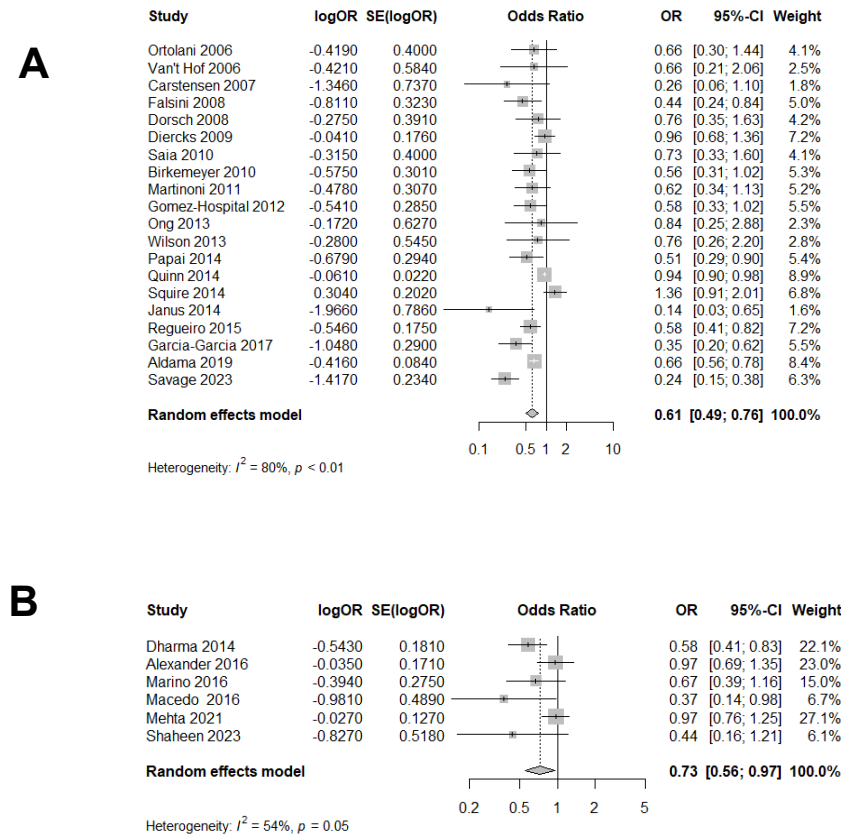
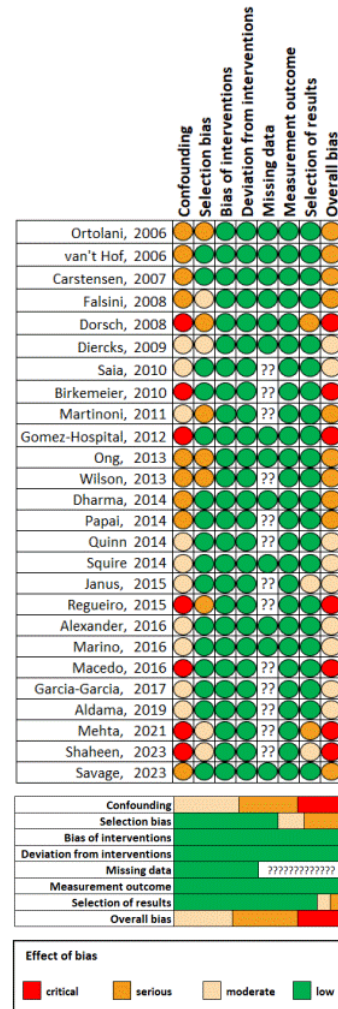
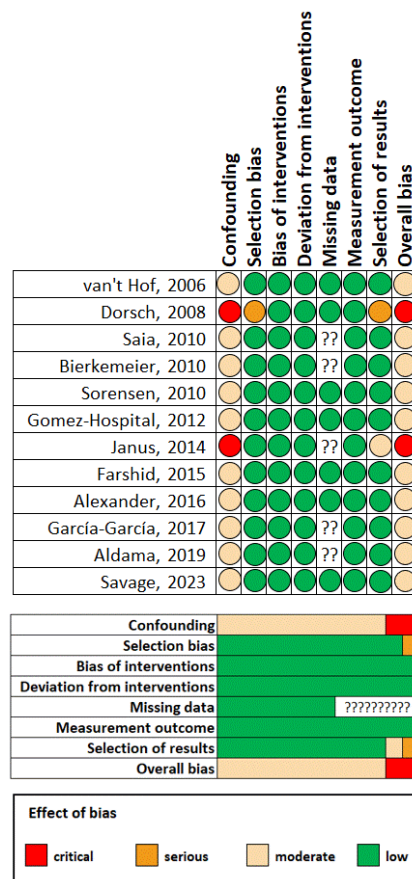


Figure 12 of the supplementary data. Risk of bias assessment of the studies selected for the case-fatality meta-analysis, using the ROBINS I tool.



**Figure 13 of the supplementary data.** Risk of bias assessment of the studies selected for the long-term mortality meta-analysis, using the ROBINS I tool.



**REFERENCES OF THE SUPPLEMENTARY DATA**

1. Ortolani P, Marzocchi A, Marrozzini C, et al. Clinical impact of direct referral to primary percutaneous coronary intervention following pre-hospital diagnosis of ST-elevation myocardial infarction. *Eur Heart J.* 2006;27:1550–1557.
2. Van 't Hof AWJ, Rasoul S, van de Wetering H, et al. Feasibility and benefit of prehospital diagnosis, triage, and therapy by paramedics only in patients who are candidates for primary angioplasty for acute myocardial infarction. *Am Heart J.* 2006;151:1255.e1-5.
3. Carstensen S, Nelson GCI, Hansen PS, et al. Field triage to primary angioplasty combined with emergency department bypass reduces treatment delays and is associated with improved outcome. *Eur Heart J.* 2007;28:2313–2319.
4. Dorsch MF, Greenwood JP, Priestley C, et al. Direct ambulance admission to the cardiac catheterization laboratory significantly reduces door-to-balloon times in primary percutaneous coronary intervention. *Am Heart J.* 2008;155:1054–1058.
5. Falsini G, Liistro F, Ducci K, et al. Shifting from pharmacological to systematic mechanical reperfusion therapy for acute myocardial infarction via a cooperating network: impact on reperfusion rate and in-hospital mortality. *J Cardiovasc Med.* 2008;9:245–250.
6. Hutchison AW, Malaiapan Y, Jarvie I, et al. Prehospital 12-lead ECG to triage ST-elevation myocardial infarction and emergency department activation of the infarct team significantly improves door-to-balloon times: ambulance Victoria and MonashHEART Acute Myocardial Infarction (MonAMI) 12-lead ECG project. *Circ Cardiovasc Interv.* 2009;2:528–534.
7. Diercks DB, Kontos MC, Chen AY, et al. Utilization and impact of pre-hospital electrocardiograms for patients with acute ST-segment elevation myocardial infarction: data from the NCDR (National Cardiovascular Data Registry) ACTION (Acute Coronary Treatment and Intervention Outcomes Network) Registry. *J Am Coll Cardiol.* 2009;53:161–166.
8. Saia F, Marrozzini C, Guastaroba P, et al. Lower long-term mortality within a regional system of care for ST-elevation myocardial infarction. *Acute Card Care.* 2010;12:42–50.



- Cartanya-Bonvehi, J. Effectiveness of STEMI networks with out-of-hospital triage: a systematic review and meta-analysis. *Rev Esp Cardiol.* 2024
9. Birkemeyer R, Rillig A, Koch A, et al. Primary angioplasty for any patient with ST-elevation myocardial infarction? Guideline-adherent feasibility and impact on mortality in a rural infarction network. *Clin Res Cardiol.* 2010;99:833–840.
10. Rao A, Kardouh Y, Darda S, et al. Impact of the prehospital ECG on door-to-balloon time in ST elevation myocardial infarction. *Catheter Cardiovasc Interv.* 2010;75:174–178.
11. Sorensen JT, Terkelsen CJ, Norgaard BL, et al. Urban and rural implementation of pre-hospital diagnosis and direct referral for primary percutaneous coronary intervention in patients with acute ST-elevation myocardial infarction. *Eur Heart J.* 2011;32:430–436.
12. Martinoni A, De Servi S, Boschetti E, et al. Importance and limits of pre-hospital electrocardiogram in patients with ST elevation myocardial infarction undergoing percutaneous coronary angioplasty. *Eur J Cardiovasc Prev Rehabil.* 2011;18:526–532.
13. Ortolani P, Marzocchi A, Marrozzini C, et al. Pre-hospital ECG in patients undergoing primary percutaneous interventions within an integrated system of care: reperfusion times and long-term survival benefits. *EuroIntervention.* 2011;7:449–457.
14. Gómez-Hospital JA, Dallaglio PD, Sánchez-Salado JC, et al. Impact on delay times and characteristics of patients undergoing primary percutaneous coronary intervention in the southern metropolitan area of Barcelona after implementation of the infarction code program. *Rev Esp Cardiol.* 2012;65:911–918.
15. Wilson BH, Humphrey AD, Cedarholm JC, et al. Achieving Sustainable First Door-to-Balloon Times of 90 Minutes for Regional Transfer ST-Segment Elevation Myocardial Infarction. *JACC Cardiovasc Interv.* 2013;6:1064–1071.
16. Ong MEH, Wong ASL, Seet CM, et al. Nationwide improvement of door-to-balloon times in patients with acute ST-segment elevation myocardial infarction requiring primary percutaneous coronary intervention with out-of-hospital 12-lead ECG recording and transmission. *Ann Emerg Med.* 2013;61:339–347.
17. Dharma S, Siswanto BB, Firdaus I, et al. Temporal Trends of System of Care for STEMI: Insights from the Jakarta Cardiovascular Care Unit Network System. *PLoS One.* 2014;9:e87621.
18. Papai G, Racz I, Czuriga D, et al. Transtelephonic electrocardiography in the management of patients with acute coronary syndrome. *J Electrocardiol.* 2014;47:294–299.

- Cartanya-Bonvehi, J. Effectiveness of STEMI networks with out-of-hospital triage: a systematic review and meta-analysis. *Rev Esp Cardiol.* 2024
19. Squire BT, Tamayo-Sarver JH, Rashi P, et al. Effect of prehospital cardiac catheterization lab activation on door-to-balloon time, mortality, and false-positive activation. *Prehosp Emerg Care.* 2014;18:1–8.
20. Quinn T, Johnsen S, Gale CP, et al. Effects of prehospital 12-lead ECG on processes of care and mortality in acute coronary syndrome: a linked cohort study from the Myocardial Ischaemia National Audit Project. *Heart.* 2014;100:944–950.
21. Januś B, Rakowski T, Dziewierz A, et al. Effect of introducing a regional 24/7 primary percutaneous coronary intervention service network on treatment outcomes in patients with ST segment elevation myocardial infarction. *Kardiol Pol.* 2015;73:323–330.
22. Regueiro A, Rosas A, Kaifoszova Z, et al. Impact of the “ACT NOW. SAVE A LIFE” public awareness campaign on the performance of a European STEMI network. *Int J Cardiol.* 2015;197:110–112.
23. Farshid A, Allada C, Chandrasekhar J, et al. Shorter ischaemic time and improved survival with pre-hospital STEMI diagnosis and direct transfer for primary PCI. *Heart Lung Circ.* 2015;24:234–240.
24. Alexander T, Mullasari AS, Joseph G, et al. A System of Care for Patients With ST-Segment Elevation Myocardial Infarction in India: The Tamil Nadu-ST-Segment Elevation Myocardial Infarction Program. *JAMA Cardiol.* 2017;2:498–505.
25. Marino BCA, Ribeiro ALP, Alkmim MB, et al. Coordinated regional care of myocardial infarction in a rural area in Brazil: Minas Telecardio Project 2. *Eur Heart J Qual Care Clin Outcomes.* 2016;2:215–224.
26. Langabeer JR, Smith DT, Cardenas-Turanzas M, et al. Impact of a Rural Regional Myocardial Infarction System of Care in Wyoming. *J Am Heart Assoc.* 2016;5:e003392.
27. Macedo TA, de Barros E Silva PGM, Simões SA, et al. Impact of Chest Pain Protocol with Access to Telemedicine on Implementation of Pharmacoinvasive Strategy in a Private Hospital Network. *Telemed J E Health.* 2016;22:549–552.
28. García-García C, Ribas N, Recasens LL, et al. In-hospital prognosis and long-term mortality of STEMI in a reperfusion network. “Head to head” analysis: invasive reperfusion vs optimal medical therapy. *BMC Cardiovasc Disord.* 2017;17:139.
29. Aldama G, López M, Santás M, et al. Impact on mortality after implementation of a network for ST-segment elevation myocardial infarction care. The IPHENAMIC study. *Rev Esp Cardiol.* 2020;73:632–642.

Cartanya-Bonvehi, J. Effectiveness of STEMI networks with out-of-hospital triage: a systematic review and meta-analysis. *Rev Esp Cardiol.* 2024

30. Mehta S, Aboushi H, Campos CM, et al. Impact of a telemedicine-guided, population-based, STEMI network on reperfusion strategy, efficiency, and outcomes. *AsiaIntervention.* 2021;7:18–26.

31. Shaheen SM, Saleh AK, Okasha NK, et al. Implementation of a Regional STEMI Network in North Cairo (Egypt): Impact on The Management and Outcome of STEMI Patients. *Glob Heart.* 2023;18:2.

32. Savage ML, Hay K, Vollbon W, et al. Prehospital Activation of the Cardiac Catheterization Laboratory in ST-Segment–Elevation Myocardial Infarction for Primary Percutaneous Coronary Intervention. *J Am Heart Assoc.* 2023;12:e029346.