Hartrevalidatie bij patiënten met perifeer vaatlijden

Introductie

Fysiotherapeut AMC

Bestuurslid VHVL

Cursusontwikkelaar sPAV

Er komt een man bij de specialist verpleegkundige…

Man, 58 jr, verwijzing door cardiolooog ivm NSTEMI

Algemene voorgeschiedenis:

1990: diabetes mellitus type 2.

1990: hypertensie.

2009: OSAS waarvoor CPAP.

2011: erysipelas en groot ulcus cruris linker onderbeen. Angiografie: iliacaal geen stenose, AFS tweetal stenosen waarvoor PTA met 5 mm stent AFS links.

2011: necrotectomie en Split Thickness Skin Graft van linker bovenbeen naar linker onderbeen

Gegevens

- Maximale fietstest: 5min48
- Wmax: 96
- HF van 75 naar 109 s/m (=66%pred)
- RR van 139/72 naar 178/80
- Stopreden: vermoeide benen.

Vragenlijsten

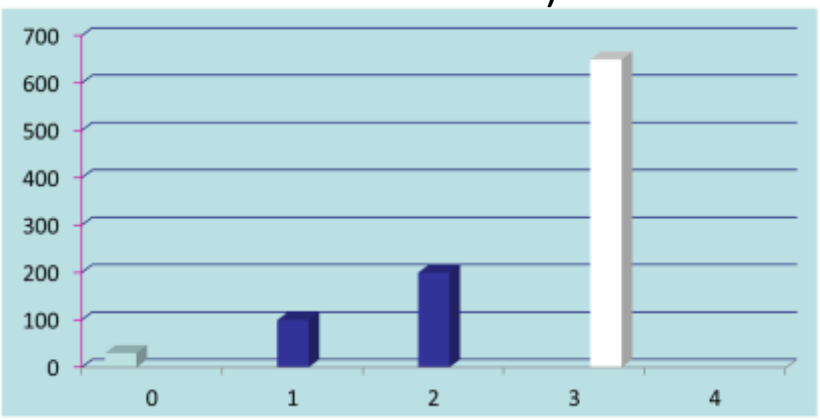
Wat is hier nou anders aan?

Zouden jullie deze man een beweegmodule aanbieden? Zo ja, waar?

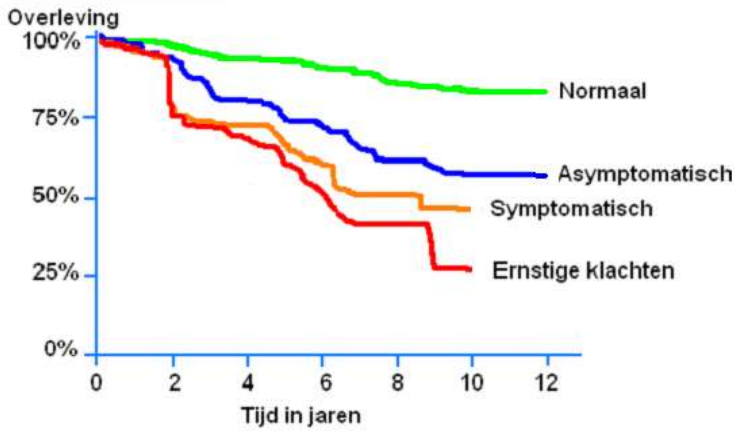
Characteristic	Total population, n = 349	Population completing 12 months, n = 137	Withdrawals, n = 212	P value
Age (years)	66.0 (58.6-74.0)	66.4 (58.6-73.7)	65.7 (58.5-74.3)	NS
Men	219/349 (62.8%)	88/137 (64.2%)	131/212 (61.8%)	NS
BMI	26.1 (23.6-29.0) n = 331	26.6 (23.9-29.4) n = 136	25.9 (23.1-28.9) n = 195	NS
Resting ABI	0.70 (0.60-0.88) n = 342	0.71 (0.60-0.88) n = 135	0.70 (0.60-0.88) n = 207	NS
Current smokers	168/341 (49.3%)	58/136 (42.6%)	110/205 (53.7%)	.046
Hypertension	266/349 (76.2)	103/137 (75.2%)	163/212 (76.9%)	NS
Diabetes mellitus	117/349 (33.5%)	48/137 (35.0%)	69/212 (32.5%)	NS
Hypercholesterolemia	267/349 (76.5%)	109/137 (79.6%)	158/212 (75.4%)	NS
Coronary heart disease	93/349 (26.6%)	35/137 (25.5%)	58/212 (27.4%)	NS
Cerebrovascular disease	47/349 (13.5%)	13/137 (9.5%)	34/212 (16.0%)	NS
COPD	50/349 (14.3%)	22/137 (16.1%)	28/212 (13.2%)	NS
Arthrosis	19/349 (5.4%)	7/137 (5.1%)	12/212 (5.7%)	NS
Previous vascular intervention	113/349 (32.3%)	45/137 (32.8%)	68 (32.1%)	NS
Systolic blood pressure (mmHg)	150.0 (135.0-170.0)	150.0 (135.0-172.3)	150.0 (132.3-170.0)	NS
Systolic blood pressure (mmHg)	n = 344	n = 136	n = 208	
Glucose (mmol/l)	5.9 (5.3-7.1) n = 330	5.9 (5.2-7.1) n = 127	5.9 (5.3-7.0) n = 203	NS
HbA1C (%)	6.0 (5.8-7.1) n = 238	6.2 (5.8-7.2) n = 94	6.0 (5.7-6.9) n = 144	NS
Cholesterol (mmol/l)	5.2 (4.2-6.0) n = 333	5.1 (4.3-6.0) n = 130	5.2 (4.1-5.9) n = 203	NS
HDL (mmol/l)	1.33 (1.12-1.60) n = 316	1.35 (1.12-1.67) n = 123	1.31 (1.09-1.58) n = 193	NS
LDL (mmol/l)	2.8 (2.0-3.5) n = 304	2.6 (2.1-3.5) n = 119	2.9 (2.0-3.6) n = 185	NS
Triglycerides (mmol/l)	1.60 (1.11-2.22) n = 311	1.52 (1.08-2.42) n = 122	1.67 (1.13-2.22) n = 189	NS
PCD (m)	230.0 (120.0-427.5) n = 269	260.0 (130.0-450.0) n = 127	205.0 (117.0-382.5) n = 142	NS
ACD (m)	400.0 (323.0-630.8) n = 272	276.0 (450.0-689.0) n = 129	370.0 (207.0-590.0) n = 143	NS

ABI, Ankle-brachial index; *ACD*, Absolute claudication distance; *BMI*, Body mass index; *COPD*, Chronic obstructive pulmonary disease; *PCD*, Functional claudication distance; *NS*, Not significant.

Incidentie hart & vaatziekten bij meerdere risicofactoren (incidentie / 100.000)



Prognose - Mortaliteit



21-9-2014

- Prevalentie USA

- 5 jaars mortalite

Risicofactoren

Beïnvloedbaar:
- Roken
- Hypertensie
- Hyperglycaemie
- Hyperlipidemie
- Hoge BMI en middelomtrek
- Alcoholabuses
- Ongezonde voedingsgewoonte
- **Lichamelijke inactiviteit**

Niet beïnvloedbaar:
- Geslacht
- Leeftijd
- erfelijke aanleg

Meerdere risicofactoren versterken elkaar!

Beloop van claudicatio intermittens

- 75 % ervaren stabilisatie of verbetering van de klachten
- 25% krijgen binnen 5 jaar ernstiger klachten
- Uiteindelijk ondergaat 2-5% een amputatie
- Verhoogde kans op cardio- en cerebrovasculaire ziekte en sterfte. Binnen 10 jaar krijgt:
  - 21% CVA,
  - 43% coronaire hartziekten,
  - 24% CHF
- Kans op overlijden is 2-3x verhoogd
- Levensverwachting 10 jaar korter

Evidentie voor looptraining! (N=1000)

- Angioplastiek (dotteren, stent) geeft meer verbetering dan oefentherapie op korte termijn, maar de effecten zijn niet blijvend

EN

- Oefentherapie geeft significante voordelen vergeleken met placebo of “usual care” als het gaat om het verbeteren van loopduur en loopafstand bij patienten met beenpijn door claudicatio intermittens

Watson, L., B. Ellis, et al. (2008). "Exercise for intermittent claudication." Cochrane Database Syst Rev(4): CD000990.

Multicenter randomized clinical trial of supervised exercise therapy with or without feedback versus walking advice for intermittent claudication

Saskia P. A. Nicolaï, MD, PhD,[a] Joep A. W. Teijink, MD, PhD,[b] and Martin H. Prins, MD, PhD,[c] on behalf of the Exercise Therapy in Peripheral Arterial Disease (EXITPAD) study group,* *Heerlen, Eindhoven, and Maastricht, The Netherlands*

Objective: The initial treatment for intermittent claudication is supervised exercise therapy (SET). Owing to limited capacity and patient transports costs of clinic-based SET, a concept of SET provided by local physiotherapists was developed. We hypothesized that provision of daily feedback with an accelerometer in addition to SET would further increase walking distance.

Methods. This multicenter randomized trial was set in vascular surgery outpatient clinics and included 304 patients with intermittent claudication. Patients were randomized to exercise therapy in the form of "go home and walk" advice (WA), SET, or SET with feedback. Local physiotherapists provided SET. The primary outcome measure was the change in absolute claudication distance. Secondary outcomes were the change in functional claudication distance and results on the Walking Impairment Questionnaire (WIQ) and Short-Form 36 (SF-36) Health Survey after 12 months.

Results: In 11 centers, 102, 109, and 93 patients were included, respectively, in the WA, SET, and SET with feedback groups, and data for 83, 93, and 76, respectively, could be analyzed. The median (interquartile range) change in walking distance between 12 months and baseline in meters was 110 (0-300) in the WA group, 310 (145-995) in the SET group, and 360 (173-697) in the SET with feedback group ($P < .001$ WA vs SET). WIQ scores and relevant domains of the SF-36 improved statistically significantly in the SET groups.

Conclusions: SET is more effective than WA in improving walking distance, WIQ scores, and quality of life for patients with intermittent claudication. Additional feedback with an accelerometer did not result in further improvement. SET programs should be made available for all patients with intermittent claudication. (J Vasc Surg 2010;52:348-55.)

Supervised exercise therapy for intermittent claudication in a community-based setting is as effective as clinic-based

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Objective: This cohort study was conducted to determine the effect on walking distances of supervised exercise therapy provided in a community-based setting.

Methods: The study included all consecutive patients presenting at the vascular outpatient clinic with intermittent claudication, diagnosed by a resting ankle brachial index <0.9, who had no previous peripheral vascular intervention for peripheral arterial disease, no major amputation, and sufficient command of the Dutch language. The exclusion criterion was the inability to walk the baseline treadmill test for a minimum of 10 m. The intervention was a supervised exercise therapy in a community-based setting. A progressive treadmill test at baseline and at 1, 3, and 6 months of follow-up measured initial claudication distance and absolute claudication distance. Changes were calculated using the mean percentages of change.

Results: From January through October 2005, 93 consecutive patients with claudication were eligible. Overall, 37 patients discontinued the supervised exercise therapy program. Eleven stopped because of intercurrent diseases, whereas for 10, supervised exercise therapy did not lead to adequate improvement and they underwent a vascular intervention. Three patients quit the program, stating that they were satisfied with the regained walking distance and did not require further supervised exercise therapy. Ten patients were not motivated sufficiently to continue the program, and in three patients, a lack of adequate insurance coverage was the reason for dropping out. Data for 56 patients were used and showed a mean percentage increase in initial claudication distance of 187% after 3 months and 240% after 6 months. The mean percentage of the absolute claudication distance increased 142% after 3 months and 191% after 6 months.

Conclusion: Supervised exercise therapy in a community-based setting is a promising approach to providing conservative treatment for patients with intermittent claudication. (J Vasc Surg 2007;45:1192-6.)

Cochrane review Bendermacher 2009 en update Fokkenrood 2013

Authors conclusion:

Supervised exercise therapy is suggested to have clinically relevant benefits compared with non-supervised regimens, which is the main prescribed exercise therapy for people with intermittent claudication. However, the clinical relevance has not been demonstrated definitely and will require additional studies with a focus on the improvements in quality of life.

Bendermacher BLW, Willigendael EM, Teijink JAW, Prins MH. Supervised exercise therapy versus non-supervised exercise therapy for intermittent claudication. *Cochrane Database of Systematic Reviews* 2006, Issue 2. Art. No.: CD005263

Cost-effectiveness of Exercise Therapy in Patients with Intermittent Claudication: Supervised Exercise Therapy versus a 'Go Home and Walk' Advice

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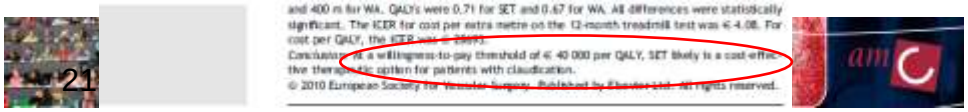
Submitted 23 March 2010; accepted 14 June 2010

KEYWORDS
Intermittent claudication;
Exercise therapy;
Cost-effectiveness;
Quality of life

Abstract *Objectives:* The Exercise Therapy in Peripheral Arterial Disease (EXITPAD) study has shown supervised exercise therapy (SET) to be more effective regarding walking distance and quality of life than a 'go home and walk' advice (WA) for patients with intermittent claudication. The present study aims to assess the cost-effectiveness of SET versus WA.
Patients and methods: Data from the EXITPAD study, a 12-month randomised controlled trial in 304 patients with claudication, was used to study the proportion of costs to walking distance and quality of life. Two different incremental cost-effectiveness ratios (ICERs) were calculated for SET versus WA: costs per extra metre on the treadmill test, and costs per quality-adjusted life year (QALY). QALYs were based on utilities derived from the EuroQol-5 dimensions (EQ-5D).
Results: Mean total costs were higher for SET than for WA (3407 versus 2304 Euros), mainly caused by the costs of exercise therapy. The median walking distance was 620 m for SET and 400 m for WA. QALYs were 0.71 for SET and 0.67 for WA. All differences were statistically significant. The ICER for cost per extra metre on the 12-month treadmill test was € 4.08. For cost per QALY, the ICER was € 29[illegible].
Conclusions: At a willingness-to-pay threshold of € 40 000 per QALY, SET likely is a cost-effective therapeutic option for patients with claudication.



Efficientie en veiligheid

	Efficiëntie	*Veiligheid*
Loop-therapie	160% verbetering loopafstand, toename in kwaliteit van leven	Complicaties zijn zeldzaam
Angio-plastiek	100%-150% verbetering LA , toename in kwaliteit van leven	<0,5% mortaliteit en morbiditeit
Chirurgie	75%-100% verbetering LA, toename in kwaliteit van leven	2-3% mortaliteit; 5-10% morbiditeit Chirurgen 10-15%

Samenvatting

- Oefentherapie effectiever dan medicatie of dotteren
- Oefentherapie even effectief als bypass in het vergroten van de maximale loopafstand
- Oefentherapie is goedkoop en veilig
- Begeleide programma's zijn effectiever

Behandeldoelen

1. Verminderen objectieve inspanningsbeperkingen
2. Verminderen subjectieve inspanningsbeperkingen
3. Verbeteren looppatroon
4. Verminderen bewegingsarmoede
5. Verbeteren van specifieke beperkingen in activiteiten
6. Adviseren en informeren over aandoening, beloop, risicofactoren, leefstijl, ...

Behandeldoel 1: Verminderen objectieve inspanningsbeperking

1a.Vergroten maximale (pijnvrije) loopafstand d.m.v. begeleide looptraining "door de pijn heen lopen"**.**

Het is aangetoond dat looptraining een effectieve behandeling is bij claudicatio patiënten (niveau 1)

Het is aannemelijk dat looptraining de meest effectieve methode is bij claudicatio patiënten (niveau 2).....

als het gaat over lopen!

Uitkomstmaten

Primaire uitkomstmaat is loopafstand (functionele-maximale-, en pijnvrije loopafstand)

Andere: zelfstandigheid, QoL, toename activiteiten

Prestatiebeperking Claudicanten

- Perifere prestatiebeperking
- Bloedverdeling naar actieve spieren kan bij inspanning niet op normale wijze worden verhoogd
- Perifere circulatie wordt progressief beperkt bij een toename van de belasting
- Grotere afhankelijkheid van de anaërobe glycolyse
- Prestaties worden ook beperkt door inactiviteit – slechtere conditie, slechtere cardio-pulmonale systeem, slechtere spierfunctie (afname spiervezels, lactaattolerantie, enzymen etc. etc.

Optimizing supervised exercise therapy for patients with intermittent claudication

Saskia P.A. Nicolaï, MD, PhD,[a] Erik J.M. Hendriks, PhD,[b] Martin H. Prins, MD, PhD,[b] and Joep A.W. Teijink, MD, PhD,[b,c] on behalf of the EXITPAD study group, *Veldhoven, Maastricht, and Eindhoven, The Netherlands*

Background: The first-line intervention for intermittent claudication is usually supervised exercise therapy (SET). The literature describes a range of exercise programs varying in setting, duration, and content. The purpose of the present study was to examine the exercise protocols offered and to identify the impact of the intensity of the SET programs (in terms of frequency, duration, and type of exercise) on improvements in walking distance (response) in the first 3 months. The present study is part of the Exercise Therapy in Peripheral Arterial Disease (EXITPAD) study, a multicenter randomized clinical trial comparing the effects of SET provided by regional physiotherapists, with or without daily feedback, on the level of activities with the effects of walking advice.

Methods: The analysis included patients randomized to receive SET with or without feedback. The physical therapists administering the SET were asked to fill out therapy evaluation sheets stating frequency, duration, and type of exercises. The relationship between training volume and the impact on walking distance was explored by dividing training volume data into tertiles and relating them to the median change in maximum walking distance at 3 and 12 months.

Results: Data of 169 patients were included in the analysis. A SET program consisting of at least two training sessions per week each lasting over 30 minutes, during the first 3 months of a 1-year program tailored to individual patients' needs led to better results in terms of walking distance after 3 and 12 months than the other variants. The results of our analysis dividing training volume into tertiles suggest that there is a relationship between training volume and improvement in walking distance and that at least 590 minutes of training should be offered in the first 3 months. No differences were found between program involving only walking and a combination of exercises, nor between individual and group training.

Conclusion: A SET programs consisting of at least two training sessions a week, each lasting over 30 minutes, should be offered during the first 3 months of the SET program to optimize improvement in terms of maximum walking distance. (J Vasc Surg 2010;52:1229-33.)

Looptraining: het loopt niet vanzelf goed

De beste resultaten worden behaald onder voorwaarden dat:

- Intensiteit: door de pijn heen lopen score 3-4 op ACSM pijnschaal (niveau 2)
- Lengte van het programma > 6 maanden (niveau 2)
- Belastingsvorm: lopen (niveau 2)
- Trainingsfrequentie: > 3x per week trainen (niveau 2)
- Trainingsduur: > 30 minuten (niveau 2)
- Begeleide trainingsprogramma's (niveau 2)
- Het is niet aangetoond dat fysiotherapeutische begeleiding effectiever is dan begeleiding door andere deskundigen.

Onderdelen van een behandeling: het lopen!

- Warming-up + cooling down 5-10” elk!
- Accent op lopen – tot CI optreedt
- Intensiteit voldoende om in 3-5” symptomen van claudicatio op te roepen tot ACSM grade 3-4
- Rust tot symptomen grotendeels zijn verdwenen
- Intermitterend lopen (lopen – rust patroon) tot ca. 60” uitbreiden
- Minimaal 3-5 x per week (2x onder begeleiding)
- Dagelijks intermitterend lopen minimaal 30”

Pijnschaal ACSM

- Graad 1: licht onbehaaglijk gevoel of beginnende pijn
- Graad 2: matig onbehaaglijk gevoel of pijn waarvan de aandacht kan worden afgeleid
- Graad 3: intense pijn waarvan de aandacht niet kan worden afgeleid
- Graad 4: martelende en ondraaglijke pijn

Effecten inactiviteit

- AUV neemt snel af, oxydatieve capaciteit verminderd
- Afname spiermassa, mn type I vezels nemen af
- Cappilarisatie neemt af
- Kracht neemt af

Risicofactoren

Beïnvloedbaar:
- Roken
- Hypertensie
- Hyperglycaemie
- Hyperlipidemie
- Hoge BMI en middelomtrek
- Alcoholabuses
- Ongezonde voedingsgewoonte
- Medicijngebruik
- **Lichamelijke inactiviteit**

Niet beïnvloedbaar:
- Geslacht
- Leeftijd
- erfelijke aanleg

Meerdere risicofactoren versterken elkaar!

Behandeldoel 1:
Verminderen objectieve inspanningsbeperking

1b. Vergroten VO_2max

2-3x per week: *>20-30 min. trainen op een intensiteit van:* *> 50% VO_2 max en een Borgscore van:* *12-15*

Trainingseffecten

- Looptijd neem toe
- Loopafstand neemt toe
- Algemeen welzijn neemt toe
- Aantal wandelperiodes neemt toe (met 4-5 stuks extra per uur)
- Loopbekwaamheid (efficientie van het ‘gaan’) neemt toe!!!!

Beoordelingscriteria: toename loopafstand

Toename loopafstand:	Beoordeling:
< 50 %	Onvoldoende resultaat
50-100%	Matig tot redelijk resultaat
> 100%	Goed resultaat

Prognostiek

Studie Nicolai 2010 laat gemiddelde verbetering in ACD

Table II. Baseline characteristics

	SET Total population n = 109	*SET analyzed population n = 93*	*SET with feedback total population n = 93*	*SET with feedback analyzed population n = 76*
Men – %	72.5	72.0	60.2	60.5
Age – mean (SD)	66.1 (9.0)	65.9 (8.6)	65.6 (10.5)	65.6 (10.3)
→ Body mass index – mean (SD)[a]	27.4 (4.2)	27.4 (4.3)	28.2 (5.1)	27.8 (4.6)
ABI – mean (SD)	0.67 (0.19)	0.67 (0.18)	0.67 (0.16)	0.68 (0.16)
→ ACD – median (IQR)	260 (167-395)	280 (170-405)	250 (160-340)	240 (160-340)
FCD – median (IQR)	150 (90-250)	160 (90-265)	150 (100-230)	140 (100-228)
Smoking – %				
→ Current smoking	38.5	39.8	41.9	48.7
Former smoker	49.5	48.4	46.2	42.1
Never smoked	12.0	11.8	4.3	3.9
Unknown	0	0	7.5	5.3
Diabetes mellitus – %	25.7	26.9	18.3	15.8
Orthopedic disease of lower extremities – %	14.7	11.8	17.2	18.4
→ Coronary heart disease – %	26.6	24.7	20.4	18.4
Cerebrovascular accident or transient ischemic attack – %	14.7	17.2	9.7	11.8
→ Chronic obstructive pulmonary disease – %	18.3	19.4	17.2	18.4

ABI, Ankle-brachial index; *ACD*, absolute claudication distance; *FCD*, functional claudication distance; *IQR*, interquartile range; *SD*, standard deviation; *SET*, supervised exercise therapy.
[a]Body mass index is the weight in kilograms divided by the square of the body height in meters.

Table V. Features of supervised exercise programs during the first 3 months, combining the SET without feedback and SET with feedback groups

	Walking exercise only n = 60	*Combination of exercises[a] n = 75*	P *value[b]*
Median change in ACD between 3 months and baseline	280 (128-492)	252 (150-460)	.692
Median change in ACD between 12 months and baseline	405 (173-900)	405 (173-900)	.896
	Individual n = 97	*Group training n = 33*	
Median change in ACD between 3 months and baseline	265 (153-508)	220 (115-400)	.313
Median change in ACD between 12 months and baseline	410 (170-1065)	300 (150-890)	.382

ACD, Absolute claudication distance.
The number of analyzed patients varies because in some cases, evaluation forms were not filled out completely, and only available data were included.
[a]Consisting of cycling/spinning, rowing, stepping, and sports activities in general.
[b]Wilcoxon rank-sum test.

Table VI. Smoking behavior at baseline and influence on ACD

	Former smoker or never smoker n = 91	*Current smoker n = 74*	P *value[a]*
Median change in ACD between 3 months and baseline	273 (150-630)	245 (118-373)	.224
Median change in ACD between 12 months and baseline	405 (160-1100)	310 (130-571)	.175

ACD, Absolute claudication distance.
The number of analyzed patients varies because in some cases, evaluation forms were not filled out completely, and only available data were included.
[a]Wilcoxon rank-sum test.

Conclusie
Je informeert je patient over:

Investering

- De trainingsduur
- De trainingsintensiteit
- De trainingsfrequentie
- De kosten in tijd en geld

Mogelijk positief effect obv

- Zijn/haar prognostische variabelen (ACD, BMI, roken, niveau occlusie)
- Evt. cognitieve factoren
- Gemiddelde en range verbetering passend bij patient.

En (volgens goed EBP en zelfmanagementtechniek) geef je de patient de vrijheid en de mogelijkheid zelf te kiezen (shared decisionmaking) voor jouw hulp/behandeling

Risicofactoren

Beïnvloedbaar:

- Roken
- Hypertensie
- Hyperglycaemie
- Hyperlipidemie
- Hoge BMI en middelomtrek
- Alcoholabuses
- Ongezonde voedingsgewoonte
- Medicijngebruik
- **Lichamelijke inactiviteit**

Niet beïnvloedbaar:

- Geslacht
- Leeftijd
- erfelijke aanleg

Meerdere risicofactoren versterken elkaar!

Zorgstandaard VRM deel 1, 2009

Risicofactoren

Beïnvloedbaar:
- Roken
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- erfelijke aanleg

Meerdere risicofactoren versterken elkaar!

Zorgstandaard VRM deel 1, 2009

Effecten stoppen met roken

- Verergering van PAV neemt af
- Stijging van de enkel-arm-index
- Toename van de loopafstand en snelheid
- Minder bypasses en amputaties
- Effecten van dotter en bypass chirurgie blijven langer bestaan

Non-compliance medicijnen

Medication Underuse During Long-Term Follow-Up in Patients With Peripheral Arterial Disease

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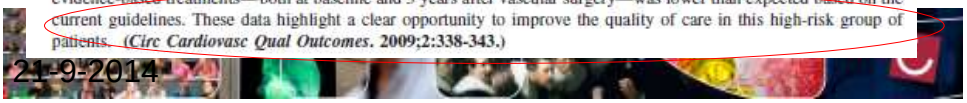
Background—Patients with peripheral arterial disease constitute a high-risk population. Guideline-recommended medical therapy use is therefore of utmost importance. The aims of our study were to establish the patterns of guideline-recommended medication use in patients with PAD at the time of vascular surgery and after 3 years of follow up, and to evaluate the effect of these therapies on long-term mortality in this patient group.

Methods and Results—Data on 711 consecutive patients with peripheral arterial disease undergoing vascular surgery were collected from 11 hospitals in the Netherlands (enrollment between May and December 2004). After 3.1±0.1 years of follow-up, information on medication use was obtained by a questionnaire (n=465; 84% response rate among survivors). Guideline-recommended medical therapy use for the combination of aspirin and statins in all patients and β-blockers in patients with ischemic heart disease was 41% in the perioperative period. The use of perioperative evidence-based medication was associated with a reduction of 3-year mortality after adjustment for clinical characteristics (hazard ratio, 0.65; 95% CI, 0.45 to 0.94). After 3 years of follow-up, aspirin was used in 74%, statins in 69%, and β-blockers in 54% of the patients respectively. Guideline-recommended medical therapy use for the combination of aspirin, statins, and β-blockers was 50%.

Conclusions—The use of guideline recommended therapies in the perioperative period was associated with reduction in long-term mortality in patients with peripheral arterial disease. However, the proportion of patients receiving these evidence-based treatments—both at baseline and 3 years after vascular surgery—was lower than expected based on the current guidelines. These data highlight a clear opportunity to improve the quality of care in this high-risk group of patients. (***Circ Cardiovasc Qual Outcomes*****. 2009;2:338-343.)**



21-9-2014

Terug naar onze patient….

Welke metingen en vragenlijsten?

Uit de richtlijn

- **Loopbandtest**
- PSK
- Informatiebehoefte
- ACSM pijnschaal
- BORGschaal
- GALN

Andere metingen

- **VasQoL**
- **WIQ**
- WHO-WBQ
- **EQ-5D**

Take home message

- In principe veel overeenkomsten hartpatient en patient met perifeer vaatlijden
- Afwijkend in de diagnostiek (loopbandtest ipv looptest)
- Afwijkend in training (accent naar looptraining)
- Gelijk in coaching leefstijl
- Afwijkend in de informatie en voorlichting
  - https://www.youtube.com/watch?v=Cg6Kg_7oMKY

Vragen?