

## **Research and quality improvement projects**

Substantial gaps in our knowledge exist regarding ulcer care and how the organisation of wound management (wound healing centres, education and training, communication, coordination and continuity) impacts both the healing and recurrence of hard-to-heal ulcers.

Ref: Chronic ulcers in the elderly – prevention and treatment. Stockholm: Swedish Council on Health Technology Assessment (SBU); 2014. SBU report no 226 (in Swedish).

Data from the RiksSår data base are unique and can be used within patient centered medical research as well as research within Health and Caring Sciences.

RiksSår has created a regional research network with staff from Lund University, Linneaus university and Blekinge Institute of Technology, BTH, to cover registry-based research within wound management. At the moment RiksSår has two PhD students, who use the registry's database.

RiksSår has also initiated a virtual national network of highly specialized wound care physicians and nurses in order to help staff in primary and community care to set the adequate diagnosis and hence give the proper treatment.

An international research network has been formed around RiksSår for exchange of ideas, experiences and knowledge such as the collaboration with the School of Public Health and Preventive Medicine vid Monash University, Melbourne, Australia

Ref: Öien RF, Weller CD. The Swedish national quality Registry of Ulcer Treatment (RUT): How can 'RUT' inform outcome measurement for people diagnosed with venous leg ulcers in Australia? *WP&R Wound Practice & Research* 2014;22(2):74-77.

and the Faculty of Medicine, Department of Nursing, Brno, The Czech Republic

Ref: Pokorna A, Öien RF, Forssell H, Lindholm C. International cooperation for prevention and healing of pressure ulcers is challenged by the lack of national registries. *Cesk Slov Neurol N* 2016; 79/112 (Suppl 1): 20-24.

RiksSår's ambition is to extend the collaboration with the Norwegian wound healing Society (NIFS), the Danish Telemedicine and the German Wound Healing Society (DGfW, Deutsche Gesellschaft für Wundheilung).

RiksSår has during the years published 21 scientific articles (see publication list), some 60 abstracts to national/international conferences and a large number of publications in popular scientific journals.

Today and in the near future RiksSår focuses on patient-centered health care, patients' experiences of daily activity and how to coop with the ulcer in daily life as well as to prevent recurrences, e-health solutions, antibiotic treatment versus treatment with antimicrobial dressings, health related quality of life, health economics, organisation of wound management (wound healing centres, education and training, communication, coordination and continuity).

## **Ongoing research projects**

### ***Telemedicine and wound management***

A study, part of a doctoral thesis, was carried out to investigate differences between video consultation and in-person assessment for patients with hard-to-heal ulcers. Healing time and waiting time were significantly shorter for patients diagnosed through video consultation compared with those diagnosed through in-person assessment. Using video consultation as a complement to in-person assessment has thus the potential to improve ulcer diagnosis and healing.

Ref: Wickström HL et al. Comparing video consultation with inperson assessment for Swedish patients with hard-to-heal ulcers: registry-based studies of healing time and of waiting time. *BMJ Open*. 2018 Feb 15;8(2):e017623. doi: 10.1136/bmjopen-2017-017623

Another study, also part of a doctoral thesis, has been carried out to compare consultations done via video with those done in person for patients with painful hard-to-heal ulcers, with focus on ulcer pain and pain treatment.

Ref: Wickström HL et al., Pain and analgesics use in patients with hard-to-heal ulcers: A comparison between telemedicine and standard consultations (submitted to *J Wound Care*)

### ***E-health solutions***

As staff are experiencing difficulties with finding time in clinical practice for immediate and safe documentation of patients with hard-to-heal ulcers, the RiksSår app has introduced a smart and user-friendly tool which has facilitated wound management and engaged staff in ulcer care. Some 70 professionals are currently using the RiksSår app in their everyday clinical practice. All participants have engaged in following their patients through the wound healing process while discussing treatment strategies on a common platform. Adjustments to the app have been made in response to comments from the testers, such as direct linking of photographs into the patients' medical records.

Ref: Öien RF et al. Implementation of a structured wound management system in Sweden facilitated by the RiksSår app (to be submitted)

RiksSår, in cooperation with SALAR (the Swedish Association of Local Authorities and Regions), has implemented the RiksSår app as a model for digital consultation.

Twenty of the 290 Swedish municipalities are involved in the project. At the same time, some 20 highly specialized competence centres are being developed in order to offer digital specialist consultations.

Ref: Öien RF et al: Implementation of a national decision support focusing on wound management as a highly specialized medical discipline (to be submitted).

### ***Antibiotic treatment***

One study, part of a doctoral thesis, is carried out to investigate the incidence of antibiotic prescriptions to patients with hard-to-heal ulcers related to ulcer diagnoses and to examine patient-related lifestyle factors related to antibiotic treatment.

Ref: Åkesson N. et al., Antibiotic prescription to patients with hard-to-heal ulcers linked to patient-related factors (to be submitted)

### ***Organisation of wound management***

The concept of clinical experience and research linked to a national quality registry has proved to be a successful approach to a more patient-centered and efficient health care system. In 2017, the registry received the Golden Scalpel award for the best innovator in Swedish health care. RiksSår is a useful and practical clinical tool involving a highly valuable national research database for wound management.

Ref: Öien RF et al. Health-related benefits for patients and reduced costs for health care when combining clinical wound management with register-based research (to be submitted)

### ***Patients with pressure ulcers***

Caregivers from hospital, community, and primary care in the county of Blekinge (150 000 inhabitants) were invited to conduct a screening combined with clinical evaluation of patients with or at risk of pressure ulcers (PU) with follow-up after six months to investigate mortality rate and ulcer healing linked to primary and secondary preventive measurements. One of the main findings was that patients whose ulcers had healed had been given pressure-relieving equipment both at baseline and at follow-up. Our study thus reflects a medical area in which there is room for improvement.

Ref: Öien et al. Clinical evaluation including long-term follow-up of patients with pressure ulcers treated in hospital, community, and primary care in one Swedish county (to be submitted)

### ***Patients' involvement in wound management***

One doctoral thesis will cover the aspects of how the patient can actively participate in the wound healing process to reduce ulcer healing time and prevent recurrences.

Niklasson J et al. The patient – an underexploited resource in the treatment of hard-to-heal ulcers (to be carried out in 2019)

### ***Self-care management and patient participation in wound management***

This project is initiated in order to improve the management of hard-to-heal ulcers by engaging the patient and involve their experience of daily life symptoms in wound management. In this project we develop and validate a co-created self-care plan with the patient in focus. The goal is to prevent and reduce the extent of wound recurrence, a common complication due to insufficient knowledge and engagement among the staff as well as lack of coordination of the many actors included and the main culture in wound management (ongoing project)

### ***Staff engagement when implementing an eHealth solution***

The intention of this national project is to describe staff engagement in the process of testing and implementing a new eHealth solution in wound management, the RiksSår app, within a healthcare organization. The participants test the app over a testing period of six months. In the beginning of the RiksSår app project we interviewed primary health care doctors and nurses who frequently treated patients with hard-to-heal ulcers, concerning questions about the concept of engagement and their engagement in the implementation of the app in their clinical practice. (ongoing project)