

## Kliiniline küsimus nr 20

Kas kroonilise venoosse haavandiga patsientide ravis on efektiivne kasutada telemeditsiinilist konsultatsiooni vs tavapärist eriarsti konsultatsiooni ?

Kriitilised tulemusnäitajad: ravisostumus, ravi tulemuslikkus, haavandi paranemine, haavandi retsidiivi ennetamine, patsiendi elukvaliteet, patsiendi rahulolu, elulemus, üldsuremuse vähinemine

### Süsteematisid ülevaated

Üks madala kvaliteediga süsteematisid ülevaade (selle koostajate sõnul), mis võttis kokku ühe mitterandomiseeritud uuringu (140 haiget) diabeetilise neurotroofilise haavandiga patsientide kohta. Uuring hindas interaktiivse videokonslutatsiooni mõju võrreldes tavapärase vastuvõtuga haavandi paranemise ajale, ja haavandite arvule 12 nädalal patsientidel. Ei leidunud oluliset erinevust erinevate tulemusnäitajate osas patsientidele, kes said telemeditsiinilist konsultatsiooni või käsid tavapärasel vastuvõtul. Kokkuvõte – puudub tööndusmaterjal, et telemeditsiiniline konsultatsioon on sama efektiivne kui tavapärane ambulatoorne vastuvõtt. (Nordheim et al 2014).

Retrospektiivse analüüs eesmärgiks oli selgitada LUTM süsteemi juurutamise mõju konventsionaalsele jala haavandi ravile ühe maakonna tervishoiukeskuses. Ühe aasta retrospektiivne analüüs mitteparaneva jalahaavandiga patsientide andmete kohta. Koguti andmed patsiendi kulude, esmatasandi ja eriarstiabi kulude kohta (k.a haavasidemed, konsultatsioonid, transport, visiiditasud).

LUTM on jalahaavandi telemeditsiini süsteem, mis sisaldab patsiendi haiguslugu, mida kasutatakse monitoorimaks nahaseisundite või haavade (haavandite) paranemist. Pildid ja dokumendid edastatakse turvaliselt esmatasandi ja eriarstiabi vahel. LUTM võimaldab kommunikatsiooni tervishoiutöötajate vahel, e-konsultatsiooni, raviplaanide koostamist, digitaalsete piltide edastamist ja paranemise graafikute koostamist. Dokumenteeritakse haavandi olukorda, määratud ravi, haavaravivahendite kasutamist, visiite (ka aega). Ka patsient saab vaadata ja vajadusel printida fotosid, seega näha ravitulemusi jahaavandi paranemist, mis motiveerib patsienti.

LUTM juurutamine maakonna tervisekeskuse tasandil parandas jalahaavandi ravi parema kommunikatsiooni, hindamise ja ravi kaudu, objektiivse ravitulemuse hindamise kaudu. Uuringu tulemused näitasid, et LUTM parandas jalahaavandi paranemist ning oli kulutõhus. Eriastiabi kulud küll pisut tõusid selle tasandi suurema kaasatuse tõttu, kuid sel läbi oli väiksem perekontide ressursside kasutamine, lühem ravi kestus parema ravitulemusega, vähem liikumist arstide vahel patsiendile ja sobivamat ravimist ning haavaravivahendite kasutamine.(Summerhayes et al 2012).

Kanada Tervishoius kasutatavate ravimite ja tehnoloogiate agentuur (CADTH, Canadian Agency for Drugs and Technologies in Health) on avaldanud 2014 tööndusmaterjali ülevaate (rapid response report), juhtmevabade seadmete konsultatsiooniks kasutamise kasude ja kahjude kohta. Kaasati 1 RCT ja viis mitterandomiseeritud uuringut. Haava diagnoosimine ja raviplaani koostamine kasutades tehnoloogilis abivahendeid (kaugkonsultatsiooni) tundub olevat sama efektiivne kui tavapäristel vastuvõttudel.

Ei leitud piisavalt tööndusmaterjali tegemaks järelusu kliinilise efektiivsuse või kahju kohta. (CADTH, 2014)

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## Viited

Kokkuvõtte (abstract või kokkuvõtlikum info)	Viide kirjandusallikale
<p>The objective of this systematic review of the literature was to assess the effect of telemedicine follow-up care on clinical, behavioral or organizational outcomes among patients with leg and foot ulcers.</p> <p><b>Methods:</b> We searched Ovid MEDLINE (1980–), Ovid EMBASE (1980–), Clinical Trials in the Cochrane Library (via Wiley), Ebsco CINAHL with Fulltext (1981–) and SveMed + (1977–) up to May 2014 for relevant articles. We considered randomized controlled trials, non-randomized trials, controlled before-after studies and prospective cohort studies for inclusion and selected studies according to predefined criteria. Three reviewers independently assessed the included studies using the Cochrane Collaboration risk-of-bias tool. We performed a narrative synthesis of results and assessed the strength of evidence for each outcome using GRADE (grading of recommendations, assessment, development and evaluation).</p> <p><b>Results:</b> Only one non-randomized study was included. The study (<math>n = 140</math>) measured the effect of real-time interactive video consultation compared with face-to-face follow-up on healing time, adjusted healing ratio and the number of ulcers at 12 weeks among patients with neuropathic forefoot ulcerations. There were no statistically significant differences in results of the different outcomes between patients receiving telemedicine and traditional follow-up. We assessed the study to have a high risk of bias.</p> <p><b>Conclusions:</b> There is insufficient evidence available to unambiguously determine whether telemedicine consultation of leg and foot ulcers is as effective as traditional follow-up.</p>	<p>Effect of telemedicine follow-up care of leg and foot ulcers: a systematic review Lena Victoria Nordheim, Marianne Tveit Haavind and Marjolein M Iversen. <i>BMC Health Services Research</i> 2014, 14:565 <a href="http://www.biomedcentral.com/1472-6963/14/565">http://www.biomedcentral.com/1472-6963/14/565</a></p>
<p>Leg ulcers are a common problem and the cause of significant morbidity. Their treatment is estimated to cost £600m per year, placing an enormous burden on NHS resources. The introduction of a telemedicine system for the care of leg ulcers has the potential to reduce ulcer duration, total care episode cost and patient cost.</p> <p><b>Aims:</b> To look at the impact of introducing a leg ulcer telemedicine (LUTM, SAASoft Ltd) system on conventional leg ulcer care in a rural general practice.</p> <p><b>Methods:</b> A retrospective analysis was undertaken of all</p>	<p>Summerhayes, C; McGee, J.A.; Cooper, R.J.; K Ghauri, S A; Ranaboldo, C.J. <i>Introducing leg ulcer telemedicine into rural general practice. Wounds UK</i> 2012, Vol 12, No2: 28-36.</p>

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<p>patients presenting with a non-healing wound on their lower leg (knee to malleolus) of at least one month's duration in one rural general practice between December 2006 and December 2007. Patient, primary care and secondary care costs were compiled. Following this baseline audit, a telemedicine system was introduced and the same data was collected prospectively for a further year.</p> <p><i>Results:</i> After the introduction of LUTM, patient travel cost fell (from £68 to £49 per patient), primary care cost remained unchanged (from £357 to £353 per patient), secondary care cost increased (from £226 to £263 per patient) and procedure cost remained the same. GP input fell from 83% to 24% of patients and secondary care involvement rose from 45% to 60% of patients. The median time for the healing for leg ulcers was reduced from 105 to 70 days.</p> <p><i>Conclusion:</i> The introduction of LUTM to this rural general practice improved leg ulcer care through improved communication, assessment and treatment, objective evidence of response to treatment and increased secondary care involvement. This has resulted in faster healing rates and is cost-effective. As a result of these findings, the authors intend to introduce LUTM to local general practices.</p>	
<p><b>Issue</b> Personal wireless devices can enhance wound care management; however, there are potential risks that should be considered. A review of the evidence on the clinical benefits and safety of personal wireless devices for wound care consultation, and of the relevant guidelines, will help inform decisions about their use.</p> <p><b>Methods</b> A limited literature search was conducted of key resources, and titles and abstracts of the retrieved publications were reviewed. Full-text publications were evaluated for final article selection according to predetermined selection criteria (population, intervention, comparator, outcomes, and study designs).</p> <p><b>Results</b> The literature search identified 575 citations, 30 of which were deemed potentially relevant, with no additional articles identified from other sources. After full-text screening, 24 articles were excluded, and 6 met the criteria for inclusion in this review — 1 randomized controlled study and 5 non-randomized studies.</p>	CADTH Rapid Response Report 2014. Personal Wireless Device Use for Wound Care Consultation: A Review

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<p><b>Key messages</b></p> <ul style="list-style-type: none"><li>- Wound care diagnoses and management plans resulting from remote consultation using personal wireless devices appear to be similar to those resulting from face-to-face consultation (based on small studies).</li><li>- Insufficient evidence was found on which to make conclusions on clinical efficacy or harms.</li><li>- No guidelines on the use of personal wireless devices for wound care consultation were found.</li></ul>	
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## Ravijuhendid

Kokkuvõte ravijuhendites leiduvast

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SIGN 2010 – ei käsitele seda teemat

**AWMA 2011 - Where access to specialist services is limited, health professionals could contact a VLU specialist via telecommunications for advice and support in assessing and managing a patient with a VLU.**

SVS 2014 – ei käsitele seda teemat

RNAO 2004 – ei käsitele seda teemat

(chronic[All Fields] AND "varicose ulcer"[MeSH Terms]) AND ("telemedicine"[MeSH Terms] OR "telemedicine"[All Fields])

Leitud 2

Tehtud käsitsi lisaotsingud