

Development and Pilot Testing of a Pressure Injury Prevention Care Bundle

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Abstract

This study developed and piloted a patient centred pressure injury prevention care bundle for adult hospitalised patients with the aim of promoting patient participation in prevention. The care bundle consisted of three core messages: a) keep moving, b) care for your skin and c) ensure a good diet. A brief video, a combined brochure/checklist and an A4 sized poster were developed as training resources. Patient evaluation identified benefits of the care bundle however the combined checklist/brochure was rarely used.

Key words: patient participation, intervention, pressure ulcer, feasibility, acceptability.

Patient-centred care, that is partnering 'with' patients, rather than providing services 'to' them, is widely advocated as a way to improve patient safety.^{1,2} When patients participate in their care they function better¹, experience fewer symptoms³, and are half as likely to experience an adverse event as compared to low participation.² Further, the more patients participate in their care, the more positive they rate hospital quality of care. Yet, tangible strategies to better involve patients in their care are in their infancy. This paper reports on the development, implementation and qualitative evaluation of a patient centred Pressure Injury Prevention (PIP) care bundle for hospitalized patients.

LITERATURE REVIEW

International and Australian pressure injury/pressure ulcer guidelines⁴⁻⁶ recommend a number of similar methods to reduce the incidence of PI. Core preventative strategies include risk assessment; skin assessment; nutritional assessment / interventions; repositioning; and, appropriate support surfaces. Yet, a number of studies demonstrate PIP strategies are suboptimal. These include low compliance in the use of risk screening and limited follow up in implementation of preventative strategies.^{7,8} Most of these studies indicate that less than half of at risk patients actually receive prevention strategies.⁷⁻¹⁰

One important aspect of most PIP programs is patient education¹¹, yet only 6.6% of the 2,339 patients involved in the 2011 Western Australian PI prevalence study of hospitalized patients said they read the Patient First brochure, which contained information on PI.¹² In Belgium, only 19% (n = 405) of 2,117 patients who should have received patient education actually got it. A Dutch study identified a similar issue with only 14% (n = 1,365) of over 20,000 high risk patients were informed about the causes of PI and prevention strategies.⁷

There clearly is room for improvements in the use of PIP strategies, nevertheless the

involvement of patients in initiating this care has received little attention. Perhaps patients, who have a vested interest in PIP, may be an untapped resource to prompt better care.

Recently, the use of care bundles has emerged as a particularly effective strategy in improving patient safety. A care bundle is a structured group of interventions, based on clinical practice guidelines (CPGs) that have been shown to *improve* patient outcomes.¹³ They improve processes of care and encourage CPG compliance. A US group developed an 8-item PIP care bundle that included skin care, turning, and nutritional assessment, directed at nursing staff. While their annual PI prevalence data showed trends towards improvements in PI prevalence, no formal analysis was undertaken.¹⁴ To date, care bundles have focused on guiding clinicians' in their practice, yet the literature on patient participation suggests involvement of patients and their families working alongside clinicians could be a major driver in the use of care bundles.¹⁵

Aims

The aims of this study were to develop and pilot a patient centred pressure injury prevention care bundle (PIPCB) for hospitalised patients. This study had two phases. In Phase 1 the care bundle content was developed. In Phase 2 it was piloted in two wards in an Australian hospital. Both phases are described in this paper.

METHODS

Phase 1: Care Bundle Development

A total of 19 people participated in the development and refinement of the combined checklist and information brochure (written in English). Six were clinical nurses, 5 were allied health professionals, 3 were health researchers, and 7 were consumers. Specific

suggestions to improve the content and wording were given. Suggested improvements included; (1) increasing font size, (2) removing abbreviations and (3) rewording to improve comprehension. The research team reviewed the recommendations and made changes based on consensus of three members. Once the care bundle items and content associated with each component were determined, patient training resources were developed. The components in the care bundle included: 1) combined checklist / brochure; 2) 7 minute training video; and, 3) 2 poster(s). These PIPCB components are described in the following section. The cognitive load associated with each component is detailed in Table 1.

Combined Checklist and Information Brochure

The combined checklist and information brochure was produced in full colour double sided A5 sheet. The front displayed a daily checklist in a tabular form, to remind patients to address three key preventative strategies. On the front, one column recorded the date and the following three columns record if the patient completed the three tasks of (1) moving, (2) looking after their skin and (3) eating a balanced diet and keeping hydrated. The inside contained at least five suggestions for each of the three sets of tasks. At the back of the handout were a series of images highlighting PI risk areas displayed in various sleeping and sitting positions.

Training video

The 7-minute video content covered topics not covered in the checklist including PI etiology, early detection of a PI and its risk factors. The video presentation was simplified to accommodate wider comprehension and employed a slideshow format with the addition of one short video clip. Post editing of the audio ensured high clarity of the non-professional

voice over. Feedback from the early revisions of the video resulted in some onscreen text changes to ensure consistency with the checklist/brochure.

Posters

Two A4 laminated posters were developed to reinforce the three key messages. One of the posters had detailed instructions and several pictures while the other poster provided similar information, in a simplified presentation. The two variants of the poster were exchanged every 1-2 days. Posters were placed approximately 10 feet directly opposite from the patient's pillow at standing eye height.

Phase 2: Piloting of the Care Bundle

In Phase 2, a pilot study was undertaken to assess the feasibility and acceptability of the PIPCB. Feasibility of the PIPCB was assessed in relation to recruitment rates and use of each of its components. A subsample of participants who had received the PIPCB were interviewed to explore patients' perspectives of the acceptability of the PIPCB in more detail.

Setting and Sample

Two wards, one medical and one surgical in an Australian public regional hospital was the setting for the pilot study. Eligibility criteria included: 1) aged ≥ 18 years; 2) able to give informed consent; 3) patients with an expected length of hospital stay of ≥ 2 days; and (4) able to speak and read English. The subsample of interview participants was purposively chosen using maximum variation sampling¹⁶ to reflect a variety of ages, conditions and both genders.

Ethics permission to conduct the study was given by the participating hospital and the university. Willing participants were given an information sheet and signed a consent form.

Data Collection

Interviews

For the interviews, a general interview guide was used, directed by a set of questions pertaining to each component of the PIPCB. All interviews were conducted by BG. The questions asked were open-ended, starting with general issues, and moving to specific questions about each of the three components. Specific interview questions included; *“How did you find using the DVD /checklist /poster?”*, *“Are there any suggestions that you have to improve the DVD /checklist /poster?”*, and, *“Based on this training program, what would you would do differently in relation to pressure ulcer prevention while in hospital?”* As the study progressed, some questions varied due to the inductive nature of qualitative research.¹⁷

Data saturation was evident when no new information was revealed. Interviews lasted 15-30 minutes and were digitally recorded for later transcription. Demographic data in relation to participants’ age, reason for admission, HLOS and risk assessment scores were collected using chart audit.

Data Analysis

For the qualitative substudy, conventional content analysis underpinned by an inductive approach^{18 19 17 20} was used. Data immersion involved reading the interviews repeatedly, word by word, to highlight exact words from the text that represented key ideas from which to derive codes.¹⁷ Memos were used to link the emergent codes to reflect one key idea or thought to permit clustering of codes in a particular pattern. Codes were then sorted into subcategories based on how they related and linked. The emergent subcategories were

labelled and condensed into a smaller number of categories.^{17 20} Next, definitions for each subcategory and category were developed. An inductive approach permitted moving the analysis from the specific to the general and enabled the research team to reach decisions, through interpretation, about which ideas or concepts to assign to each category.^{17 19}

Rigour

Qualitative research rigour was considered in relation to representativeness, auditability and interpretative rigour.¹⁶ Representativeness was sought through using maximum variation sampling to ensure diversity in the perspectives and demographic characteristics of study participants. Auditability was established through the use of an interview guide which enhanced consistency in data collection.^{17 19} To establish interpretative rigour¹⁶, members of the research team were involved in data analysis, and met regularly to discuss emergent subcategories and categories.

RESULTS

A total of 112 patients were approached to participate in using the PIPCB intervention (Table 3). Of these, 58 (51.7%) patients consented. During the study period, up to 40% of the patients in both wards were not eligible to participate in the study due to poor cognition, medical condition or expected ward separation. Of the 54 patients that declined participation in the PIPCB, 17(31%) stated that they were due for hospital discharge on the day they were approached. Over half of the participants in the larger group were female and inpatients of the medical ward. HLOS ranged from 2 to 27 days. As part of the PIPCB, participants were asked to report their use of the combined checklist / information

brochure for each day they were enrolled in the study. Usage rates were low, with only 4/58 (7%) participants using the checklist/brochure as a prompt.

Qualitative interviews

Of the 58 participants who used the PIPCB components, 11 (19%) participated in the qualitative interviews (Table 2). This subsample of participants was 2.8 years older and had an expected HLOS of 1.7 days longer than the participants across the whole sample. Waterlow scores for interview participants ranged from 4-19, with 3/11 (27.2%) participants having scores of ≥ 15 , classified as 'high risk'.

The content analysis of textual data revealed three overarching categories: *conveying the main messages*, *delivering a contextually responsive care bundle*, and *catering to the target audience*. These categories contained a number of subcategories. Table 3 shows the categories, their supporting subcategories and exemplar quotes. What follows is a description of each category.

Conveying the main messages

The category, *conveying the main messages* featured participants' beliefs that the content of the PIPCB needed to graphically illustrate to patients the ramifications of prolonged immobility. Highlighting both the short-term and long-term effects was believed to stimulate patients to participate in PIP strategies. Other participants described the importance of keeping the content simple, at a level that could be easily understood. The subcategories 'keep moving', and 'common sense message' illustrated the salience participants ascribed to keeping the main messages conveyed through the PPCB; simple, succinct, but memorable. Many participants commented that they were prompted to

undertake or resume PIP activities through participation in the PIPCB. All of the participants interviewed were able to reiterate the three main messages of the care bundle.

Delivering a contextually responsive care bundle

The second category, *delivering a contextually responsive care bundle* exemplified the importance for patients to have easy access to the information in the PIPCB. Interview participants spoke in general terms about delivery methods taking into account formatting, visibility, and clarity of materials and content. Some participants reported that they were unclear and somewhat confused about the expectations in relation to some of the care bundle components, in particular, the combined checklist/brochure. This PIPCB component was barely used because it demanded participation in activities such as reading information, and ticking boxes on a daily basis. In contrast, the video presentation was likened to watching television—an activity used by the masses.

Catering to the target audience

The second category, *catering to the target audience*, that is, hospitalised patients, illustrated particular needs and considerations as identified by the participants' themselves. Interview participants spoke in specific terms about the time investment required to engage in PIPCB activities. Most participants explained how the patient's general medical condition influenced their levels of "wellness", and constrained their ability to participate in the care bundle. Accordingly, the impost or burden of PIPCB participation was considered in terms of the length of time participants were required to spend using care bundle components. Several participants described the value of gauging their pre-existing knowledge and experience as a means of selecting potential patients that would benefit most from the PIPCB. Participants with some background knowledge appeared to be better able to

participate in all components of the care bundle. Some highlighted that the bundle as delivered should be aimed more specifically to high-risk patients with limited mobility because this group of patients would likely benefit most from its implementation.

DISCUSSION

Feasibility and Acceptability of the PIPCB

The pilot study indicated that PIPCB was generally well received by participants. However, patients' perceived risk of acquiring a PI and the short HLOS likely contributed to the low acceptance rates of the checklist/brochure. Commonly stated reasons for declining participation were a perceived low risk of acquiring a PI and a frequent expectation of imminent discharge. Patients who declined to participate were on average eight years younger, more mobile and likely to leave a day earlier. Although participants who agreed to the study were expected to be in hospital for 5 days they had on average only 2.3 days remaining after they joined the PIPCB. The shortness of the stay was likely to be a function of patients' lower age, better physical and mental health compared to patients who could not be approached to participate in the intervention. It is probable that if the average duration of hospitalisation was significantly longer then participation rates could increase as some participants may perceive increased risk and benefits.

Approximately 40% of the patients on any weekday did not meet the criteria for study inclusion, primarily because of cognitive issues; therefore, were unable to give informed consent. The ineligible patients tended to have a higher risk profile for acquiring a PI due to their age and mobility, resulting in a recruitment sample that had a lower than average ward PI risk profile. The cognitive demands of the PIPCB intervention represent a practical

barrier to full inclusion of the higher risk group. Yet, this is the group that would gain most from using a PIPCB that focuses on prevention.

The qualitative findings have emphasized the significance of obtaining timely and good quality feedback from patients as care bundle recipients. Attention to content and aspects of presentation such as formatting and readability of care bundle components are integral to engaging a broad group of hospitalized patients. Both the poster and the combined checklist/brochure were intended to engage patients in self-care but the latter required active engagement without an immediate reward. The elusive nature of preventing the outcome of a PI was insufficient to engage patients in the sustained and active process of completing a daily checklist. Conversely, the poster required only passive engagement and was not rejected. The more effort the care bundle demands from the patient, the greater the need for an immediate reward to sustain it.

Strengths and Limitations

This study has a number of strengths but we acknowledge that there are some limitations. First, the study participants were generally short stay and almost 40% were low PI risk patients. Compared to the participants, the profile of ineligible participants would be a longer hospital stay, reduced mobility, lower cognitive capacity, reduced vision and impaired hearing. Further, the pilot study assumed a reasonable level of health literacy and comprehension skills. Second, there was variability in participant use of the checklist/brochure component of the PIPCB. Notwithstanding, patients were given the opportunity to evaluate the acceptability of the PIPCB intervention through interview with BG, who was not directly involved in its development or implementation. Third, this pilot study was conducted at a single hospital site, which may in some ways, differ from other

Queensland public hospitals. Despite this, there was diversity in perspectives and participant characteristics such as age, pressure ulcer risk, medical condition and comorbidities. Finally, while we attempted to produce high quality materials, they were developed 'in house'. Had a professional design company been used, the presentation, especially of the combined checklist/brochure may have been more appealing and may have resulted in better uptake.

Future Developments

Based on this study we have a number of plans to further refine the care bundle. First, a recognition that the skin care component actually included information on support surfaces, we have revised the bundle to reflect this, so there are now four core messages. We are considering how the next iteration of this PIPCB intervention can be tailored to better engage compromised, high-risk patients who may require a different approach. The next iteration of the PIPCB will likely involve one-on-one patient training (for highly functioning patients). Tailoring may include training the ward nurses and the patient's carers and family to initiate similar tasks accessible to the high functioning group. A carer component may support application of these learned techniques when patients are discharged and reduce burden of care and the risk of re-admission. Training of nursing staff would likely include strategies to promote partnering with patients and families in PIP care.

CONCLUSIONS

The care bundle detailed herein has the potential to create a shift in the status quo from where patients see themselves as passive recipients of care to one where they become actively engaged. However, to increase use of the care bundle, it is important to garner the perspectives of nurses in the next iteration of its refinement. Involving nurses in this process

is appropriate given that nurses work in partnership with patients to provide patient-centred care.

REFERENCES

1. Arnetz JE, Almin I, Bergstrom K, Franzen Y, Nilsson H. Active patient involvement in the establishment of physical therapy goals: effects on treatment outcome and quality of care. *Advances in Physiotherapy* 2004;6(2):50-69.
2. Weingart SN, Zhu J, Chiappetta L, Stuver SO, Schneider EC, Epstein AM, et al. Hospitalized patients' participation and its impact on quality of care and patient safety. *International journal for quality in health care : journal of the International Society for Quality in Health Care / ISQua* 2011;23(3):269-77.
3. Arnetz JE, Winblad U, Hoglund AT, Lindahl B, Spangberg K, Wallentin L, et al. Is patient involvement during hospitalization for acute myocardial infarction associated with post-discharge treatment outcome? An exploratory study. *Health Expect* 2010;13(3):298-311.
4. Australian Wound Management Association. *Pan Pacific Clinical Practice Guidelines for the Prevention and Management of Pressure Injuries*. Osborne Park, WA: Cambridge Media, 2012.
5. European Pressure Ulcer Advisory Panel, National Pressure Ulcer Advisory Panel. *Prevention of Pressure Ulcers: Quick Reference Guide*. Washington: National Pressure Ulcer Advisory Panel,, 2009.
6. National Institute for Health and Clinical Excellence. *Pressure ulcer management (CG29)*. 2005.
7. Bours GJ, Halfens RJ, Abu-Saad HH, Grol RT. Prevalence, prevention, and treatment of pressure ulcers: descriptive study in 89 institutions in the Netherlands. *Res Nurs Health* 2002;25(2):99-110.
8. Vanderwee K, Defloor T, Beeckman D, Demarre L, Verhaeghe S, Van Durme T, et al. Assessing the adequacy of pressure ulcer prevention in hospitals: a nationwide prevalence survey. *BMJ Qual Saf* 2011;20(3):260-7.
9. Gunningberg L. Are patients with or at risk of pressure ulcers allocated appropriate prevention measures? *Int J Nurs Pract* 2005;11(2):58-67.
10. Lyder CH, Preston J, Grady JN, Scinto J, Allman R, Bergstrom N, et al. Quality of care for hospitalized Medicare patients at risk for pressure ulcers. *Archives of internal medicine* 2001;161(12):1549-54.
11. Institute for Healthcare Improvement. What is a bundle? <http://www.ihl.org/knowledge/Pages/ImprovementStories/WhatIsaBundle.aspx>. Accessed 28 Feb, 2013.
12. Mulligan S, Prentice J, Scott L. *WoundsWest Wound Prevalence Survey State-wide Overview Report*. Perth, WA: Department of Health, 2011.
13. Rello J, Chastre J, Cornaglia G, Masterton R. A European care bundle for management of ventilator-associated pneumonia. *J Crit Care* 2011;26(1):3-10.
14. Baldelli P, Paciella M. Creation and implementation of a pressure ulcer prevention bundle improves patient outcomes. *American journal of medical quality : the official journal of the American College of Medical Quality* 2008;23(2):136-42.
15. Coulter A. *Engaging patients in their healthcare*. Europe: Picker Institute, 2006.
16. Kitto S, Chesters J, Grbich C. Quality in qualitative research: Criteria for authors and assessors in the submission and assessment of qualitative research articles for the *Medical Journal of Australia*. *Medical Journal of Australia* 2008;188:243-46.

17. Miles MB, Huberman AM. *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks: Sage, 1994.
18. Hsieh H, Shannon S. Three Approaches to Qualitative Content Analysis. *Qual Health Res* 2005;15:1277-88.
19. Elo S, Kyngais H. The qualitative content analysis process. *J Advanced Nurs* 2007;62(1):107–15.
20. Patton M. *Qualitative research evaluation methods*. 3rd ed. California: Sage, 2002.

Table 1: Cognitive Load of each PIPCB Component

PIPCB Component	Attention duration	Complexity	Format	Access frequency	Cognitive engagement	Content
Checklist	Brief	Key points only	Paper	Always available	High	Prevention
Brochure	3-5 minutes	Highly detailed	Paper	Always available	Moderate - high	Prevention
Video	7 minutes	Moderate detail	AVI file / DVD	Once only	Moderate	Causes of PI Risk factors Etiology Prevention
Poster	Brief	Key reminder points only	Laminated A4 poster	Always available	Low	Risk identification Prevention

Table 2: Demographic Characteristics of Participants and those who declined

Characteristic	All Participants (n=58)		Participants who declined (n=54)		Interview Subsample (n=11)	
	Number	%	Number	%	Number	%
Female	65	58.0	34	63.0	5	46.0
Medical Ward	34	59.0	23	42.5	6	55.0
	Median	IQR	Median	IQR	Median	IQR
Age (years)	71.5	31.0	67.5	30.0	69.0	13.0
HLOS (days)	4.0	4.0	3.0	2.0	6.7	4.0

Table 3: Findings from qualitative analysis

Category	Exemplar Quote
<i>Conveying the main messages</i>	<p>Understanding the consequences of pressure sores</p> <ul style="list-style-type: none"> • Consequences frighten me more than just some putting a sign up saying rub moisture into you, you're not going to get a sore, but if you are put a picture up there of some poor dear laying in bed with an ugly bloody sore on her foot or wherever, it would make me wake up. (Interview 3, male, surgical) • If you don't move around you end up with bed sores or ulcers. (Interview 1, female, surgical) • Yeah, it [video] was good, yeah it shows you exactly what can happen. (Interview 10, female, medical)
	<p>Creating awareness</p> <ul style="list-style-type: none"> • So this is everything I've been doing so I must have listened to the video. (Interview 4, male, surgical) • Yeah, yeah, yeah, without a doubt. It just makes you aware if nothing else, of what you are looking for and where to look. (Interview 4, male, surgical) • I think I am more conscious of it....you've gotta keep moving..... (Interview 5, female, surgical)
	<p>Reminding me to participate in preventative care</p> <ul style="list-style-type: none"> • The poster reminds me to put cream on my hands..... So it reminds me, I've put it in the bathroom so that it reminds me when I get out of the shower. (Interview 10, female, medical) • Um, me personally, I don't think I need it, but for other people I think it would be a good reminder to have it in front of them. (Interview 6, female, medical) •you are helping educate patients how to enter into preventative medicine. (Interview 9, male, medical)
	<p>Prompting me to take action</p> <ul style="list-style-type: none"> • ...it is simple, easy to understand and I was prompted to go and get the stuff straight away.... (Interview 7, male, medical) • I don't know if that is true or not, but I took that on board.....So I [have] obviously taken notice of these things. (Interview 4, male, surgical)
	<p>Keeping it simple; less is more</p> <ul style="list-style-type: none"> • Yeah, it [detailed poster] just has more information and it's got probably much better but whether people are going to look at it...the other [simple poster] is a bit straight forwardInformative but less [information]. (Interview 1, female, surgical) • ...it [poster] is simple, easy to understand. (Interview 7, male, medical) • It was quite informative; it was enough information in to let me know [about pressure sores]. (Interview 8, female, medical)

	Keep moving	<ul style="list-style-type: none"> • ...if you showed it [the video] to someone a patient I think that is sufficient information to deal with, I mean you can get very technical if you want but I think it will just go over their heads, I think what was on the video was enough. (Interview 4, male, surgical) • Just to don't sit still in bed.... (Interview 10, female, medical) • [The video] explained to me exactly what the pressure points are and you know just to try and keep moving and change positions as much as possible. (Interview 8, male, medical)
	Common sense message	<ul style="list-style-type: none"> • I've obviously read it, yeah, and I understand it and I think it's all the right things to do, but to me most of its common knowledge. (Interview 6, female, medical) • Um, well it is really common sense to move around.... I know you have got to move around (Interview 1, female, surgical) • I knew, yeah I did know about bed sores and that before about being sitting and your blood flow and that. (Interview 8, male, medical)
<i>Delivering a contextually responsive care bundle</i>	Accessing information	<ul style="list-style-type: none"> • To be honest do you know, I forgot all about the damn thing [checklist/brochure].... What are you supposed to do with it? I couldn't understand what you are supposed to do with it? All's it's got is little squares and it's got days in it or dates in it or something hasn't it? (Int # 3, male, surgical) • I've looked at it [poster] once and won't look at it again. (Interview 11, male, medical)
	Formatting of information influences participation	<ul style="list-style-type: none"> • Undoubtedly, the video. People are orientated to watching lots of TV, and I am talking about the population as a whole. They are comfortable watching TV, we are habituated to getting our information through the television medium..... (Interview 9, male, medical) • But there again a piece of paper [checklist/brochure] and what do you do with a piece of paper, you shove it on another piece of paper. (Interview 3, male, surgical)
	Visibility of information	<ul style="list-style-type: none"> • [Simple poster] incorporates that but it still looks really easy to read it would probably be better. (Interview 1, female, surgical) • It [simple poster] caught my attention as I walked in yeah, and I still read it as I walk past it because it's coloured and highlighted. You are giving me a piece of white paper with writing on it and I think 'oh yeah I do that'. (Interview 3, male, surgical) • Well I can read this [with glasses], it's fairly big writing. But if it's simple [simple poster] like that and placed in a prominent position. (Interview 11, male, medical)

	Clarity of presentation	<ul style="list-style-type: none"> • Well, if you are laying in bed there right and you look at that [detailed poster] you can hardly see it, unless you get up here but someone will get curious and get out of bed and have a look. (Interview 3, male, surgical) • Yes, on the wall [detailed poster] and it's very colourful and descriptive and helpful and thorough. (Interview 9, male, medical)
	Level of complexity	<ul style="list-style-type: none"> • Because this video was so clarifying in a sense that I got so much information compared to if, if I see something visually I prefer to over verbally because verbally does it quickly but it is always with you to sort of later have a look, so I think that is that's a very good thing. (Interview 2, male, surgical) • It [complex poster] is so much more comprehensive. (Interview 2, male, surgical)
<i>Catering to the target audience</i>	Committing time to participate in care bundle	<ul style="list-style-type: none"> • I haven't done it [completed checklist], I haven't had time to do much. (Interview 10, female, medical) • No I did not even have time to have a look at it [checklist/brochure]. (Interview 2, male, surgical) • The video would give them the information; it is quick seven minutes I believe, seven minutes and bang. (Interview 9, male, medical)
	Having prior knowledge or experience of bed sores	<ul style="list-style-type: none"> • Oh, no, not really I didn't even think of it as bed sores actually when it got red I put cream on.... But I didn't realise I thought bed sores would come in a different place. (Interview 11, male, medical) • But if you've got an old person who can't get out of bed, then I think you have a big problem of trying to educate them on bedsores because we don't know about bed sores.... because I don't think people realise how a bed sore starts (Interview 3, male, surgical) • Pressures and moving and blood flow and that, but a lot of other people probably wouldn't know about. (Interview 8, male, medical) •maybe I am the wrong person to ask because I have so little experience of this type of thing, laying in bed. So I never had bed sores in my life to start with. (Interview 2, male, surgical)

Participating in care bundle is influenced by my condition	<ul style="list-style-type: none"> • I am going to be here for three days, four days and I don't get the benefit of, or you wouldn't get the benefit of me 'cause I don't get sores 'cause I don't sit in bed all day long. (Interview 3, male, surgical) • I don't have much of a memory.... (Interview 11, male, medical) • half the time I'm asleep. (Interview 10, female, medical) • Depending on how well you are, if you are unwell you haven't got energy to read fine detail.....when you are not well you have microscopic levels of energy and you want to get to the point straight away. So that's a very relevant thing having energy and wellness. (Interview 9, male, medical)
Pitching the program to the target audience	<ul style="list-style-type: none"> • Well, to be honest with you I think a primary school student could do it easily, it is good for anyone's comprehension. (Interview 9, male, medical) • Is it [video] for people who are only going to spend all day every day in bed for a period of time or is it for people who are only going to be here like me for three or four days? Wouldn't you be better getting an old lady say about 60 to 70 who is going to spend a lot of time laying in bed (Interview 3, male, surgical)
Responding to my needs	<ul style="list-style-type: none"> • See I can't see that because I've got bad eyes, yeah I've got cataracts so I've got to get them fixed too, but once I get my two hips done and my eyes done I'll be able to do anything. (Interview 5, female, surgical) • You could have gone into more depth about asking the patient how long they have to lie in a position before they get uncomfortable. (Interview 9, male, medical)

