**Table D-1. Study design characteristics of studies evaluating treatments for chronic venous ulcers**

| **Author, year** | **Study design** | **N enrolled (N screened)** | **Enrollment year**  **Followup duration** | **Source population** | **Country** | **Run in period?**  **Washout period?**  **Compliance measured?** | **Exclusion criteria** | **Other exclusion criteria comments** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Alinovi, 1986**[**82**](#_ENREF_82) | RCT; parallel arms | 48 (NR) | 1983 to 1984  20 days | Primary care | Italy | No run-in | Ulcer duration: < 4 weeks  Comorbids excluded  Diabetes excluded | Ulcers with clinical signs of infection, ulcers with negative bacteriologic cultures, ulcers with non-venous main cause, arterial insufficiency |
| **Arnold, 1994**[**39**](#_ENREF_39) | RCT; parallel arms | 70 (NR) | Year NR  10 weeks | pop source NR | US, UK | No run-in  No compliance | clinical infection  Comorbids excluded | arterial insufficiency, dermatological conditions |
| **Backhouse, 1987**[**43**](#_ENREF_43) | RCT; parallel arms | 58 (NR) | Year NR  12 weeks | wound center | NR | NR run-in  No compliance | no CVU | Ulcer size > 10cm2 Doppler indicating arterial cause |
| **Barwell, 2000**[**62**](#_ENREF_62) | cohort; NA | (669) | 1995 to 1999  3 years | pop source NR | UK | Yes run-in  No compliance | ABI: < 0.85 |  |
| **Barwell, 2004**[**60**](#_ENREF_60) | RCT; parallel arms | 500 (1418) | 1999 to 2002  5 years | nursing home, Primary care medical specialists | UK | Yes run-in  Yes compliance | Ulcer duration: <4 weeks  ABI: < 0.85 | Complete color duplex imaging not possible; veins completely occluded; Those unable to give informed consent; were unfit for surgery; compression was not practical; malignant ulcers |
| **Beckert, 2006**[**31**](#_ENREF_31) | RCT; parallel arms | 119 (137) | 2002 to 2004  20 weeks | wound center | Europe | Yes run-in  No compliance | Age: <18  ABI: < 0.8 | Ulcerations due to CVI, severe cardiac , respiratory, gastrointestinal, liver, or renal disease, malignancy or signs of wound infection Pregnant women and nursing mothers, ulcer area < 3 cm |
| **Bello, 1999**[**71**](#_ENREF_71) | cohort | 111 (325) | 1994 to 1997  NR | a single Venous ulcer assessment clinic | UK | No run-in  No compliance | ABI: < 0.8 | No venous reflux on duplex scanning |
| **Cambal, 2008**[**69**](#_ENREF_69) | Cohort, retrospective | 793 (NR) | 1973  5 years | Surgery | Slovakia | No run-in | no CVU  No compliance |  |
| **El-Hafez, 2004**[**68**](#_ENREF_68) | Cohort | 36 (NR) | 2000 to 2001  12 months | surgical outpatient clinic | Egypt and Saudi Arabia | No run-in | No CVU  Ulcer duration: < 4 weeks  ABI: < 0.9 | ulcer diameter 2 to 7cm |
| **Falanga V, 1999**[**51**](#_ENREF_51) | RCT; parallel arms | (NR) | Year NR  12 months | pop source NR | US | No run-in  No compliance | no CVU  Age: <18 & >85  Ulcer duration: <52 weeks  Comorbids excluded  Diabetes excluded | receiving immunosuppressive agents, radiation therapy or chemotherapy within 1 month of entry into study |
| **Falanga, 1998**[**38**](#_ENREF_38) | RCT; parallel arms | 309 (NR) | Year NR  12 months | outpatient setting but type not specified | US | No run-in  No compliance | no CVU  Age: <18 & >85  ABI: < 0.65  Comorbids excluded  Diabetes excluded | receiving immunosuppressive agents, radiation therapy or chemotherapy within 1 month of entry into study cellulitis, exudation indicative of heavy bacterial contam, eschar, obvious necrotic material that could interfere with graft/healing pregnancy, lactation collagen vascular diseases |
| **Franks, 2007**[**28**](#_ENREF_28) | RCT; factorial | 156 (NR) | 2002  24 weeks | Primary care hospital inpatient | United Kingdom | NR run-in  No compliance | Age: <18  Ulcer duration: <2 & >52  clinical infection  ABI: < 0.8  Systemic antimicrobials excluded | Pregnant, dry non-exuding wounds |
| **Galimberti, 1988**[**66**](#_ENREF_66) | Retrospective | 118 (NR) | NR  40 months | Dermatology clnic, vascular clinic | Italy | NR run-in  No compliance | NR | NR |
| **Gatti, 2011**[**45**](#_ENREF_45) | NR; parallel arms | 24 (NR) | Year NR  8 weeks | pop source NR | Brazil | No run-in  No compliance | no CVU  Ulcer duration: >260 weeks | Unable to receive dressing once per week associated arterial disease not adhering to treatment not accepting the use of Unna's boot |
| **Gethin, 2009**[**24**](#_ENREF_24) | RCT; parallel arms | 108 (256) | 2003 to 2006  12 weeks | wound center hospital inpatient vascular clinic | Ireland | No run-in  Yes compliance | no CVU  Age: <18  clinical infection  ABI: < 0.8  Comorbids excluded  Systemic antimicrobials excluded | Having < 50% wound bed covered in slough Ulcer > 100cm2; Pregnant women or lactating mothers; Having a cavity wound |
| **Gohel, 2007**[**59**](#_ENREF_59) | RCT; parallel arms | 500 (1418) | 1999 to 2002  4 years | nursing home, Primary care hospital inpatient | UK | NR run-in  No compliance | Ulcer duration: <4 weeks  ABI: < 0.85 | Healed ulcer >6months; Those in whom duplex scan was not possible; those unwilling or refused to give consent; Those with deep venous occlusion; Malignant ulceration; Those unfit for surgery; Multiple layered compression not practical |
| **Gottrup, 2007**[**27**](#_ENREF_27) | RCT; parallel arms | 122 (NR) | 2005 to 2006  47 days | pop source NR | 6 European countries, Great Britain, Lithuania, Denmark, Germany, Czech Republic, Finland | NR run-in  No compliance | Age: <18  Ulcer duration: <8 weeks  clinical infection  Diabetes excluded  Systemic antimicrobials excluded  Pain: Less than moderate pain on 5-point verbal rating scale (none, slight, moderate, lots, complete) | Pregnant or lactating women; Painful ulcers resistant to analgesic treatment over past 6 months or more allergy or other contraindication to ibuprofen; Use of unscheduled additional pain medication for 3 days prior to study admission |
| **Gottrup, 2008**[**23**](#_ENREF_23) | RCT; parallel arms | 122 (NR) | 2005 to 2006  47 days | From 13 centers from 6 countries (but the centers are not defined) | 6 European countries, Great Britain, Lithuania, Denmark, Germany, Czech Republic, Finland | Yes run-in  No compliance | no CVU  Age: <19  Ulcer duration: <8 weeks  clinical infection  ABI: < 0.8  Comorbids excluded  Diabetes excluded  Systemic antimicrobials excluded  Pain: (1) Less than 'Moderate', on a 5 point Verbal Rating Score and also, (2) ulcers not resistant to analgesic treatment over the past 6 months or more | 1) Wound size of <1.6cm in any direction and maximum area of 50cm2, (2) Pregnant or lactating women (3) Local (and also clinical) infection or bacterial imbalance within or surrounding the ulcer area 1) Allergy or other contraindication to ibuprofen or related analgesics (non-steroidal anti-inflammatory agents), (2) History of asthma, rhinitis or urticaria, (3) previous participation in this study 1) use of unscheduled additional pain medication for 3 days before the study admission (except for regular concomitant pain medication), (2) Treatment with other immunosuppressant or cancer chemotherapeutic agents within 1 month before inclusion (1) Concomitant participation in other studies |
| **Greguric, 1994**[**48**](#_ENREF_48) | RCT; parallel arms | 110 (NR) | 1993 to 1993 | hospital inpatient outpatient | Croatia | No run-in  Yes compliance | no CVU  Age: <18  ABI: < 0.9  Comorbids excluded | treatment with immunodepressants, malignant ulcers, chemotx, immune def, other condition affecting wound healing Pregnancy, sensitivity to any of the tx materials; Ulcers resulting from other disease ulcers <2.5 or >5 cm |
| **Guest, 2003**[**64**](#_ENREF_64) | RCT; parallel arms | 76 (206) | NR | Primary care | UK | Yes run-in  No compliance | ABI: < 0.8  Comorbids excluded  Diabetes excluded | Patients unfit for surgery |
| **Hansson, 1998**[**37**](#_ENREF_37) | RCT; parallel arms | 153 (NR) | Year NR  12 weeks | derm clinic | Sweden, Denmark, the Netherlands, and the UK | No run-in  Yes compliance | clinical infection  ABI: < 0.8  Comorbids excluded  Diabetes excluded | known sensitivity to products in trial, treatment with systemic antimicrobials patients undergoing investigation of thyroid |
| **Harding, 2005**[**33**](#_ENREF_33) | RCT; parallel arms | 194 (259) | Year NR  14 weeks | wound center | Belgium, UK, Germany and Poland | Yes run-in  No compliance | Age: < 30 & > 85  Ulcer duration: < 6 weeks  clinical infection  ABI: < 0.8 | Previous treatments with cell derived or growth factor derived therapies within 1 month prior to screening or planned during the study History of allergy to materials used within the study DVT at the time of the screening |
| **Harding, 2011**[**20**](#_ENREF_20) | RCT; parallel arms | 281 (NR) | 2010 to 2010  8 weeks | pop source NR | UK, Germany, France, Denmark, and Poland | NR run-in  No compliance | Age: <18  Ulcer duration: >96 weeks  clinical infection  ABI: < 0.8  Systemic antimicrobials excluded | Recent DVT within last 3 months Recent venous surgery within last 3 months Progressive neoplastic lesion treated by radiotherapy or chemotherapy |
| **Harlander-Locke, 2011**[**74**](#_ENREF_74) | Case series | 72 (433) | 2007 to 2011  12 months | wound center |  | No run-in  No compliance | no CVU | Failed non-interventional venous ulcer treatment for a minimum of 5 weeks |
| **Holloway, 1989**[**42**](#_ENREF_42) | RCT; parallel arms | 75 (NR) | Year NR  24 weeks | outpatient, but not otherwise specified | US | No run-in  Yes compliance | no CVU  Ulcer duration: <12 weeks  Comorbids excluded | ulcer < 2cm in max diam (was relaxed later in trial) Proven/suspected non-venous cause of ulcer, inability to comply with treatment regimen, iodine allergy, clinically significant arterial disease |
| **Huovinen, 1994**[**57**](#_ENREF_57) | RCT; parallel arms | NR | Year NR  16 weeks | pop source NR | Finland | No compliance  No washout | Age: < 18 years | body weight < 50 kg, allergies to antimicrobial agents used; current warfarin or theophylline treatment; antimicrobial treatment within 2 weeks of study |
| **Krishnamoorthy, 2003**[**47**](#_ENREF_47) | RCT; parallel arms | 53 (63) | Year NR  12 weeks | Undefined health centers | Can UK | Yes run-in  Yes compliance | no CVU  Age: <18  Ulcer duration: > 8 weeks & > 240 weeks  clinical infection  ABI: < 0.7  Comorbids excluded | ulcer area <3 or >25 cm2 Severe leg edema, impaired mobility, other cause of ulcer lack of either venous reflux, h/o DVT, or clinical appearance of post-DVT limb ulcer healed >50% during 14-day run-in period with treatment with compression |
| **Kucharzewski, 2003**[**46**](#_ENREF_46) | non randomized; parallel arms | 54 (NR) | Year NR | people who 'applied for consultation by surgery doctor' | Poland | No run-in  No compliance | no CVU  ABI: < 0.8  Diabetes excluded |  |
| **Labas, 2009**[**76**](#_ENREF_76) | Case series | 56 (NR) | 1991 to 2002  NR | pop source NR | Slovak Republic | No run-in  No compliance | no CVU | Responded to sclerotherapy of the superficial system combined with compression within 6 months |
| **Lammoglia-Ordiales, 2011**[**56**](#_ENREF_56) | RCT; parallel arms | 41 (NR) | 2007 to 2009 | wound center | Mexico | No run-in  No compliance | Age: <18  clinical infection  ABI: < 0.8  Diabetes excluded | Patients who were immunosupressed or had arterial disease |
| **Lane, 2003**[**77**](#_ENREF_77) | cohort | 41 (NR) | 1987 to 1991  11.9 years | pop source NR | Australia | NR run-in  No compliance | Age: <18 years  Ulcer duration: <4 weeks  ABI: < 0.7 | chronic insufficiency not cause by deep venous disease; symptoms of venous insufficiency of less than 2 years; not medically fit for surgery; history of thrombophlebitis, DVT or pregnancy within the previous year |
| **Lawrence, 2011**[**14**](#_ENREF_14) | Case aeries | 45 (208) | 2007 to 2010  12.85 months | wound center |  | No run-in  No compliance | no CVU | <3 months of treatment at wound center; no incompetent perforating veins |
| **Limova, 2003**[**35**](#_ENREF_35) | RCT; parallel arms | 20 (NR) | 1997 to 1999  6 weeks | wound center | US | No run-in  No compliance | Age: < 21  Ulcer duration: <4 weeks  clinical infection  ABI: < 0.8 | Uncontrolled diabetes mellitus Allergy to materials used in the study |
| **Maggio, 2011**[**21**](#_ENREF_21) | RCT; parallel arms | 52 (NR) | Year NR  70 days | pop source NR | Italy | No run-in  No compliance | Age: <18 & >70  ABI: < 0.8  Diabetes excluded | Treatment with immunosuppressive agents Treatment with cytotoxic agents History of bleeding disorders History of delayed wound healing |
| **Masuda, 1994**[**72**](#_ENREF_72) | cohort | 48 (81) | 1968 to 1990  21 years | hospital inpatient |  | NR run-in  No compliance |  | less than 4 years of follow-up |
| **Michaels, 2009**[**22**](#_ENREF_22) | RCT; parallel arms | 213 (304) | 2005 to 2007  12 months | derm clinic Primary care | UK | NR run-in  Yes compliance | no CVU  Ulcer duration: < 6 weeks  ABI: < 0.8  Comorbids excluded  Diabetes excluded  Systemic antimicrobials excluded | refusal to give informed consent pregnancy sensitivity or specific contraindications to the use of silver leg ulcers with a maximum diameter of less than 1 cm, atypical ulcers including those with suspicion of malignancy |
| **Moffatt, 1992**[**49**](#_ENREF_49) | RCT; parallel arms | 60 (NR) | Year NR  12 weeks | wound center | UK | No run-in  No compliance | no CVU  Ulcer duration: <12 weeks  ABI: < 0.8 | previously treated and healed within 24 weeks or decreased in size decreased by 20% or more after 12 weeks known allergy or other contraindication to the product |
| **Mostow, 2005**[**32**](#_ENREF_32) | RCT; crossover if desired | 120 (NR) | Year NR | derm clinic wound center vascular clinic | United States, United Kingdom and Canada | NR run-in  Yes compliance | no CVU  Age: <18  Ulcer duration: <4 weeks  clinical infection  ABI: < 0.8  Comorbids excluded  Diabetes excluded  Systemic antimicrobials excluded | Previous organ transplantation; Patients with Malnutrition and sickle cell disease; History of radiotherapy to the ulcer site; Patients with exposed bone, fascia and tendon |
| **Nash, 1991**[**73**](#_ENREF_73) | NR | 90 (NR) | 1979 to 1986  3 years | pop source NR | NR | NR run-in  No compliance | no CVU |  |
| **Nelson, 2007**[**29**](#_ENREF_29) | RCT; factorial | 245 (525) | Year NR  24 weeks | wound center | UK | No run-in  Yes compliance | no CVU  Age: <18  Ulcer duration: <8 weeks  clinical infection  ABI: < 0.8  Comorbids excluded  Diabetes excluded | ulcer < 1 cm in length; Significant arterial disease; Pregnant or lactating women; Unable or unwilling to provide written, informed consent; Premenopausal women not using contraceptives; Sensitivity to methylxanthines or caffeine containing drinks; Taking warfarin, steroids, oxpentifylline, oxerutins, or naftidrofuryl; Life expectancy <6 months, immobile patients, immunosuppression |
| **O'Hare, 2010**[**58**](#_ENREF_58) | RCT; parallel arms | 40 (315) | 2005 to 2007  24 weeks | Leg ulcer clinic | UK | No run-in  No compliance | ABI: < 0.8  Comorbids excluded  Diabetes excluded | <1s retrograde flow on venous duplex imaging in GSV, SSV, AASV or other large superficial vein with significant proximal deep venous connection; Previous deep vein thrombosis or pulmonary embolism; Treatment with warfarin; Immobility and unable to give informed consent |
| **Omar, 2004**[**34**](#_ENREF_34) | RCT; parallel arms | 18 (NR) | Year NR  12 weeks | pop source NR | UK | No run-in  No compliance | no CVU  Ulcer duration: <12 weeks  ABI: < 0.9 | lack of superficial reflux presence of deep venous reflux DVT non-venous causes of ulceration, area <3 or >25 cm2 |
| **Ormiston MC, 1983**[**55**](#_ENREF_55) | RCT; parallel arms | (NR) | Year NR  24 weeks | pop source NR | NR | NR run-in  No compliance | no CVU  Age: <21  Ulcer duration: <13 weeks  Diabetes excluded | Ulcer diameter< 2cm; patients unable to change their own dressings non-venous cause, metabolic disease, psychiatric disease, malignancy patients with travel problems, iodine sensitivity multiple ulcers, pregnancy |
| **Ormiston, 1985**[**44**](#_ENREF_44) | RCT; Parallel but allowed optional cross-over | 61 (NR) | Year NR  24 weeks | Outpatients (center not identified) | UK | No run-in  No compliance | Ulcer duration: <12 weeks  ABI: < 0.7 | Non-venous etiology ulcers When poor compliance was anticipated (because of distance or other limitations) unable to change dressing and did not have relative/friend to change dressing |
| **Pang, 2010**[**70**](#_ENREF_70) | Case series | 83 (NR) | 2005 to 2009  16 months | vascular clinic | UK | No run-in  No compliance | ABI: < 0.8 | patients that do not have CEAP 5-6; post thrombotic DVR and/or obstruction |
| **Pessenhofer, 1989**[**41**](#_ENREF_41) | RCT; parallel arms | 48 (NR) | Year NR  281 days | derm clinic | NR | NR run-in  No compliance |  | Hospitalization |
| **Rojas, 2009**[**63**](#_ENREF_63) | non randomized; parallel arms | 67 (72) | 2006 to 2008  NR | hospital inpatient | Mexico | No run-in  No compliance | no CVU  ABI: < 0.8 | Pulses at all levels |
| **Schulze, 2001**[**36**](#_ENREF_36) | RCT; Randomised Stratified controlled open-label study | 113 (NR) | Year NR  4 weeks | wound center | Germany, UK | No run-in  No compliance | no CVU  ABI: < 0.8 | Patients who were part of another research study within the previous 30 days |
| **Scurr JH, 1993**[**54**](#_ENREF_54) | RCT; parallel arms | (NR) | Year NR  6 weeks | pop source NR | UK | NR run-in  No compliance | no CVU  ABI: < 0.9  Comorbids excluded  Diabetes excluded | ulcer of unclear etiology |
| **Scurr JH, 1994**[**53**](#_ENREF_53) | RCT; parallel arms | 40 (NR) | to Year NR  6 weeks | wound center | UK | No run-in  Yes compliance | Diabetes excluded  Systemic antimicrobials excluded | chemotherapy or radiation treatment peripheral arterial disease |
| **Sigala, 2007**[**78**](#_ENREF_78) | cohort | 62 (NR) | 2001 to 2005  1 year | vascular clinic | Germany | No run-in  No compliance | Ulcer duration: >12 weeks  clinical infection excluded  ABI: < 0.8  comorbids excluded  diabetes excluded | Malignancy; no venous perforator insufficiency; no CEAP stage 6 |
| **Smith, 1992**[**50**](#_ENREF_50) | RCT; parallel arms | 200 (529) | 1987 to 1988  4 months | community | UK | No run-in  No compliance | no CVU  ABI: < 0.75  Comorbids excluded  Diabetes excluded | ulcer diameter <2cm; infection requiring immediate antibiotics; lymphedema, history of iodine allergy, neurologic disease |
| **Sottiurai, 1991**[**67**](#_ENREF_67) | NR  NA | 46 (NR) | 1981 to 1987  73 months | pop source NR | US | NR run-in |  | No recurrent leg ulcer refractory to non-surgical treatment, no incompetent perforator and deep venous valve demonstrated by venography, not compliant to pre-and post-treatment protocol |
| **Taradaj, 2011**[**75**](#_ENREF_75) | Case series from a RCT | 305 (NR) | 1999 to 2008  2 years | vascular clinic | Poland | No run-in  No compliance | no CVU  ABI: < 1  comorbids excluded  diabetes excluded  corticosteroids excluded | patients with metal implants; pregnancy |
| **Teepe, 1993**[**40**](#_ENREF_40) | RCT; parallel arms | 43 (NR) | 1989 to 1991  6 weeks | derm clinic | Belgium | Yes run-in  NR compliance | no CVU  Ulcer duration: <12 weeks |  |
| **van Gent, 2006**[**65**](#_ENREF_65) | RCT; parallel arms | 170 (NR) | 1997 to 2001  36 months | pop source NR | The Netherlands | NR run-in  No compliance | no CVU  ABI: < 0.8 | Total or partial occlusion of the deep venous system; Former subfascial ligation of perforating veins; Severe neurologic or muscular pathology; Immobility |
| **Vanscheidt, 2007**[**26**](#_ENREF_26) | RCT; parallel arms | 225 (NR) | NR  182 days | pop source NR | Germany, Czech Republic, Hungary | Yes run-in  No compliance | Age: <18 & >90  Ulcer duration: <12 weeks  ABI: < 0.8  Comorbids excluded  Diabetes excluded | Venous leg ulcers above the knee joint or on distal metatarsal part of foot; venous ulcers <2 cm2 or > 50cm2; Pregnant or lactating women Venous surgery or sclerotherapy in preceding 3 months; know hypersensitivity to bovine proteins or other constituents of Bioseed; Phlebitis or deep leg vein thrombosis in preceding 3 months; unable to get or apply compression therapy |
| **Vowden, 2006**[**30**](#_ENREF_30) | RCT; parallel arms | 123 (NR) | 2003 to 2004  12 weeks | pop source NR | pan-Europe | No run-in  No compliance | Ulcer duration: <26 weeks  clinical infection  ABI: < 0.8  Comorbids excluded  Diabetes excluded | ulcer size between <5 and >25 cm2 patient had to have received at least 1 month of compression therapy without ulcer improvement before study entry highly exuding wounds, recent vascular surgery or overt evidence of arterial disease, severe immobility those undergoing concomitant topical therapy |
| **Vowden, 2007**[**25**](#_ENREF_25) | RCT; parallel arms | 83 (101) | NR  12 weeks | pop source NR | NR | Yes run-in  No compliance | Age: <18  Ulcer duration: <24 weeks  clinical infection  ABI: < 0.8  Comorbids excluded  Diabetes excluded | Ulcer area <8cm2 or >36cm2 Confinement to bed or wheelchair; Physical and/or mental conditions making compliance difficult; Known allergy/hypersensitivity to product components |
| **Weiss RA, 1996**[**52**](#_ENREF_52) | RCT; parallel arms | 18 (NR) | NR  16 weeks | pop source NR | US | NR run-in  Yes compliance | no CVU  Ulcer duration: <9 weeks | <1 or >4 cm2 in size |
| **Wolters, 1997**[**79**](#_ENREF_79) | cohort | 74 (NR) | 1992 to 1995  1 year | vascular clinic | Germany | NR run-in  No compliance |  | no singular insufficiency of perforating veins |
| **Zamboni, 2003**[**61**](#_ENREF_61) | RCT; parallel arms | 45 (80) | 3 years | pop source NR | Italy | Yes run-in  NR compliance | Age: >80  ABI: < 0.9  Diabetes excluded  systemic antimicrobials excluded | Ulcer size<2cm2 & >12cm2; Patients unable to walk; secondary or congenital venous disease; (History of DVT &/duplex evidence of deep venous reflux or obstruction; congenital angiodysplasia) |

Abbreviations: AASV = antibody associated systemic vasculitis; ABI = Ankle Brachial Index; CVI = chronic venous insufficiency; CVU = cardiovascular unit; Derm clinic = dermatological clinic; Diam = diameter; DM = diabetes mellitus; DVR = double valve replacement; DVT = deep vein thrombosis; GSV = great saphenous vein; Immune def = immune deficient; NR = not reported; RCT = randomized controlled trial; SSV = short saphenous vein; kg = kilogram; CEAP = clinical severity, etiology or cause, anatomy, pathophysiology; IMM = immunosuppressants