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Views of emergency research (VERA): A qualitative study of women and their partners' views of recruitment to trials in severe postpartum haemorrhage

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ABSTRACT

Objective: to explore women's and their partners' views of recruitment to emergency trials in severe postpartum haemorrhage (PPH).
Design: interview-based qualitative study. In semi-structured in-depth interviews, five recruitment options for a PPH trial in an emergency context were considered.
Setting: interviews were carried out in participants' homes.
Participants: nine women who had experienced a severe PPH and six partners.
Findings: interviewees rejected three options; decision-making by women prior to delivery, and by partners and legal representatives at the time of the emergency. Preferred options were women making antenatal decisions about trial entry themselves, followed by doctors making decisions at the time of the emergency.
Conclusions and implications for practice: recruitment options involving women and their partners at the time of an emergency were rejected. Antenatal decision-making raises logistical and ethical considerations for emergency trial teams. Further research is needed to address the possibility of antenatal decisions for emergency trials and to develop and assess supportive post-enrolment recruitment and information strategies which take into account the stressful context of clinical emergencies such as PPH.

Introduction

The term, postpartum haemorrhage (PPH), covers a wide spectrum of blood loss post delivery and is not consistently defined. A common definition is blood loss >500 ml for vaginal birth (Knight et al., 2009), although this loss may be tolerated by many women (Stafford et al., 2008; Knight et al., 2009). PPH is more common in caesarean deliveries, particularly in emergency settings, and post-operative PPH is often defined as blood loss >1000 ml. Blood loss can however be much higher in both vaginal and caesarean deliveries, and severe PPH is a major cause of mortality and morbidity around the world, with an estimated 140,000 women dying as a result each year (AbouZahr, 2003). Great disparities exist between high and low income countries but even where death rates are low, PPH is a leading contributor to maternal mortality (CMACE, 2011) and there is evidence to suggest that the incidence and severity of PPH is rising in well resourced countries (Knight et al., 2009). While it is important that effective treatments are developed, trials in this setting face three major contextual challenges; the clinical management of PPH, the personal impact of PPH and its treatment, and the research governance framework in which trials must operate.

The clinical management of PPH is undoubtedly a complex setting for research. Massive uncontrolled bleeding gives rise to dramatic, fast-moving clinical situations which require teamwork, clear decision-making and rapid intervention. The interventions which are available can, however, be ineffective and for some women immediate hysterectomy is performed to try to stop the bleeding at source. Decisions about care might have great personal ramifications but be made with limited scope for consultation with patients or family. Research introduces new procedures into this highly charged situation and makes additional demands of clinicians. If these are onerous or divert attention from patients, clinicians' ability and willingness to accommodate research may be limited.

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The impact of PPH on those involved is an important consideration for research. Any obstetric emergency is difficult (Beck, 2004; Mapp and Hudson, 2005; Ayers, 2007), but massive PPH with a new mother losing blood as fast as it is transfused is traumatic and frightening (Elmir et al., 2011; Snowdon et al., this issue). Most women would be incapacitated either by life-threatening blood loss or its treatment around the time of fulfilling trial entry criteria. The confluence of PPH and the major life events of birth and new parenthood complicate the situation, and where babies are preterm this will add to familial stress. These factors will shape responses to research for women, their partners and their clinicians, but the evidence base to guide the conduct of effective and ethical emergency trials in this combination of circumstances is thin.

Research governance systems introduce additional challenges for trials in extreme obstetric emergencies. In 2004, the EU Clinical Trials Directive (European Parliament and Council Directive, 2001/20/EC), ruled that incapacitated patients could only be enrolled into trials of medicinal products with the prior consent of a relative or legal representative. This stipulation was widely viewed as curtailing emergency research across Europe to the detriment of medical progress and patient care (Singer and Müllner, 2002; Druml, 2004; Liddel et al., 2006). In response to such concerns this decision was repealed in 2006 to permit the enrolment of incapacitated patients to medicinal trials without their prior consent (Medicines for Human Use (Clinical Trials) Amendment (No. 2) Regulations, 2006); a move 'anxiously awaited by emergency care physicians' (Shakur et al., 2007). While the amendment reopened and endorsed the means to once again carry out emergency research, it also urged that wherever possible consent should be sought from relatives. This introduced a different set of considerations into a fast moving emergency. Concern has been expressed by clinicians and trialists that the time taken to contact and secure proxy decisions in trials with narrow treatment windows can have a detrimental impact on both patients in need of urgent intervention and on the quality of trial results (CRASH, 2004; Kompanje, 2007).

In 2010 guidelines for the management of research in labour were published by the Royal College of Obstetricians and Gynaecologists with midwifery input (RCOG, 2010), but incapacity was explicitly excluded from the terms of reference. Clinicians engaged in trials assessing interventions for severe PPH therefore have jurisdiction to enrol incapacitated women into research without their prior consent, and an exhortation to approach partners for proxy consent, but no guidance from their professional body to fit the specific setting of incapacity in obstetric emergencies. This mismatch is compounded by the fact that the research literature currently offers little insight into this situation. Studies describing views of the general public about emergency research without prior consent have not as yet yielded a coherent body of opinion, and authors of a review of these studies concluded that they provided insufficient evidence of whether or not there is public support for such research (Lecouturier et al., 2008). Much of the research considering patients' views of the management of trial enrolment without prior consent has been carried out with populations which are demographically different from labouring women, and while studies of participants' views of emergency trials offer insights into research in stressful, life-threatening circumstances, they are tangential to labour and the particular circumstances of obstetric emergencies.

Research with patients mainly focuses on those who have received intensive care, and suggests that in this population there is majority support for research without prior consent but also some concerns. Scales et al. (2009) carried out 240 structured interviews with critical care survivors, the majority of whom (76%) expressed support for proxy decisions; 15–24% of participants viewed research without their own prior consent as unacceptable. Two studies considered intensive care patients' preferences for the use of proxies in research-related decisions (Blixen and Agich, 2003; Chenaud et al., 2009); 11 of 12 stroke patients (92%) who were interviewed for a qualitative study felt that a doctor should enrol them into a study should a relative not be available (Blixen and Agich, 2003); 41 intensive care patients and their relatives indicated in paired questionnaires that most felt that a relative should decide about trial entry if the patient were unconscious (72% patients and 62% relatives) and half felt that the decision to enrol should be made by two people (relative plus family doctor, intensivist, ethics committee, or the patient themselves at a later date) (Chenaud et al., 2009). To understand the views of those eligible to give proxy consent, Perner et al. (2010) asked relatives of intensive care patients to complete a questionnaire while their relative was still unconscious; 71% of 41 relatives felt that they should have responsibility for the decision about enrolment for drug trials involving their unconscious relative, but 20% felt that research in this situation would be unacceptable. Stephenson et al. (2007) found that only 26% of 185 relatives of emergency room patients indicated in a questionnaire that they would support proxy decision-making on their behalf, and 25% would not wish to be enrolled in research if they were incapacitated. While Chenaud and colleagues cited above argue that their findings suggest that proxy consent by a relative is acceptable to intensive care patients, Coppolino and Ackerson (2001) found after structured interviews with 100 patients and 100 nominated surrogates that 20% of surrogates agreed to enrol their relative into research which the relatives indicated that they would have declined.

Studies involving those with actual experience of participation in emergency trials bring us closer to the position of women who might take part in PPH trials. Participants in stroke trials (Mangset et al., 2008, $n=11$) and myocardial infarction trials (Agård et al., 2001, $n=31$; Gammelgaard et al., 2004a, $n=32$) have described in qualitative research interviews the difficult experience of decision-making on the edge of capacity when fearful, and in pain. Participants in these studies report confusion and difficulties in engaging with details of research. In each of the studies with myocardial infarction patients there was some support for doctors enroling incapacitated patients into research, but, despite the inherent difficulties for patients in this critical situation, most of the trial participants in one study rejected this approach, indicating that they valued their decision-making role (Gammelgaard et al., 2004b). Proxies were interviewed about decision-making for research in critical situations in a qualitative study involving 78 parents of critically ill newborns (Snowdon et al., 2006). Here 70% indicated that they had decided about participation quickly if not instantly in response to the tight timescales of the research and their sense of a need to act. The decision on behalf of their sick child was seen as an important act of parental responsibility, and these and other parental proxies (Burgess et al., 2003) have indicated that they would not wish to relinquish this responsibility.

Although these studies consider pertinent issues for trials involving compromised or incapacitated patients, research with labouring and newly postpartum women raises additional and very particular challenges which are not addressed in the available literature. There remains a need to consider responses to research without prior consent in the context of extreme obstetric emergencies, especially in preparation for PPH trials which since 2006 may be conducted without prior consent. A qualitative study was therefore conducted to explore views of recruitment to extreme obstetric emergency trials among women and their partners who had experienced severe PPH.

Methods

Sampling and recruitment

One obstetrician at each of two UK hospitals identified from medical records women who had survived severe PPH between

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2000 and 2005. While blood loss >1000 ml is often used to define PPH, this would not necessarily delineate those whose PPH was so severe. The obstetricians were therefore asked to identify women for whom the severity of PPH was indicated by the interventions they had received (uterine tamponade, embolisation, laparotomy after vaginal delivery, suture, vessel ligation, or hysterectomy), the same interventions being the entry criteria for the proposed trial which this study was designed to support. The study was developed as a modest first step into this area of research and so the target sample size was small at 10 interviews. Fifteen cases were identified. The obstetricians wrote to all 15 women to invite them and their partners to join the study. No reminders were sent. Participants opted in by responding directly to the research team. Nine women and six partners agreed.

Interviews

With interviewees' written consent, interviewers CS and MF (both non-clinicians) conducted semi-structured interviews between September 2006 and January 2007. The interviews took around 90–120 mins, and were recorded, fully transcribed and transcripts pseudonymised.

The interviews involved two related but distinct stages. The first took an interpretive phenomenological approach (Lopez and Willis, 2004) and explored experiences of severe PPH and its aftermath (Snowdon et al., this issue). These experiential data provided a methodological foundation for the second stage of the interview.

Once discussion of PPH was complete, two sets of information cards, ten cards in all, were used to support and generate discussion of different approaches to recruitment for a hypothetical PPH trial. The information cards were initially developed within the research team, and then in consultation with the study advisors. The first set of four cards was used to introduce information about trials and how they are conducted in a stepwise and carefully paced fashion. The cards explained: randomised controlled trials and placebo (Web box 1), the hypothetical trial (Box 1) and decision-making. The description of the hypothetical trial was based on the trial which was in development but which was not subsequently funded. The interviewees each had their own set of cards to read through and refer back to during the interview. At appropriate points the interviewer read aloud from her own card slowly and verbatim, while interviewees listened or read from their cards. After each description the interviewer answered queries and explored interviewees' views of what they had heard and read, to bring interviewees to a point of being comfortable with their understanding of trials and the hypothetical PPH trial. The second set of cards was then introduced, detailing five decision-making options for the trial (Box 2): These were as follows:

A. Ask woman earlier in the pregnancy.
B. Ask woman a few hours before a baby is born.
C. Ask partner at the time of the emergency.
D. Doctor decides at the time of the emergency.
E. Professional person decides at the time of the emergency.

Each option was discussed before moving on to the next, but frequently interviewees revisited earlier options to restate, refine or revise their positions. Finally a summary card reminded interviewees of the five options and they were asked to recommend a recruitment method for the trial.

The interviews involved extensive and careful discussion of complex issues. The focus on personal experiences before discussing trial-related questions promoted deep engagement with the subject. Couples often explored each other's views. This approach does not produce straightforward accounts; it generates dynamic, discursive data which grow in complexity as interviews proceed, and as interviewees consider issues from different perspectives. With motivated and interested participants it produces informative data based on thoughtful reflection. We term this 'supported discussion'.

Analysis

The members of the research team brought different skills to the analytical process. Two members of the team, CS and DE, were primarily responsible for analysis. CS is a qualitative researcher specialising in participants' views of perinatal trials; DE is a senior trialist familiar with qualitative research in this field. During the final stages of the analysis CS and DE drew on the clinical and trials experience of ZA, and MF's experience of qualitative research and her role in the interviews, to finalise the findings.

Fully transcribed interviews were read by CS and DE, and entered into a textual analysis computer package, ATLAS.ti (Muhr, 1997). A coding frame was developed from analysis of the first interview and continuously modified as interviews were processed. The refined codes and commentaries on the text were used to organise the data thematically and promote detailed reflection on the significance of particular data strands. Although the larger study followed principles of interpretive phenomenology (Lopez and Willis, 2004) and data collection was semi-structured and highly flexible with cyclical and iterative analysis, the presentation below necessarily follows the card-based structure used in the second part of the interview.

Findings

Table 1 shows interviewee pseudonyms and self-reported clinical details. All women underwent a caesarean section, of which seven were emergency procedures.

Participants' experiences of PPH

Interviewees' descriptions of PPH conveyed very difficult experiences. They described 'a scramble', 'frantic' scenes involving lots of people, women bleeding, and replacement blood being hurried in. Problems with communication about clinical events and care at the time of the PPH and subsequently, contributed to a sense of disempowerment and information deprivation for interviewees. These data are reported in a companion paper (Snowdon et al., this issue). One case is summarised in Web Box 2.

Participants' views of research in the context of PPH

Cards A–E did not include the option of women deciding about trial participation during the emergency as the aim of the study was to explore views of situations in which it would not be possible for women to make a decision. This would be because they were undergoing urgent clinical interventions, slipping into unconsciousness, or already unconscious (naturally or anaesthetised). This situation was explored prior to using the cards and all interviewees felt it would be inappropriate to ask women to consider research in this situation, either because decision quality would be compromised, or because it was considered unkind to ask women to make this choice.

Options for recruitment

Two recruitment options were rejected by all interviewees.

Asking a woman just before delivery (before induction, planned caesarean section, or on arrival at hospital in labour),

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Table 1
Clinical characteristics of women interviewed.

	Pregnancy and delivery			PPH management			Baby
Woman (partner)	Primiparous or multiparous	Planned CS	Emergency CS	Onset	Further surgery	Post-op. care	Condition and care
Annie (Paul)	Primipara, twins, term	✓		At delivery		Ward	Hypoglycaemic SCBU
Kirsty (Stephen)	Multipara, singleton, term		✓	At delivery	Iliac ligation	ICU	Normal
Sally (Frank)	Primipara, twins, term		✓*	At delivery		Ward	Normal
Ellen (Nigel)	Multipara, singleton, preterm		✓†	Antenatal/post-op		Ward	Preterm—26 weeks NICU
Amy (David)	Multipara, singleton, term		✓‡	Antenatal	Splenectomy	ICU	Seizures NICU
Kitty (Jerry)	Primipara, singleton, term		✓	At delivery		HDU	Normal
Pamela	Multipara, singleton, term		✓	At delivery		HDU	Precautionary SCBU
Noreen	Multipara, singleton, preterm		✓†	Antenatal		HDU	Preterm—29 weeks NICU
Stacey	Multipara, singleton, term	✓		At delivery	Hysterectomy	HDU	Normal

† Placental abruption.
‡ Haemorrhage not in labour but resulted in ECS.
* Twin 1 born vaginally.

was rejected as it was considered too frightening and would be unlikely to result in an informed decision.

Asking someone uninvolved in a woman's care to act as a professional legal representative was also rejected. This option engaged interviewees least; it appeared to be an alien concept and was rejected largely because it did not fit with expectations of personalised care. Interviewees felt that legal representatives would know nothing about a woman or her wishes and so would not be equipped to make a choice on her behalf.

The options which generated most discussion were; the partner decides during the emergency; a doctor decides during the emergency, and the woman decides during pregnancy.

The partner decides

Two women initially expressed support for partners deciding during the emergency. They felt partners know the woman, can be trusted to act in her best interests, are involved in the situation and have a personal investment in the outcome. Their views gradually changed during discussion.

Stacey was sensitive to the idea of decisions being made without her or her partner's input. She had requested tubal ligation during a planned fourth caesarean section under general anaesthetic but woke to learn that a hysterectomy had been performed after a PPH. She was 'devastated,' and felt concern at the lack of consultation with her partner Paul (not interviewed). At first she supported partners being asked about trial participation:

> Paul would have probably have said yeah. So I think … it's good if you ask the partner, like speak to them about it, make sure they know what's going on.

Working through the implications, however, she came to view it as potentially burdensome. Stacey had struggled with the hysterectomy carried out to stem her PPH and was prescribed anti-depressants. She had previously discussed with Paul whether he would have wanted to be involved in the decision to go ahead. He had asked her to imagine how hard it would have been for them had he approved the hysterectomy, given how upset she had been afterwards. Reflecting on this, Stacy decided that decision-making for a trial could be equally problematic and shifted to support women making antenatal decisions.

Another interviewee, Ellen, underwent emergency caesarean section after a placental abruption at 26 weeks pregnant. She also preferred partner decision-making. Her partner Nigel was uncomfortable, both with Ellen's comments and the trial situation (viewing research in life and death situations as 'dodgy'). He acknowledged Ellen could not have made a decision and that she wanted to feel she could rely on him, but he would not have wanted the responsibility. He described himself as 'a bystander' and the idea of being brought to the fore in a decision-making capacity was challenging. As discussion proceeded, Nigel emphasised his position. Having heard his views Ellen was still 'slightly' drawn to this approach but reluctantly accepted his disinclination for the protective advocacy role that she wanted him to take, and ruled it out as a recruitment option.

Other interviewees argued very clearly that it was inappropriate for partners to decide. Four inter-related concerns were identified:

- stress of decision-making,
- responsibility to make the right decision,
- burden of a poor outcome
- inappropriateness of the role.

Nigel and Jerry felt that the stress and burden would be too great. Nigel felt that consulting him would delay treatment. He imagined his response—'Stop stalling, just get on and treat! Don't tell me about a trial, just treat!' He saw it as 'a terrible position to put the partner in':

> If his partner's in there bleeding seriously he's potentially very distressed. … I wouldn't want to be asked at that time if I'm honest.

Jerry, who was asked to leave the operating theatre when Kitty bled after a seemingly successful caesarean, described feeling 'really panicky;' 'everyone was kind of rushing about.' Hours passed and with Kitty still in surgery, he thought she may die. Discussion of a trial seemed ludicrous:

> I'd have told [them] where to go if someone came up to me at that time and started talking about trials… I mean I don't think there's any such thing as a nice orderly crisis emergency situation where [you] can think straight.

Some interviewees focused on responsibility for a poor outcome and how difficult that would be within a couple. David explained that he would not want anyone to make a decision for him if he was incapacitated and did not want responsibility for anyone else. He said 'if something went wrong, you wouldn't be able to live with yourself.' Similarly Frank would have rejected a trial because of 'the guilt you would feel if anything went wrong':

> I would not take any risks with Sally at all, not with something that hadn't been tested. … Personally I would say no. I wouldn't even want to be asked to be honest but if I was asked I would say no. If it was for me it would be different but … you don't take any risks for somebody else.

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Discussions did not only focus on risk and burden. Nigel's partner Ellen saw partners as proxies for the women and that they should try to get close to 'what the woman probably would have wanted.' This is difficult if men have to guess at their partner's views or hold different views themselves. Nigel imagined the pressure and difficulty of the situation:

> I'm stood there thinking 'well what would she want? I don't know. What do I want? I don't know!' It's just even more of a quandary.

While he said he would turn down a trial, Ellen said that she would have given her consent. Frank and Sally expressed the same positions.

For some the issue was rights-based. Kitty argued that women have a right to make a decision, and partners do not:

> Although I love my partner dearly and I trust him, I wouldn't like him to be making decisions like that about my health. … It's something that I need to be given the option about and even though I know Jerry would look after my best interests it's still something that I would prefer to choose.

Noreen expressed indignation and saw asking partners to agree to enrolment as an underhand way of recruiting to trials:

> It would probably feel like they'd done it behind your back. … I know the pregnancy is a part of them [but] because it's your body it's your pregnancy, you want to take control … I wouldn't want that to happen, I would feel angry. I would feel betrayed because it would be my decision to make and not anybody else's.

The doctor decides

When interviewees discussed the benefits of doctors making the decision about trial entry, it was clear that there was difficulty in distinguishing research-related and therapeutic decisions. This is not surprising. Decisions would be framed by patients' expectations of care and carried out in the midst of a clinical crisis. Stephen saw doctors deciding as the route to the most reliable clinical decision, not as a way to manage research:

> I don't think it's the best time in an emergency to ask people to make those sorts of decisions. If it's a clinical decision I do believe that the professionals are the best people to make those decisions in those circumstances.

Although Amy preferred antenatal decision-making (see below), if the issue arose in an emergency, she similarly felt the doctor should make the choice. She argued that if a woman declined a trial during pregnancy but then in an emergency a doctor felt that it would be the best therapeutic option, there should be the 'facility of override'.

> [A] doctor is more qualified to say when you're in that emergency situation what you need rather than your partner or your mum or your dad.

Few people discussed the advantages of speed if doctors make the decision. Only Annie suggested that it would make managing the situation more 'streamlined' but this was not sufficient an advantage to override her preference for antenatal decisions.

Objections to doctors making decisions related to an affront to rights or to the impact of learning of enrolment later. Jerry was 'taken aback' even to be asked in the interview about the possibility of anyone other than women or their partners making a decision. He asked whether any research has been carried out without the prior consent of those involved:

> Are you saying [that] some people … are not even made aware at the outset at all [and] some people aren't bothered about that? Is that what you're saying?

Kirsty also expressed concern about decisions being made by a doctor but for different reasons, imagining a worst case scenario:

> If they had a massive blood clot which flew to their brain and killed them – explaining that to the family – 'Actually we'd entered your wife into this trial and, and that's why this clot happened.' [It] would be outrageous!

Stacey was disconcerted by the idea that someone with no personal investment in her situation could make a potentially life-altering decision on her behalf. She felt it would be determined by research needs without reference to her life and world. Although she had empathised with the position of partners burdened by a difficult role, she revisited her initial preference for a known advocate:

> I'd rather somebody … who knew me well and knew what sort of thing I would want to happen … make the decision rather than some random person making choices about what would happen for the rest of my life.

Woman decides in pregnancy

Interviewees expressed some strong views that women should have opportunities to decide about PPH-related research during pregnancy. After discussing this position they were asked about the possible impact of information about severe PPH on pregnant women. Amy argued that the need to know about research in advance takes priority over discomfort:

> Pregnancy and childbirth is frightening anyway, and if you're putting yourself in that position where you're gonna get pregnant and have a child, then you should know all the risks. … I think with something like this, you need to know.

Several women felt that antenatal information on PPH should be available as they were completely unprepared when it happened. As they were already convinced of the benefits of preparatory information, they did not see antenatal introduction of PPH as part of a discussion of research as problematic. Annie said:

> I think you should be aware of the problems that could occur for any pregnancy because I think a lot of people who have had negative experiences of pregnancy, childbirth … expected it all to go swimmingly and you know it's not a bed of roses is it?

Stacey and Sally felt that a trial would not have seemed like a big issue antenatally and thought they would have readily agreed to participate:

> [P]eople have to do research. … How else are people gonna find things out unless people take part and I probably would have done. … I don't think I would have really given it much thought. I would have just thought 'oh yeah' (Sally)

Sally and Kitty saw antenatal decision-making as appropriate given the difficulties of engaging with research during a PPH. Kitty felt that the risk of superficial decision-making during an emergency was too high:

> I personally wouldn't like to take part in any research at all unless I'd sat down beforehand when I was clear-minded and could take away the information and give it some thought [and] sign knowing what the complications of doing so may be and knowing I'm going into it fully clear about what I'm doing.

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Some felt there is the potential to make good quality decisions during pregnancy. Ellen had participated in an IVF drug trial which she and Nigel investigated on the internet before enroling. She would have wanted to make a similarly thought-out, shared decision for a PPH trial. Nigel felt that both members of a couple should decide and sign a consent form antenatally. Amy similarly would want to make a careful choice with her family who she saw as having a stake in the situation:

> It is your decision at the end of the day, but put yourself in their shoes … if you were unconscious or whatever, how would they feel? So it needs to get taken home and discussed amongst you … [It] needs to be abided by, whether [you have] decided yes or no. … It's like being a donor. He might not agree with it, I might. … you need to discuss it.

Some women argued that antenatal discussions would offer opportunities for midwives and women to engage with each other. Stacey saw it as potentially part of an ongoing relationship with the subject raised early in pregnancy:

> I'd do that and then I'd speak to them again at like regular intervals or even just send a leaflet out in the post reminding them, or even [put it in] the folder that you … take to your midwife every week … The amount of times I read that! A woman reads that when she's pregnant, even though she's read it she just sits there and reads it over and over so I think that would be a good way.

Kitty felt that a discussion might be best in the later weeks when delivery is salient:

> You could use it as quite a positive thing with a midwife sort of sitting with you … Give the information, take it away, go back and you're only looking at maybe four weeks till your due date. At that point you've got a good chance to take it in. You're still clear minded about things and you can still rationally think things through … [A]t the time you're thinking about the birth [and] what may happen … It could be quite reassuring as well that someone goes through with you 'well if this was to happen these are the consequences.'

Once interviewees had expressed their initial views on antenatal decision-making, there was further discussion of the logistical difficulties that this would involve. Interviewees were told that to recruit 100 women, an estimated 100,000 women would have to be approached antenatally. If half decline, 200,000 women would have to be approached. The aim was not to dissuade but to further discussion and ensure the views expressed included consideration of logistical considerations.

As the arguments for antenatal consent were rights-based, predicated on the view that women need information about PPH, the figures did not affect their opinions. Sally reiterated her position that women need antenatal information so they can 'go away and think about it and give you some kind of informed consent.' She understood the consequence for trials, but saw decision-making rights as more important, commenting 'that may well mean the trial has to be over a bigger area or over a longer period of time for you to get your numbers.' Ellen added 'If it's the right way to go, it's the right way to go.'

Preferred enrolment options

After all five options were discussed, interviewees were asked for their recommendation for recruitment (Table 2). Some made clear choices initially, but engaged in further discussion to reach a decision. As some interviewees experienced difficulty choosing between options, a second choice was noted to reflect their ambiguity. Most preferred women to decide about enrolment antenatally, but when first and second options are combined there was also support for doctors making the choice.

Discussion

Extreme emergency trial teams have legislative endorsement to enrol incapacitated patients without their prior consent. In some trials, some eligible patients may be judged to have capacity to make decisions themselves and in certain cases the clinical situation may permit time for discussion with relatives; current UK guidelines suggest that in such circumstances, if 'reasonably practicable,' patients or their relatives should have responsibility for decisions about participation (Medicines for Human Use Regulations, 2006). Interviewees in this study expressed some discomfort with enrolment of women into a PPH trial without their prior consent. They also viewed contemporaneous consent from women and partners as unrealistic and inappropriate, which may have been compounded by the fact that all the women in this study underwent caesarean section, including seven as emergency procedures. While there was support for the doctor responsible for care deciding whether to enter a patient into a trial, this was often a compromise should the preferred approach of antenatal decision-making not be possible. This suggests that each of the potential options that may be used to enrol women into an emergency trial requires further reflection to address the concerns that have been identified here.

Interviewees carefully considered the issue of partner decision-making. Although trialists have registered concerns about

Table 2
Enrolment options.

	Recommended option			**Second option**		
	Women	Men	Total	Women	Men	Total
A. Woman decides antenatally	Kitty+ Annie∗ Sally@ Amy## Noreen Stacey	Jerry+ Paul∗ Frank@ David## Nigel#	11	–	Stephen~	1
B. Woman decides before delivery	–	–	–	–	–	–
C. Partner decides in the emergency	–	–	–	Pamela	–	1
D. Doctor decides in the emergency	Kirsty~ Ellen# Pamela	Stephen~	4	Amy## Noreen	David## Paul∗ Nigel#	5
E. Legal representative decides in the emergency	–	–	–	–	–	–

Symbols (+, ∗, @, ##, #, and ~) link members of a couple.

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the impact, on patients and research, of delays in seeking contemporaneous consent from relatives, this was not the main focus for the interviewees. Much of their discomfort related to research being imposed on top of already difficult circumstances. The extra strain of making a sudden and unprepared shift from witness to centre-stage seemed intolerable. The men argued that they would not have wanted the responsibility for decision-making at that time, or the ongoing responsibility for a 'wrong' decision or a poor outcome. This response may in part relate to the hypothetical nature of the questions: the men had already felt that they were at their limits and it was difficult to envisage even more demanding circumstances. In our earlier research we interviewed parents of critically ill babies who did make a decision about a trial in extraordinarily difficult real life situations. If viewed hypothetically these decisions, which were made very quickly with a new baby at the edge of life, may be seen as almost impossible to make, but the parents involved looked back on their choice to accept or decline a trial as an important act of parental responsibility (Snowdon et al., 2006, 2007). How partners faced with a real decision for a real trial would react, whether they would be overwhelmed or unreceptive as they predicted here, or would engage with information and feel able to make decisions, is not clear.

What is clear is that there was great concern over the possibility that partners in a PPH crisis may be alone and unsupported, bearing responsibility for both decision and outcome. Some of the men had been left not knowing whether their partner was still bleeding, whether progress was being made that surgery was underway or that surgery was over (Snowdon et al., this issue). This is untenable if partners are to be involved in rapid but meaningful decisions. The first issue for a trial recruitment strategy that may involve partners is therefore to address this baseline information deficit and to introduce strategies to avoid isolation and lack of support, emotive factors which are likely to undermine the quality of decisions and may shape reactions to research.

One potentially useful approach, discussed in the companion paper (Snowdon et al., this issue), is to follow the lead of practitioners in emergency care where it is becoming increasingly acceptable for relatives to remain present during a clinical crisis (Halm, 2005; Hodge and Marshall, 2009). Through formal programmes of family facilitation, relatives are guided and supported by a designated member of staff during this time. Where partners are allowed to be part of events and helped to understand what is happening, whether as a witness at the back of the room or through regular feedback, they may be better able to make initial decisions about trial participation, and to engage with any subsequent information about a trial.

If decisions about prior consent are sought from partners in time-pressured and highly charged situations it is important to consider the processes that would be involved. Interviewees commonly expressed concern at the likely difficulties involved in taking on board information about a trial. An option which has been explored in a number of settings is 'continuous ' (Allmark et al., 2003; Vallely et al., 2010) or 'on-going' consent (Smith et al., 2011). Information about a trial is given on several occasions with the expectation that initial decisions will focus on the main facts about a trial but that over successive discussions the finer details are taken on board. Given the concerns expressed in this sample it would seem to be important that those making decisions are given opportunities to revisit information about a trial and to ask new questions as they arise.

Where partners or the doctors involved in care make decisions about trial participation, consideration should be given to the process of revealing to previously incapacitated women that they were entered into a trial, and what role their partner did or did not play in the decision. This is potentially a highly sensitive situation. Partners who have made decisions may need to be supported by staff who can explain to the women the demands of the trial and the need for proxy decisions. Where outcomes are poor or unexpected, hysterectomy for instance, extra support and attention may be warranted for both women and their partners.

The role of the women in decision-making for a trial was the subject of much discussion. Although the women said they would have been incapable of decision-making during the crisis, they disapproved of excluding women from recruitment processes altogether. Instead they stated a strong and steadfast preference for making their own choice antenatally. Their vision for research emphasised self-determination through active involvement and they clearly articulated their conviction that decisions should be informed and considered. The women regretted their lack of preparation for the PPH and saw the solution as more, not less, information. Antenatal information about PPH was therefore seen not as challenging or difficult but as a necessary and appropriate prerequisite to research.

The RCOG (2010) guidelines for research in labour make several recommendations about antenatal information. For conditions with a suspected risk of occurrence of 10–1%, they suggest pregnant women should be provided with research summaries and invited to request detailed explanations if they are wanted. This approach was used for the RELEASE Trial, an intrapartum trial of umbilical oxytocin injection for the treatment of retained placenta (Vernon et al., 2006). For less common conditions the guidelines suggest only giving information to women when the issue arises to avoid 'unnecessary physical and psychological stress' (RCOG, 2010).

This approach of giving no antenatal information and raising the trial only at the time of the crisis is recommended for trials involving rare conditions for patients with capacity, labouring women who would have some opportunity, albeit in difficult circumstances, to discuss trial entry and make decisions for themselves. It leaves something of a black hole for trials where the condition of interest has sufficiently low incidence to problematise antenatal information, but where opportunities for contemporaneous discussion are extremely limited and possibly non-existent. The women in this study felt, albeit from a post-PPH perspective, that they would have been interested in research and would have taken antenatal decision-making seriously. They argued for an opt-in system with one-to-one discussion to support informed decisions about participation.

This is a challenging proposition for research teams, and it is not clear whether a low-risk pregnant population would share these priorities, and would similarly wish to consider a rare obstetric emergency in sufficient detail to make an informed choice about research participation. Antenatal decision-making would be resource-intensive, and raise logistical and ethical challenges for large-scale emergency trials such as the large international WOMAN trial (Shakur et al., 2010). Nevertheless antenatal decision-making should not be dismissed without further research and consultation to determine whether pregnant women want and benefit from antenatal information about emergency trials. If they do it is important to know how best to deliver information: whether to individuals, to specially convened groups, or through publicity? There are issues of timing to consider, as well as the potential for negative reactions and associated support needs. It is also important to study the views of women who are entered into trials without their prior consent, to determine whether or not they share the concerns of the women interviewed here. Partners' experiences of being included or excluded from decision-making should also be explored.

This study is limited by small numbers and the fact that the women and their partners who took part had no prior experience of a trial in an obstetric emergency: they were reliant on the

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explanations given during the interviews in order to understand the aims, methods and conduct of randomised trials. Further research is clearly needed with larger samples of women, partners and clinicians who are able to reflect on real trials and their conduct. The interviewees did however engage with the research topic and the information given, and readily empathised with the position of those who would be potential participants in future trials. Despite the limitations, the views that they express are important and useful. They suggest that research in extreme obstetric emergencies sits at an uncomfortable intersection of potentially competing needs, those of the larger population of pregnant women who have little likelihood of meeting trial entry criteria, and the much smaller and traumatised PPH population who become eligible at a time of clinical and personal crisis. Trial teams need to consider the impact of recruitment strategies on these different groups: they will wish to do disservice to none, but may find it impossible to provide for all views and preferences. The absence of dedicated guidelines which provide for the complex situations of emergency obstetric trials, the limited experience from previous trials of this type, and the paucity of research evidence in this specific area, mean that at present there is little to guide future research.

Recruitment without prior consent offers a way forward for trials in extreme obstetric emergencies but given the views expressed here it may require considerable sensitivity and support to ensure that the practices involved engage and empower rather than undermine those concerned.

Conclusions

While recruiting women to trials in obstetric emergencies without their prior consent is now legally permissible, it raises important procedural and ethical issues. This study highlights the possibility that extreme emergency research without prior consent may involve patients or relatives who believe this approach to recruitment is inappropriate. A policy of antenatal decision-making may address this concern, but it may raise others in its place. Emergency researchers are aware that if time-critical interventions cannot be delivered with sufficient speed to determine clinical effectiveness then future patients cannot benefit from the results of trials. They are also under no illusions that there are easy solutions to the issue of recruitment and consent. Research is therefore needed to develop and assess tailored recruitment and information strategies. By understanding more of the difficulties involved in extreme emergency trials in different settings, the chances of carrying out research in ways which are sensitive to these difficulties will be greatly increased.

Disclosure of interests

The authors declare no conflict of interests.

Contribution to authorship

CS, DE, and ZA designed the study. Data were collected by CS and MF. DE and ZA were consulted throughout data collection for direction and clarification. CS conducted the qualitative analysis in consultation with DE and prepared the first draft of the paper. DE and ZA reviewed the first draft and further developed interpretation of the findings and extended the discussion. All authors approved the final version of the paper.

Ethics

This study was approved by the Cambridge Multicentre Research Ethics Committee (Ref. 06/Q0108/40 30-03-2006), Liverpool Research Ethics Committee (Ref. AB/66240/1, 16-05-2006) and the Research and Development offices for the two clinical centres involved.

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Appendix A. Supplementary information

Supplementary data associated with this article can be found in the online version at doi:10.1016/j.midw.2011.11.009.

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