

# Clinical trials of myocardial revascularization for acute myocardial infarction in all type of patients

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## 1 deferred angioplasty (>3 days) after thrombolysis

| Trial   | Treatments   | Patients  | Trials design and methods               |
|---|--|---|---|
| <b>systematic ballon angioplasty vs no systematic angioplasty</b> |  |   |   |
| <b>SWIFT , 1991</b><br>n=397/403<br>follow-up: 1 y                | CA 72h with a view to PTCA or CABG<br>versus<br>elective angioplasty (only if required by clinical indication) | patients presenting with clinical and electrocardiographic features of acute myocardial infarction up to three hours after the onset of major symptoms                        | Parallel groups<br>Open<br>UK           |
| <b>SIAM , 1992</b><br>n=158/166<br>follow-up: <3 years            | CA with CABG/PTCA 14-48 hours<br>versus<br>no CA within the first 21days unless evidence of ischemia           | patients treated by thrombolysis for AMI  | Parallel groups<br>Open<br>Europe       |
| <b>TAMI 6 , 1992</b><br>n=34/37                                   | PTCA 6-24h after rtPA<br>versus<br>no PTCA planned   | -   |   |
| <b>Barbash , 1990</b><br>n=97/104                                 | PTCA>72h after rtPA if stenosis>70%<br>versus<br>PTCA>72h after rtPA if stenosis>50% and ischemia              | -   |   |
| <b>Guerci , 1987</b><br>n=42/43<br>follow-up: 10 days             | PTCA at 4 day<br>versus<br>no PTCA during the 10 days study period   | patients candidate to PTCA determined at the 1st day CA   | Factorial plan<br>United states         |
| <b>TIMI 2 , 1989</b><br>n=1636/1626<br>follow-up: 6 we            | CA 18 to 48 hrs<br>versus<br>no CA unless spontaneous or exercise induced ischemia                             | patients treated with intravenous recombinant tissue plasminogen activator (rt-PA) within four hours of the onset of chest pain thought to be caused by myocardial infarction | Factorial plan<br>Open<br>United states |
| <b>TIMI II-A (deferred)</b><br>n=194/197<br>follow-up:            | delayed invasive strategy, deferred angiography and PTCA for 18-48 hours<br>versus<br>conservative approach    | -   |   |
| <b>TOPS , 1992</b><br>n=42/45<br>follow-up: 12 months             | PTCA to be performed 4-14 days after MI<br>versus<br>conservative management, no PTCA                          | patients with residual stenoses after thrombolytic treatment of myocardial infarction   | Parallel groups                         |
| <b>Van den Brand , 1991</b><br>n=113/104<br>follow-up: 3 mo       | CA at 2-5 days, PTCA if suitable lesion<br>versus<br>CA at 2-5 days but no PTCA                                | suitable lesion   | Parallel groups<br>NA<br>Europe         |

continued...

| Trial  | Treatments  | Patients   | Trials design and methods |
|--|---|--|---------------------------|
| Vermeer , 1999<br>n=NA<br>follow-up: 42 days | alteplase followed by transfer to the PTCA centre and (if indicated) rescue PTCA versus thrombolytic treatment with alteplase | patients with acute myocardial infarction initially admitted to a hospital without PTCA facilities | Parallel groups           |

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## 2 drug-eluting stents

| <b>Trial</b>  | <b>Treatments</b>   | <b>Patients</b>  | <b>Trials design and methods</b>                    |
|---|---|--|---|
| <b>drug-eluting stents vs bare-metal stent</b>  |   |  |   |
| <b>DEDICATION , 2008</b><br>[NCT00192868]<br>n=313/313<br>follow-up: 8 mo (15 mo, 3y) | DES currently used with or without distal protection<br>versus<br>BMS with or without distal protection | patients referred within 12 hours from symptom onset of an ST-elevation myocardial infarction        | Factorial plan<br>open<br>Denmark.                  |
| <b>PASEO , 2009</b><br>n=180/90<br>follow-up: 4.3 years                               | paclitaxel-eluting stents and sirolimus-eluting stents<br>versus<br>bare metal stent                    | patients with ST-elevation myocardial infarction within 12 hours from symptom onset                  | Parallel groups<br>open                             |
| <b>paclitaxel eluting stent vs bare-metal stent</b>                                   |   |  |   |
| <b>HAAMU-STENT , 2006</b><br><i>unpublished</i><br>n=70/75<br>follow-up: 12 months    | Taxus Express<br>versus<br>Bare-metal-stent   | AMI - STEMI patients undergoing PCI  | Parallel groups<br>open<br>Finland                  |
| <b>HORIZONS-AMI Stent , 2008</b><br>n=2257/749<br>follow-up: 1 year                   | paclitaxel-eluting stents (Taxus)<br>versus<br>BMS (Express)  | ST-elevation myocardial infarction   | Factorial plan<br>open                              |
| <b>PASSION , 2006</b><br>[ISRCTN65027270]<br>n=310/309<br>follow-up: 12 months (5y)   | Taxus Express2<br>versus<br>Express2 or Libert  | Myocardial Infarction with ST-Segment Elevation  | Parallel groups<br>open<br>The Netherlands          |
| <b>sirolimus eluting stent vs bare-metal stent</b>                                    |   |  |   |
| <b>Daz de la Llera , 2007</b><br>n=60/54<br>follow-up: 1y                             | sirolimus-eluting stents<br>versus<br>uncoated stents   | primary percutaneous coronary intervention for acute myocardial infarction with ST-segment elevation | Parallel groups<br>open<br>Spain                    |
| <b>MISSION , 2008</b><br>[ISRCTN62825862]<br>n=158/152<br>follow-up: 12 months        | Cypher<br>versus<br>Vision  | primary percutaneous coronary intervention for ST-segment elevation myocardial infarction (<9h)      | Parallel groups<br>single-blind<br>the Netherlands  |
| <b>SESAMI , 2007</b><br>[NCT00288210]<br>n=160/160<br>follow-up: 12 months            | Cypher<br>versus<br>BX stent, Cordis  | AMI  | Parallel groups<br>open<br>Italy                    |
| <b>TYPHOON , 2006</b><br>[NCT00232830]<br>n=356/359<br>follow-up: 12 months           | Cypher or CypherSelect<br>versus<br>any commerciallyavailable uncoated stent                            | AMI  | Parallel groups<br>open<br>Worldwide (15 countries) |
| <b>sirolimus eluting stent vs paclitaxel eluting stent</b>                            |   |  |   |
| <b>Di Lorenzo et al. , 2005</b><br><i>unpublished</i><br>n=90/90<br>follow-up:        | sirolimus<br>versus<br>paclitaxel   | ST-segment elevation myocardial infarction   | Parallel groups<br>open                             |

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| <b>Trial</b>  | <b>Treatments</b>   | <b>Patients</b>  | <b>Trials design and methods</b>           |
|---|---|--|--|
| <b>Juwana , 2009</b><br>[ISRCTN90526229]<br>n=196/201<br>follow-up: 9 months (12 months)  | sirolimus coated Cypher stent<br>versus<br>paclitaxel coated Taxus stent                  | patients with STEMI undergoing primary PCI   | Parallel groups<br>open<br>The Netherlands |
| <b>PROSIT , 2006</b><br>n=154/154<br>follow-up: 1 year                                    | SES Cordis<br>versus<br>PES Boston Scientific   | AMI or persistent ischaemia 12-24h   | Parallel groups<br>open<br>Korea           |
| <b>zotarolimus eluting stent vs paclitaxel eluting stent</b>                              |   |  |  |
| <b>ZEST AMI (vs PES) , 2009</b><br>[NCT00422565]<br>n=108/110<br>follow-up: 1 year (mean) | zotarolimus-eluting stent (Endeavor)<br>versus<br>paclitaxel-eluting stent (Taxus Libert) | Acute Myocardial Infarction Patients (STEMI)requiring primary angioplasty with symptom onset <= 12 hours | open<br>Korea                              |
| <b>zotarolimus eluting stent vs sirolimus eluting stent</b>                               |   |  |  |
| <b>ZEST AMI (vs SES) , 2009</b><br>[NCT00422565]<br>n=108/110<br>follow-up: 1 year (mean) | zotarolimus-eluting stent (Endeavor)<br>versus<br>sirolimus-eluting stents (Cypher)       | Acute Myocardial Infarction Patients (STEMI)requiring primary angioplasty with symptom onset <= 12 hours | Parallel groups<br>open<br>Korea           |

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### 3 early angioplasty (<3 days) after thrombolysis

| Trial   | Treatments   | Patients  | Trials design and methods               |
|---|--|---|---|
| <b>systematic ballon angioplasty vs no systematic angioplasty</b> |  |   |   |
| <b>SWIFT , 1991</b><br>n=397/403<br>follow-up: 1 y                | CA 72h with a view to PTCA or CABG<br>versus<br>elective angioplasty (only if required by clinical indication) | patients presenting with clinical and electrocardiographic features of acute myocardial infarction up to three hours after the onset of major symptoms                        | Parallel groups<br>Open<br>UK           |
| <b>SIAM , 1992</b><br>n=158/166<br>follow-up: <3 years            | CA with CABG/PTCA 14-48 hours<br>versus<br>no CA within the first 21days unless evidence of ischemia           | patients treated by thrombolysis for AMI  | Parallel groups<br>Open<br>Europe       |
| <b>TAMI 6 , 1992</b><br>n=34/37                                   | PTCA 6-24h after rtPA<br>versus<br>no PTCA planned   | -   |   |
| <b>Barbash , 1990</b><br>n=97/104                                 | PTCA>72h after rtPA if stenosis>70%<br>versus<br>PTCA>72h after rtPA if stenosis>50% and ischemia              | -   |   |
| <b>Guerci , 1987</b><br>n=42/43<br>follow-up: 10 days             | PTCA at 4 day<br>versus<br>no PTCA during the 10 days study period   | patients candidate to PTCA determined at the 1st day CA   | Factorial plan<br>United states         |
| <b>TIMI 2 , 1989</b><br>n=1636/1626<br>follow-up: 6 we            | CA 18 to 48 hrs<br>versus<br>no CA unless spontaneous or exercise induced ischemia                             | patients treated with intravenous recombinant tissue plasminogen activator (rt-PA) within four hours of the onset of chest pain thought to be caused by myocardial infarction | Factorial plan<br>Open<br>United states |

continued...

| <b>Trial</b>  | <b>Treatments</b>   | <b>Patients</b>  | <b>Trials design and methods</b> |
|---|---|--|----------------------------------|
| <b>TIMI II-A (deferred)</b><br>n=194/197<br>follow-up:      | delayed invasive strategy, deferred angiography and PTCA for 18-48 hours versus conservative approach                         | -  |                                  |
| <b>TOPS , 1992</b><br>n=42/45<br>follow-up: 12 months       | PTCA to be performed 4-14 days after MI versus conservative management, no PTCA   | patients with residual stenoses after thrombolytic treatment of myocardial infarction              | Parallel groups                  |
| <b>Van den Brand , 1991</b><br>n=113/104<br>follow-up: 3 mo | CA at 2-5 days, PTCA if suitable lesion versus CA at 2-5 days but no PTCA   | suitable lesion  | Parallel groups<br>NA<br>Europe  |
| <b>Vermeer , 1999</b><br>n=NA<br>follow-up: 42 days         | alteplase followed by transfer to the PTCA centre and (if indicated) rescue PTCA versus thrombolytic treatment with alteplase | patients with acute myocardial infarction initially admitted to a hospital without PTCA facilities | Parallel groups                  |

## References

**SWIFT, 1991:**

**SIAM, 1992:**

**TAMI 6, 1992:**

**Barbash, 1990:**

**Guerci, 1987:**

**TIMI 2, 1989:**

**TIMI II-A (deferred), 0:**

**TOPS, 1992:**

**Van den Brand, 1991:**

**Vermeer, 1999:**

## 4 fibrinolysis

| <b>Trial</b>  | <b>Treatments</b>   | <b>Patients</b>  | <b>Trials design and methods</b>  |
|---|---|--|-----------------------------------|
| <b>APSAC vs control</b>                                     |   |  |                                   |
| <b>APSIM , 1989</b><br>n=112/119<br>follow-up: 3 weeks      | APSAC 30 U over 5 min versus control (conventional heparin therapy, 5,000 IU in a bolus injection)        | patients with a first acute myocardial infarction within 5 h after the onset of symptoms | Parallel groups<br>open<br>France |
| <b>urokinase vs control</b>                                 |   |  |                                   |
| <b>USIM , 1991</b><br>n=1128/1073<br>follow-up: in hospital | urokinase bolus dose of 1 million U repeated after 60 minutes plus heparin versus control (heparin alone) | patients with acute myocardial infarction within 4 hours of the onset of pain            | Parallel groups<br>open<br>Italy  |

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| <b>Trial</b>   | <b>Treatments</b>  | <b>Patients</b>  | <b>Trials design and methods</b>                 |
|--|--|--|--|
| <b>APSAC vs placebo</b>  |  |  |  |
| <b>AIMS , 1988</b><br>n=624/634<br>follow-up: 1 y  | APSAC 30U IV in 5 min<br>versus<br>Placebo   | Hommes et femmes, <70 ans  | Parallel groups<br>double blind                  |
| <b>German Multicenter Trial , 1988</b><br>n=162/151<br>follow-up: 28 jours                           | APSAC 30 units en IV en 5 min, puis hparine en IV (17 U/kg/h) 4 h aprs l'injection d'APSAC<br>versus<br>Hparine 5000 U en bolus en IV, puis 17 U/kg/h  | Hommes et femmes, <70 ans  | Parallel groups                                  |
| <b>streptokinase vs placebo</b>  |  |  |  |
| <b>EMERAS (7-12h) , 1993</b><br>n=2257/2277<br>follow-up:  | intravenous streptokinase 1.5 MU<br>versus<br>placebo  | patients presenting 7-12 h from symptom onset  | Parallel groups<br>double blind                  |
| <b>EMERAS (all delay) , 1993</b><br>n=2257/2277<br>follow-up:  | streptokinase 1.5 MU<br>versus<br>placebo  | patients entering hospital up to 24 h after the onset of suspected acute myocardial infarction | Parallel groups<br>double blind<br>south america |
| <b>GISSI I , 1986</b><br>n=5860/5852<br>follow-up: 1 y   | Streptokinase 1.5 MU en perfusion IV en 1 heure<br>versus<br>usual care  | patients within 12 h after the onset of symptoms and with no contraindications to SK           | Parallel groups<br>open                          |
| <b>ISAM , 1986</b><br>n=859/882<br>follow-up: 21 days  | 1.5 million IU of streptokinase over 1h<br>versus<br>Placebo   | patients within six hours after the onset of symptoms of myocardial infarction                 | Parallel groups<br>double blind                  |
| <b>ISIS 2 pilot , 1987</b><br>n=NA<br>follow-up:   | streptokinase 1.5 MU<br>versus<br>placebo  | patients with suspected acute myocardial infarction  | Parallel groups<br>double blind                  |
| <b>ISIS-2 (SK) , 1988</b><br>n=8592/8595<br>follow-up: 15 mo   | 1-hour intravenous infusion of 1.5 MU of streptokinase<br>versus<br>Placebo  | patients within 24h of the onset of suspected acute myocardial infarction                      | plan factoriel 2*2<br>double blind               |
| <b>Western Washington Intravenous Trial , 1988</b><br>[NCT00000507]<br>n=191/177<br>follow-up: 1.4 y | Streptokinase en IV, 1.5 M UI en 60 min aprs injection de benadryl 50 mg en IV et hydrocortisone 100 mg en IV; hparine en IV 1000 UI/h 2h aprs la streptokinase puis warfarine pendant au moins 3 mois<br>versus<br>Traitement standard, avec ou sans anticoagulant (dcid par le mdecin) | Hommes et femmes, <ou = 75 ans   | Parallel groups                                  |
| <b>t-PA vs placebo</b>   |  |  |  |
| <b>ASSET , 1988</b><br>n=2516/2495<br>follow-up: 6 months  | rt-PA 100 mg<br>versus<br>Placebo  | patient with suspected acute myocardial infarction   | Parallel groups<br>double blind                  |

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| <b>Trial</b>  | <b>Treatments</b>  | <b>Patients</b>  | <b>Trials design and methods</b>                |
|---|--|--|---|
| <b>LATE , 1993</b><br>n=2836/2875<br>follow-up: 6 mo          | intravenous alteplase (100 mg over 3 h)<br>versus<br>placebo   | patients with symptoms and electrocardiographic criteria consistent with AMI between 6 and 24 h from symptom onset | Parallel groups<br>double blind                 |
| <b>TAMI 6 , 1992</b><br>n=96/101<br>follow-up: 6 months       | tissue-type plasminogen activator 100 mg over 2 hours<br>versus<br>placebo   | patients with 6 to 24 hours of symptoms and ECG ST elevation   | Parallel groups<br>double blind<br>USA          |
| <b>bolus t-PA vs accelerated t-PA</b>                         |  |  |   |
| <b>COBALT , 1997</b><br>n=3585/3584<br>follow-up: 30 days     | of 50 mg of alteplase over a period of 1 to 3 minutes followed 30 minutes later by a second bolus of 50 mg (or 40 mg for patients who weighed less than 60 kg).<br>versus<br>weight-adjusted, accelerated infusion of 100 mg of alteplase  | patients with acute myocardial infarction  | Parallel groups<br>double blind                 |
| <b>lanoteplase vs accelerated t-PA</b>                        |  |  |   |
| <b>InTIME-II , 2000</b><br>n=10038/5022<br>follow-up: 30 days | lanoteplase 120 KU. kg(-1) as a single intravenous bolus<br>versus<br>up to 100 mg accelerated alteplase given over 90 min   | patients presenting within 6 h of onset of ST elevation acute myocardial infarction                                | Parallel groups<br>double blind<br>worldwide    |
| <b>reteplase vs accelerated t-PA</b>                          |  |  |   |
| <b>GUSTO III , 1997</b><br>n=10138/4921<br>follow-up: 30 days | reteplase, in two bolus doses or 10 MU each given 30 minutes apart<br>versus<br>alteplase, up to 100 mg infused over a period of 90 minutes  | patients within 6 hours after the onset of symptoms with ST-segment elevation or bundle-branch block               | Parallel groups<br>open<br>20 countries         |
| <b>RAPID-2 , 1996</b><br>n=169/155<br>follow-up: 35 days      | 10 plus 10 megaunits double bolus of reteplase<br>versus<br>front-loaded alteplase   | patients with acute myocardial infarction within 12h from onset of ischemic chest pain                             | Parallel groups<br>open<br>USA, Germany         |
| <b>tenecteplase vs accelerated t-PA</b>                       |  |  |   |
| <b>ASSENT-2 , 1999</b><br>n=8461/8488<br>follow-up: 30d       | Tenecteplase en IV bolus (dose en fonction du poids: 30 mg si <60 kg; 35 mg si poids entre 60 et 69.9 kg; 40 mg pour les 80-89.9 kg; 50 mg si >ou = 90 kg)<br>versus<br>Alteplase en IV, bolus de 15 mg, puis 0.75 mg/kg (sans dpasser 50 mg) en 30 min puis 0.50 mg/kg (sans dpasser 35 mg) en 60 min | patients with acute myocardial infarction of less than 6 h duration  | Parallel groups<br>double blind<br>29 countries |
| <b>accelerated t-PA vs APSAC</b>                              |  |  |   |
| <b>TAPS , 1992</b><br>n=199/202<br>follow-up:                 | front-loaded administration of rt-PA<br>versus<br>APSAC  | patients with acute myocardial infarction.   | Parallel groups<br>open                         |

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| <b>Trial</b>  | <b>Treatments</b>  | <b>Patients</b>   | <b>Trials design and methods</b>   |
|---|--|---|--|
| <b>TIMI 4 , 1994</b><br>n=NA<br>follow-up: hospital stay              | front-loaded rt-PA<br>versus<br>APSAC  | patients with acute myocardial infarction   | double blind   |
| <b>accelerated t-PA vs streptokinase</b>                              |  |   |  |
| <b>GUSTO tPA Hiv , 1993</b><br>n=10396/20251<br>follow-up: 30 d       | tPA acclr (15 mg en bolus, puis 0.75 mg/kg en 30 min sans dpasser 50 mg puis 0.5 mg/kg en 60 min sans dpasser 35 mg) + hparine en IV (5000 U en bolus, 1000 U/h (de prfrence 1200 U/h si >80 kg), poursuivi au moins 48 h)<br>versus<br>Streptokinase 1.5 MU en 60 min + hparine SC (12500 U 2 fois/j commence 4h aprs thrombolytique) combin streptokinase (1.5 MU en 60 min) + hparine en IV (5000 U en bolus, puis 1000 U/h (1200 U/h si >80 kg) poursuivi au moins 48 h) | Hommes et femmes  | Parallel groups<br>International 15 countries                            |
| <b>anistreplase vs streptokinase</b>                                  |  |   |  |
| <b>TEAM 2 , 1991</b><br>n=183/176<br>follow-up:                       | anistreplase (30 units/2-5 min)<br>versus<br>streptokinase (1.5 million units/60 min)  | less than 76 years of age with electrocardiographic ST segment elevation who could be treated within 4 hours of symptom onset           | double blind   |
| <b>APSAC vs streptokinase</b>   |  |   |  |
| <b>ISIS III (SK/APSAC) , 1992</b><br>n=13780/13773<br>follow-up: 6 mo | Streptokinase 1.5 MU infused over about 1 h<br>versus<br>anisoylated plasminogen-streptokinase activator complex (APSAC), anistreplase: 30 U over about 3 min  | patients within 24 h of the onset of suspected acute myocardial infarction  | Plan factoriel 3 (ou 4) *2<br>double blind<br>International 17 countries |
| <b>reteplase vs streptokinase</b>                                     |  |   |  |
| <b>INJECT , 1995</b><br>n=3004/3006<br>follow-up: 6 mo                | Reteplase 2 bolus de 10 MU 30 min d'intervalle<br>versus<br>Streptokinase 1.5 MU en IV en 60 min   | patients with symptoms and electrocardiographic criteria consistent with acute myocardial infarction within 12 h from onset of symptoms | Parallel groups<br>double blind<br>Europe                                |
| <b>saruplase vs streptokinase</b>                                     |  |   |  |
| <b>COMPASS , 1998</b><br>n=1542/1547<br>follow-up: 1 y                | saruplase 20-mg bolus and 60-mg infusion over 60 min<br>versus<br>streptokinase 1.5-MU infusion over 60 min  | patients with symptoms compatible with those of acute myocardial infarction for <6 h  | Parallel groups<br>double blind  |
| <b>PRIMI (vs SK) , 1989</b><br>n=198/203<br>follow-up: ND             | saruplase 20 mg bolus followed by 60 mg infusion for 60 min<br>versus<br>1.5 million IU streptokinase infused over 60 min  | patients with acute myocardial infarction were within 4 h of onset of symptoms  | Parallel groups<br>double blind  |
| <b>t-PA vs streptokinase</b>  |  |   |  |

continued...

| <b>Trial</b>  | <b>Treatments</b>   | <b>Patients</b>   | <b>Trials design and methods</b>   |
|---|---|---|--|
| <b>International Study Group , 1990</b><br>n=10372/10396<br>follow-up: 6 mo | tPA 100 mg en IV en 3 h (10 mg en bolus, puis 50 mg en 1 h, puis 20 mg/h pendant 2 h)<br>versus<br>Streptokinase 1.5 MU en IV de 30 60 min                      | patients with suspected acute myocardial infarction of less than 6 h duration           | Plan factoriel 2*2<br>double blind                                       |
| <b>Centre Illinois , 1993</b><br>n=123/130<br>follow-up:                    | t-PA 10 mg bolus, followed by 50 mg in the first hour, and 20 mg/hour for the next 2 hours<br>versus<br>SK 375 000 IU bolus, followed by 1 125 000 IU/1 hage/pj | patients with AMI within 3h from onset of chest pain                                    | Parallel groups<br>single blind<br>USA                                   |
| <b>Cherng , 1992</b><br>n=59/63<br>follow-up: hospital stay                 | 100 mg of rTPA over 3 hours (with early heparinization)<br>versus<br>1,500,000 units of streptokinase over 1 hour   | patients with acute myocardial infarction   | Parallel groups<br>open<br>Taiwan  |
| <b>ECSG , 1985</b><br>n=64/65<br>follow-up:                                 | 0.75 mg rt-PA/kg over 90 min<br>versus<br>1 500 000 IU streptokinase over 60 min  | patients with acute myocardial infarction of less than 6 h duration                     | Parallel groups<br>single-blind<br>Europe                                |
| <b>GISSI II , 1990</b><br>n=6182/6199<br>follow-up: 6 mo                    | alteplase 100 mg infused intravenously over 3 h<br>versus<br>streptokinase 1.5 MU infused intravenously over 30-60 min  | patients with acute myocardial infarction within 6 h from onset of symptoms             | Plan factoriel 2*2<br>open<br>International 14 countries                 |
| <b>ISIS III (SK/tPA) , 1992</b><br>n=13780/13746<br>follow-up: 6 mo         | Streptokinase 1.5 MU en IV d'une heure<br>versus<br>tPA 0.04 MU/kg en IV en bolus d'1 min, puis 0.36 MU/kg en 1 h, puis 0.067 MU/kg/h pendant 3 h               | Hommes et femmes  | Plan factoriel 3 (ou 4) *2<br>double blind<br>International 17 countries |
| <b>PAIMS , 1989</b><br>n=86/85<br>follow-up:                                | intravenous cumulative dose of 100 mg rt-PA<br>versus<br>.5 million units streptokinase   | patients with acute myocardial infarction less than 3 h old                             | Parallel groups<br>open<br>Italy   |
| <b>TIMI-1 , 1987</b><br>[NCT00000505]<br>n=157/159<br>follow-up:            | rt-PA, 40, 20, and 20 mg in successive hours<br>versus<br>SK 1.5 million units over 1 hr  | patients with evolving acute myocardial infarction within 7 hr of the onset of symptoms | Parallel groups<br>double blind<br>USA                                   |
| <b>White , 1989</b><br>n=135/135<br>follow-up:                              | rt-PA 100 mg over three hours<br>versus<br>streptokinase 1.5 million units over 30 minutes  | patients with AMI   | Parallel groups<br>double blind<br>New Zealand                           |
| <b>t-PA + streptokinase vs streptokinase</b>                                |   |   |  |

continued...

| <b>Trial</b>   | <b>Treatments</b>  | <b>Patients</b>  | <b>Trials design and methods</b>              |
|--|--|--|---|
| <b>GUSTO tPA-SK Hiv , 1993</b><br>n=10374/20251<br>follow-up: 30 d | tPA en IV 1 mg/kg, sans dpasser 90 mg, dont 10 % en bolus + streptokinase 1 MU en 60 min + hparine en IV (5000 U en bolus, 1000 U/h (de prfrence 1200 U/h si >80 kg), poursuivi au moins 48 h)<br>versus<br>Streptokinase 1.5 MU en 60 min + hparine SC (12500 U 2 fois/j commence 4h aprs thrombolytique) combin streptokinase (1.5 MU en 60 min) + hparine en IV (5000 U en bolus, puis 1000 U/h (1200 U/h si >80 kg) poursuivi au moins 48 h) | Hommes et femmes   | Parallel groups<br>International 15 countries |
| <b>accelerated t-PA vs t-PA</b>                                    |  |  |   |
| <b>RAAMI , 1992</b><br>n=143/138<br>follow-up: hospital stay       | 100 mg of rt-PA accelerated 90-min regimen (15-mg bolus followed by 50 mg over 30 min, then 35 mg over 60 min)<br>versus<br>100 mg of rt-PA standard 3-h infusion regimen (an initial 10-mg bolus followed by 50 mg for the 1st h, then 20 mg/h for 2 h)   | patients with acute myocardial infarction within 6h from onset of chest pain                     | Parallel groups<br>open<br>US                 |
| <b>APSAC vs t-PA</b>   |  |  |   |
| <b>TEAM 3 , 1992</b><br>n=325<br>follow-up: 1 months               | APSAC, 30 U/2 to 5 min<br>versus<br>rt-PA, 100 mg/3 h,   | patient with ST elevation within 4h of the onset of symptoms                                     | double blind                                  |
| <b>recombinant staphylokinase vs t-PA</b>                          |  |  |   |
| <b>STAR , 1995</b><br>n=48/52<br>follow-up: 90 min                 | recombinant staphylokinase (10 or 20 mg given intravenously over 30 minutes)<br>versus<br>weight-adjusted rt-PA over 90 minutes  | patients with evolving myocardial infarction of <6 hours' duration and with ST-segment elevation | Parallel groups<br>open<br>Belgium            |
| <b>saruplase vs t-PA</b>   |  |  |   |
| <b>SESAM , 1997</b><br>n=236/237<br>follow-up: hospital stay       | saruplase 80 mg/hour<br>versus<br>alteplase 100 mg every 3 hours   | patients with acute myocardial infarction  | Parallel groups<br>open<br>Europe             |
| <b>t-PA + urokinase vs t-PA</b>                                    |  |  |   |
| <b>TAMI 5 (t-PA+uroK vs tPA) , 1991</b><br>n=194/191<br>follow-up: | t-PA + urokinase<br>versus<br>t-PA   | patient with acute myocardial infarction   | open  |
| <b>t-PA half dose vs t-PA</b>                                      |  |  |   |
| <b>KAMIT , 1991</b><br>n=109/107<br>follow-up: hospital stay       | half-dose (50 mg) t-PA with streptokinase (1.5 MU) during 1 hour<br>versus<br>t-PA (100 mg) during 3 hours   | patients within 6 hours of myocardial infarction   | Parallel groups<br>open<br>USA                |
| <b>saruplase vs urokinase</b>                                      |  |  |   |

continued...

| <b>Trial</b>   | <b>Treatments</b>   | <b>Patients</b>  | <b>Trials design and methods</b> |
|--|---|--|----------------------------------|
| <b>PRIMI (vs UK) , 1989</b><br>n=198<br>follow-up:             | 20 mg bolus followed by 60 mg infusion for 60 min<br>versus<br>80 mg recombinant pro-urokinase      | with a first acute myocardial infarction within 4 h of onset of symptoms | Parallel groups<br>double blind  |
| <b>t-PA vs urokinase</b>                                       |   |  |                                  |
| <b>TAMI 5 (t-PA vs uroK) , 1991</b><br>n=191/190<br>follow-up: | accelerated t-PA 100mg over 3h<br>versus<br>urokinase IV bolus 1.5 MU followed by 1.5 MU over 90min | patient with acute myocardial infarction                                 | open                             |

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**ISAM, 1986:**  
**ISIS 2 pilot, 1987:**  
**ISIS-2 (SK), 1988:**  
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**LATE, 1993:**  
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 RAAMI, 1992:  
 TEAM 3, 1992:  
 STAR, 1995:  
 SESAM, 1997:  
 TAMI 5 (t-PA+uroK vs tPA), 1991:  
 KAMIT, 1991:  
 PRIMI (vs UK), 1989:  
 TAMI 5 (t-PA vs uroK), 1991:

## 5 immediate PCI after thrombolysis

| Trial   | Treatments  | Patients  | Trials design and methods        |
|---|---|---|----------------------------------|
| <b>immediate systematic balloon angioplasty vs no immediate angioplasty</b> |   |   |                                  |
| <b>Belenkie , 1991</b><br>n=50/39<br>follow-up: 4 months                    | immediate PTCA<br>versus<br>delayed PTCA (18-38h)   | patients with a patent infarct-related artery<br>after thrombolytic therapy suitable for<br>angioplasty   | parallel group<br>open<br>Canada |
| <b>ECSI , 1988</b><br>n=183/184<br>follow-up: 1 y                           | angioplasty as soon as possible (after rtPA)<br>versus<br>non-invasive strategy without immediate CA<br>and PTCA  | patients with acute myocardial infarction<br>within 5 h after onset of symptoms   | parallel group<br>open<br>Europe |
| <b>Ellis , 1994</b><br>n=78/73<br>follow-up:                                | balloon angioplasty supplemented by further<br>thrombolytic therapy as needed<br>versus<br>conservative therapy   | patients with first anterior wall infarction<br>treated with any accepted intravenous<br>thrombolytic regimen and angiographically<br>demonstrated to have an occluded infarct<br>vessel within 8 hours of chest pain onset |                                  |
| <b>Erbel , 1989</b><br>n=103/103<br>follow-up: 3 years                      | combined intravenous and intracoronary<br>streptokinase with immediate coronary<br>angioplasty<br>versus<br>combined intravenous and intracoronary<br>streptokinase without immediate coronary<br>angioplasty | patients with acute transmural myocardial<br>infarction   | Parallel groups                  |

continued...

| <b>Trial</b>   | <b>Treatments</b>   | <b>Patients</b>  | <b>Trials design and methods</b>  |
|--|---|--|-----------------------------------|
| <b>MERLIN (Sutton) , 2004</b><br>n=NA<br>follow-up: 30 days                            | emergency coronary angiography with rescue PCI<br>versus<br>conservative treatment  | patients with STEMI and failed fibrinolysis  | Parallel groups                   |
| <b>SHOCK (Hochman) , 1999</b><br>[NCT00000552]<br>n=152/150<br>follow-up: 30 days (6y) | emergency revascularization<br>versus<br>initial medical stabilization  | patients with cardiogenic shock complicating acute MI                                    | Parallel groups<br>open<br>US     |
| <b>SWISS-SMASH , 1999</b><br>n=32/23<br>follow-up: 30 days (1y)                        | emergency angiography, followed immediately by revascularization when indicated<br>versus<br>initial medical management   | Patients with acute myocardial infarction and early shock                                | Parallel groups<br>open<br>Europe |
| <b>TAMI 1 pilot , 1987</b><br>n=99/98<br>follow-up: in hospital                        | Angioplasty within 120 min (after rtPA)<br>versus<br>deferred CA (7-10 days) and angioplasty if indicated   | patients with acute myocardial infarction.   | parallel group<br>open<br>USA     |
| <b>TAMI-5 (Califf) , 1991</b><br>n=287/288<br>follow-up:                               | immediate catheterization with angioplasty for failed thrombolysis (90min after rtPA/urokinase)<br>versus<br>deferred predischage catheterization on days 5-10, no PTCA planned | patient with acute myocardial infarction   | Factorial plan                    |
| <b>TIMI 2A , 1988</b><br>n=195/194<br>follow-up: 21 days                               | CA within 120 min of the start of the rtPA infusion. PTCA whether the artery is open or closed<br>versus<br>CA within 18-48hrs. PTCA only if artery open (TIMI 2 or 3)          | patient thrombolized for a AMI   | parallel group<br>open<br>USA     |
| <b>Topol , 1987</b><br>n=15/13<br>follow-up: in hospital                               | immediate PTCA<br>versus<br>no PTCA   | patients with evolving transmural myocardial infarction                                  | parallel group<br>open<br>USA     |
| <b>systematic PCI (+stent) vs no systematic PCI</b>                                    |   |  |                                   |
| <b>CAPITAL AMI , 2005</b><br>n=86/84<br>follow-up: 6 months                            | TNK-facilitated angioplasty<br>versus<br>TNK alone  | patients with high-risk ST-segment elevation myocardial infarction                       | Parallel groups                   |
| <b>GRACIA-1 , 2004</b><br>n=248/251<br>follow-up: 12 months                            | angiography and intervention if indicated within 24 h of thrombolysis<br>versus<br>ischaemia-guided conservative approach   | patients with thrombolysed STEMI (with recombinant tissue plasminogen activator)         | Parallel groups                   |
| <b>PRAGUE , 2000</b><br>n=100/99<br>follow-up: 12 months                               | thrombolysis during immediate transportation for coronary angioplasty<br>versus<br>thrombolysis in a community hospital   | patients with acute ST elevation myocardial infarction presenting to community hospitals |                                   |

continued...

| Trial  | Treatments   | Patients  | Trials design and methods  |
|--|--|---|----------------------------|
| <b>SIAM III , 2002</b><br>n=82/81<br>follow-up: 6 months | immediate stenting after thrombolysis<br>versus<br>conservative treatment  | patients receiving thrombolysis in AMI (<12 h)                                  | Parallel groups<br>Germany |
| <b>WEST , 2006</b><br>n=104/100<br>follow-up: 30 days    | TNK and mandatory invasive study <= 24 h,<br>including rescue PCI for reperfusion failure<br>versus<br>tenecteplase (TNK) and usual care | STEMI patients (>4 mm<br>ST-elevation/deviation) within 6 h of<br>symptom onset | Parallel groups<br>Canada  |

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**SHOCK (Hochman), 1999:**  
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**TAMI 1 pilot, 1987:**  
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**TIMI 2A, 1988:**  
**Topol, 1987:**  
**CAPITAL AMI, 2005:**  
**GRACIA-1, 2004:**  
**PRAGUE, 2000:**  
**SIAM III, 2002:**  
**WEST, 2006:**

## 6 Prehospital thrombolysis

| Trial   | Treatments | Patients | Trials design and methods |
|---|------------|----------|---------------------------|
| <b>Prehospital thrombolysis vs at hospital thrombolysis</b>       |            |          |                           |
| <b>EMIP , 1993</b><br>n=2750/2719<br>follow-up: ND                | -          | -        | ND                        |
| <b>GREAT , 1994</b><br>n=163/148<br>follow-up: ND                 | -          | -        | ND                        |
| <b>MITI , 1993</b><br>[NCT00000468]<br>n=175/175<br>follow-up: ND | -          | -        | ND                        |

continued...

| Trial                                  | Treatments | Patients | Trials design and methods |
|--|------------|----------|---------------------------|
| Roth , 1990<br>n=72/44                 | -          | -        |                           |
| Barbash , 1990<br>n=NA                 | -          | -        |                           |
| Castaigne , 1987<br>n=NA               | -          | -        |                           |
| Mcneill , 1989<br>n=NA                 | -          | -        |                           |
| Schofer , 1990<br>n=40/38              | -          | -        |                           |
| Castaigne , 1989<br>n=57/43            | -          | -        |                           |
| TEAHAT , 1990<br>n=NA<br>follow-up: ND | -          | -        | ND                        |

## References

EMIP, 1993:

GREAT, 1994:

MITI, 1993:

Roth, 1990:

Barbash, 1990:

Castaigne, 1987:

Mcneill, 1989:

Schofer, 1990:

Castaigne , 1989:

TEAHAT, 1990:

## 7 primary PCI

| Trial   | Treatments  | Patients | Trials design and methods        |
|---|---|----------|----------------------------------|
| <b>primary ballon angioplasty vs accelerated t-PA</b> |   |          |                                  |
| Ribichini , 1996<br>n=24/26<br>follow-up: discharge   | primary PTCA<br>versus<br>accelerated alteplase 90 min (15 mg IV bolus<br>followed by an infusion of 0.75 mg/kg over<br>30min not to exceed 50mg, and then 0.5<br>mg/kg over the next 60min not to exceed<br>35mg for a total maximum of 100mg) | -        | Parallel groups<br>open<br>Italy |

continued...



| <b>Trial</b>   | <b>Treatments</b>  | <b>Patients</b>  | <b>Trials design and methods</b>                   |
|--|--|--|--|
| <b>Garcia , 1997</b><br>n=95/94<br>follow-up: 30 d                         | primary PTCA<br>versus<br>accelerated t-PA 90 min (15 mg IV bolus followed by an infusion of 0.75 mg/kg over 30min not to exceed 50mg, and then 0.5 mg/kg over the next 60min not to exceed 35mg for a total maximum of 100mg) | patients with anterior AMI   | Parallel groups<br>open<br>Spain                   |
| <b>GUSTO 2B , 1997</b><br>n=573/565<br>follow-up: 30 d                     | primary PTCA<br>versus<br>accelerated t-PA 90 min (15 mg IV bolus followed by an infusion of 0.75 mg/kg over 30min not to exceed 50mg, and then 0.5 mg/kg over the next 60min not to exceed 35mg for a total maximum of 100mg) | patients within 12 hours of acute myocardial infarction (with ST-segment elevation on the electrocardiogram)   | factorial design<br>open<br>USA, Europe, Australia |
| <b>DANAMI-2 , 1997</b><br>n=NA<br>follow-up: 2.4y                          | angioplasty<br>versus<br>accelerated treatment with intravenous alteplase  | patients who received thrombolytic treatment for a first acute myocardial infarction and with inducible myocardial ischemia (either symptomatic angina pectoris presenting spontaneously >36 hours after admission or during a pre-discharge exercise test or ST changes during exercise compatible with ischemia) | Parallel groups<br>open                            |
| <b>primary PCI vs accelerated t-PA</b>                                     |  |  |  |
| <b>C-PORT , 2002</b><br>n=225/226<br>follow-up: 6 months                   | primary PCI without on-site cardiac surgery<br>versus<br>accelerated tissue plasminogen activator  | thrombolytic-eligible patients with acute MI of less than 12 hours' duration associated with ST-segment elevation  | Parallel groups<br>open<br>USA                     |
| <b>primary stenting vs accelerated t-PA</b>                                |  |  |  |
| <b>STAT , 2001</b><br>n=62/61<br>follow-up: 6 months                       | primary stenting<br>versus<br>accelerated t-PA   | patients with acute ST-elevation myocardial infarction   | Parallel groups<br>open                            |
| <b>facilitated stenting vs alteplase</b>                                   |  |  |  |
| <b>STOPAMI 1 , 2000</b><br>n=71/69<br>follow-up: 6 months                  | stent plus abciximab<br>versus<br>intravenous alteplase  | patients with acute myocardial infarction  | Parallel groups<br>open                            |
| <b>primary stenting vs balloon angioplasty</b>                             |  |  |  |
| <b>Zwolle 5 (Suryapranata) , 1998</b><br>n=112/115<br>follow-up: 12 months | Stent Palmaz-Schatz<br>versus<br>balloon angioplasty   | Patients with acute myocardial infarction  | Parallel groups<br>open                            |
| <b>FRESCO , 1998</b><br>n=75/75<br>follow-up: 12 months                    | elective stenting after successful primary PTCA<br>versus<br>no further intervention after successful primary PTCA   | patient with successful primary PTCA   | Parallel groups<br>open                            |

continued...

| <b>Trial</b>  | <b>Treatments</b>   | <b>Patients</b>   | <b>Trials design and methods</b> |
|---|---|---|----------------------------------|
| <b>GRAMI (Rodriguez) , 1998</b><br>n=52/52<br>follow-up: 12 months          | balloon angioplasty followed electively with Gianturco Roubin II stents<br>versus<br>conventional balloon angioplasty | patients with acute myocardial infarction within 24 hours after onset   | Parallel groups<br>open          |
| <b>PASTA (Saito) , 1999</b><br>n=67/70<br>follow-up: 12 months              | Stent Palmaz-Schatz<br>versus<br>primary balloon angioplasty  | patients with AMI within 12 hr from onset   | Parallel groups<br>open          |
| <b>stent-PAMI (Grines) , 1999</b><br>n=452/448<br>follow-up: 12 months      | angioplasty with Stent Heparin-coated<br>versus<br>angioplasty alone  | patients with acute myocardial infarction and with vessels suitable for stenting  | Parallel groups<br>open          |
| <b>STENTIM-2 (Maillard) , 2000</b><br><br>n=101/110<br>follow-up: 12 months | systematic stenting with Stent Wiktor<br>versus<br>conventional balloon angioplasty                                   | patients with AMI <12 h from symptom onset, with an occluded native coronary artery   | Parallel groups<br>open          |
| <b>PSSAAMI (Scheller) , 2001</b><br>n=44/44<br>follow-up: 24 months         | Stent Wiktor GX<br>versus<br>primary angioplasty  | patients within 24 hours after the onset of acute myocardial infarction   | Parallel groups<br>open          |
| <b>Jaksch , 1998</b><br>n=231/231<br>follow-up: 65279;6 months              | -   | -   | Parallel groups<br>open          |
| <b>PRISAM (Kawashima) , 1999</b><br>n=110/112<br>follow-up: 65279;6 months  | -   | -   | Parallel groups<br>open          |
| <b>CADILLAC (no abciximab) , 2002</b><br>n=512/518<br>follow-up: 12 months  | stenting alone with the MultiLink stent<br>versus<br>PTCA alone   | patients with acute myocardial infarction   | Parallel groups<br>open          |
| <b>CADILLAC abciximab. , 2002</b><br>n=524/528<br>follow-up: 12 months      | stenting plus abciximab therapy<br>versus<br>PTCA plus abciximab therapy  | patients with acute myocardial infarction   | Parallel groups<br>open          |
| <b>ZWOLLE 6 , 2005</b><br>n=785/763<br>follow-up: 12 months                 | stenting<br>versus<br>balloon angioplasty   | unselected patients with STEMI  | Parallel groups<br>open          |
| <b>STOPAMI 3 , 2004</b><br>n=305/306<br>follow-up: 6 months                 | coronary artery stenting<br>versus<br>PTCA  | patients with AMI ineligible for thrombolysis (lack of ST-segment elevation on the electrocardiogram, late presentation >12 h after symptom onset, and contraindications to thrombolysis) | Parallel groups<br>open          |
| <b>primary ballon angioplasty vs duteplase</b>                              |   |   |                                  |
| <b>DeWood , 1989</b><br>n=46/44<br>follow-up: 30 d                          | primary PTCA<br>versus<br>duteplase 0.5 MU/kg for 1 h then 0.7 MU/kg/h for 3h   | -   | Parallel groups<br>open<br>USA   |

continued...

| <b>Trial</b>  | <b>Treatments</b>  | <b>Patients</b>  | <b>Trials design and methods</b>          |
|---|--|--|---|
| <b>Gibbons , 1993</b><br>n=47/56<br>follow-up: discharge          | primary PTCA<br>versus<br>alteplase 0.6 MU/kg over 5h  | patients with acute myocardial infarction  | Parallel groups<br>open<br>USA            |
| <b>primary stenting vs immediate thrombolysis</b>                 |  |  |   |
| <b>STOPAMI 2 , 2002</b><br>n=81/81<br>follow-up:                  | stenting combined with abciximab<br>versus<br>fibrinolysis by alteplase combined with<br>abciximab                           | patients with acute myocardial infarction<br>within 12 h of onset of symptoms  | Parallel groups<br>open                   |
| <b>transfer for primary angioplasty vs immediate thrombolysis</b> |  |  |   |
| <b>AIR-PAMI , 2002</b><br>n=71/66<br>follow-up:                   | Transfer for Primary Angioplasty<br>versus<br>immediate thrombolysis (various<br>thrombolytic)                               | Patients with high-risk AMI (age >70 years,<br>anterior MI, Killip class II/III, heart rate<br>>100 beats/min or systolic BP <100 mm<br>Hg), eligible for thrombolytic therapy | Parallel groups<br>open                   |
| <b>DANAMI-2 , 2003</b><br>n=567/562<br>follow-up: 30 days         | Transfer for Primary Angioplasty<br>versus<br>immediate thrombolysis with tPA (accelerated<br>infusion)                      | patients with myocardial infarction with<br>ST-segment elevation   | Parallel groups<br>open                   |
| <b>PRAGUE-2 , 2003</b><br>n=429/421<br>follow-up: 30 days         | immediate transport for primary<br>percutaneous coronary intervention<br>versus<br>immediate thrombolysis with streptokinase | patients with acute ST elevation myocardial<br>infarction presenting within <12 h to the<br>nearest community hospital without a<br>catheter laboratory                        | Parallel groups<br>open                   |
| <b>primary ballon angioplasty vs intracoronary streptokinase</b>  |  |  |   |
| <b>O'Neill , 1986</b><br>n=NA<br>follow-up:                       | coronary angioplasty<br>versus<br>intracoronary streptokinase  | patients within 12 hours of their first<br>symptoms of acute myocardial infarction   | Parallel groups<br>open                   |
| <b>primary ballon angioplasty vs streptokinase</b>                |  |  |   |
| <b>Zwolle , 1994</b><br>n=152/149<br>follow-up: discharge         | primary PTCA<br>versus<br>streptokinase 1.5 M IU over 1h   | patients with acute myocardial infarction  | Parallel groups<br>open<br>The Netherland |
| <b>Ribeiro , 1993</b><br>n=50/50<br>follow-up: discharge          | primary PTCA<br>versus<br>streptokinase 1.2 M IU over 1h   | patients with ST segment elevation within 6<br>h of the onset of chest pain  | Parallel groups<br>open<br>Brazil         |
| <b>Grinfeld , 1996</b><br>n=54/58<br>follow-up: 30 d              | primary PTCA<br>versus<br>streptokinase 1.5 M IU over 1h   | -  | Parallel groups<br>open<br>Argentina      |
| <b>Zijlstra , 1997</b><br>n=45/50<br>follow-up: 6 months          | primary PTCA<br>versus<br>streptokinase 1.5 M IU over 1h   | patients with acute myocardial infarction  | Parallel groups<br>open<br>The Netherland |

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| <b>Trial</b>  | <b>Treatments</b>   | <b>Patients</b>   | <b>Trials design and methods</b>        |
|---|---|---|---|
| Zijlstra , 1993<br>n=70/72<br>follow-up:                                      | immediate coronary angioplasty (without previous thrombolytic therapy)<br>versus<br>intravenous streptokinase | patients with acute myocardial infarction   | Parallel groups<br>open                 |
| Akhras , 1997<br>n=42/45<br>follow-up:  | primary angioplasty<br>versus<br>streptokinase  | patient within 12hr from onset of AMI   | Parallel groups<br>open<br>Saudi Arabia |
| <b>primary ballon angioplasty vs t-PA</b>                                     |   |   |   |
| PAMI , 1993<br>n=195/200<br>follow-up: discharge                              | primary PTCA<br>versus<br>t-PA 100mg (or 1.25mg/kg for patients weighting less than 65kg) over 3 h            | patients who presented within 12 hours of the onset of myocardial infarction  | Parallel groups<br>open<br>USA,Europe   |
| <b>primary ballon angioplasty vs tenecteplase</b>                             |   |   |   |
| TRIANA , 2009<br>[NCT00257309]<br>n=132/134<br>follow-up: 30 days (12 months) | Tenecteplase + UFH (+/- clopidogrel)<br>versus<br>Primary angioplasty   | >=75 years old with ST-segment elevation or LBBB AMI <6 hours of evolution without contraindications for thrombolytic therapy | Parallel groups<br>open                 |
| <b>primary PCI vs Thrombolysis</b>  |   |   |   |
| senior PAMI , 2005<br>[NCT00136929]<br>n=252/229<br>follow-up: 30 days        | primary percutaneous coronary intervention<br>versus<br>intravenous thrombolytic therapy                      | elderly (age >= 70 years) patients with acute myocardial infarction   | Parallel groups<br>Open                 |

## References

Ribichini, 1996:  
Garcia, 1997:  
GUSTO 2B, 1997:  
DANAMI-2, 1997:  
C-PORT, 2002:  
STAT, 2001:  
STOPAMI 1, 2000:  
Zwolle 5 (Suryapranata), 1998:  
FRESCO, 1998:  
GRAMI (Rodriguez), 1998:  
PASTA (Saito), 1999:  
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STENTIM-2 (Maillard), 2000:  
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 Akhras, 1997:  
 PAMI, 1993:  
 TRIANA, 2009:  
 senior PAMI, 2005:

## 8 transfer for primary angioplasty

| Trial   | Treatments  | Patients   | Trials design and methods |
|---|---|--|---------------------------|
| <b>primary angioplasty vs immediate thrombolysis</b>        |   |  |                           |
| <b>MAASTRICHT (Vermeer) , 1999</b><br>n=75/75<br>follow-up: | Transfer for primary PTCA<br>versus<br>immediate thrombolysis with tPA  | patients with acute myocardial infarction<br>initially admitted to a hospital without<br>PTCA facilities   | open                      |
| <b>PRAGUE-1 , 2000</b><br>n=101/99<br>follow-up: 30 days    | immediate transportation for primary<br>angioplasty without pre-treatment with<br>thrombolysis<br>versus<br>immediate thrombolysis with streptokinase | patients with acute myocardial infarction,<br>presenting within 6 h of symptom onset at<br>community hospitals without a<br>catheterization laboratory                         | open                      |
| <b>AIR-PAMI , 2002</b><br>n=71/66<br>follow-up:             | Transfer for Primary Angioplasty<br>versus<br>immediate thrombolysis (various<br>thrombolytic)  | Patients with high-risk AMI (age >70 years,<br>anterior MI, Killip class II/III, heart rate<br>>100 beats/min or systolic BP <100 mm<br>Hg), eligible for thrombolytic therapy | open                      |
| <b>CAPTIM , 2002</b><br>n=421/419<br>follow-up:             | Transfer for Primary Angioplasty<br>versus<br>prehospital fibrinolysis with accelerated<br>alteplase  | patients within 6 h of acute myocardial<br>infarction with ST-segment elevation, initially<br>managed by mobile emergency-care units   | open                      |

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| <b>Trial</b>  | <b>Treatments</b>  | <b>Patients</b>  | <b>Trials design and methods</b>          |
|---|--|--|---|
| <b>DANAMI-2 , 2003</b><br>n=567/562<br>follow-up: 30 days                                   | Transfer for Primary Angioplasty<br>versus<br>immediate thrombolysis with tPA (accelerated infusion)   | patients with myocardial infarction with ST-segment elevation  | Parallel groups<br>open                   |
| <b>PRAGUE-2 , 2003</b><br>n=429/421<br>follow-up: 30 days                                   | immediate transport for primary percutaneous coronary intervention<br>versus<br>immediate thrombolysis with streptokinase  | patients with acute ST elevation myocardial infarction presenting within <12 h to the nearest community hospital without a catheter laboratory | open                                      |
| <b>thrombolysis + angioplasty vs immediate thrombolysis</b>                                 |  |  |   |
| <b>NORDISTEMI , 2009</b><br>[NCT00161005]<br>n=134/132<br>follow-up: 1y                     | transfer for immediate coronary angiography and intervention<br>versus<br>conservative strategy  | patients with STEMI of less than 6 hours of duration and more than 90 minutes expected time delay to PCI                                       | Parallel groups<br>open<br>Norway         |
| <b>PRAGUE-1 (thrombolysis+PTCA) , 2000</b><br>n=100/99<br>follow-up: 30 days                | thrombolytic therapy during transportation to angioplasty<br>versus<br>immediate thrombolysis with streptokinase   | patients with acute myocardial infarction, presenting within 6 h of symptom onset at community hospitals without a catheterization laboratory  | Parallel groups<br>open<br>Czech Republic |
| <b>CARESS , 2008</b><br>n=NA<br>follow-up: 30 days  | immediate transfer for PCI after half-dose reteplase, abciximab, heparin, and aspirin<br>versus<br>half-dose reteplase, abciximab, heparin, and aspirin, transfer for PCI only if they had persistent ST elevation at 90 minutes (rescue PCI)          | STEMI patients under 75 years old within 12 hours of symptom onset who had been admitted to hospitals without PCI facilities                   | open<br>France, Italy, and Poland         |
| <b>CAPITAL AMI , 2005</b><br>n=86/84<br>follow-up: 6 months                                 | full-dose tenecteplase (TNK) plus PCI<br>versus<br>thrombolysis alone  | high-risk MI patients within six hours of symptom onset  | Parallel groups<br>open<br>US             |
| <b>TRANSFER-AMI , 2008</b><br><i>ongoing</i><br>[NCT00164190]<br>n=NA<br>follow-up: 30 days | pharmacoinvasive strategy (transfer for PCI within six hours of fibrinolysis)<br>versus<br>standard treatment after fibrinolysis (rescue PCI for failed reperfusion, with elective PCI encouraged for successfully reperfused patients after 24 hours) | patients with high-risk STEMI  | Parallel groups<br>open                   |

## References

MAASTRICHT (Vermeer), 1999:

PRAGUE-1, 2000:

AIR-PAMI, 2002:

CAPTIM, 2002:

DANAMI-2, 2003:

PRAGUE-2, 2003:

NORDISTEMI, 2009:

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**CARESS, 2008:**  
**CAPITAL AMI, 2005:**  
**TRANSFER-AMI, 2008:**

## 9 About TrialResults-center.org

TrialResults-center is an innovative knowledge database that collects the results of RCTs and provides dynamic interactive systematic reviews and meta-analysis in the field of all major heart and vessels diseases.

The TrialResults-center database provides a unique view of the treatment efficacy based on all data provided directly from clinical trial results, offering a valuable alternative to personal bibliographic search, published meta-analysis, etc. Furthermore, it would allow comparing easily the various concurrent therapeutic for the same clinical condition.

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