

Clinical trials of tinzaparin

TrialResults-center www.trialresultscenter.org

1 thrombosis prevention

Trial	Treatments	Patients	Trials design and methods
tinzaparin vs control			
Jorgensen , 2002 n=99/106 follow-up: 38 days	Tinzaparin 3500 IU versus no prophylaxis	patients over 18 years of age with planned plaster cast on a lower extremity of at least 3 weeks	Parallel groups open, assessor-blinded
tinzaparin vs placebo			
Bergqvist [42] n=39/41 follow-up:	Tinzaparin 3500 anti-Xa units versus Placebo	-	Parallel groups Blind
Lassen , 1991 n=105/105 follow-up: 8-10 days	tinzaparin 50/kg x1 +elastic stockings versus Placebo+elastic stockings	Elective hip	double blind
tinzaparin vs unfractionated heparin			
Leizorovicz , 1991 n=861/429	Tinzaparin 2500 and 3500 anti Xa units versus UFH 10 000 units	Abdominothoracic and gynaecological surgery	Blind

More details and results :

- antithrombotics for thrombosis prevention in orthopedic surgery at <http://www.trialresultscenter.org/go-Q37>
- antithrombotics for thrombosis prevention in elective hip replacement at <http://www.trialresultscenter.org/go-Q39>
- antithrombotics for thrombosis prevention in general surgery at <http://www.trialresultscenter.org/go-Q92>
- heparin (UFH or LMWH) for thrombosis prevention in orthopedic surgery at <http://www.trialresultscenter.org/go-Q189>
- LMWH for thrombosis prevention in orthopedic surgery at <http://www.trialresultscenter.org/go-Q190>
- heparin (UFH or LMWH) for thrombosis prevention in general surgery at <http://www.trialresultscenter.org/go-Q195>
- LMWH for thrombosis prevention in general surgery at <http://www.trialresultscenter.org/go-Q196>
- antithrombotics for thrombosis prevention in patients with immobilization of the lower extremities at <http://www.trialresultscenter.org/go-Q405>

References

Jorgensen, 2002:

Jrgensen PS, Warming T, Hansen K, Paltved C, Vibeke Berg H, Jensen R, Kirchoff-Jensen R, Kjaer L, Kerbouche N, Leth-Espensen P, Narvestad E, Rasmussen SW, Sloth C, Trholm C, Wille-Jrgensen P Low molecular weight heparin (Innohep) as thromboprophylaxis in outpatients with a plaster cast: a venografic controlled study. *Thromb Res* 2002;105:477-80 [[12091045](#)]

Bergqvist [42], :

Bergqvist D, Flordal PA, Friberg B, Frisell J, Hedberg M, Ljungstrm KG, Mtzsch T, Trngren S Thromboprophylaxis with a low molecular weight heparin (tinzaparin) in emergency abdominal surgery. A double-blind multicenter trial. *Vasa* 1996;25:156-60 [[8659218](#)]

Lassen, 1991:

Lassen MR, Borris LC, Christiansen HM, Boll KL, Eiskjaer SP, Nielsen BW, Schtt P, Olsen AD, Rodenberg JC, Lucht U Prevention of thromboembolism in 190 hip arthroplasties. Comparison of LMW heparin and placebo. *Acta Orthop Scand* 1991;62:33-8 [[1848385](#)]

Leizorovicz, 1991:

2 venous thrombosis

Trial	Treatments	Patients	Trials design and methods
Tinzaparin vs acenocoumarol			
Romera , 2009 n=119/122 follow-up: 12 months	tinzaparin SC 175 IU anti-Xa per kg once daily for 6 months versus acenocoumarol for target INR 2-3 for 6 months after initial LMWH (until INR 2-3)	patients with symptomatic proximal DVT of the lowerlimbs confirmed by compression duplex ultrasound scan	Parallel groups open Spain
tinzaparin vs dalteparin			
Wells (subgroup) , 2005 n=NA follow-up: 3 months	Tinzaparin 175 IU/kg SQ daily (warfarin started simultaneously and continued for 90 days) versus dalteparin 200 IU/kg daily for at least 5 days ((warfarin started simultaneously and continued for 90 days)	study subgroup of patients with cancer treated for upper or lower extremity DVT or PE in the outpatient setting	Parallel groups outcome assessment blinded
extended tinzaparin vs standard treatment			
Hull , 2006 n=NA follow-up: 3 months	Tinzaparin 175 antiXa/kg SQ daily for 12 weeks versus UFH for 5 days followed by vitamin K antagonist (target INR 2-3) for 12 weeks	patients with cancer (solid or hematological) with proximal DVT with or without PE and with a minimum life expectancy of 3 months imag	Parallel groups outcome assessment blinded

continued...

Trial	Treatments	Patients	Trials design and methods
Tinzaparin vs warfarin			
Hull , 2002 n=369/368 follow-up: 9 mo	LMWH, 175 IU/kg qd followed by Tinzaparin 175 IU/kg qd versus UFH 5 d, followed by UFH therapeutic APTT followed by Warfarin target INR 2-3	patients with objective diagnosis of DVT by Venography/compression ultrasonography	open
Tinzaparin vs unfractionated heparin			
Hull et al , 1992 n=213/219 follow-up: 3 Months	Tinzaparin Subcutaneous once daily for >= Days, 175 U/kg BID versus unfractionated heparin intravenous APPTx2-3	-	

More details and results :

- antithrombotics for venous thrombosis in all type of patients at <http://www.trialresultscenter.org/go-Q101>
- antithrombotics for venous thrombosis in patients with cancer at <http://www.trialresultscenter.org/go-Q103>
- LMWH for venous thrombosis in all type of patients at <http://www.trialresultscenter.org/go-Q203>
- heparin (UFH or LMWH) for venous thrombosis in all type of patients at <http://www.trialresultscenter.org/go-Q204>

References

Romera, 2009:

Romera A, Cairols MA, Vila-Coll R, Mart X, Colom E, Bonell A, Lapiedra O A randomised open-label trial comparing long-term sub-cutaneous low-molecular-weight heparin compared with oral-anticoagulant therapy in the treatment of deep venous thrombosis. *Eur J Vasc Endovasc Surg* 2009;37:349-56 [[19121589](#)]

Wells (subgroup), 2005:

Wells PS, Anderson DR, Rodger MA, Forgie MA, Florack P, Touchie D, Morrow B, Gray L, O'Rourke K, Wells G, Kovacs J, Kovacs MJ A randomized trial comparing 2 low-molecular-weight heparins for the outpatient treatment of deep vein thrombosis and pulmonary embolism. *Arch Intern Med* 2005;165:733-8 [[15824291](#)]

Hull, 2006:

Hull RD, Pineo GF, Brant RF, Mah AF, Burke N, Dear R, Wong T, Cook R, Solymoss S, Poon MC, Raskob G Long-term low-molecular-weight heparin versus usual care in proximal-vein thrombosis patients with cancer. *Am J Med* 2006;119:1062-72 [[17145251](#)]

Hull, 2002:

Hull RD, Pineo GF, Mah AF, et al, for the LITE Study A randomized trial evaluating long-term lowmolecular- weight heparin therapy for three months versus intravenous heparin followed by warfarin sodium [abstract].582258 *Blood* 2002; 100:148a

Hull et al , 1992:

Hull RD, Raskob GE, Pineo GF, Green D, Trowbridge AA, Elliott CG, Lerner RG, Hall J, Sparling T, Brettell HR Subcutaneous low-molecular-weight heparin compared with continuous intravenous heparin in the treatment of proximal-vein thrombosis. N Engl J Med 1992 Apr 9;326:975-82 [[1545850](#)]

3 pulmonary embolism

Trial	Treatments	Patients	Trials design and methods
Tinzaparin vs unfractionated heparin			
ACTSG (Hull) sub-group , 1992 n=97/103 follow-up: 3mo	Tinzaparin, 175 IU/kg once daily, 6 days versus Unfractionated heparin: bolus 5000 IU, infusion 29 76040 320 IU/d	patients with objectively documented PE and underlying proximal deep vein thrombosi	Parallel groups double blind US, Canada
THESEE , 1997 n=301/307 follow-up: 3 mo	Tinzaparin, 175 IU/kg once daily, 5 days versus Unfractionated heparin: bolus 50 IU/kg, infusion 500 IU/kg per day	patients with symptomatic pulmonary embolism	Parallel groups open
Campbell , 1998 n=6/10 follow-up: 3 mo	Tinzaparin, 175 IU/kg once daily, 5 days versus Unfractionated heparin: bolus 5000 IU, infusion 1400 IU/h	Symptomatic PE	Parallel groups open

More details and results :

- antithrombotics for pulmonary embolism in all type of patients at <http://www.trialresultscenter.org/go-Q102>

References

ACTSG (Hull) sub-group, 1992:

Hull RD, Raskob GE, Pineo GF, Green D, Trowbridge AA, Elliott CG, Lerner RG, Hall J, Sparling T, Brettell HR Subcutaneous low-molecular-weight heparin compared with continuous intravenous heparin in the treatment of proximal-vein thrombosis. N Engl J Med 1992;326:975-82 [[1545850](#)]

Hull RD, Raskob GE, Brant RF, Pineo GF, Elliott G, Stein PD, Gottschalk A, Valentine KA, Mah AF Low-molecular-weight heparin vs heparin in the treatment of patients with pulmonary embolism. American-Canadian Thrombosis Study Group. Arch Intern Med 2000;160:229-36 [[10647762](#)]

THESEE, 1997:

Simonneau G, Sors H, Charbonnier B, Page Y, Laaban JP, Azarian R, Laurent M, Hirsch JL, Ferrari E, Bosson JL, Mottier D, Beau B A comparison of low-molecular-weight heparin with unfractionated heparin for acute pulmonary embolism. The THESEE Study Group. Tinzaparine ou Heparine Standard: Evaluations dans l'Embolie Pulmonaire. N Engl J Med 1997;337:663-9 [[9278462](#)]

Campbell, 1998:

Campbell IA, Yeoh J, Medlicott S.p, imag Duration of hospital stay in patients with pulmonary venous thromboembolism: a randomised comparison of unfractionated heparin versus low molecular weight heparin [Abstract] Thorax. 1998;53: 254

Entry terms: tinzaparin, tinzaparin sodium, Innohep, warfarin