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To prevent and treat pressure ulcers through a holistic approach and team work

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INTRODUCTION

Rehab Station Stockholm conducts medical rehabilitation for people with spinal cord injuries, orthopedic injuries, stroke, MS and in general neurology outpatient and inpatient form.

Our patients have a major risk of developing pressure ulcers due to paralysis, muscle atrophy, bone decalcification and sensory loss.

Our goal is to help our patients to:

- Prevent and avoid pressure ulcers (PU)
- Heal pressure ulcers - as soon as possible
- Prevent complications and recurrences after a pressure ulcer flap surgery

METHODS

Through a team effort with a holistic point of view, we can prevent, heal and stop pressure ulcers.

All professions in the team must work in conjunction with the patient based on his/her functions and lifestyle to get a positive result that endures. We engage and educate the patient and persons in its vicinity (assistants, relatives) in the wound healing process in order to understand the cause-effect for a faster and long-lasting result. Team work around the pressure ulcer patients is of great importance, not only to focus on the wound and changing dressings!

To heal deep pressure ulcers on the sitting area, it's necessary to offload lying in bed and this may last for several years. There is a major risk of becoming apathetic and lose the spark of life because of the isolation and lack of activity due to pressure ulcers. A flap surgery may then be the only way out. But complications after surgery, recurrence and new pressure ulcers are reported to be as high as 30-40%. In cooperation with the plastic surgeons at the Karolinska University Hospital we have designed a rehabilitation programme for paralyzed patients after a flap surgery.

RESULTS

A treatment program has been developed in order to preventing and healing pressure ulcers and for the rehabilitation after a flap surgery. Team work in conjunction with the patients has led to preventing/healing actions and review of common causes that increase the risk of pressure ulcers. Methods concerning the frequency of dressing changes and material have been reviewed and developed.

We can see that patients and assistants react faster than before and because of that can stop the progression of the wound before it goes too far.

The rehabilitation program for flap surgery patients has decreased the hospital stay, made it possible to operate multiple wounds and reduce complications by gradually stretching the operated muscle and help the patient understand the cause and effect to be able to change behavior in order to prevent recurrence/new pressure ulcers.

DISCUSSION

Early treatment of pressure ulcers with specific knowledge of the patient group is considered too expensive but it would avoid several operations and prevent years of suffering. Procurement, lack of knowledge and money can bereave the patient possibilities to receive the right dressings and technical aids.

Preventing pressure ulcers cost significantly less than treating them, both in monetary terms and personal suffering. Despite the fact that as much as 50-95% of these pressure ulcers could be prevented people still die due to complications from pressure ulcers.

Check, react and act!



PRESSURE ULCER

Muscle atrophy, bone decalcification and sensory loss make paralyzed patients more vulnerable to developing pressure ulcers.



Dressings are more difficult to perform when atrophied buttocks causes the anus to become more prominent and close to the sitting bones;

- There is a greater risk of contamination of faecal flora
- It is more difficult to attach dressings
- Position changes and transfer from wheelchair / bed / toilet – in low shuffling movement causes extra wear and tear on the dressing adhesion.

PREVENTION - EDUCATION OF THE PATIENT

1. Daily skin assessment at the time of personal hygiene by staff and subsequently by the patient with a mirror. This clarifies the importance of inspections of vulnerable areas and understanding of the inspection, act and react in time.
2. Incontinence is a major problem among paralyzed patients. It is important to get into good bladder- and bowel routines and personnel adapted incontinence aids. A moist skin is more susceptible to developing pressure ulcers.
3. Education with a lecture and a special made DVD (Sårskolan) adapted for the patient group - how to prevent and heal pressure ulcers.
 - What is a pressure ulcer?
 - How to prevent?
 - What do you do when you get a pressure ulcer?
4. Specialmade books about pressure ulcer and bowel and bladder disorders is written for the people concerned (users) and persons in its vicinity. The patient receive the book after the education (can also be bought).

TO HEAL PRESSURE ULCERS

1. **Find the cause and deal with it** instead of just treating the symptom. All professions in the team must work in conjunction with the patient according to that person's function and lifestyle, to get a positive result that lasts.
2. **Modern active wound healing.** Dressings that can stay on for several days and which optimizes the wound healing conditions.
3. **Offload is of great importance.** Repositioning and sitting restrictions is necessary if the wound is placed in the sitting area. We recommend our paralyzed wound patients sit up for 30 minutes 3 times a day to prevent complications such as cloths, puliminrytract infections, depressed mood and poor appetite. If the wound is on the feet, use custom-made orthopedic shoes and heel protectors in bed. Best pressure relief position in bed is in a 30 degree lateral position (for sacrum, hips and heels).
4. **Load management: Pressure relieving aids;**
 - Treating mattress (low air loss) after wound category
 - Air filled cushion (Roho Quadro Select)
 - Soft Seat for toilet and shower chair
 - Slip mat on the glider alternatively use of a lift when transfer
5. **Appetite and mind are often linked.** Many people are feeling miserable during long periods of offload in bed because of smelly wounds, isolation and the whole hopeless situation. This often leads to a depressed mood and poor appetite. Getting help in grasping the situation can make the appetite increase and the wound starting to heal.

Nutritional supplements with arginine (Cubitan) are needed, required especially when the wound is abundantly exuding.