

Clinical trials of cell-based therapies for heart failure in all types of patients

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1 bone marrow derived stem cell

| Trial | Treatments | Patients | Trials design and methods |
|--|---|---|---------------------------|
| Mesenchymal stem cells vs allogeneic mesenchymal stem cells | | | |
| POSEIDON , 2012 [NCT01087996] n=NA follow-up: | allogeneic MSCs versus autologous bone marrowderived mesenchymal stem cells delivered by transendocardial injection | patients with LV dysfunction due to ICM | |
| Bone marrow derived stem cell vs control | | | |
| CUPID 2b , 2016 [NCT01643330] n=NA follow-up: | - | patients with advanced heart failure | |
| FOCUS-CCTR N , 2012 [NCT00824005] n=92 follow-up: | - | patients with chronic ischemic heart failure | |
| Pokushalov (DOUBLON DIB) , 2010 n=55/54 follow-up: | Intramyocardial transplantation of autologous bone marrow mononuclear cells versus optimal medical therapy | patients with severe ischemic heart failure | Russia |
| Bone marrow mononuclear cells vs control | | | |
| Ang , 2008 n=NA | - | Elective CABG patients with established myocardial scars diagnosed as akinetic or dyskinetic segments by dobutamine stress echocardiography and confirmed at surgery | single-blinded |
| Hendriks , 2006 n=NA follow-up: 4 months | - | patients with a postinfarction nonviable scar | |
| TOPCARE-CHD , 2006 [NCT00289822] n=NA | - | patients with stable ischemic heart disease who had had a myocardial infarction at least 3 months previously | |
| Yao , 2008 n=24/23 | - | patients with stable ischaemic heart disease due to a previous MI | |
| Bone marrow progenitor cells vs control | | | |
| Manginas , 2007 n=NA | - | patients with old, nonviable anterior myocardial infarction | |

continued...

| Trial | Treatments | Patients | Trials design and methods |
|---|---|---|---|
| Patel , 2005 n=10/10 | - | patients with ischemic cardiomyopathy and an ejection fraction of less than 35% who were scheduled for primary off-pump coronary artery bypass grafting | |
| Perin , 2012 n=10/10 follow-up: 6 months | - | patients with advanced ischemic heart failure | |
| Vrtovec , 2011 [NCT00629018] n=NA | - | patients with dilated cardiomyopathy | |
| Vrtovec , 2013 [NCT01350310] n=55/55 | - | patients with dilated cardiomyopathy | |
| Stem cells vs control | | | |
| TAC-HFT , 2014 [NCT00768066] n=NA follow-up: | transendocardial injection of bone marrow-derived progenitor cells versus placebo | Patients With Chronic Ischemic Left Ventricular Dysfunction and Heart Failure Secondary to Myocardial Infarction | |
| Bone marrow derived stem cell vs placebo | | | |
| ABCD , 2010 n=24/20 follow-up: | - | Patients with nonischemic dilated cardiomyopathy | |
| INCL , 2015 [NCT00333827] n=NA follow-up: 6 months | bone marrow derived stem cell versus placebo | patients with dilated cardiomyopathy and heart failure in NYHA class III or IV | Parallel groups double blind Brazil |
| Bone marrow mononuclear cells vs placebo | | | |
| FOCUS-HF , 2011 [NCT00203203.] n=20/10 follow-up: 6 mo | - | patients with chronic HF | |
| Bone marrow derived stem cell vs sham | | | |
| C41750/3100 <i>ongoing</i> [NCT02032004] n=NA follow-up: | - | - | |

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C41750/3100, 0:

2 Cardiac stem cells

| Trial | Treatments | Patients | Trials design and methods |
|--|------------|--|---------------------------|
| Cardiopoietic stem cell vs control | | | |
| C CURE , 2013 [NCT00810238] n=NA follow-up: | - | patients with heart failure of ischemic origin | |
| CADUCEUS , 2012 [NCT00893360] n=17 | - | patients with left ventricular dysfunction after myocardial infarction | |

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3 gene therapy

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| Trial | Treatments | Patients | Trials design and methods |
|---|---|---|---------------------------------------|
| gene therapy vs placebo | | | |
| CUPID , 2011 n=25/14 follow-up: 6 months | SERCA2a gene therapy versus placebo | patients NYHA class 3-4 heart failure and an LVEF <35% | Parallel groups double-blind US |

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4 ixmyelocel-T

| Trial | Treatments | Patients | Trials design and methods |
|--------------------------------|------------|----------|---------------------------|
| ixmyelocel-T vs control | | | |

continued...

| Trial | Treatments | Patients | Trials design and methods |
|--|-----------------------------------|---|---------------------------|
| Catheter-DCM , 2014 [NCT01020968] n=NA follow-up: | - | patients with dilated cardiomyopathy | |
| IMPACT-DCM , 2014 [NCT00765518] n=NA follow-up: | - | patients with dilated cardiomyopathy | |
| ixmyelocel-T vs placebo | | | |
| ixCELL-DCM , 2016 [NCT01670981] n=60/66 follow-up: | ixmyelocel-T versus placebo | patients with New York Heart Association class III or IV symptomatic heart failure due to ischaemic dilated cardiomyopathy, who had left ventricular ejection fraction 35% or less, an automatic implantable cardioverter defibrillator, and who were ineligible for revascularisation procedures | |

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5 myoblasts

| Trial | Treatments | Patients | Trials design and methods |
|---|--|---|---------------------------|
| Cardiac stem cells vs control | | | |
| SCIPIO , 2011 [NCT00474461] n=NA follow-up: | - | Patients With Ischemic Cardiomyopathy | |
| myoblasts vs control | | | |
| CAuSMIC , 2005 n=12/11 follow-up: 12 mo | 3-dimensional guided catheter-based delivery of autologous skeletal myoblasts versus control | patients with previous myocardial infarction and heart failure, New York Heart Association (NYHA) functional class II to IV | |

continued...

| Trial | Treatments | Patients | Trials design and methods |
|---|---|--|---------------------------|
| SEISMIC , 2011 n=26/14 follow-up: 6 mo | percutaneous intramyocardial transplantation of autologous skeletal myoblasts versus control | Patient with heart failure patients with implanted cardioverter-defibrillators | |
| myoblasts vs placebo | | | |
| MAGIC , 2001 n=63/34 follow-up: 6 mo | autologous skeletal myoblasts into the postinfarction scar during coronary artery bypass grafting of remote myocardial areas versus placebo | patient with severe ischaemic heart failure | |
| MARVEL , 2011 [NCT00526253] n=14/6 follow-up: 6 mo | image-guided, catheter-based intramyocardial injection of placebo or myoblasts (400 or 800 million) versus placebo | patients with class II to IV HF and ejection fraction <35% | |

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6 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.

Rigorous meta-analysis method is used to populate TrialResults-center: widespread search of published and non published trials, study selection using pre-specified criteria, data extraction using standard form.

TrialResults-center is continually updated on a weekly basis. We continually search all new results (whatever their publication channel) and these news results are immediately added to the database with a maximum of 1 week.

TrialResults-center is non-profit and self-funded.