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## Integrated care for hand eczema

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# Chapter 8

## Summary





## Summary

Hand eczema often is a disease with a major burden for patients, their employers and society. Despite that, usual care by dermatologists is suboptimal and may lead to long-term absenteeism and ultimately to permanent disability with unnecessarily high costs. Patients are in need of extensive counselling to improve their situation, as hand eczema has a complex aetiology and runs a dynamic but chronic course. Patients need instruction and information on topical therapy, aggravating factors and preventive measures. Usual care cannot provide for this, because of the limited time and expertise available at most outpatient clinics.

There is a need to develop cost-effective interventions, aiming at optimal topical treatment, avoiding relevant contact factors at home and in the working environment as much as possible, and optimal compliance to proper skin care instruction. Introducing new care will arise several questions from health care professionals like dermatologists, general practitioners and occupational physicians, patients, researchers and policymakers. The next chapters of this thesis will address their following questions.

### **What is known about the effectiveness of prevention and treatment options for patients with hand eczema?**

We conducted a systematic review of the literature to gain more insight into the effectiveness of prevention programmes on prevalence, adherence, clinical outcomes and reducing costs of hand eczema. The results showed that there is moderate evidence for the effectiveness of prevention programs on reducing prevalence of hand eczema and improving adherence to treatment. There is low evidence for the effect of prevention programs on improving clinical outcomes. No studies measured the cost-effectiveness of prevention. Future research should focus on the effect of organizational preventive measures. (Chapter 2)

### **What are important aspects in the design of a multidisciplinary intervention for patients with chronic hand eczema?**

A randomised controlled trial, the HAND study, was designed to evaluate the (cost-) effectiveness of integrated care compared to usual care for patients with moderate to severe, chronic hand eczema. The integrated care was provided by a multidisciplinary team consisting of a dermatologist, an occupational physician and a specialized nurse, and was coordinated by a care manager (an in dermatology specialized physician assistant or nurse). The integrated care program consisted of clinical evaluation by the dermatologist, multiple consultations with the specialized nurse and, if indicated, information, instruction and

workplace visit by a clinical occupational physician. Usual care was provided by the patient's own dermatologist. The primary outcome of the study was the clinical severity score HECSI. Secondary outcome measures were disease-specific quality of life, generic quality of life, patient's global assessment of perceived severity and cumulative days of sick leave. All outcome measures were assessed before randomization and after 4, 12, 26 and 52 weeks. Sick leave data and health care utilization were collected every month by means of a diary. (Chapter 3)

**What is the feasibility and applicability of integrated care? Are patients satisfied and what is the burden of this care for patients compared to the benefits?**

In a feasibility study, the experiences of 101 patients allocated to integrated care and health care professionals were investigated. Results show that the process of care can be improved. The clinical occupational physician was not always involved in the treatment when indicated. Both patients and health care professionals were satisfied with the program overall. Quantitative data showed that patients rated the whole intervention on average as 4.1 on a 1-5 scale, and qualitative data shows positive results as well. Health care professionals found the multidisciplinary character of the intervention and the direct lines of communication to be the most positive aspects of integrated care. As perceived barriers for implementation by the health care professionals were most often mentioned: the lack of flexibility of the protocol, expected high costs of the intervention and a lack of specific knowledge available in other hospitals. With the multidisciplinary approach and good communication as a basis for the program, in combination with the freedom of a more flexible application by the health care professionals, integrated care could be a useful treatment for patients with chronic hand eczema. (Chapter 4)

**Is integrated care for patients with chronic hand eczema effective compared to usual care after 26 weeks?**

The effect evaluation of the integrated care program (N=101) compared with usual care (N=95) after 26 weeks showed a statistically significant difference in reduction on the clinical severity score HECSI (Hand Eczema Severity Index) of 10.7 points in favour of the integrated care group (SE 5.3, 95% CI 0.3-21.1). No significant differences between both groups were found on quality of life and patient's global assessment outcomes. No differences in cumulative days of sick leave were observed. Based on the improvements in clinical severity of hand eczema, this study shows that integrated, multidisciplinary care is a promising treatment for patients with hand eczema. (Chapter 5)

**Is integrated care (cost-)effective compared to usual care?**

The economic evaluation, in which the cost-effectiveness and cost-utility of the integrated care program were evaluated from a societal perspective, showed that integrated care was neither effective nor cost-effective in comparison to usual care for the primary outcome measure HECSI and for quality-adjusted life years (QALYs). The difference in reduction on the HECSI was between the groups was 8.7 points, which was not statistically significant (SE 5.3, 95% CI -1.8 to 18.9). Total costs in the integrated care group were €3613 (SD 798) compared to €1577 (SD 430) in the usual care group. The ICER for improvement in HECSI score was -247. Of the bootstrapped cost-effect pairs, 94% were located in the north-east quadrant. Decision makers should decide whether the clinical benefits of integrated care on the short term outweigh the higher costs compared to usual care. (Chapter 6)

**General discussion**

In chapter 7 of this thesis, the findings of this thesis are discussed with regard to the current evidence. Furthermore, methodological characteristics of the study and implications for practice and future research are discussed. The main conclusions for this thesis are: 1. Integrated care is a useful and effective treatment for patients with chronic hand eczema on the short term; 2. With some adaptations in the integrated care program, the program may be (cost)-effective on the long term. Our main recommendations for practice are: 1. Health care providers should use of a standardized and protocol-led topical treatment. Since the number of patients with work-related hand eczema was relatively low, the care for these patients should be clustered in a few specialized centres; 2. We recommend patients with severe to very severe hand eczema, and patients whose hand eczema was work-related, to visit a hospital with a specialized centre; 3. We recommend policymakers to be supportive regarding new studies with an adapted design. Our main recommendations for future research are: 1. Future research should include cost-effectiveness evaluations including measurement of presenteeism; 2. Effectiveness of integrated care should be studied within more specific populations with regard to severity and work relations.

