# Kliiniline küsimus nr 2 Kliiniline küsimus nr 10

Kahe kliinilise küsimuse tõendusmaerjali analüüs koondatud, leitud samad allikad, mis käsitlevad mõlema kliinilise küsimuse teemat.

- 2. Kas veenihaigusega patsientidel on kroonilise venoosse haavandi riskitegurite hindamiseks ja venoosse haavandi esmaseks/retsidiivi ennetamiseks efektiivsed järgmised sekkumised vs mitte:
- individuaalne nõustamine
- grupinõustamine
- kirjalik infomaterjal
- nõustamine haavaravi kabinetis
- elektrooniline nõustamine
- psühholoogiline nõustamine

Tulemusnäitajad: nõustamismeetodi efektiivsus, haavandi teke, ravisoostumus, patsiendi elukvaliteet, patsiendi rahulolu, ravi tulemuslikkus, ravikulu, elulemus, üldsuremuse vähenemine

- 10. Kas kõikidel kroonilise venoosse haavandiga patsientidel kasutada parema ravitulemuse saavutamiseks järgmisi sekkumisi vs mitte kasutada:
- toitumisnõustamine
- asendravi alane nõustamine (hoidumine ortostaatilistest asenditest)
- füüsilise aktiivsuse alane nõustamine
- psühholoogiline nõustamine

Tulemusnäitajad: ravisoostumus, haavandi paranemine, ravi tulemuslikkus, patsiendi elukvaliteet, patsiendi rahulolu, sotsiaalne isolatsioon, depressioon, haavandi retsidiivi teke, hospitaliseerimine, ravikulu, elulemus, üldsuremuse vähenemine

## Süstemaatilised ülevaated

Süstemaatilisi ülevaateid, mis käsitleksid täpselt kliinilistes küsimuste teemasid, ei leidunud.

Süstemaatilises ülevaates leiti, et VLU mõjutab negatiivselt patsiendi elukvaliteedi kõiki aspekte. Valu, eksudaat, hais ja piiratud liikuvus on igapäevased takistused. Tavatoimetusi piiravad kas haavand ise, haavaside või isetekitatud isolatsioon tingituna haigusest. Depressioon ja meeleolulangus on tavalised (Green et al 2014).

Cochrane'i süstemaatilises ülevaates hinnati sekkumiste kasu ja kahju, mis olid disainitud aitamaks patsiendil kohaneda venoosse haavandi kompressioonraviga, kiirendada haavandi paranemist ja ennetada haavandi taasteket. Kaasati kolm randomiseeritud kontrollitud uuringut, ühes (67 uuritavat) oli võrreldud kogukonnapõhise "jala klubi" (Leg Club®) mõju (pakkus monitooritud toetust, abi ja sotsiaalset suhtlemist) võrreldes koduse raviga. Kolme kuu möödudes ei leitud erinevust venoosse haavandi paranemises. Teises uuringus (184 uuritavat) võrreldi 6 kuud kestnud kogukonnapõhise õdede poolt juhitud enesehooldusprogrammi (edendamaks füüsilist aktiivsust, kompressioonraviga soostumust nõustamise kaudu ja käitumuslikke muudatusi; (Lively Legs®) tavapärase raviga haavakliinikus. 18 kuu follow-up järel ei leitud selgete erinevust haavandi paranemise osas kahes grupis. Kolmandas uuringus võrreldi patsiendiõpetust video ja infomaterjali alusel, süstemaatilise ülevaate jaoks vajalikke tulemusi sealt ei saadud. Süstemaatilise ülevaate tulemusena leiti, et ei ole selge, kas sekkumised, mis on mõeldud patsientide

kompressioonravi soostumuse parandamiseks suurendavad venoosse haavandi paranemist ja vähendavad haavandi taasteket. Puuduvad ka vastavad uuringud. (Weller et al 2016).

Prospektiivses uuringus uuriti seoseid ennetavate tegevuste, psühhosotsiaalsete tegurite ja venoosse haavandi taastekke vahel kroonilise venoosse haavandiga patsientidel (n=80). Andmed koguti tervisekaartidest (k.a haavandi anamnees) ja patsiendi poolt täidetud ankeetidest (küsimused füüsilise aktiivsuses, toitumine, ennetavate tegevuste ja psühhosostissalsete aspektide kohta). Korduvad andmed koguti iga kolme kuu järel 12 kuu jooksul peale haavandi paranemist. Esines 35 haavandi taasteket, mediaan haavandi taastekkeks oli 27 nädalat. Vähemalt üks tund päevas jala kõrgemal hoidmine, kuuel või enama päevalkompressioonravi rakendamine (20–25mmHg või 30–40mmHg), kõrgem sotsiaalse toetuse tase ja kõrgem üldine enesetõhususe skoor (General Self-Efficacy score) olid oluliselt seotud (p<0,05) madalama haavandi taastekke võimalusega, olulised riskid haavandi taastekkeks olid meessugu a SVT anamnees. Autorid järeldasid, et tervishoiutöötajad peakasid hindama venoosse haavandiga patsientide sotsiaalse toetuse taset ja enesetõhusuts ning rakendama strateegiaid edendamaks patsiendi enesetõhusust ja leidma võimalusi optimaalse sotsiaalse toetuse pakkumiseks. (Finlayson et al 2011).

Prospektiivses kohortuuringu eesmärk oli selgitada venoosse haavandiga patsientide käitumuslike muutuste järjepidevust e-õppe programmi kasutamisel. Andmed koguti kahe uuringu andmete põhjal, kus oli kasutatud LUPP õppeprogrammi (teine oli jätku-uuring). LUPP on standardiseeritud e-õppe programm, mis annab praktilisi soovitusi venoosse havaandi raviks (kompressioonravi k.a haavandi taastekke ennetamiseks, füüsiline aktiivsus ja harjutused, nahahooldus, toitumine ja vedeliku tarbimine). Uuritavaid 49. Andmed koguti õppeprogrammi kasutamise ajal ja viimane andmete kogumine 34 nädala või 8-9 kuu järel. Analüüs keskendus viiele tervisekäitumise aspektile: aktiivsuse tase, jäseme kõrgemale tõstmine, jalgade harjutused, seebi asemele teiste vahendite kasutamine, naha niisutamine. Ainus aspekt, kus leiti paranemine uuringu lõpus, oli füüsilise aktiivsuse suurenemine. Naha niisutamine spetsiaalsete vahenditega vähenes, seebi kasutamine suurenes, samuti vähenes jalgade harjutuste tegemine ja jäseme kõrgemale tõstmise regulaarne teostamine. Autorid järeldasid tulemuste põhjal, et elukestvate tervisekäitumise muutmine on keeruline. Kui patsiendi tervis paraneb, siis vajalike tegevuste osa igapäevaelus väheneb. (Miller et al 2014).

## Viited

Kokkuvõtte (abstract või kokkuvõtlikum info)	Viide kirjandusallikale
Venous leg ulcers are a symptom of chronic insufficiency of the veins. This study considered the sustainability of behavior changes arising from a client focus e-Learning education program called the —Leg Ulcer Prevention Program $\parallel$ (LUPP) for people with a venous leg ulcer. Data from two related studies were used to enable a single sample ( $n = 49$ ) examination of behavior maintenance across an average 8 to 9 months period. Physical activity levels increased over time. Leg elevation, calf muscle exercises, and soap substitute use were seen to fluctuate over the follow up	Miller, C; Kapp, S; Donohue, L. Sustaining Behavior Changes Following a Venous Leg Ulcer Client Education Program.  Healthcare 2014, 2, 324-337

time points. The use of a moisturizer showed gradual decline over time. The provision of a client-focused venous leg ulcer program was associated with behavior changes that had varied sustainability across the evaluation period.

Aim: To identify relationships between preventive activities, psychosocial factors and leg ulcer recurrence in patients with chronic venous leg ulcers.

Background: Chronic venous leg ulcers are slow to heal and frequently recur, resulting in years of suffering and intensive use of health care resources.

Methods: A prospective longitudinal study was undertaken with a sample of 80 patients with a venous leg ulcer recruited when their ulcer healed. Data were collected from 2006–2009 from medical records on demographics, medical history and ulcer history; and from self-report questionnaires on physical activity, nutrition, preventive activities and psychosocial measures. Follow-up data were collected via questionnaires every three months for 12 months after healing. Median time to recurrence was calculated using the Kaplan-Meier method. A Cox proportionalhazards regression model was used to adjust for potential confounders and determine effects of preventive strategies and psychosocial factors on recurrence.

Results: There were 35 recurrences in a sample of 80 participants. Median time to recurrence was 27 weeks. After adjustment for potential confounders, a Cox proportional hazards regression model found that at least an hour/day of leg elevation, six or more days/week in Class 2 (20–25mmHg) or 3 (30–40mmHg) compression hosiery, higher social support scale scores and higher General Self-Efficacy scores remained significantly associated (p<0.05) with a lower risk of recurrence, while male gender and a history of DVT remained significant risk factors for recurrence.

**Conclusion:** Results indicate that leg elevation, compression hosiery, high levels of self-efficacy and strong social support will help prevent recurrence.

AIM:

To review the available evidence on risk factors for delayed healing of venous leg ulcers.

**METHODS:** 

Finlayson, Kathleen J., Edwards, Helen E., & Courtney, Mary D. (2011). Relationships between preventive activities, psychosocial factors and recurrence of venous leg ulcers: a prospective study. Journal Of Advanced Nursing, 67(10), pp. 2180-2190.

Int J Clin Pract. 2015 Sep;69(9):967-77. doi: 10.1111/ijcp.12635. Epub 2015 Apr 1. A review of the literature in regard to risk factors for delayed healing in venous leg ulcers was conducted from January 2000 to December 2013. Evidence was sourced through searches of relevant databases and websites for resources addressing risk factors for delayed healing in venous leg ulcers specifically.

## **RESULTS:**

Twenty-seven studies, of mostly low-level evidence (Level III and IV), identified risk factors associated with delayed healing. Risk factors that were consistently identified included: larger ulcer area, longer ulcer duration, a previous history of ulceration, venous abnormalities and lack of high compression. Additional potential predictors with inconsistent or varying evidence to support their influence on delayed healing of venous leg ulcers included: decreased mobility and/or ankle range of movement, poor nutrition and increased age.

## **DISCUSSION:**

Findings from this review indicate that a number of physiological risk factors are associated with delayed healing in venous leg ulcers and that social and/or psychological risk factors should also be considered and examined further.

## **CONCLUSION:**

The findings from this review can assist health professionals to identify prognostic indicators or risk factors significantly associated with delayed healing in venous leg ulcers. This will facilitate realistic outcome planning and inform implementation of appropriate early strategies to promote healing.

# Risk factors for delayed healing in venous leg ulcers: a review of the literature.

Parker CN<sup>1</sup>, Finlayson KJ<sup>1</sup>, Shuter P<sup>1</sup>, Edwards HE<sup>2</sup>.

# **Objectives**

To assess the benefits and harms of interventions designed to help people adhere to venous leg ulcer compression therapy, to improve healing and prevent recurrence after healing.

## Main results

(CI) 0.79 to 3.71); or six

One randomised controlled trial was added to this update making a total of three. One ongoing study was also identified.

One trial (67 participants) compared a community-based Leg Club® that provided mechanisms for peer-support, assistance with goal setting and social interaction with home-based care. There was no clear difference in healing rates at three months (12/28 people healed in Leg Club group versus 7/28 in home-based care group; risk ratio (RR) 1.71, 95% confidence interval

Weller CD, Buchbinder R, Johnston RV. Interventions for helping people adhere to compression treatments for venous leg ulceration. *Cochrane Database of Systematic Reviews* 2016, Issue 3. Art. No.: CD008378. DOI: 10.1002/14651858.CD008378.pub3.

months (15/33 healed in Leg Club group versus 10/34 in home-based care group; RR 1.55, 95% CI 0.81 to 2.93); or in quality of life

outcomes at six months (MD 0.85 points, 95% CI - 0.13 to 1.83; 0 to 10 point scale). The Leg Club may lead to a small reduction

in pain at six months, that may not be clinically significant (MD -12.75 points, 95% CI -24.79, -0.71; 0 to 100 point scale, 15 point

reduction is usually considered the minimal clinically important difference) (low quality evidence downgraded for risk of selection bias and imprecision).

Another trial (184 participants) compared a community-based, nurse-led self-management programme of six months' duration promoting physical activity (walking and leg exercises) and adherence to compression therapy via counselling and behaviour modification

(Lively Legs®) with usual care in a wound clinic. At 18 months follow-up, there were no clear differences in healing rates (51/92 healed

in Lively Legs group versus 41/92 in usual care group; RR 1.24 (95% CI 0.93 to 1.67)); rates of recurrence of venous leg ulcers (32/69

with recurrence in Lively Legs group versus 38/67 in usual care group; RR 0.82 (95% CI 0.59 to 1.14)); or adherence to compression

therapy (42/92 people fully adherent in Lively Legs group versus 41/92 in usual care group; RR 1.02 (95% CI 0.74 to 1.41)). The

evidence from this trial was also downgraded to low quality due to risk of selection bias and imprecision. A single study compared patient education delivered via video with education delivered by text (pamphlet). However, no outcomes

relevant to this review were reported.

We found no studies that investigated other interventions to promote adherence to compression therapy.

## **Authors' conclusions**

It is unclear whether interventions designed to help people adhere to compression therapy improve venous ulcer healing and reduce

recurrence. There is a lack of trials of interventions that promote adherence to compression therapy for venous ulcers.

## **AIMS AND OBJECTIVES:**

To gather information about the impact of leg ulcers on patient's daily life as described in quantitative and J Clin Nurs. 2004 Mar;13(3):341-54. Leg ulcers: a review of their impact on daily life.

qualitative studies.

## **DESIGN:**

Systematic literature review.

## **METHODS:**

Medline and Cinahl databases were searched for venous leg ulcer studies, up to 2002; this was followed by the 'snowball method'. Studies were selected in accordance with preset criteria.

#### **RESULTS:**

A total of 37 studies was included. All studies report that leg ulcers pose a threat to physical functioning. Furthermore, a negative impact on psychological functioning is reported and, to a lesser degree, on social functioning. Major limitations are pain and immobility, followed by sleep disturbance, lack of energy, limitations in work and leisure activities, worries and frustrations and a lack of self-esteem. Patients have a significantly poorer quality of life compared with healthy people. Finally, patients report problems with regard to follow-up treatment.

## **CONCLUSIONS:**

Having a leg ulcer has a major impact on a patient's life. There are indications of under-treatment of pain.

## RELEVANCE TO CLINICAL PRACTICE:

Keeping in mind that leg ulceration is notorious for its chronic character, the negative impact on patient's life implies that many patients suffer over longer periods of time. This emphasizes the need to focus on quality of life aspects in patient care. There is much to gain, especially concerning pain and mobility. The development of comprehensive care programmes is essential.

**OBJECTIVE:** To validate the usefulness of written information for patients with venous leg ulcers and test the hypothesis that patients who receive written information retain more knowledge than those who receive verbal information alone.

**METHOD:** Twenty patients newly diagnosed with venous leg ulcers were recruited into this prospective trial. Patients were randomised either to the control group (given verbal information on their condition) or the intervention group (same verbal information and an information leaflet). The verbal information was in the same format as in the leaflet. Patients' knowledge of the condition was ascertained at an initial interview and at follow-up four to six weeks later.

**RESULTS:** At follow-up both groups showed an overall improvement in knowledge, with no statistical

Persoon A1, Heinen MM, van der Vleuten CJ, de Rooij MJ, van de Kerkhof PC, van Achterberg T.

J Wound Care. 2005 Feb;14(2):75-7. Information leaflets for venous leg ulcer patients: are they effective?

Clarke Moloney M<sup>1</sup>, Moore A,

Adelola OA, Burke PE, McGee H,

Grace PA.

difference between them.

CONCLUSION: The results indicate there is limited value in providing information leaflets to this patient group, who were predominantly older patients with low levels of education. The relatively small sample size may explain the disappointing results. Further research may reveal a benefit of providing these leaflets to carers.

# Ravijuhendid

AWMA ravijuhend (2011) soovitab patsientidele pakkuda asjakohast informatsiooni nende haiguse olemusest ja ravist (GRADE C). Viidatakse ühele RCT (Clarke Moloney et al 2005, kuid kaasatud hilisemasse SÜ), kus leiti oluline patsiendi informeerituse, eriti mis puudutab kompressioonravi ja füüsilist aktiivsust, osas. Suuline informeeritus ja kirjalik informeeritus tundusid olema võrdväärsed, kuid arvatavasti oli see tingitud kohordi eripärast (madala haridustasemega, väike). Level I evidence. Ravijuhendis viidatakse ühele SR (Van Hecke et al 2008), mis uuris patsientide ravisoostumust. Leiti, et patsiendi teavitamine kompressioonravist, valust, võib parandada ravisoostumust. Patsiendile holistiliselt lähenemine võiks parandada ravisoostumust (nt piiratud liikuvusega patsient ei pruugi olla võimeline läbiviima ordineeritud harjutusi). Level IV evidence.

Lisaks soovitatakse patsiendi psühhosotsiaalset hindamist ja tuge kui osa patsiendi ravist (CBR). Soovitatakse kaasata patsient raviplaani koostamisse, anda patsiendile informatsiooni ravi kulust. Otseselt psühhosotsiaalse nõustamise kohta kirjanduses materjali pole. Samas VLU mõjutab QOL, mistõttu soovitatakse seda hinnata. VLU patsiendid on tavapopulatsioonist madalama enesehinnanguga, kartlikumad, depressiivsemad, isoleeritumad (Persoon et al 2004). Level I evidence.

## **Patient education**

Patient concordance with management regimens significantly influences both healing times and prevention of VLU recurrence. Interventions such as compression, elevation and exercise require patient persistence. It is, therefore, crucial that patients understand the importance of such interventions and how they should be implemented.

The literature search identified an SR reporting various interventions including support groups to improve knowledge and concordance with therapy. An additional, low-quality RCT investigated the effect of written education material in improving knowledge of patients with VLUs.

## Recommendation

Provide patients with appropriate education on their condition and its management. (Grade C)

# Practice points

Both verbal and written education leads to improvements in patient knowledge about management of their VLU.

- Patient education includes:
- basic pathophysiology of venous hypertension and VLU
- compression therapy and the role it plays in managing VLUs and venous hypertension. This includes the potential implications of declining compression therapy
- devices and appliances that may assist in donning and doffing compression garments
- elevation and exercise
- nutrition
- skin care
- potential adverse effects of any therapies and when to seek assistance
- managing comorbidities (for example, diabetes).
- Leg ulcer support groups provide patients with education and psychosocial support to manage their ongoing disease, although they are not available in all locations.
- Patients in rural or remote areas may consider accessing online supports.

# Psychosocial support

Chronic disease is reported to have a negative psychosocial impact. The literature reported patients with VLUs may be at an increased risk of negative psychosocial outcomes including depression, low selfesteem, social isolation, fear and anger. Pain, functional limitations, impact of compression bandaging (for example, finding shoes/clothes to cover the bandaging) and the financial burden of ongoing care are contributing factors and may also reduce the patient's concordance with therapy in the long term.

Studies related to psychosocial care investigated the psychosocial profile of patients with VLUs but did not address strategies that are effective in providing psychosocial support. The Expert Working Committee recommends that consideration of the patient's psychosocial status forms part of a holistic management plan.

#### Recommendation

Provide psychosocial assessment and support as an essential component in the patient's management. (CBR)

## Practice points

- Include patients in the development of their management plan. This may increase the feasibility of the plan and the patient's concordance with therapy.60
- Provide patients with clear information about their own progress (for example, graphs of wound size).

This may contribute to patient concordance with management.

• QOL scales specific to populations with VLU and/or venous disease (for example, the CWIS and CVIQ) include assessment of psychosocial factors.

Support groups provide patients with education and support to manage their ongoing disease, although they are not available in all locations.

• Patients in rural or remote areas may consider accessing online supports.

## Elevation

Oedema associated with venous hypertension contributes to poor healing of VLUs. Elevation of lower limbs to reduce oedema may, therefore, increase healing;61 however, there is no research conducted in patients with VLUs.

Two low-quality RCTs investigating the effect of elevation were identified in the literature search. Trials reported consistent changes to microcirculation associated with elevation; however, this did not translate to a significant improvement in ulcer healing in one trial. The Expert Working Committee recommends that elevation is appropriate to incorporate into a VLU management plan.

#### Recommendation

Elevate the patient's leg to promote changes in microcirculation and decrease lower limb oedema. (Grade C)

## Practice points

• For optimal effect, legs should be elevated during periods of inactivity, and ideally above the level of the heart, with consideration to the patient's lifestyle and limitations.

Maintenance of an elevation diary by the patient can increase concordance with an elevation regimen.

## 8.1.4 Exercise

The deep veins in the lower extremities are surrounded by calf muscle that has a function in assisting venous blood return. When the calf muscle is relaxed, blood pools in the veins. When the calf muscle contracts there is a pumping action propelling blood back to the heart. This calf muscle pump function is optimised during heel-toe walking. In patients with impaired venous function, calf muscle exercises can improve the calf muscle function.

The exercises reported in the literature review were implemented in conjunction with compression therapy and consisted of two different regimens:

- active planter flexion using resistance (4 kg) implemented under supervision for a minimum of seven days, with the exercises performed for a minimum of three sets daily of six minutes length
- heel raises conducted in three sets at 80% maximum repetitions on alternate days for 12 weeks.

The evidence underpinning this recommendation comes from two small RCTs conducted in participants with VLU. The studies indicated that exercise designed to improve calf muscle strength and mobility has an effect in improving calf muscle function; however, the relationship to ulcer healing requires further research. The Expert Working Committee recommends progressive resistance exercise be incorporated into the patient's management plan.

## Recommendation

Progressive resistance exercise may improve calf muscle function. (Grade C)

## Practice points

- Exercises should be designed to improve calf muscle strength, for example weight-bearing foot and ankle exercises and heel-toe walking. Ensure that the patient can perform exercises in a safe manner and with consideration to personal tolerance levels.
- Gait analysis is a key factor in patient assessment. Correction of gait may improve calf muscle function.

• Consider referral to a physiotherapist or exercise physiologist with experience in treating patients with venous insufficiency.

Protein and individual amino acids, energy, a range of vitamins (including A, C and E) and zinc are all associated with wound healing. Optimal nutrition, particularly calories and protein, are essential for all wound healing.

No SRs or RCTs addressing nutritional interventions met the inclusion criteria for the literature review. The Expert Working Committee recommends that nutrition is important in the overall management of VLUs. This opinion was supported by a best practice guideline for the management of general chronic wounds.

#### Recommendation

Optimise the patient's nutrition and hydration to promote healing in patients with VLUs. (CBR)

## Practice points

- Nutritional requirements should be based on energy/caloric requirements with additional consideration to the stress response to illness.
- Protein requirements in healthy patients are 0.8 g protein/kg daily. This may need to be increased to 1.5 to 2 g protein/kg daily in patients with heavily exudating ulcers.67
- There is no research on the effect of L-arginine supplements in improving VLU healing.
- Oral zinc supplements are not effective for improving wound healing unless zinc deficiency is diagnosed (see recommendation 12.8).
- Patients with heavily exudating VLUs may require an increase in fluid intake67 if they have no fluid restrictions related to comorbidities, particularly in warmer weather.

NICE ravijuhend (2010) leiab, et iganädalased "Jala õhtud" (patsientide ja tervishoiutöötajate kohtumised) parandavad ravisoostumust, viidates samale SR, mis AWMA. Ühes Austraalia RCT jagati patsiendid tavagruppi ja Lindsay Leg Club gruppi – leg clubi omadel parem paranemine, paremad näitajad valu, elukvaliteedi ja enesehinnangu osas (Edwards et al 2009).

SVS ravijuhend (2014) soovitab patsiendi ja sugulaste nõustamist (CBR). Puuduvad andmed kirjeldamaks teavitamise efektiivsuse kohta CVI patsientidel VLU ennetamiseks.

#### **RNAO**

## **Recommendation 25**

The client should be prescribed regular vascular exercise by means of intensive controlled walking and exercises to improve the function of the ankle joint and calf muscle pump.

## (Level A)

The wording of this recommendation has been modified for anatomical accuracy. The change in the wording is for clarification only, and there has been no change in the intent of the recommendation.

#### **Recommendation 30**

*Inform the client of measures to prevent recurrence after healing:* 

- daily wear of compression stockings, cared for as per manufacturer's instructions and replaced at a minimum every six months;
- *discouragement of self-treatment with over-the-counter preparations*;
- avoidance of accidents or trauma to legs;
- rest periods throughout the day with elevation of affected limb above level of heart;
- early referral at first sign of skin breakdown or trauma to limb;
- *need for exercise and ankle-joint mobility;*
- appropriate skin care avoiding sensitizing products; and
- compression therapy for life with reassessment based on symptoms.

## (Level C)

This recommendation has been modified to incorporate Recommendations 46, 47, 56 and 57 from the original publication, thereby providing a concise list of essential attributes of patient education with regards to secondary prevention of leg ulcers. Furthermore, although it is recognized that compression therapy for life is a common preventative strategy, the recommendation has also been modified to emphasize the importance of reassessment given the potential for changing client needs.

(chronic[All Fields] AND ("varicose ulcer"[MeSH Terms] OR ("varicose"[All Fields] AND "ulcer"[All Fields]) OR "varicose ulcer"[All Fields] OR ("venous"[All Fields] AND "leg"[All Fields] AND "ulcer"[All Fields]) OR "venous leg ulcer"[All Fields])) AND ("motor activity"[MeSH Terms] OR ("motor"[All Fields] AND "activity"[All Fields]) OR "motor activity"[All Fields] OR ("physical"[All Fields] AND "activity"[All Fields]) OR "physical activity"[All Fields]) AND ("2005/01/01"[PDAT] : "2015/09/10"[PDAT])
Leitud 19

(chronic[All Fields] AND ("varicose ulcer"[MeSH Terms] OR ("varicose"[All Fields] AND "ulcer"[All Fields]) OR "varicose ulcer"[All Fields] OR ("venous"[All Fields] AND "leg"[All Fields] AND "ulcer"[All Fields]) OR "venous leg ulcer"[All Fields])) AND ("organization and administration"[MeSH Terms] OR ("organization"[All Fields] AND "administration"[All Fields]) OR "organization and administration"[All Fields] OR "management"[All Fields] OR "disease management"[MeSH Terms] OR ("disease"[All Fields] AND "management"[All Fields]) OR "disease management"[All Fields]) AND ((Meta-Analysis[ptyp] OR Randomized Controlled Trial[ptyp] OR systematic[sb]) AND ("2005/01/01"[PDAT] : "2015/09/10"[PDAT]))

## Leitud 72

(chronic[All Fields] AND ("varicose ulcer"[MeSH Terms] OR ("varicose"[All Fields] AND "ulcer"[All Fields]) OR "varicose ulcer"[All Fields] OR ("venous"[All Fields] AND "leg"[All Fields] AND "ulcer"[All Fields]) OR "venous leg ulcer"[All Fields])) AND ("nutritional status"[MeSH Terms] OR ("nutritional"[All Fields] AND "status"[All Fields]) OR "nutritional status"[All Fields] OR "nutritional sciences"[MeSH Terms] OR ("nutritional"[All Fields] AND "sciences"[All Fields]) OR "nutritional sciences"[All Fields])

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## Leitud 28

((chronic[All Fields] AND "varicose ulcer"[MeSH Terms]) AND ("counselling"[All Fields] OR "counseling"[MeSH Terms] OR "counseling"[All Fields])) AND ("wound healing"[MeSH Terms] OR ("wound"[All Fields] AND "healing"[All Fields]) OR "wound healing"[All Fields] OR "healing"[All Fields]) AND ("2005/01/01"[PDAT] : "2015/09/10"[PDAT])

Leitud 1, kasutatud hiljem leitud SÜ ülevaate update'i (avaldatud 2016)

(chronic[All Fields] AND "varicose ulcer"[MeSH Terms]) AND ("nutritional status"[MeSH Terms] OR ("nutritional"[All Fields] AND "status"[All Fields]) OR "nutritional status"[All Fields] OR "nutritional sciences"[MeSH Terms] OR ("nutritional"[All Fields] AND "sciences"[All Fields]) OR "nutritional sciences"[All Fields]) AND ("2005/01/01"[PDAT] : "2015/09/10"[PDAT]) Leitud 9