

12 Qualitative findings for Phase A (A1 and A2)

The key qualitative Phase A findings that had implications for the pilot RCT design have been presented in three sections:

- Part 1 presents healthcare professionals' accounts of current wound dressing practice
- Part 2 summarises healthcare professionals' perspectives on the proposed pilot RCT
- Part 3 summarises patients' perceived acceptability of the proposed pilot RCT

Findings have been supported with illustrative quotations throughout, some of which have been edited for ease of comprehension (while maintaining their core meaning). The following identifiers have been used for quotations:

I = interviewer; **S** = surgeon; **SR** = surgical registrar; **N** = nurse; **MW** = midwife, and **P** = patient

The findings presented refer to recurring themes from interviews conducted across all sites involved in Phase A. Any issues that are specific to a particular site (i.e. hospital) or individual (e.g. deviant cases) have been specified accordingly.

Part 1: Healthcare professionals' accounts of current dressing practice

Sixty-nine health care professionals were interviewed to explore current dressing practice and their perspectives on the proposed pilot RCT. The breakdown of informants by clinical speciality is shown in **Table** . The findings in this section begin with an overview of current wound dressing practices (sub-sections 1-5), leading on to informants' views about the proposed protocol for the planned pilot RCT (sub-section 6 onwards).

Table 12.1: Role and surgical speciality of professional participants for wound dressing practice interviews

Surgical speciality					
Participant type		Abdominal surgery	Obstetric surgery	Paediatric surgery	Total
	Surgeon	16	4	6	26
	Registrar	6	3	3	12
	Nurse/midwife	19	8	2	29
	Tissue viability specialist	1	0	0	1
	Community district nurse	1	0	0	1
	TOTAL	43	15	11	<u>69</u>

1. Understandings and definitions of the term ‘dressing’

Healthcare professionals had variable definitions of what constituted a ‘dressed’ and ‘undressed’ wound, raising the possibility that patients in a pilot RCT would be treated inconsistently if allocated to a ‘no dressing’ group. Professionals’ informal classifications of products as ‘dressings’ or ‘non-dressings’ varied across individuals, and sometimes over the course of an informant’s interview. Overall, most professionals alluded to the idea of a dressing being some form of a covering over the wound, although some also specified physical attributes (e.g. “a padded membrane”) or functional characteristics (e.g. something that “protects” the wound). Furthermore, some informants alluded to specific characteristics that they felt distinguish between a ‘dressing’ and a ‘non-dressing’. Adhesion of the product to the skin, and the extent of wound coverage, were highlighted as potentially important considerations:

Obstetric surgical registrar 2019: *Vaginal operations there are no dressings even though often then you use pads. Is that a dressing because it is used to cover the*

wound? Would that be considered a dressing? I would say that's interesting because you don't stick it on it's not a dressing.

Paediatric surgeon 1013: *I suppose I think of a dressing as something that's been used to deliberately cover up and, in a sense, cover up the wound... and with Steri-strips you leave gaps between them.*

Certain products, such as 'tissue glue' ('skin glue') and Steri-strips highlighted the ambiguities around what constitutes a 'dressing'. Both products were reportedly used to close wounds or reinforce wound closure. However, they were also applied over the top of wounds, thus serving as a covering. Some informants classified Steri-strips and tissue glue exclusively as wound closure products, while others felt these could be classified as dressings, depending on how they were used. One surgeon reported using tissue glue as a wound closure material, but considered this to be a dressing if applied on top of a wound that had already been surgically closed:

Abdominal surgeon 1004: *For surgery where I'm going to construct a stoma, or for surgery in an area where a dressing is not going to adhere well - and a good example of that would be inguinal hernia surgery - I would routinely use tissue glue in preference to an adhesive dressing. I would tend to close those wounds with a sub-cuticular stitch and then apply tissue glue over the top. The tissue glue then functions primarily as a dressing in the context of those procedures.*

The inconsistencies in informants' interpretations of what constitutes a 'dressing' had clear implications for the pilot RCT – in particular, what may or may not be permitted in the 'no dressing' group. Some of the findings summarised above were fed-back to the SMG during data collection, to facilitate development of 'pragmatic definitions' of what constitutes a 'dressing' in the context of the forthcoming pilot RCT.

2. Current dressing practices in paediatric surgery

Healthcare professionals from both paediatric sites reported that they did not routinely apply dressings to primary wounds. Although some had encountered colleagues (in other institutions) who had applied dressings, there was an assumption that leaving primary wounds exposed was common practice in paediatric surgery. Some informants referred to exceptional cases where dressings were used (**Box 1**), most of which related to use of

dressings around lines/catheters, use of specialist dressings that assisted healing of complex wounds, and use of dressings where there was substantial exudate.

Box 1: Paediatric surgeons' accounts of examples where dressings are used on post-surgical paediatric wounds

Paediatric surgeon 1006: *Yeah I mean obviously if there's a problem with the wound or anything else then we might well be using something. So things like infected wounds or things that have had infection in them, if you've drained abscesses and things like that as well and things where you're not going to be closing the skin.*

Paediatric surgeon 1008: *A lot of the planned surgery I do there won't be a dressing. Some of the surgery I do, like hypospadias (a complex wound), you need a dressing, and that's fine... so we're not evangelical that you shouldn't use dressings, it's just we don't use them routinely as often as they do in adults.*

Paediatric surgeon 1012: *Oh they are used, yes, but personally I tend to use them if it's an ... most commonly if it's a re-do operation... so the skin edges often don't lie together as nicely there's often a little bit of ooze, and while that doesn't actually do any harm it's disconcerting to the child and the parents and makes a mess of the sheet so putting a dressing on seems quite sensible.*

Most paediatric professionals attributed the tendency not to dress surgical wounds to convention and ingrained practice, although some rationalised their practices according to practical and psychological factors specific to the paediatric population. Children were thought to tamper with or remove dressings, experience distress on dressing removal, and feel anxious at the prospect of not knowing what lies beneath a dressing:

Paediatric surgeon 1006: *In paediatric surgery (we) have not been using... a lot of us have not been using dressings for ages because it's a nightmare to get them off these children again. They hate the feeling, that peeling off and having to change those every 24 hours to look at the wound and things like that. On wounds where the chances of getting infection is sort of under half a percentage or something like that, you're thinking that's probably unnecessary cruelty (laugh) in a way.*

Some informants mentioned that there had been no particular triggers to questioning or changing the tradition of leaving paediatric primary wounds exposed, as wound healing and SSI were generally not a problem in this patient group due to children's physiology. One surgeon theorised that 'children's dressings' were therefore not a priority for industry, which in turn could be one reason why the tradition of not using dressings has remained:

Paediatric surgeon 1008: *So I think they've (children have) got good cell turnover, they've got really good blood flow. They heal incredibly well, the [SSI] rates are low, so I guess there's no direct market for a company.*

3. Current dressing practices in adult abdominal surgery

Healthcare professionals working in adult abdominal surgical specialties reported that dressings were routinely applied to primary wounds. There were a few reported exceptions where dressing were reportedly not used, including surgery that involved natural orifices (e.g. perianal and perineal areas), wounds located close to stomas, and laparoscopic wounds. However, in most of these cases, the wounds were described as being covered by tissue glue or tape. Some informants' tendencies not to view these as 'dressings' emphasised the need to develop consistent definitions for the forthcoming pilot RCT.

Obstetric surgeon 2014: *I can't think of any cases where we leave sutures uncovered at present. Apart from perineal suturing when we are doing episiotomy repairs - we don't put dressings on them, obviously they will have a pad.*

Abdominal surgeon 1004: *For surgery where I'm going to construct a stoma, or for surgery in an area where a dressing is not going to adhere well, and a good example of that would be [inguinal 0:04:32] hernia surgery, I would routinely use tissue glue in preference to an adhesive dressing.*

a) Reasons for dressing use in adult surgery

Professionals working in adult surgical specialities were prompted to consider why dressings were routinely applied in their practices. The reported rationales for dressing use fell under three broad categories: practical considerations, psychological and attitudinal reasons, and clinical reasons.

Practical considerations

Practical applications of dressings were raised by most healthcare professionals. These applications all stemmed from the idea that the dressing itself acts as a physical barrier between the wound and the external environment, providing some form of ‘protection’ - both for the external environment (from blood and exudate exiting the wound), and for the wound itself (from physical trauma and catching on objects).

Health care professionals frequently mentioned absorption of blood/exudate as a key function of dressings. This was often the first function professionals mentioned when discussing why dressings are routinely used. Only a few informants (all from one obstetrics site) did not mention this purported function (although this might have been due to this team’s SSI-related concerns about foregoing dressings – see later, sub-section entitled ‘Clinical reasons’).

Absorption was usually presented as a standalone reason for dressing use, but some informants went further by explaining the benefits of absorptive dressings for patients (comfort-wise) and, in some cases, the potential clinical benefits of absorption. For example, one of the nurses described promoting ‘healthy skin’ by avoiding damp wound areas, and discussed the practical benefits of being able to weigh dressings to gauge leakage over time:

Abdominal surgery nurse 1001: *I think the only time, as nurses, we really want wounds dressed is if they’re just leaking all the time, because: a) it’s not nice for the patient, but b) we’ll want to weigh that dressing, we might want to know how much has leaked; you’re trying to protect the skin...from it just being wet at all times, because that doesn’t do much for the skin.*

Some midwives felt there were scenarios where absorptive dressings could actually be practically challenging: the frequently encountered “overhang” of skin, as termed by informants, raised questions about the benefits of having an absorptive dressing lying within skin folds:

Midwife 2008: *For example, we used to use [trade name of dressing], which is quite stretchy material, and it would absorb things, it would absorb water and fluid and blood and then it would end up creasing up the edges and especially now that we’ve got problems with BMI a lot of the population are overweight, so you know they’ve got a bit of an overhang. I mean we call them aprons, that overhang - so ...it’s difficult to know whether a dressing is appropriate or not because they just end up sweating underneath that. The dressing just serves to, I feel, aggravate the area.*

Many professionals discussed a second practical benefit of dressings: physical protection of the wound from the external environment. Dressings were often reported to provide protection from physical objects that could knock or brush against the wound, causing pain:

Abdominal surgery registrar 1009: *Hmm because your wound, when it's new, is very sensitive; so if it brushes against something then in theory it (dressing) might protect it. And some of our wounds are very big, particularly in my speciality, we're talking about things all across the abdomen, so our patients' pain issues are very important.*

Some nurses also discussed the potential for dressings to protect the wound from patients themselves (e.g. if hands or fingers are dirty):

Abdominal surgery nurse 5001: *If they've got dirty fingers, that's what I'd be a bit... wary of, not having a dressing.*

Psychological and attitudinal reasons: patients' preferences and clinicians' ingrained practices

Patient-preference, lay perceptions of wound care, and psychological/attitudinal factors were often intertwined in professionals' reported reasons for dressing use. Some discussed the potential for patients becoming anxious if they could view the wound. There was also a suggestion, from the nurse below, that some patients may find it psychologically comforting knowing that their wound is securely held together by a dressing. These discussions were often underpinned by professionals' experiences of how patients had reacted when dressings had been removed:

Abdominal surgery nurse 1003: *But the patients seem to feel more comfortable. Whether it's because they don't want to look at it, or just they're worried that it might pop.*

I: *Right. As in pop open?*

N: *They're always worried (about) that - "Oh, is it safe? Will it stay?" So sometimes they feel better and feel more at ease if they've still got a dressing on for a day or so.*

Some professionals suggested there could be a cultural significance to dressing wounds: early memories of cuts and grazes being covered were suggested as potential explanations for the presumed sense of safety and protection patients were thought to experience with dressings.

As illustrated by the quote below, these ideas were often combined with the supposed comfort of visually obscuring the wound:

Midwife 2008: *I think sometimes it can be psychological – like my small boy when he comes in, he falls over and he cuts his knee, if it's protected it feels safer, you know? It's a bit like if there's a bit of plaster on it, it feels protected, so there's an added amount of comfort as well in there, in dressing something, I think for the patient as well as for the person that's dressing it, like it's all better now, you know, you can't see it and it's protected, it's underneath there, not so vulnerable.*

Related to these ideas, one tissue viability expert suggested dressings can also symbolise the conclusion of a patient's pathway within the NHS:

Tissue viability expert 1014: *It's [...] also about the patient feeling that they've got the best out of the NHS and they've got ... they're coming home with their plaster on.*

Most healthcare professionals working in abdominal and obstetric surgery discussed dressing application as an ingrained practice in their specialties, with a sub-set presenting this as a key reason for dressing use in its own right. Clinicians themselves were thought to perpetuate the practice of dressing use, as they repeated the practices modelled by their mentors and trainers. This was thought to lend a sense of comfort to the both surgeons and nurses – especially if they had not experienced any particular adverse outcomes. This could overshadow thoughts about whether these practices were evidence-based (as shown in quotes 1004, 2014, 1002 – Box 6). For some, the act of dressing the wound offered a different form of comfort, given its connotations with concluding an operation (2004– **Box 2**).

Box 2: Health care professionals' accounts illustrating ingrained dressing practices

Abdominal surgeon 1004: *It's something I watched one of my mentors do when I was younger, and I've stuck with it because it seems to work for me.*

Obstetric surgery registrar 2014: *I think a large part of it is tradition, it has always been done so maybe that is part of the reason. That is maybe not a good enough reason to carry on if it isn't effective but that is one reason.*

Abdominal surgery nurse 1002: *On a general postoperative wound that is unproblematic, that wound dressings have been used historically - and I have grown up through my nursing career using dressings on postoperative wounds.*

Midwife 2004: *No, I think we put the dressing on because ... it's part of the final thing - you cover it up, you put the dressing on...(and think) "Okay the dressing's going on, oh thank goodness for that the dressing's on," because it's closure, it's done, it's the end of it.*

Clinical reasons

Clinical rationales for dressing use in primary wounds were less frequently mentioned than the practical, psychological, and attitudinal reasons discussed above. Where presented, these tended to relate to SSI prevention (often described as 'infection prevention'), or the idea of promoting 'wound healing'.

Some healthcare professionals, particularly nurses and midwives from obstetric specialities, felt dressings play a role in preventing SSI. These views were offered without prompting, although informants would have been aware of the focus of the Bluebelle study on SSI. These comments were usually embedded within some of the other reported functions of dressings described above. Where informants alluded to SSI prevention, this was usually underpinned by the theory that dressings can serve as a barrier against pathogens, particularly in hospital environments:

Midwife 2008: *So from my experience I would say a wound dressing is to protect the wound, and basically it's to prevent infection, that's what I would believe it to do from my nursing practice and midwifery. The whole reason they have a dressing is to protect that area from foreign bodies and bacteria and the environment, and in hospital obviously because there is a high rate of hospital infections, acquired*

hospital infections, it's to prevent that...cross infection. And because a lot of people are obviously getting involved with that person, you know they're inspecting the wound, there's a lot of hands on contact... so I think it's probably to protect against all of those sorts of things.

Some informants, such as the midwife below, suggested that dressings may only have an SSI preventative function for the initial post-operative window of time, after which they were thought to promote SSI:

Midwife 2009: *I think the main thought is to reduce infection rates, so to cover and keep the area as clean as possible for as long as possible.*

I: *Yes. Do you have any thoughts on that yourself?*

MW: *I think for the initial post-operative period it's probably right that it reduces infection. After a period of time I imagine it would then start to increase the risk of infection, if you're harbouring any other...*

Most healthcare professionals discussed SSI-prevention as a merely theoretical role of dressings, maintaining that this was not their personal belief; what distinguished these informants from those who suggested a preventative role was the implication that they questioned, or in some cases, doubted, this notion. Professionals with a range of roles, across all specialties, reported a possibility that dressings may promote SSI (e.g. 2001). In some cases, this was presented as a hunch – a slightly polarised state of uncertainty (e.g. 1005):

Obstetric surgeon 2001: *You can certainly postulate that however style you've got it the skin flora will recolonize it fairly very quickly afterwards, and – I would imagine that if the skin flora can get under the dressing then all the dressing does is keep a nice warm moist growbag environment for whatever bugs are there.*

Abdominal surgeon 1005: *I suppose the, the accepted dogma would be that (dressings) protect the wound from infection because it's sealed the skin... I don't think ... I would be very surprised if it makes much of a difference in terms of infection rates because I sometimes think dressings sort of keep a wound warm and moist and that may actually provide ideal incubation kind of environment for bugs and if there are bugs trapped in there.*

Not all professionals mentioned SSI/infection when initially asked about reasons for dressing use. This did not necessarily mean that they did not believe there was a link between

dressings and SSI – in a few cases, these views were elicited later in the interview, during discussion of the trial itself (see later, ‘Part 2: Healthcare professionals’ perspectives on the proposed pilot RCT’).

Most clinical professionals mentioned that some dressings could promote “wound healing”, but these views were generally made in relation to dressings used for what clinical informants described as “complex wounds”. ‘Complex wounds’ were described as those that had been left open to heal (rather than wounds that had been surgically closed, i.e. ‘secondary wounds’) and wounds that had developed problems (e.g. SSI). With exception of tissue viability experts, most professionals had limited knowledge of the types of dressings used in these scenarios, but perceived them to have a more specialised function:

Abdominal surgery registrar 1009: *You then get onto the really complex stuff - so people that have open abdomens perhaps [...] - they do need special bags and very specialised dressings to try and protect the patient’s skin or something that will allow it to heal, but that’s very ... I don’t know an awful lot about these dressings. I would take advice from tissue viability nurses for that kind of thing.*

There were a few exceptions, where nurses in particular expressed that ‘simple’ dressings could promote healing. One informant felt this was achieved by maintaining warmth around the wound site:

Abdominal surgery nurse 1002: *We try and not disturb open wounds too frequently, because every time you take a dressing off an open wound you are disturbing that healing process. Every time you take a dressing off, the natural body heat drops. So the temperature around that wound bed drops when you remove a dressing, because you’re opening it to the air.*

Another informant felt the absorptive element of dressings were conducive to wound healing in situations where blood/sweat was likely to collect around the wound area:

Midwife 2009: *When there’s an overhang then it gets sweaty and wet and that’s probably not conducive to the wound healing.*

Mentioning a particular function of dressings did not necessarily indicate a fixed belief on the part of the interviewee. For example, one obstetric nurse initially mentioned ‘wound healing’ as a reason for dressing use, but later expressed doubt with further probing. This example of a shifting stance was common in interviews: often, further discussion of the Bluebelle study prompted clinical professionals (as well as patients) to challenge their own ideas:

Midwife 2008: *Promote healing, prevent infection - those are the reasons why we use them (simple dressings) primarily, and like I said there's the comfort thing, pain...*

[Later]

MW: *I don't think in terms of promoting healing it (simple dressing) contains anything or acts in a certain way to increase granulation, epithelisation or anything [...]. I don't think a wound dressing by itself can necessarily speed up healing. I don't know, it's interesting to (see).*

b) Dressing selection in routine practice

Whilst it was common place to dress adult abdominal wounds, surgeons and ward nurses intuitively felt that the dressings they used in their day-to-day practice were distinct from those that fell under the remit of tissue viability nurses, who reportedly dealt with more 'complex' wounds.

Secondary and problematic wounds were described as highly heterogeneous, with complex individual needs. Dressing selection for these wounds was therefore presented as a reasoned decision-making process, as the dressing needed to be tailored to the wound requirements. By contrast, dressing use for primary wounds was presented as a passive process – one that had become indoctrinated into post-operative practice. Many surgeons described simply using the dressing which they were given (i.e. whatever was procured by the hospital):

Abdominal surgery registrar 1009: *I put on what I'm given, which is not very philosophical... nothing to do with that, it's just what is available in the Trust you're working in.*

As an exception, there were isolated reports of surgeons more actively choosing tissue glue as a dressing (e.g. in scenarios where wounds were next to stomas, as indicated earlier in this Chapter). Although specific dressing products could vary temporally and across hospitals, the 'default' dressings described across all sites had similar characteristics: all were adhesive coverings, with no additional interactive properties.

Dressing classification systems

With exception of tissue viability experts, healthcare professionals tended not to refer to any formal classification system for dressings. The terms ‘simple’ and ‘complex’ were not used in practice, although most professionals intuitively made assumptions about the types of dressings these labels might encompass, the former being ones used every day for primary wounds and the latter for secondary or complex wounds:

Abdominal surgeon 1005: *Hmm does that mean anything to me? No...as a term, not really, but at the same time a ‘simple dressing’ probably is the ones we use every day... complex dressings ... those probably mean if a wound is being packed or - I didn’t mention earlier – ‘vacuum dressings’ I suppose.*

Abdominal surgery nurse 1001: *By far the one we use the most is the first - so just a simple covering. I would say 80 to 90% of our wounds were just simply covering because they leak, or people don’t like to see them, or they catch on their clothes, or there’s a multitude of reasons why.*

Abdominal surgeon 3004: *You could say that complex dressings would be something like a vac or hmm... things like open abdomens with op site... and then simple dressings would be something that covers the wound.*

4. Wound management protocols in abdominal surgery

Interviews revealed no consistent practice in relation to post-surgical wound management, whether this related to the frequency and nature of wound assessment or the timing of dressing removal. There were no protocols to dictate what post-surgical wound assessment/monitoring entailed, how frequently this took place, or which clinical professionals were involved. Furthermore, there did not appear to be any site-specific patterns in wound management practice.

5. Details relating to current management practices

Interviews with health care professionals (during Phase A) revealed no consistent practice around post-surgical wound management – whether this related to the frequency and nature of wound assessment, or the timing of dressing removal. There were no protocols to dictate what post-surgical wound assessment/monitoring entailed, how frequently this took place, or which clinical professionals were involved.

Nurses were primarily involved in routine monitoring of wounds during recovery; this could involve regular assessment of the wound dressing surface or the actual wound itself (if undressed). Nurses in abdominal and obstetric surgery discussed looking for signs of ‘strikerthrough’, where blood or exudate would seep to the surface of dressings. Some monitored the extent of strikerthrough over time by marking the soiled dressing surface with a pen, though there were no reported thresholds for defining when a wound would be considered problematic on the basis of this assessment; the process was therefore a somewhat informal monitoring approach, reliant on intuition. In addition to strikerthrough, most nurses mentioned looking for the standard signs of SSI as part of the monitoring process:

Abdominal surgery nurse 1002: *If healing isn't quite happening as it should be the tissues underneath can become swollen, irritated, red. A wound can get infected, but we monitor wounds very closely throughout the patient's stay. If there are any clinical signs of either swelling or tissue inflammation then we would pick up on it straight away.*

Rather than ‘monitoring’, surgeons/registrars were more likely to be involved in a single follow up assessment of the wound itself. Some reported tendencies to routinely follow up, but the majority reported only revisiting problematic or complex wounds. There was no speciality-related pattern in this variation; practices could vary at an individual level, as shown by the informants below (both of whom worked in the same department):

Abdominal surgeon 1004: *Surgeons vary hugely. I tend to remove my patient dressings at 48 hours for a wound inspection.*

Abdominal surgeon 1016: *I would try and leave the wound undisturbed as much as I can unless there's a reason not to. So if the patient is well, they've got a wound dressing, why disturb it? You put it on for a reason so why disturb it? You might ... if the patient's not well or they've got a temperature you might need to remove the dressing to make sure they haven't got a wound infection.*

One-off wound assessments usually required dressing removal. There was a general consensus across all specialities/roles that the wound itself should remain undisturbed (i.e. with no lifting of dressings) for at least the first 24 hours following surgery; this was often presented as a relatively new idea that contradicted the intuitive behaviour of removing and re-applying fresh dressings regularly:

Abdominal surgeon 1005: *(Removal of the initial dressing) is a variable feat and I think there ... the practice really is to leave the dressing on for as long as possible and not to disturb it now, rather than sort of changing it every day, and I think whilst it used to be the practice that the surgical team go around in the morning during their ward round and kind of pull down the dressing, look at the wound, I think we don't do that unless there is a reason to. So if the wound looks...if the dressing looks wet or there's discharge from it or there's concern that the skin around the dressing is red or inflamed or whatever, of course we're take the dressing off and look at the wound, but generally it's left undisturbed. Certainly for the first 48, 72 hours.*

In line with the lack of formal monitoring/assessment routines, there were no standard protocols for final removal of dressings. This was reflected in the wide-range of responses when informants were asked about the average time until dressing removal (for primary wounds). For instance, some clinicians working in lower GI surgery in the same institution reported that dressings were generally left on for no more than three days, while others reported an upper estimate of four days; the fact that the surgeon below uses a subjective indicator of when to remove the dressing is further indication that these practices were not formalised:

Abdominal surgeon 1017: *I normally tell them when it starts to peel at the edge or when it starting to peel off naturally, which is usually about 3 or 4 days afterwards, then that's the time when it can come off.*

Abdominal surgery nurse 1002: *On removal of those dressings 48 to 72 hours later, we obviously look closely at the dressings postoperatively, to make sure that there has been no strikethrough.*

Variations in reported practices were also apparent in lower GI surgery and obstetrics, although there was greater consistency in reported practices for removal of caesarean wound dressings (obstetrics); this may have been due to the shorter and more standardised length of post-surgical hospital stay: women generally left hospital within two days of surgery, and had their dressing removed prior to discharge.

Clinical Informants were conscious that dressing removal practice was not formalised, as indicated through explicit mention of ambiguity (1016), or clarification that any specific reported practices reflected their personal preference (1009):

Abdominal surgeon 1016: *So hmm (-) that would be ... but I've got no sort of, you know dressing off at day 1, you know I just leave it on until it just needs to come off.*

Abdominal surgery nurse 1009: *My theory is once a patient has had at least 48 hours post-operatively and that their pain has settled down a wound dressing can really come off. I think that's very much an individual surgeon's choice is to when they're comfortable to do that. I'm usually about 48 hours. I don't see any benefit from persistent dressing.*

Part 2: Healthcare professionals' perspectives on the proposed pilot RCT

1. Trial design: relevance of comparison groups

Healthcare professionals were generally very supportive of a trial that compared different wound dressing strategies, on the basis that they acknowledged the need for evidence in this area. Clinicians and nurses were generally enthusiastic about including a 'no dressing' arm, even if they initially expressed beliefs that dressings helped to prevent SSI. Many informants discussed the need for 'evidence', irrespective of views they had expressed about dressing benefits/disadvantages:

Abdominal surgery nurse 3021: *Unless we run trials to prove whether they [dressings] are effective or not we'll never know will we?*

Whilst support for a 'no dressing' group was clear, healthcare professionals found it somewhat more difficult to engage with the idea of a 'complex' dressing group. Knowledge and awareness of 'complex dressings' was generally very limited amongst surgeons and ward nurses, although most assumed that these products fell under the remit of tissue viability experts. Of the two tissue viability experts interviewed, both also considered 'complex' dressings to be distinct from routine wound care provided on wards:

Tissue viability expert 1014: *I think [complex dressings] have a real role, you wouldn't put them on unless there was a need, the (wound) was sloughy, it was necrotic, it was infected....*

A number of professionals questioned how one would be able to make generalisations about 'complex dressings' given their supposed specificity. Questions also arose about how one

would select an appropriate form of complex dressing for the trial, given their presumed heterogeneity:

Obstetric surgeon 2001: *But once you start into complex dressings then there must be so many different kinds of complex dressings, some with seaweed in them some with silver in them, some impregnated with antibacterial solutions or something, I don't know, then you're only comparing one of them against the other two things and all the other complex dressings. Their manufacturers will still be able to turn around and say "Ah but this is irrelevant to our dressing, because ours is impregnated with Beetlejuice and therefore is much better than either that complex dressing, that simple dressing or no dressing at all," and that's the only thing really isn't it? So simple against none will be much cleaner and easier.*

As opposed to a trial incorporating 'complex' dressings, there appeared to be more engagement with the prospect of including a 'routine practice' arm to compare against the 'no dressing' group. Many informants considered the funder's proposed 'simple dressing' group to be synonymous with the default dressings they currently used. Broadly speaking, some professionals suggested taking a pragmatic, inclusive approach by comparing 'no dressing' with 'usual care', based on the assumption that all variants of dressings routinely used on primary wounds would fit under the 'simple dressing' category. Others suggested comparing 'simple' dressings with different attributes (e.g. absorptive versus non-absorptive properties).

There was only one overt objection to the prospect of a future trial, expressed by a surgeon who held clear views that dressings were essential after surgery. This individual did not participate in a full interview, and there was thus little opportunity to fully explore the reasons behind their dismissal of a future trial. All other healthcare professionals were willing to consider a trial of dressing type (including 'no dressing'), though some expressed more reticence about the prospect of 'no dressing' than others. The varying degrees of concern expressed by healthcare professionals are described below.

2. Concerns about a 'no dressing' group

a) Managing exudate

The most frequently discussed reason for concern or hesitancy about a trial that included a 'no dressing' group was management of exudate; the prospect of a patient having wound exudate without a dressing frequently raised concern about practicalities/patient comfort:

Abdominal surgery nurse 1010: *You can't leave a patient, you know with, you know with bodily fluids everywhere you know dripping everywhere, you're going to have to cover that.*

Obstetric surgeon 2001: *The only situation I could imagine which would be problem is sometimes on top of the standard dressing we put on a pressure dressing if there is superficial bleeding, and pregnant women are particularly vascular, and there can be a bit of general ooze from the skin and fat layer which can be quite difficult to stop, particularly as we're trying not to do things like diathermy on the skin because we don't want to leave them worse scars than they might otherwise have etc.*

One tissue viability expert explained that fluid could act as a conduit for infection, though a wound was unlikely to develop an SSI for this reason only. Nonetheless, nurses' and patients' behaviours in response to 'leaky wounds' was thought to indirectly increase the risk of developing an SSI due to the increased likelihood of touching the wound:

Tissue viability expert 1014: *Invariably if you've got an area that's leaking the first thing patients do or nurses for that matter is "Oh what's that, is that something leaking out of my ..."... then they stick their fingers in, you know... lots of bugs. So it's a natural reaction, or you keep cleaning it up or ... and then you rub soap in and that can cause problems, and so I think for those kind of (leaky) wounds, I wouldn't necessarily recommend it (the trial).*

b) SSI and cleanliness

Some professionals – most of whom were nurses or midwives - showed discomfort at the prospect of 'no dressing' due to the increased perceived risk of SSI and/or lack of cleanliness. Some of these informants had already expressed a view that dressings have a role in preventing SSIs; these views appeared to be carried forward in shaping their reactions to the trial, as they suggested the possibility that the lack of a physical barrier and/or exposure to the environment could increase the likelihood of SSI:

Midwife 2004: *The only infection (source) I would guess would be off their own clothes or whatever they're wearing, because they do wear hospital gowns but obviously they're not sterile, and it's just whatever's touching it really isn't it? You'd like to think there's no bugs around really to get in there but (...) I'm guessing if a foreign body got stuck to it, (it) wouldn't help the healing, would it? A foreign body could just be a fibre off the gown couldn't it, if it's in the wrong place.*

Midwife 2008: *My biggest concern would be that bit that I told you about, with the lifting of the drape at the end (of the operation), when you've got blood and everything. I think if you were to do that I would want to see that the wound was initially protected from the drape, everything in the air, the whole environment is affected, people's tiny hair cells that you can't see... because that's one of the biggest causes of wound infection - people's hair.*

The perception that caesarean section operations were likely to involve considerable blood and bodily fluids from the mother and baby underpinned some obstetric professionals' discomfort at the prospect of not applying a dressing. One registrar simply described an aversion to the idea of the wound coming into contact with these bodily fluids, while acknowledging the lack of evidence around dressings and healing outcomes:

Obstetric surgery registrar 2003: *I don't think I'd like it. For me it would just be that, it (dressings) give it that 24 hours to sort of - there's no research behind it - but I would feel more comfortable... in obstetrics it is a bit sort of - everyone's looking at your vagina, and then it gets quite messy and the baby's wriggling around on the tummy, and the baby might poo on the tummy and then drip into her scar and be disgusting, so the baby might wee on it and I just think: cover it up for 24 hours until she's a bit more mobile.*

Post-surgical events after delivering a baby were further reason for some obstetric professionals' concern about leaving wounds undressed: new mothers' attention was thought to be concentrated on their babies, rather than keeping their wound clean:

Midwife 2009: *Yeah and especially when they're preoccupied with their babies and the last thing on their mind is looking after their wound site. Where I suppose if you had an appendix out you're constantly guarding it and looking at it and making sure it's alright.*

In contrast to the views expressed above, some of the professionals who had initially expressed beliefs that dressings play a role in preventing SSI appeared to move closer to a position of equipoise once the prospective trial was discussed (towards the end of the interview). The extracts in **Box 3** illustrate this by presenting a quote from the beginning and end of an abdominal surgery nurse's interview. In such instances, the informants may have genuinely questioned their prior beliefs (prompted by the interview questions), or may have simply been conscious that their beliefs were not evidence-based.

Box 3: Extract from a nurse's interview, illustrating shifts in perspective over the course of an interview

Abdominal surgery nurse 1010: *Basic dressings are a case of just protection really, protecting the wound from infection*

[Later]

I: *When you mentioned that they provide protection against infection, do you think it would have any impact if we weren't to put the dressing on the wound, do you think that would have an impact on infection or ... would that concern you?*

N: *Hmm, no because to be honest once patients are used to seeing the wound within a day or so they're absolutely fine so ... I don't think it will really have a great impact on the infection rates. I think it's more of protection and kind of patient comfort more than anything, you know, it's keeping their mind off of it, it's covered, they can't see it, and yeah - infection wise probably not. Just a plain normal sticky plaster dressing, I don't really think that would provide that much difference in infection rates, so ...*

I: *So why do you think they are used so much in practice?*

N: *I kind of think it's the way things have always been done, nobody's ever challenged it and said actually why don't we try something different? Why don't we try not putting a dressing on and see how we get on?*

3. Scope and eligibility criteria

Despite overall support for a future trial, there were conditions around some professionals' readiness to randomise patients. Some informants felt the trial would not be appropriate in certain surgical procedures and/or particular patient groups.

a) Clinical procedures with severe consequence of SSI

A number of surgeons felt it prudent to exclude surgical procedures that involved insertion of devices and implants, on the basis that developing an SSI had severe clinical and cost implications:

Abdominal surgeon 1004: *(I would avoid) those devices I insert in the buttock area. Again, infection in the devices is a disaster in terms of functional outcome, and also for cost, because they cost over £10,000.*

Paediatric surgeon 1008: *Yeah well I think, when you're putting implants in that's very emotive and absolutely, getting an infection, a change in your infection rate, would be just disastrous, and people couldn't cope with that.*

b) Procedures with a high risk of SSI

Healthcare professionals often discussed the SSI risk stratification of procedures when asked to consider the eligibility criteria for the forthcoming pilot RCT. Some focused on methodological considerations, pointing out that a range of procedures with different underlying SSI risk should be included to enhance the generalisability of a future trial:

Paediatric surgeon 1006: *I think ... (to) have some sort of stratification on the infection risk levels would be useful.*

Abdominal surgeon 1004: *In that context the wound infection rate is low, and therefore I think it's an important procedure to include (hernia repair), because you will identify if there is a higher infection rate relatively early. I think you've got to also include a procedure where there is a high wound infection rate to see if the opposite scenario applies.*

Other informants advised limiting the trial to procedures with low risk of SSI, presenting this as a conservative initial step. These informants suggested that the inherent risk of changing current practice would be more acceptable in procedures where the risk of SSI was already low, although this comment was sometimes made in relation to what the informants felt would be acceptable to the clinical community (rather than their own levels of comfort). In contrast, one informant (a surgeon) felt his/her peers would be reluctant to partake in a trial that focused exclusively on procedures with low SSI rates, as the disruption of usual practice would not justify the potential gains in improving outcomes. It was notable that this informant felt the idea of using cost as a rationale for reducing dressing use would not engage clinicians. What interested this informant was the potential to reduce SSIs in procedures where this was deemed problematic (i.e. those with a higher risk of SSI):

Abdominal surgeon 1016: *If they get very few wound infections they're going to be reluctant to change aren't they?*

[Later]

S: So any trial that is going to be trying to persuade someone whose practice is going well, who has very good results, to change something, using the economic argument

to try and back that up, never really goes down well. It doesn't with me, even though I can clearly understand where you're coming from, so that's going to be the biggest challenge.

c) Patient groups to exclude

Healthcare professionals' views on appropriate patient exclusion criteria were mixed, and sometimes contentious. Some favoured criteria that were as simple and inclusive as possible, on the basis that there was genuine uncertainty about whether having a dressing was advantageous for any wound. Inclusivity was also thought to enhance generalisability of a future trial's findings:

Abdominal surgeon 1016: *You know diabetics are going to have an increased risk of infections but, so what? Maybe they might be just the ones who don't need dressings. So I don't think co-morbidities should be an exclusion - it should be recorded.*

Obstetric surgeon 2012: *If you want your generalised ability or external validity of the study to be high, then you want to include as many as possible and exclude as few as possible, particularly if it is going to be a large trial.*

Some informants specified exclusion criteria on the grounds that they did not wish to subject certain patient groups to the risks of potentially worse SSI-outcomes, or because they were concerned that certain risk factors for wound healing/SSI might confound the trial.

Comments that fell into the latter group may have indicated limited knowledge of RCT design and the function of randomisation. Some informants suggested excluding immunocompromised individuals or patients receiving chemotherapy, as the possible risk of altering 'standard' care without a clear rationale for benefit was thought to add unnecessary potential stress and burden:

Abdominal surgery registrar 1009: *We're looking at ... these are very vulnerable group of patients. We have to do everything we can to protect them and I would be worried about something that could potentially introduce another thing to add to their already big list of things that we're worrying about for them. So I would want to know the results from more straightforward patients to see whether it looked feasible. I'm not opposed to it altogether, but I would want some evidence.*

Other views about which patient groups to exclude were more contentious than the above.

Older age, diabetes, and obesity were the key criteria for exclusion that divided opinion. **Box 4** illustrates some of the polarised views in relation to each of these groups.

Box 4: Health care professionals' polarised views about RCT eligibility criteria

'Older' Age:

Midwife 2008: *Because as you get older, tissue breaks down very easily with older people - they've got really bad fragile tissue, and some of them are on steroids, a lot of them are on huge amounts of drugs which slow down the mechanism of healing.*

- Compare with --

Midwife 2013: *Yes, the only comment I would make is you need a good age range of people, but that's not much help, is it?*

I: *No, that is helpful actually. You would include a full age range of people, so including people at the older age of the spectrum?*

MW: *Yes, yes, because people have different healing capabilities.*

Diabetes:

Abdominal surgery nurse 5003: *Diabetic patients are more prone to infections aren't they so I think until it's been proven that they could be beneficial I wouldn't touch a diabetic person with it.*

-- Compare with--

Obstetric surgeon 2002: *So if you get elderly people with more vascular functions or diabetics that are having vascular operations and things, they've got a different risks of infection and different sorts of tissue healing potential, and so therefore I think you'd probably want a broad range of, you know obstetric patients in general young, fit, and healthy women.*

Obesity:

Midwife 2009: *Hmm the only thing that worries me really is the obese patients because they do have these huge overhangs and I don't know whether they would start growing things (bacteria) quicker than normal. They would generally be the patient whose wounds will break down anyway.*

-- Compare with—

Midwife 2009: *Yes, (obese women) don't heal as well and obviously, particularly if you're doing lower abdominal surgery - as I alluded to earlier, there are overhangs and things. Does it make a difference having a dressing, or will it just heal just as well without?*

4. Barriers and facilitators to trial success

a) Ingrained practice

The most commonly anticipated barrier to the proposed pilot RCT's success was the challenge of overcoming ingrained clinical practice. Healthcare professionals tended to make these comments in reference about that leaving wounds exposed would be counter-intuitive, but most were willing to accept this if conducted in the context of research:

District nurse 1028: *If I was to see any of my own family or ... came home with a surgical wound I would want to cover it until the sutures are out and the wound is closed, but that's because that's historically what's happened. I'm open to questioning and research, providing evidence in other ways.*

Abdominal surgeon 1004: *I would be prepared to consider it in the context of a research trial, because I accept that the evidence base is poor and a lot of it reflects personal practice. My general behavioural pattern, as a surgeon, is I do things the way I've always done them until such time as evidence emerges to demonstrate to me that my practice is wrong.*

It is also possible that informants were simply offering a generic RCT-related challenge that they had experienced/become aware of in the context of other research. Informants often spoke of surgeons' so-called resistance to change in a very general manner:

Abdominal surgeon 1004: *There are some surgical dogmas. So, there are some surgeons who have very set ways of doing things, and get good results from those set ways, and they're pretty resistant to the concept of participating.*

Some individuals specified that the challenge of clinician resistance was potentially surmountable if one explained the current lack of evidence to support/refute dressing use, and/or describe the general absence of routine wound dressings in paediatrics (1017); it was nonetheless still acknowledged that challenging ingrained practice would be difficult, regardless of issues of evidence (2001).

Abdominal surgeon 1017: *Yes they (children) may have different physiology, they may be different healers but in fact here's a population that don't have dressings and in fact it's got a very, very low surgical site infection compared with the adults who do have dressings. So that might be a way of providing a bit of evidence essentially to try and convince people that it's not such a leap in the dark.*

Midwife 2001: *You just have to sell it to them that there's no evidence for what they're doing. Start with the academics. Not, of course, that that always guarantees you the following of evidence-based practice... I know one (anonymised clinical role) who is very good at demanding evidence base in (their) arguments with colleagues except for when it's something (they) want to do.*

b) Patient expectations and preferences

Many nurses, midwives, and surgeons/registrars anticipated that patient preferences for a dressing may present an obstacle to trial recruitment, based on their past experiences of removing dressings from patients. The appearance of the wound and concern about the wound coming apart underpinned most accounts of why patient preferences were thought to be potentially problematic:

Abdominal surgery nurse 1002: *They (patients) might not like the idea of not having their wound covered. We'll ask them why. Very often it's they just don't like the look, or they worry about the wound opening up. Even though there's no clinical sign of the wound opening up, they get very concerned about their wounds.*

For the most part, healthcare professionals discussed patient preference as a possible obstacle to recruitment, although none appeared to believe the trial would be impossible for this reason. Some professionals anticipated that patients may hold expectations for a dressing, and thus be hesitant about the trial because the idea of not receiving a dressing would be unfamiliar and potentially unsettling. Others reported that they were not sure how patients would react to a future trial, and some predicted that patients may be nonchalant about dressing use. One midwife also pointed out the possibility of patients viewing the 'no dressing' arm as a favourable option because there would be no need to remove the dressing:

Midwife 2009: *In fact I expect some of them (patients) will think "Oh good, I (...) haven't got to peel it off in the shower," because that's not very pleasant either.*

a) Adherence to allocation

Adherence to the trial protocol was anticipated to be a key challenge to the success of a future trial, especially with regard to a 'no dressing' arm. Many professionals discussed the possibility of dressings being mistakenly applied. Some emphasised the number of different clinical staff the patient would be likely to encounter during the recovery period, some of whom were unlikely to be aware of ongoing research (e.g. bank/agency staff). Suggested mitigation strategies included investing time into publicising the trial amongst staff, using

adherence aids that travelled with the patient (or were marked on the patient), and encouraging patients to act as stewards to ensuring that their wounds were managed according to their allocation – acknowledging that the latter strategy would rely on patients having a clear understanding of their allocated dressing strategies:

Abdominal surgery nurse 1001: *I think one of your biggest challenges is that sheer number of individuals that will be involved (...). Because I think there are just so few people that consistently see the patient. I think we'd have to think very carefully whether you would, I don't know, even write something in indelible ink on the skin to say "No dressing please," [...] (or) put an armband on, or something like that (which is) always with the patient. Because if not, I know that a bank nurse at two o'clock in the morning will think, "Oh look, I'll do a favour and I'll pop a dressing on this."*

Obstetric surgery registrar 2003: *Yes, and make sure the woman know's which arm she's in so that if the midwife comes around and says "Why haven't you got a dressing?", you know...*

Professionals suggested that adherence might be particularly problematic in the event of patients experiencing exudate/bleeding from the wound. Some nurses predicted that they (or their colleagues) would be likely to reach for a dressing, if faced with leaking or oozing wounds:

Abdominal surgery nurse 5011: *I suppose I'd be like "Oh, there should be a dressing," (but) because I've known it to be part of a trial I would leave the dressing off unless it was to start to bleed or ooze... 'cos I then I'd feel like it would need a dressing.*

5. Compensating for 'no dressing'

Most professionals did not foresee any aspects of their practice changing in the context of the Bluebelle pilot RCT (other than the change in wound dressing application). However, some professionals did discuss the possibility that staff might change other aspects of their clinical practice to compensate for the absence of a dressing. These included:

- Changes to wound closure practices, such as paying more time/attention to closing wounds well, and more use of diathermy:

Abdominal surgeon 1017: *No dressings at all? I'd probably have to use a bit more suture material and make sure that there were no gaps in the (wound) closure.*

- Changes to post-operative care, such as more frequent observation of wounds, more diligence to hygiene, and increased tendency to wear gloves while in contact with the patient or wound area:

Midwife 2008: *Maybe people would be more inclined to wear gloves around that(wound) area because there is a natural port for, you know, bacteria and cross-infection.*

- Use of products to compensate for 'no dressing', such as 'Op site spray', tissue glue, or temporary wound coverage solutions to stop post-operative bleeding/exudate:

Abdominal surgeon 1016: *Certainly if I was going to stop using a dressing I'd probably be a bit anxious about whether I've got to put something on it to make me feel better such as Op site or glue.*

6. Outcomes measures

As discussed earlier, the practical and patient-related reasons for dressing use often dominated discussions about the rationale for current wound dressing practices. All healthcare professionals agreed that SSI was an important outcome to measure in a future RCT comparing different wound dressing strategies, but many also underlined the need to consider other outcomes, such as patient comfort and acceptability:

Abdominal surgeon 1016: *So you've got to have patient satisfaction or attitudes or comfort or whatever, because that's everything... comfort - and that can be psychological, or practical, or it could be it's more comfortable with a dressing on, because of clothes or whatever...*

Part 3: Healthcare professionals' perspectives on the proposed pilot RCT

Thirty-three 'patients' took part in semi-structured interviews which explored their views on the proposed pilot RCT. None of the patients who agreed to be contacted refused, and none withdrew. The term 'patients' has been used collectively to refer to abdominal surgery patients and women undergoing caesarean sections. Twenty-six interview participants were

abdominal surgery patients, and seven participants were due to undergo (or had already undergone) a caesarean section procedure.

The findings for this section have been presented under three topics: 1) patients' expectations for dressings; 2) patients' views about 'no dressing' and their hypothetical willingness to be randomised; and, 3) patients' perceptions of important outcomes for a future trial.

1. Patients' expectations for dressings

Patients differed in their reported expectations about wound dressing application. For some, the wound itself had not crossed their minds; survival and quality of life after surgery were factors that overrode consideration of the wound. Of the group of patients who *did* report holding an expectation, all assumed that they would receive a dressing. This was often ascribed to previous experiences of surgery or ingrained cultural expectations that skin lesions or openings are typically covered. Similar to clinician interviews, one commonly reported idea was that wound management expectations stem from early childhood, where cuts and grazes are covered with a plaster/bandage. Two patients were exceptions, in that they both described having grown up with the theory that leaving wounds "open to air" was preferable in terms of promoting wound healing. Despite this, both individuals also indicated that there was a cultural 'norm' of covering wounds.

Although most patients reported an expectation for a dressing, few were able to elaborate on their specific line of thinking in relation to this aspect of their care. There was an implicit suggestion (across most interviews) that dressings had not been actively considered before the operation. Some patients explicitly stated that they 'probably' expected a dressing, but could not recall giving any active consideration to the matter.

None of the patient interviewees recalled discussing dressing use or wound care with clinicians. One significant point that arose in a few patients' interviews was the subtle conflation of 'wound dressings' with 'wound closures' (e.g. sutures). The interviewers often found there was a need to specify what was meant by the term 'dressing', when first discussing patients' expectations.

2. Patients' views on 'no dressing' and willingness to be randomised

Patients were hypothetically asked if they envisaged themselves agreeing to participate in the proposed RCT. Only a minority (n=6) of the thirty-three interviewees felt they would decline, usually because they anticipated that they would hold a preference for a dressing. One patient – a standalone case - felt that they would decline due to discomfort at the prospect of forgoing control and choice about their care (owing to the concept of random allocation).

It was notable that the common reasons expressed for declining the trial were also raised as concerns/after-thoughts by those interviewees who felt they *would* participate (if hypothetically asked). As such, a key priority of the Phase A interviews was to understand patients' discomfort around 'no dressing', with a view to designing materials that might support recruitment (and informed consent) in the pilot RCT.

Most patients expressed some level of concern at the prospect of not having a dressing, irrespective of whether they felt they would participate in the trial. These concerns fell into three categories that mirrored the issues discussed by health care professionals: clinical concerns, practical concerns, and psychological concerns.

a) Clinical concerns

Clinical concerns constituted apprehension about developing an SSI (referred to by patients as 'infection' or 'bugs'), and the possibility of prolonged "wound healing time". These issues were rarely raised when patients were asked to consider how they might have reacted had they not received a dressing in their recent/upcoming experience of surgery; even patients who believed dressings have a role in SSI prevention did not feel they would have any concerns about not receiving a dressing in *routine care*. Absolute trust in the clinicians overseeing their care appeared to outweigh any clinical concerns they might have had: if a dressing was not applied in the context of routine care, this was assumed to be for good clinical reasons.

Some patients expressed particular concern about the prospect of not receiving a dressing in the context of a *trial*. Patients' seemingly relaxed reaction to the hypothetical scenario of not receiving a dressing in current practice contrasted with their sudden concern about SSI in the context of research. In a trial, patients felt that they would want assurance from their surgeon that not having a dressing would not increase the risk of a SSI. Some also alluded to the idea that they would be comfortable going into a trial, if the clinicians overseeing their care

deemed this appropriate. Patients' trust in the clinical team overseeing their care was clearly an important consideration to take forwards into the pilot RCT.

b) Practical concerns

Patients frequently expressed some level of apprehension about the practicalities of not receiving a dressing. The two key practical considerations that arose were the possibility of physical trauma or objects catching on the wound, and concerns about managing blood and wound exudate.

A few patients explained that the fear of knocking or catching their wound was one factor that would dissuade them from the RCT, although most felt they would still be inclined to take part. Of the latter group, some indicated that they might become more vigilant about their wound and surroundings. One patient felt the risk of knocking their wound could deter them from participation, but explained that would depend on the size of the wound.

The absence of an absorptive barrier raised concern that wound exudate/blood could stain clothing and bedding, although this arose comparatively infrequently relative to health care professional interviews. Patients' accounts about the burden of managing wound exudate sometimes included reference to the psychological or emotional impact of having blood/exudate that was not contained or managed.

c) Psychological concerns

Psychologically, some patients questioned whether their wound would feel as 'secure' without a dressing. These views were reported especially common among women who had undergone caesarean sections. Some individuals expressed an assumption that the dressing helped to hold the wound edges together, thus preventing spillage of internal organs and bodily fluid. Others acknowledged that the prospect of the wound splitting open was probably unrealistic, but they nonetheless described feeling psychologically comforted by the idea that the dressing was 'keeping everything in place'. Some patients who discussed concerns about the security of the wound still felt they would participate in the proposed RCT if approached, whereas others explained that their decision would hinge on whether clinicians could reassure them that their wound would remain intact.

Some abdominal surgery patients raised concern about the visual element of an uncovered wound, but only felt this might be distressing if their wound was 'large'. Notably, none of the patients who had already undergone surgery expressed any anxiety about seeing their wound once their dressings had been removed; most commented on being pleased with the closure,

with two informants – both younger men (i.e. below 50) – reported having felt eager to see their wound and show it to others. One of these patients also explained that being able to view the exposed wound helped him to better understand the procedure he had undergone.

3. Outcome measures

Patients' unprompted accounts of their concerns about not receiving a dressing often touched on practical issues, such as the physical protection of the wound from the external environment and management of blood/exudate. When directly asked about which outcomes would be important, most patients discussed the concept of 'wound healing time', which some specifically linked to the absence of infection.