Implementation of the quality standard pressure ulcers in primary care: a qualitative study of barriers and facilitators

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ABSTRACT

Rationale: The current guideline of the European Pressure Ulcer Advisory Panel of 2009 was revised. Results of the implementation of the guidelines pressure ulcers (PUs) in primary care are disappointing. Healthcare professionals (HCPs) play an important role in this implementation. However, there is no insight into the barriers and facilitators according to HCPs working in PC, to implementation of the quality standard PUs in PC. As a result, it is not possible to adequately implement the new quality standard in PC

Aim: To investigate the barriers and facilitators, according to HCPs, for implementation of the quality standard pressure ulcers in primary care

Methods: A generic, qualitative study is conducted. Population of interest were HCPs working in PC which were identified as key players for this study. An interview guide was used to structure interviews. Data collection and thematic analysis took place iteratively.

Results: Twelve participants were interviewed. Five main themes emerged from these interviews: a) the individual HCP, b) the multidisciplinary team in homecare, c) organizational context, d) economic factors and e) implementation. Within each theme several barriers and facilitators emerged.

Conclusion: Different barriers and facilitators to the implementation of the quality standard PUs in PC emerged. From these barriers and facilitators, preconditions have emerged for each of the five themes that must be met to implement the quality standard PUs in PC.

Implications of key findings: Results of this study will be used to develop a quantitative survey. Results will be used to determine strategies for implementation of the quality standard PUs in PC. Due to the absence of data, the vision of GPs could not be included in the study. Therefore, further research is advised to interview GPs on this subject.

Key words: Implementation science (MeSH), Barriers and facilitators, Pressure ulcer (MeSH), Quality standard, Primary Care (MeSH).

SAMENVATTING

Achtergrond: De huidige richtlijn van de European Pressure Ulcer Advisory Panel van 2009 is herzien. Resultaten van de implementatie van richtlijn decubituszorg in de eerste lijn zijn teleurstellend. Zorgprofessionals spelen een belangrijke rol in deze implementatie. Echter is er geen inzicht in de bevorderende en belemmerende factoren bij de implementatie van de kwaliteitsstandaard decubituszorg in de eerste lijn, volgens zorgprofessionals. Dit resulteert erin dat de kwaliteitstandaard niet adequaat geïmplementeerd kan worden in de eerste lijn.

Doelstelling: Het onderzoeken van bevorderende en belemmerende factoren, volgens zorgprofessionals, voor de implementatie van de kwaliteitstandaard decubitus in de eerste lijn.

Methode: Een generieke, kwalitatieve studie werd uitgevoerd. De populatie van belang waren zorgprofessionals werkzaam in de eerste lijn welke waren geïdentificeerd als sleutelfiguren voor deze studie. Een interview guide is gebruikt om de interview te structureren. Data verzameling en thematische analyse vonden plaats middels een iteratief proces.

Resultaten: Twaalf participanten zijn geïnterviewd. Vijf hoofdthema's zijn gevonden; a) de individuele zorgprofessional, b) de sociale context, c) organisatorische context, d) economische factoren en e) implementatie. Binnen elk thema zijn verschillende bevorderende en belemmerende factoren naar voren gekomen.

Conclusie: Verschillende bevorderende en belemmerende factoren voor de implementatie van de kwaliteitstandaard decubituszorg in de eerste lijn kwamen naar voren. Vanuit deze bevorderende en belemmerende factoren zijn randvoorwaarden ontstaan voor elk van de vijf thema's, waaraan moet worden voldaan om de kwaliteitsstandaard decubituszorg te implementeren in de eerste lijn.

Aanbevelingen: Resultaten van deze studie zullen worden gebruikt om een kwantitatieve studie op te zetten om strategieën te bepalen voor de implementatie van de kwaliteitsstandaard decubituszorg in de eerste lijn. Vanwege het gebrek aan data kon de visie van huisartsen niet meegenomen worden in deze studie. Daarom wordt geadviseerd om huisartsen nog te interviewen met betrekking tot dit onderwerp.

Trefwoorden: Implementatieonderzoek, Belemmerende factoren en bevorderende factoren, Decubitus, Kwaliteitsstandaard, Eerstelijnszorg.

INTRODUCTION

Results of implementation of guidelines in healthcare are disappointing[1]. Non-adherence to guidelines can lead to inadequate treatment. Studies show that 30-40% of the patients receive care that is not based on scientific evidence.[2–5]. Implementation can be described as a process-based introduction of innovations and/or improvements with the aim of giving them a structural place in professional activities, in functioning of organizations or in the structure of health care[6].

Davies et al. noted in a review about guideline implementation strategies that only ten percent of the studies obtained an explicit rationale for their chosen strategies[7]. Limited theoretical basis is often the reason for diminished results in implementation of evidence based practice[8,9]. Due to poor analysis of target groups and setting it is difficult to identify factors that predict the probability of implementation success and develop specific strategies to accomplish a more successful implementation[10,11].

Several studies investigated the adherence to PU guidelines and concluded that they were often not implemented in daily practice[12–14]. As mentioned above, it is important to undertake analysis before implementation. Following the model of Grol and Wensing step three; analysis of target group and setting need to be carried out[6]. When barriers and facilitators are known, strategies can be tailored to overcome these barriers to implementation of the guideline[15].

There are several reasons why implementing a new quality standard of PU's is important. First, PUs is an important quality indicator in healthcare. A PU is localized injury to the skin and/or underlying tissue, as a result of pressure, or pressure in combination with shear[16,17]. Risk factors for PU's include poor mobility and older age in patient populations characterized by high levels of comorbidity and mortality[18]. PU's represent a major burden to patients and are also usually preventable and therefore also culpable[22]. Last, PUs also demand a substantial financial concern for all involved parties[18,23].

Following the introduction of PU prevalence as an indicator for the quality and safety of care institutions, a slight decrease in prevalence is visible[24]. The national prevalence measurement of PU shows the prevalence of PU's in primary care (PC) is respectively 3.7%[25] . When interpreting and generalizing these data, it should be taken into account that only three homecare institutions with a total of 191 clients took part [25]. Knowing that elderly have to live independently longer and patients with, for example, spinal cord injuries have a high risk of developing PUs, prevention and treatment still needs improvement [17,26]. An up-to-date quality standard PU's is of vital importance to achieve this. The current PU guideline of the Dutch nursing organization (V&VN; Verpleegkundigen & verzorgenden Nederland)[17] is

based on the European Pressure Ulcer Advisory Panel (EPUAP) guideline of 2009. In 2014 this guideline was revised, in which new information emerged[16].

Research has been conducted into implementation of guidelines and quality standards for PU care in hospitals and nursing home[12,13,27]. Healthcare professionals (HCPs) play an important role in the implementation of the quality standard PUs[12]. Hence, there is no insight into the barriers and facilitators according to HCPs working in PC, to implementation of the quality standard in PC. As a result, it is not possible to adequately implement the new quality standard in PC.

AIM

This study aims to investigate the barriers and facilitators according to healthcare professionals working in primary care, for the implementation of the quality standard pressure ulcers in primary care in the Netherlands.

METHODS

Design

A qualitative, descriptive, generic study was conducted from January till May 2019. A qualitative design was considered most suitable, as we wanted to focus on in-depth experiences, thoughts and views of HCPs about barriers and facilitators to implement the quality standard PUs in PC[28–34]. Furthermore, this qualitative approach made sure supplementary questions could be asked. The generic, descriptive design was considered suitable because of the lack of research into barriers and facilitators to the implementation of the quality standard PU in PC[33].

Reporting is conducted following the consolidated criteria for reporting qualitative research (COREQ) checklist[30].

Population and setting

Population of interest were HCPs working in PC which were identified as key players using the power of interest matrix of Mendelow[35]. To fill in this matrix, a small preliminary study was done by interviewing one GP and two vocational nurses.

To be able to achieve maximum variation in setting, purposive sampling was used. Participants from different sizes of homecare organizations were recruited[31,36]. A distinction was made between homecare organizations of 0-50 employees, 50-500 employees and 500 employees or more. Moreover, snowball sampling was used when participants advised to include other relevant disciplines. Following key players were included in the population of interest: community- and vocational nurses, occupational therapists (OT), product specialists, GP's and managers in PC.

Data collection

The main study parameter of this study were barriers and facilitators to the implementation of the quality standard PUs in PC. Data was collected using face-to-face semi-structured interviews. Following patient characteristics were collected to get insight in participants; sex, education, work experience in years, working in a self-steering or not self-steering team and size of organization.

To structure interviews, an interview guide was used. Questions in this interview guide were based on step three of the Grol and Wensing model[6]. Following themes from the model were used factors to create questions: 1) Individual professional; 2) Social context; 3)

Organizational factors and 4) Economic[6]. Table 1 shows the final topics of the interview guide. We held a pilot interview to explore clarity of questions, resulting in minor adjustments. Data from the pilot interview were used in this study. Data collection took place simultaneously with data analysis [37]. Hence, this interview guide was adapted several times due to new insights[31].

[Table 1]

Interviews took place at a location chosen by participant, lasted between 20-57 minutes and were tape-recorded[37].

To enhance quality of data collection, following decisions were made according to Lincoln and Guba[38]. To achieve credibility, the interview technique of summarizing answers from the participant during the interview and checking whether this was correct, was used[31,39]. Furthermore, prolonged engagement was used for building trust and rapport[40]. Peer debriefing was carried out within the research group (BvG) and with an independent researcher (JM) to establish transferability and to detect bias or inappropriate subjectivity[31,38,39].

Data analysis

Thematic analysis was performed following six steps of Braun & Clarke[31,41,42]. During the iterative process, analysis was done after every fourth interview to examine whether other participants should be included and whether the interview guide needed to be adjusted by the researcher. First, data analysis started with transcribing interviews verbatim. Second, the transcribed data were read and re-read to get familiar with data. Third, relevant fragments were identified and given a code. Fourth, all codes were searched for appropriateness in the four pre-defined themes following Grol and Wensing[6] and for potential new themes and sub-themes. Fifth, themes were checked and refined to regenerate clear definitions and names for each theme[41]. Last, themes were combined in order to answer the research question. The process of data collection and analysis took take place until code saturation was received. The process of analysing was supported by Microsoft Office 365 Excel (version 1811).

To enhance quality of the study, first two interviews were analysed by two researchers (LvdV and JM). These researchers compared and discussed findings until consensus was reached[31]. In addition, a third researcher (BvG) read along during the process of analyzation and regularly discussed findings with the researcher (LvdV).

Procedures

Homecare organizations and HCPs were mapped and contact information was collected. For each different organization-size, a homecare organization was approached. Homecare organizations and HCPs were contacted by telephone or email and asked whether the researcher could send information about the study by email. Within two weeks, the homecare organisations and HCPs could indicate whether they were interested in participation. When willing to participate, potential participants were contacted personally. If homecare organization or HCPs were not willing to participate a comparable organization or HCP was approached. When a participant agreed to participate an appointment for an interview was made.

Ethical issues

The study was conducted according to the principles of the declaration of Helsinki (version:09/7/2018)[43], the guidelines for Good Clinical Practice (version:11/9/2016)[44] and the European law General Data Protection Regulation (GDPR)[45]. It was not necessary to have the study assessed by the medical ethical committee because participants were not subjected to actions and no behaviour is imposed to them[46].

An informed consent form was signed before start of the interview. Anonymized data will be stored in a secured cloud at the university of Applied sciences Nijmegen for 10 years. After 10 years, data will be destroyed.

RESULTS

Participants

A total of 12 key players; six community- and three vocational nurses, one manager, one product specialist and one OT from five different homecare organizations were interviewed. Three community- or vocational nurses from each previously selected organization size were interviewed. Eleven respondents were female. Years of work experience ranged between 1-38 years (Table 2). Four GPs were approached but all indicated that they did not want to participate in the study because PU care should be left to homecare organizations. Code saturation was received after twelve interviews.

[Table 2]

Five themes emerged for both barriers and facilitators: a) the individual HCP; b) the multidisciplinary team in homecare; c) organizational factors; d) economic factors and e)

implementation. A number of sub-themes emerged within each theme, an overview is shown in Table 3. Sub-themes are shown in italics underneath each theme.

[Table 3]

A) The individual HCP

Respondents experienced there were HCPs with adequate *knowledge* about PU care in homecare but there are also HCPs with a *lack of knowledge or inadequate knowledge* about pressure ulcer care, prevention as well as curative treatment. Respondents described that *a lack of knowledge* results in intuition-based care instead of evidence-based care and ascertains PU care and prevention is not always part of daily care routine.

> *''That everyone says something different. People also have a lot of creams, one might grab the lanette, the other grab the proshield and there are actually a lot of creames and no one knows why it they grab something. Something is therefore not used consistently.'' (R1.1)*

The role of the community nurse is to indicate need of care. They mention that importance of PU prevention is sometimes underestimated and has not always priority to be properly requested. *Limited time* to ask for health related details during an interview is mentioned as the reason why risk signalling and prevention were not applied.

HCPs in homecare mention they have to follow *education and training courses* to gain knowledge because protocols and guidelines change quickly. Through this *large amount of education and training courses*, they experience time- and work pressure. As a result, *education and training courses* are sometimes not taken or not followed properly.

> *''It is difficult to stay up to date on everything. That is particularly difficult. You know the basics, but the latest news is hard to keep up''. (R3.3)*

B) The multidisciplinary team in homecare

HCPs mention that they *work individually* most of the time making it more difficult to deliberate with each other, causing tasks and roles are not always properly distributed, work agreements and procedures are not always complied with and communication is more difficult.

''Yes, it is very important that everyone reports well because you are not always with a client yourself.'' (R3.3)

HCPs mention that they often *cooperate with various disciplines* such as; the GP, wound nurse, OT and dietician. In all three sizes of organizations HCPs experience that engaging other disciplines is easy accessible.

''We can easily approach an occupational therapist
And with the physiotherapist too, we even agreed that our clients should be helped within 2/3 days if we consult them. So yes, we actually call them when necessary and they call us.'' (R2.2)

An OT mentioned that they are often called in for curation instead of prevention because, HCPs do not know what an OT can mean for the patient.

''We look particularly at pressure partition and can really play a major role in that, but healthcare providers often do not know that." (R4.3)

Adequate *communication* between various disciplines is mentioned essential for providing adequate PU care. Face-to-face contact with involved care providers is experienced as pleasant, but is often appointed as impossible because of different moments that HCPs come to a patients home.

''Personal contact is still the best experience, but you often miss each other. It would be nice if there were scheduled moments of contact.'' (R1.3)

*Communicatio*n with a communication system in which all disciplines are involved, can report and read is experienced as positive. HCPs notice that there are multiple communication system and it is impossible to connect and report in all these different systems.

''Yes in itself it is nice. But then disciplines will get a new system again. And you have our communication system where they can report, then you have OZO communication system where they can report. So yes where does it end?'' (R2.2)

Respondents note that *influence of the patient and the informal caregiver* on the provided care is important. Patients sometimes withhold adequate care due to insufficient insight into illness. An example given by respondent 1.1: patients sometimes use the anti-pressure ulcer material inadequately.

C) Organizational factors

Respondents indicate that the GP is ultimately responsible for the patient. However, according to HCPs, GPs often have little knowledge of pressure ulcer care and therefore, often consign this care to homecare organizations. Respondents note that it is important, as a homecare organization, to have *clear agreements about who determines treatment*.

Respondents note that it is important to make clear agreements regarding *tasks and responsibilities*. When *tasks and responsibilities* are clearly defined, anyone can comply with this.

''I think the first responsible caretaker indeed, along with the community nurse if necessary. The team sometimes misses out there. For example, a first responsible caretaker who does not always take up his task properly.'' (R3.3)

Respondents mention *materials and tools are not immediately available* in home-situation. As a result, it is not always possible to start immediately with, for example, right wound material. However respondents remark that *Materials and tools can be ordered quickly*, and treatment or prevention can be started quickly.

''Anti pressure ulcer pillows. They are actually very easy to order and, which actually causes no problems. So the problem is more with bed care if you need specific mattresses that can cause more problems'' (R3.2)

Because of the *frequency and short duration of care moments*, care providers mention that they have few insight into the patient's behaviour.

''Intramural it is easy to walk in with someone. In homecare you work with care moments and then 4 times a day is a lot. (...) In addition, with many different employees you come to one client, not everyone works unambiguously.''(R1.3)

Due to *time pressure* HCPs experience less time to gather, making knowledge transfer more difficult. As a result, quality of care is deteriorating.

''So yes, that would be nice if, if there was time again, and we would get that time again to really work on that quality of care.'' (R1.1)

HCPs notice it is important that *guidelines are easy accessible*. Within all three organization sizes, guidelines are easy to find and sometimes also to integrate to the electronic patient file, which is experienced positive.

''And we can integrate the protocol in our care plan.'' (R2.1)

D) Economic factors

Respondents mentioned various ways in which *materials and tools are financed* in the Netherlands: patients often can borrow tools for free for a certain period, this is funded by their health insurance; when that period ends, a contribution must be paid or patients must buy materials and tools. This *personal contribution to materials and tools* is experienced as a potential obstacle to providing adequate care knowing that some patients cannot afford this.

''Yes extramural that can be a major obstacle. Certainly in the setting with the lonely people with a lower social level who simply have little to spend, that can really be an obstacle.'' (R4.1)

Respondents experience *unclear laws and regulations*. It is not always clear to HCPs how materials and tools are funded, for how long they are funded and what costs are involved for the patient. As a result, HCPs cannot always properly inform the patient.

"I actually do not know. You have a certain period that you can rent something, and then you are obliged to buy it. But whether that is from health insurance or from the municipality. I do not know that.'' R1.2

It is also often unclear for HCPs what *laws and regulations* are involved with regard to financing of disciplines such as an OT or dietician. As a result, these disciplines are sometimes consulted too late.

''So the simplification of the rules and laws would be a very good one there, they could also make a short protocol out of that. Occupational therapist, those steps. Dietitian, those steps.'' (R4.1)

E) The implementation

Respondents have mentioned a number of important aspects that must be taken into account when developing and implementing the quality standard PUs.

Guidelines (such as the recent PU care guideline) *are often very extensive*. Respondents mentioned they want *a clear step-by-step plan*, *briefly and concisely described* in which they can look up things quickly. An app could be developed in which things from the quality standard can be looked up quickly.

''Yes, that is my experience. That guidelines just are a lot of reading and especially looking for what I do need. Look in practice they just want to be very practical. (...) I just want to look up things quickly to see if things are feasible. " (R1.3)

HCPs mention *different ways of implementing guidelines and protocols such as* training with practical examples, discussing it in team meetings and have a number of responsible HCPs distributing knowledge. They pointed out that by *integrating interventions and actions from the quality standard in Omaha*, the latest guideline is used automatically.

''Omaha is linked to the guidelines. And the nice thing is that you can indicate to a client, , so then we click on it and then interventions appear.'' (R2.2)

DISCUSSION

In this study we investigated the barriers and facilitators, according to HCPs, for implementation of the quality standard PUs in PC. Several important themes emerged from data; the individual HCP, the multidisciplinary team in homecare, organizational factors, economic factors and implementation. Within these themes, sub-themes have emerged which correspond with the barriers and facilitators found.

Strengths and limitations

In order to appreciate findings of this study, some limitations need to be considered. First, a number of GPs have been approached to participate in this study. Unfortunately, no GP has agreed to participate. All indicated that they pay little attention to pressure ulcer care and that they outsource this care to homecare organizations. This may have caused selection bias[31]. Second, only the first two interviews are double coded with an independent second researcher. When coding the remaining 10 interviews, a researcher from the research group also read along and were regularly discussed. Because researcher triangulation is not applied to every interview, reliability is adversely affected. Third, recruitment of the sample took place only in the Dutch provinces Noord-Brabant and Limburg. In addition, only five homecare organizations in the Netherlands were included in the study, while we have an estimated 4000 providers in the Netherlands[54]. Despite those limitations, we are convinced that results of this study are a good impression of barriers and facilitators regarding PC, due to achieving code saturation and a representative recruitment of key players.

There are also a number of strengths in this study. First, COREQ was used to address this thesis. COREQ is a high-quality checklist of important components of a qualitative manuscript[30]. Second, repeated peer debriefing with independent researchers was carried out during the study to detect bias or inappropriate subjectivity and therefore led to higher quality of the study[31,40]. Third, the interview guide is based on literature from Grol and Wensing has ensured a high-quality interview guide and a framework that is used as a common thread throughout the thesis[6]. Finally, a short preliminary study ensured that purposive sample could be carried out and maximum variation in setting could be achieved[31,40].

Comparison with other studies and implications for key findings

Knowledge of pressure ulcer prevention and pressure ulcer treatment is one of the important factors for implementation of the quality standard pressure ulcers Suleman et al. state implementation of PU prevention and treatment appears to depend primarily on knowledge.

This study concludes that a PU education program can contribute to improvement of understanding of PUs and thereby help to implement the guideline[47]. Respondents in this study also indicate that training helps to increase knowledge. However, the same HCPs also indicate that HCPs must follow many training courses. As a result, information sometimes does not prevail or they experience time pressure. Other studies found a lack of knowledge of HCPs to pressure ulcer care and a low adherence of nurses to the guideline for pressure ulcer prevention[48–50]. This supports findings of our study that knowledge is an important factor to implement the guideline PU care in PC. It is notable that in the study by Moore et al. no nurse indicated 'lack of knowledge' as a barrier to provide adequate pressure ulcer care. In the same study, 5% of the nurses mentioned 'lack of knowledge' as a barrier to carrying out pressure ulcer risk assessment[51]. To provide adequate pressure ulcer care, it is important that a nurse can make a risk assessment. It can therefore be said with caution that nurses are not always aware that the 'lack of knowledge' is related to provision of adequate pressure ulcer care. For that reason, home care organizations must investigate knowledge of HCPs of PU care by using, for example, a knowledge test. Depending on the results, HCPs must receive training to optimize knowledge regarding pressure ulcer care.

A study from 2006 showed that in the Netherlands, a pressure ulcer protocol was available in 78% of all homecare organizations[52]. Available protocols were frequently of low quality or not updated according to the latest set of guidelines, 50% of the organizations indicated that they planned a revision of the protocol[52]. Hence, it can be concluded that some organizations do not use the national guideline but distil a protocol from this national guideline themselves. However, our study aimed to find out the barriers and facilitators to implement the national guideline. These results are in contrast with results of our study, which state that guidelines and protocols are easily available within organizations. Quality of these guidelines remains unclear. For that reason, we want to point out that it is of great importance to use guidelines of good quality and according to latest insights.

In this study we observed that differences in organizational factors can influence barriers and facilitators, and therefore also influence strategies for implementation. A review of Williams et al. states that the responsibility to implement guidelines does not depend completely on individual HCPs[53]. Organizational factors relate to setting, administrational support and facilities conducive to research utilization and knowledge translation must be taken into account. A homecare organization needs to provide an environment conducive to the implementation of EBP in order for its HCPs to effectively provide the highest level of care[53]. Comparing the results of this study and the results of Williams et al., it can be stated that it is

important for a home care organization to create good conditions before starting an implementation.

Additionally, further research is recommended. The current study focuses on barriers and facilitators, according to HCPs, to the implementation of the quality standard PU in PC. Results of this study will be used to develop a follow-up quantitative survey. Hereafter, results will be used to determine strategies for implementation of the quality standard PUs in PC. Because no GPs were included, the vision of GPs could not be included in the survey. It is therefore recommended to interview a number of general practitioners and use the previously prepared interview guide. Hence, experiences, thoughts and views of GPs can be taken into account when developing these implementation strategies.

Conclusion

This study describes the barriers and facilitators, according to HCPS, to the implementation of the quality standard PUs in PC. The facilitators found are described below as preconditions. The barriers found are also positive, rather than negative, described as preconditions. In conclusion, every individual HCP must have adequate knowledge of PU care and must also recognize the importance of prevention. For the multidisciplinary team in homecare, good cooperation between different disciplines and accessibility of disciplines is important. Additionally, agreements on the way and frequency of communication are important. Within the organizational context it is important to have clear agreements about tasks, responsibilities and the determination of treatment. It must be easy to order materials and tools quickly and they must also can be used quickly. The organization must facilitate education and training courses in order to reduce time and work pressure.
Finally, the organization must ensure that guidelines are easily accessible. According to economic factors, tools and materials should always be reimbursed if they are necessary. In addition, the laws and regulations regarding reimbursement must be clear to HCPs. Finally, the guideline must contain a brief step-by-step plan which is concisely described before it is implemented. Actions from the quality standard must be integrated into Omaha.

Knowing that that PU guidelines are still often not implemented in PC, it is important to develop appropriate implementation strategies for home care organizations. However, in addition to these appropriate implementation strategies, it is also important to ensure that these strategies are applied correctly. Finally, it is very important that the implementation will be guaranteed. Results from this study can also be used when another implementation of a revised quality standard PU care will be done in PC.

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Table 1. Final topics for the interviews

The individual HCP	How to implement in your organisation
	Use of guidelines
	How can we reach the HCPs
	Problems with providing adequate PU care
	Knowledge
	Difference intra- and extramural
The social context	Role of different key players
	Cooperation
	Factors influencing cooperation
	Optimize collaboration
The organizational context	Determine practice
	Coordination
	Use of materials and tools
	Arranging materials and tools
	Tasks and responsibilities
The economic context	Financing materials and tools

HCP = healthcare professionals

Table 2. Demographic data

Respondent	Sex	Educational level	Years work experience	Self steering	Organization	Size of organization (in employees)
1.1	F	BN	19	Partly	Zorggroep Elde	50-500
1.2	F	VN	38	Partly	Zorggroep Elde	50-500
1.3	F	BN	20	Partly	Zorggroep Elde	50-500
2.1	M	VN	1	Yes	Buurtzorg *Someren*	0-50
2.2	F	BN	3	Yes	Buurtzorg *Someren*	0-50
2.3	F	VN	10	Yes	Buurtzorg *Oirschot*	0-50
3.1	F	BN	6	Yes	Thebe	>500
3.2	F	BN	2	Yes	Vivent	>500
3.3	F	BN	30	Yes	Thebe	>500
4.1	F	VN (product specialist)	27	NA	Medicura	50-500
4.2	F	BN (manager)	26	NA	Zorggroep Elde	50-500
4.3	F	OT	10	NA	Ergotherapie van Dam	0-50

F = Female; M = Male; BN = Bachelor educated nurse; VN = Vocational educated Nurse; OT = Occupational therapist; NA = not applicable

Table 3. Overview of themes and subthemes

Theme	Barriers	Facilitators
The individual HCP	Lack of knowledge Limited time Large amount of education and training courses	Knowledge Education and training courses.
The multidisciplinary team in homecare	Working individually Influence of the patient and informal caregiver	Cooperation with various disciplines Adequate communication
The organizational factors	No clear agreements about tasks and responsibilities Unavailability of materials and tools Frequency and short duration of care moments Time pressure Work pressure	Clear agreements about determining the treatment Possibility to order materials and tools quickly Facilitating training courses Easy accessible guidelines
The economic factors	Personal contribution to materials and tools Unclear laws and regulations	Financing materials and tools
The implementation	Extensive guidelines Every health care organization has its own way of implementing protocols and guidelines	A briefly and concisely described step-by-step plan Integrating interventions and actions from the quality standard in Omaha