



The TIMI Trials

EXTRACT-TIMI 25

OBJECTIVE: To evaluate the efficacy and safety of enoxaparin throughout the index hospitalization or unfractionated heparin for at least 48 hours in patients with ST-elevation myocardial infarction scheduled to undergo fibrinolysis.

1. Antman EM, Morrow DA, McCabe CH, Jiang F, White HD, Fox KAA, Sharma D, Chew P, Braunwald E. Enoxaparin versus unfractionated heparin as antithrombin therapy in patients receiving fibrinolysis for ST-elevation myocardial infarction: Design and rationale for the Enoxaparin and Thrombolysis Reperfusion for Acute Myocardial Infarction Treatment-Thrombolysis in Myocardial Infarction Study 25 (ExTRACT – TIMI 25). *Am Heart J* 2005;149:217-26.
2. Antman EM, Morrow DA, McCabe CH, Murphy SA, Ruda M, Sadowski Z, Budaj A, Lopez-Sendon JL, Guneri S, Jiang F, White HD, Fox KAA, Braunwald E for the ExTRACT-TIMI 25 Investigators. Enoxaparin versus unfractionated heparin with fibrinolysis for ST-elevation myocardial infarction. *N Engl J Med* 2006;354:1477-88.
3. Morrow DA, Wiviott SD, Sabatine MS, Giugliano RP, McCabe CH, Antman EM, Braunwald E. Evaluation of the TIMI risk index in a multi-continental population of 19,103 patients with STEMI in the ExTRACT-TIMI 25 trial. *J Am Coll Cardiol* 2006;47:223A.
4. White HD, Braunwald E, Murphy S, Jacob AJ, Gotcheva N, Polonetsky L, Antman EM. Enoxaparin vs. unfractionated heparin with fibrinolysis for ST-elevation myocardial infarction in elderly and younger patients: results from ExTRACT-TIMI 25. *Eur Heart J* 2007;28:1066-1071.
5. Sabatine MS, Morrow DA, Dalby A, Pfisterer M, Duris T, Lopez-Sendon J, Murphy SA, Gao R, Antman EM, Braunwald E. Efficacy and safety of enoxaparin vs. unfractionated heparin in patients with ST-segment elevation myocardial infarction also treated with clopidogrel. *J Am Coll Cardiol* 2007;49:2256-2263.
6. Fox KAA, Antman EM, Montalescot G, Agewall S, SomaRaju B, Verheugt FWA, Lopez-Sendon J, Hod H, Murphy SA, Braunwald E. The impact of renal dysfunction on outcomes in the ExTRACT-TIMI 25 study. *J Am Coll Cardiol* 2007;49:2249-2255.
7. [Mega JL, Morrow DA, Ostör E, Dorobantu M, Qin J, Antman EM, Braunwald E.](#) Outcomes and optimal antithrombotic therapy in women undergoing fibrinolysis for ST-elevation myocardial infarction. *Circulation* 2007;115:2822-8.
8. Gibson CM, Murphy SA, Montalescot G, Morrow DA, Ardissino D, Cohen M, Gulba DC, Kracoff OH, Lewis BS, Roguin, Antman EM, Braunwald E. Percutaneous coronary intervention in patients receiving enoxaparin or unfractionated heparin following fibrinolytic therapy for ST-elevation myocardial infarction in the ExTRACT-TIMI 25 trial. *J Am Coll Cardiol* 2007;49:2238-2246.
9. Giraldez RR, Nicolau JC, Corbalan R, Gurfinkel EP, Juarez U, Lopez-Sendon J, Parkhomenko A, Molhoek P, Mohanavelu S, Morrow DA, Antman EM. Enoxaparin is superior to unfractionated heparin in patients with ST elevation myocardial infarction undergoing fibrinolysis regardless of the choice of lytic: an ExTRACT-TIMI 25 analysis. *Eur Heart J* 2007;28:1566-1573.
10. Steinberg BA, Moghbeli N, Buros J, Ruda M, Parkhomenko A, Soma Raju B, Garcia-Castillo A, Janion M, Nicolau JC, Fox KAA, Morrow DA, Gibson CM, Antman EM. Global outcomes of ST-elevation myocardial infarction: comparisons of the Enoxaparin and Thrombolysis Reperfusion for Acute Myocardial Infarction Treatment-Thrombolysis In Myocardial Infarction study 25 (ExTRACT-TIMI 25) registry and trial. *Am Heart J* 2007;154:54-61.
11. Scirica BM, Morrow DA, Sadowski Z, ruda M, Nicolau JC, Giugliano RP, Wiviott SD, Sabatine MS, Shui A, Antman EM, Braunwald E. A strategy of using enoxaparin as adjunctive antithrombin therapy reduces death and recurrent myocardial infarction in patients who achieve early ST-segment resolution after fibrinolytic therapy: the ExTRACT-TIMI 25 ECG study. *Eur Heart J* 2007;28:2070-2076.
12. Ruff CT, Wiviott SD, Morrow DA, Mohanavelu S, Murphy SA, Antman EM, Braunwald E. ExTRACT-TIMI

- 25 Investigators. TIMI risk index and the benefit of enoxaparin in patients with ST-elevation myocardial infarction. *Am J Med* 2007;120:993-8.
13. Morrow DA, Antman EM, Murphy SA, Qin J, Ruda M, Guneri S, Jacob AJ, Budaj A, Braunwald E. Effect of enoxaparin versus unfractionated heparin in diabetic patients with ST-elevation myocardial infarction in the Enoxaparin and Thrombolysis Reperfusion for Acute Myocardial Infarction Treatment – Thrombolysis In Myocardial Infarction study 25 (ExTRACT-TIMI 25) Study. *Am Heart J* 2007;154:1078-1084.
 14. Gibson CM, Pride YB, Aylward PE, Col JJ, Goodman SG, Gulba D, Bergovec M, Kunadian V, Zorkun C, Buros JL, Murphy SA, Antman EM. Association of non-steroidal anti-inflammatory drugs with outcomes in patients with ST-segment elevation myocardial infarction treated with fibrinolytic therapy: an ExTRACT-TIMI 25 analysis. *J Thromb Thrombolysis*: in press.