



Study of the effectiveness of various aids for lateral transfers

Comparison between air-assisted transfer mattress (HoverMatt) and glide boards, sliding mat, straps, etc.

Introduction and purpose

At Karlskoga Hospital's X-ray department, many lateral transfers are carried out, which are often painful for patients and very stressful and time-consuming for staff. Historically, the department has used transfer aids such as sliding boards, sliding cloths, sliding mats, and straps. For example, straps were attached to loops on the hospital bed mattress, and then the entire mattress, with the patient on it, was pulled over to the X-ray table.

The department has tested the HoverMatt, an air-assisted transfer mattress. A survey was conducted among users who tested the alternative devices to evaluate HoverMatt.

Method

The survey was conducted using a questionnaire completed by staff who performed lateral transfers using the options being compared. The questionnaire included the following questions:

What aids were needed for the transfer, and how many? (e.g., glide boards, sliding mats, slide sheets, straps; total number)

- How many staff members were required for the transfer? (2, 3, 4, or more)
- How long did the transfer take from the time it was prepared? (<1 minute, <2 minutes, <3 minutes, <4 minutes, >5 minutes)
- How would you rate the ease of the transfer? (Very easy, Easy, Medium, Difficult, Very difficult)

A total of ten transfers were performed using traditional devices and thirteen using HoverMatt. All patients who were transferred had a hip fracture.

Clarification:

For patients transferred with the HoverMatt, the device was already in place from the ambulance, requiring no setup in the X-ray department.

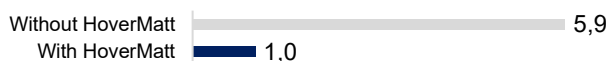
Results

The survey results are organized by question category and include a brief interpretation of the findings.

What tools were needed, and how many?

When using traditional aids, an average of 5.9 aids were necessary. For instance, this typically included four glide boards and two straps. When using HoverMatt, no additional aids were required.

Number of aids used



How many staff were needed for the transfer?

The number of caregivers needed was similar for both options, two. Three caregivers were required to transfer with glide boards in a single case.

How many staff were needed



How long does the transfer take from the time it is prepared?

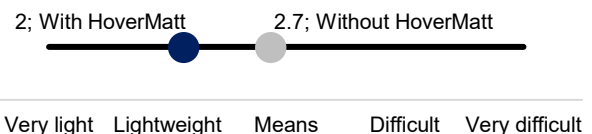
Transfers with the HoverMatt took, on average, one minute less than with the other devices, or 25% faster. However, it should be mentioned that the evaluation only measured whether transfers took more than five minutes. Without HoverMatt, 6 out of 10 (60%) of the transfers took more than five minutes, while with HoverMatt, the corresponding figure was 2 out of 13 (15%).

How long did the transfer take



How easy did you find the transfer?

When asked about the ease of the transfer, respondents rated it on a five-point scale, with 'Very easy' corresponding to 1 and 'Very difficult' corresponding to 5. It was found that transferring with HoverMatt was 26% easier than with glide boards etc. (average 2 vs. 2.7).



Discussion and debate

The study compared transfers with traditional aids such as glide boards, straps, etc., with the HoverMatt. The comparison showed that HoverMatt was sufficient as the only aid, while for the traditional alternative, 5.9 aids were required to carry out the transfer. This may have implications beyond the transfer itself, such as the handling and storage of many aids. There was no notable difference between the options regarding the number of staff required.

With HoverMatt, transfers were, on average, one minute faster. It should be noted, however, that this difference would probably have been greater if the total time of transfers had been measured. Now, all > 5-minute transfers were counted as five minutes, but since 60% of transfers with traditional aids took longer than five minutes, it is likely that the average would have been higher than four minutes if the exact time had been measured. We also see that staff found the HoverMatt transfer easier than traditional aids (26% easier, average 2 vs. average 2.7).

Finally, we can conclude that based on this simple survey, there are advantages of HoverMatt in terms of 1) the number of aids, 2) the time required, and 3) the user experience for staff.

About Karlskoga Hospital

For many years, Karlskoga Hospital has actively worked to promote an ergonomic working environment for its staff, and has often been regarded as a role model and reference hospital in the field of transfer technology. The institution has been awarded a number of awards and accolades for its work, including the "Förflyttningspriset (Transfer Award) 2004" from the Nordic Network Forum for Transfer. Karlskoga has also been highlighted as a good example in the Swedish Work Environment Authority's campaign "A raise in healthcare".