



eStockings

Report on wishes/ideas Captured in diverse end-user contexts

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e-Stocking Initial end-user feedback

Content:

1	Revision history	3
2	Background.....	4
3	Basis for the research on end-users wishes and needs	5
4	Response from the meetings with end-users.....	6
4.1	Purpose	6
4.2	Experience and problems	6
4.3	The current compression stockings	7
4.4	Options	9
5	Conclusion.....	10



e-Stocking *Initial end-user feedback*

1 Revision history

Revision	Date/Author	Description
V0.1	13. August 2012/FC	Document creation
V1.0	20. February 2015/FC	Frants' revision of the text



e-Stocking *Initial end-user feedback*

2 Background

This report is planned to be the basis for the development work of the technical developers of the project. The report is a bit delayed due to the problems establishing the consortium in the beginning of the project period and also due to the fact that the period for establishing meetings with end-user organisations has been longer than expected.

The results from this early research on end-users wishes and needs were presented at the General Assembly in Tampere in September 2012. Since it has been the basis for all development work within the project.

The following is the report of the initial research.



3 Basis for the research on end-users wishes and needs

The research is based on meetings with various user groups in UK, Switzerland and Denmark. The meetings have taken place from May to September 2012.

At the meeting in UK there were a group nurses and end-users present. The end-users were characterized by an independent living and that they only had problems with their legs. Otherwise they were living normally.

At the meeting in Switzerland there were a group of leaders of nursing homes and a couple of nurses. There were no primary users present – the professional nurses and leaders spoke on behalf of their patients.

At the meeting in Denmark there were a group of leaders of nursing homes, a couple of nurses and a majority of internal consultants with Welfare technology as their primary working area.

To be able to identify the source of the quotations every quote is marked with (UK) for UK quotes, (CH) for Swiss quotes and (DK) for Danish quotes. This is done of two reasons. First, to be able to identify possible differences in the contexts of the participating countries and secondly, to be able to identify differences between user groups.

4 Response from the meetings with end-users

4.1 Purpose

- Make better working conditions for nursing staff (CH)
- Make the elderly people more able to walk around freely (CH)

4.2 Experience and problems

The primary target groups: elderly people

- The elderly can not take the socks on themselves (CH)
- The legs can change shape from day to day (edema) (CH)
- Power is necessary when you take socks on (CH)
- Pain intensified when taking socks on (CH)
- Refusal to wear socks in warm weather - dry skin (CH)
- Who is the audience? - Dewatering of citizens, wound care, - socks for flying - runners (DK-V)
- Cognitive issues in relation to use (DK-V)
- Many users uses compression stockings that are not 100% okay (DK-V)
- Many users depend on the timing of aid to take compression stockings on (DK- V)
- The emergence of a dependency relationship (DK-V)
- When can you stop using compression stockings again? (DK-V)
- Best if the elderly themselves follows up (DK-V)
- Standard solutions are not always appropriately adapted to the individual (DK- V)
- Compression stockings are warm to wear (DK-V)
- Uncomfortable (UK)
- Material is too heavy (UK)
- Compression systems are too hot – thickness of the material and use of support tights was highlighted (UK)
- Not feminine enough with a poor range colours (UK)
- Difficult to apply and remove (UK)
- Difficult wearing shoes – bandaging is too big (UK)
- Bulky layers – makes the physical handling of the compression system difficult (UK)
- May be allergic to latex (UK)
- Ankle damage in some cases where stockings are used (UK)
- Ankle damage may still occur where made to measure hosiery is applied (UK)
- Bigger legs which are less contoured slippage of compression systems may occur as leg size changes (UK)

- Below knee stockings – band at top of stocking may 'dig into' the leg but if too loose the bandages will slip (UK)
- Foot length may not match the ankle/calf measurements (UK)

The secondary audience: Nursing staff and aides

- Power is necessary when you take on compression stockings (CH)
- Use of skin care products can make it impossible to help with the stockings (CH)
- The emergence of a dependency relationship (DK-V)
- Many injuries among staff (DK-V)
- Employee Resistance to take new techniques in use, so their work disappears (DK-V)

The tertiary audience: Care Organizations and other stakeholders

- Time consumption is very high (CH) - At least 10 minutes max. 40 minutes to give and take of - Expenses are partly higher than other care facilities, funded only 3-5 minutes of work with help to compression stockings
- Risk of damage to the thin skin may be associated with additional costs (CH)
- Training of staff is needed on how to put on stockings (CH)
- The stockings can last for about half a year (CH)
- Many resources used to help with compression stockings (DK-V)
- There may be a social moment in care (DK-V)
- Many users depend on the timing of aid (DK-V)
- You should also think about the associated workflows (DK-V)
- In home care in Aarhus municipality, they use 20 million dkr year to help with stockings for people in private homes (8 min each. Client incl. driving, they have 596 users in Aarhus included in these figures). (DK-V)
- The system (hospital and doctors) think that there are homecare and are not thinking in self-reliance - empowerment philosophy should be put more forward. (DK-V)
- There is differences in the estimate of stockings each citizen must apply (DK-V)
- The private practitioners do not know much about socks (DK-V)
- Resource Problem, but the paradigm shift towards building more on self-reliance (DK-V)
- The emergence of a dependency relationship (DK-V)
- The public assistance must be intelligent help - empowerment (DK-V)
- Failure to follow up on the use of support stockings (DK-V)
- Standard solutions are not always adapted to the individual (DK-V)

4.3 The current compression stockings

The market

- Cannot always be used (CH)

- On the Swiss market are 2-3 vendors (CH)
- Additional products are needed to help take on the stockings (CH)
- Difference between applicators – compression can be applied either too tight or too loose (UK)
- Waste of money may occur if matching specific brands to individuals if the compression system is not tolerated and where high compression levels are applied (nonconcordance to compression system) (UK)

Types

- 90% are knee high (CH)
- Venous compression stockings are equal to support stockings = (CH)

Surveying and effect

- Difficult to take measure for stockings - the patient's legs do not always have the same form (CH)
- There are three points of measurement, and it is not always reliable (patients can go on and lose weight) (CH)
- Measurement of the compression (DK-V)
- Too high pressure in the compression (DK-V)
- Does it have an effect at all? (DK-V)
- A no less existing problem in Japan, Norway and Sweden, where is the evidence? There is evidence in relation to the wound: (DK-V)
- How high should the compression be (DK-V)
- Made to measure hosiery is dependent upon the accuracy of clinicians' measurement of the leg (UK)
- Could fitting be improved using moulds of the leg or digital images?? (UK)
- Open toe compression systems may see the material pushed back from the toes resulting in the material riding up towards the heel. (UK)
- Thigh length compression systems may roll down (UK)
- Breathable – relates to heat build-up and should be considered under the systems being too hot (UK)
- Different sizes may be required for the right and left leg of the same person (UK)
- If not fitted or applied well could be a tourniquet effect on the leg. (UK)

Use

- Stockings must occasionally take over existing dressings (CH)
- The stockings worn only during the day (CH)
- Hand wash / delicate machine wash in 40 ° (CH)
- Tests may be different depending on the season: summer or winter (CH)
- Many users use support stockings, that are not 100% okay (DK-V)
- Standard solutions that are not always adapted to the individual (DK-V)
- They are warm to wear (DK-V)
- Washing the stockings can be difficult and complicated (DK-V)
- Oedema of the legs (DK-V)
- Medication Use in combination with support stockings (DK-V)



e-Stocking

Initial end-user feedback

- Multi-layered stockings (DK-V)

4.4 Options

The stocking

- The solution must be able to take the whole field from the stockings and long / short stretch compression (DK-V)
- International standards (DK-V)
- The tube is flexible in its push to be able to respond intelligently to changes in needs (DK-V)
- A special zipper or other fastener that is easier and comfortable to wear (DK-V)
- Desire for a stocking that signal back on the impact of treatment! (DK-V)
- Motion Sensor to give notice of what could be the reason for the need (DK-V)

Communication with environment

- Measurement and monitoring of effect, which must be placed directly into the care records and GP records (DK-V)
- Data gathered in one place (DK-V)
- Monitoring the use of sock (DK-V)
- Monitoring of several other diagnoses for preventive purposes (DK-V)
- Identification of the citizen's life monitoring in the sock (DK-V)

Organizing

- Certified individuals shall have access (DK-V)
- Formation of specialist centers to support local use (DK-V)
- Outsourcing of compression stocking treatment (DK-V)
- You would obviously prefer prevention instead of treating (DK-V)

5 Conclusion

It is not possible to identify national differences in the responses. Instead the response is much more dependent from which user group the respondent are coming from.

Within the primary user group it is also important to distinguish between users. The very weak users, who are not able to speak for themselves, are off course one group. They can either have dementia or be very physically weak. This group will not have the same priorities as the very strong group of independently living citizens represented by the English user group. These two groups are forming the opposites with a wide arrange of other primary user groups in between.

The strong group of primary users have another focus and priorities than the weaker groups. First of all the strong group are very focus in the appearance of the stocking, while the weak group don't have energy to consider this matter in the same degree.

The secondary user group consistent of nursing staff is interested in the well being of their "patients" and in their own work environment. If the stockings are providing a good work environment and are functional good, the nursing staff does not consider the appearance in the same degree as the strong primary user group.

The tertiary user group – here represented of leaders and consultant from large nursing organisations – are more focused on the resource saving aspect. Besides that they also have a focus on the relation between the primary end user and the nursing organization – they want to reduce the dependency of end users and introducing empowering philosophy in the nursing.

Especially the Tertiary end-users have also focus on the effect of the stockings and are asking if there is an effect at all. This combined with another central question, as is it is possible to rely on stockings given the right compression. It shows that especially the tertiary end-users are relatively sceptical concerned compression stockings.

If one looks at the options a new intelligent type of compression stocking offers the end-users, it is mostly the tertiary users, who express enthusiasm for such solutions as communicating health- and activity-information to health professionals.

These differences between various user groups are much more clear than national differences, although there is a huge difference in the way to organize nursing and finance from country to country.