

Authors: E. AGABITI-ROSEI - G. AMBROSIO - L. BADIMON - JP. BASSAND - A. BAYÉS DE LUNA - M.E. BERTRAND - E. CHAZOV - S. CHIERCHIA - J. CLELAND - D. CLEMENT - D. COKKINOS - N. DANCHIN - R. DIETZ - P. DOMINIAC - I. EDES - E. ERDMANN - R. FERREIRA - H.R.FIGULLA - W. FLAMENG - I. GRAHAM - G. JACKSON - W. JANUSZEWICZ - J.C. KASKI - P. KEARNEY - W. KLEIN - F. KOLBEL - M. KOMAJDA - W. KÜBLER - J.L.LOPEZ-SENDON HENTSCHEL - G. MANCIA - W.J. MCKENNA - T. MEINERTZ - J.MLCZUCH - D. MULCAHY - E. O'BRIEN - A. OTO - J. PAPP - W.J. PAULUS - J. POLONIA - I. PRÉDA - L.A. PROVIDENCIA - J. REID - W.J. REMME - W. RUZYLO - Z. SADOWSKI - P. SERRUYS - P. SLEIGHT - J. SOLER-SOLER - J. SOMERVILLE - P.G. STEG - H.A.J. STRUIJKER BOUDIER - B. SWYNGHEDAUW - L. TAVAZZI - M. TENDERA - P. TOUTOUZAS - A. VAHANIAN - J.L. VANOVERSCHELDE - J. WIDIMSKY - M. YACOB

Early invasive management of non-ST-Elevation ACS improves outcomes only in high risk patients: the results of the TIMACS study

Early invasive management—angiography within 24 hours followed by percutaneous coronary intervention (PCI), or coronary artery bypass graft (CABG) as appropriate—is safe in patients with unstable angina or non-ST-segment elevation MI (NSTEMI). According to the traditional invasive strategy, most patients with acute coronary syndromes (ACS) could be managed safely with either an early or a delayed invasive strategy. However, in a subset of patients at highest risk, early intervention appears to be superior, and these patients should be considered for early heart catheterization.

It has been declared by Shamir R. Mehta, the leading author of the Timing of Intervention in Patients with Acute Coronary Syndromes (TIMACS) study,¹ which was presented on 10 November, 2008 in New Orleans, during the American Heart Association congress. In all other patients with ACS, the decision regarding the timing depends on other factors, such as catheterization laboratory availability, the health care system environment, convenience, and economic considerations.

TIMACS randomized 3031 patients with unstable angina or NSTEMI who were “suitable” for revascularization to early (angiography as soon as possible within 24 hours, followed by PCI or CABG) or delayed (any time after 36 hours, followed by PCI or CABG) invasive management. The median times to angiography were 14 and 50 hours, respectively.

Rates of primary composite end point (death, new MI, or stroke within 6 months) regarding the early vs delayed revascularization groups were similar, 9.7% and 11.7% respectively. The rates of major bleeding during the index hospitalization were 3.1% and 3.5% respectively.

If the GRACE risk score^{2,3} were also taken into consideration, the high-risk group has an almost 80% higher number of end points, which is shown in the *Table*:

Risk level by GRACE score*	Early (%)	Delayed (%)	HR (95% CI)	P
Low/intermediate (n=2070)	7.7	6.7	1.14 (0.82-1.85)	0.43
High (n=961)	14.1	21.6	0.65 (0.48-0.88)	0.005

*Low/intermediate risk=GRACE score <140; high risk GRACE score>140

References: 1. Mehta SR et al. Main results of the Timing on Intervention in Acute Coronary Syndromes (TIMACS trial). American Heart Association 2008 scientific Sessions: November 10, 2008; New Orleans, Late Breaking Trials, Session 2. 2. Centers for Outcomes Research. Global registry of acute coronary events. <http://www.outcomes-umassmed.org/grace>. 3. Goodman SG et al. *Am Heart J*. 2006;151:654-660.

All texts for *The European Cardiologist - Journal by Fax* are available on our website: www.servier.com

In the event of any questions, or if you wish to receive the referenced publications, please contact fax n° 01 55 72 75 02

A finer distribution of outcomes and the TIMACS hazard ratio (95% CI) corresponding to the early vs delayed intervention strategies is given in the next *Table*:

End point	HR (95% CI)	P
Death, MI, stroke*	0.85 (0.68-1.06)	0.15
Death, MI, refractory ischemia	0.72 (0.58-0.89)	0.002
Refractory intervention	0.30 (0.17-0.53)	<0.00001

*Primary end point

According to the results, there is a strong indication that the earlier intervention is the better, especially if the patient is at high risk. In addition, the shorter length of stay at the invasive procedure, and presumably lower cost, would also steer everybody toward taking the patient to the catheterization laboratory earlier rather than later. From the health care-delivery perspective, it might seem that to prevent the downstream episodes of recurrent ischemia and possible rehospitalization, it is worthwhile to move ahead, since there is no harm with the early invasive strategy.

As a final message of the study, in patients with low- or intermediate-risk vs high-risk NSTEMI, early management is associated with a similar risk for the composite of death, new MI, and stroke. Early management did significantly reduce risk for refractory ischemia alone in high-risk patients.

I. PRÉDA - Budapest, Hungary

Medical service from Serdia Pharmaceuticals
Makers of

COVERSYL[®]
PERINDOPRIL *once daily*

NATRILIX SR
1 TABLET DAILY

FLAVEDON MR
2 tablets daily

SERDIA PHARMACEUTICALS (INDIA) PVT. LTD.
Serdia House, Off Dr. S.S. Rao Road, Parel, Mumbai 400 012.
Under Licence from: Les Laboratoires Servier, France. Visit us at: www.serdia-pharma.com

