Empowering the patient? Medication communication during hospital discharge: a qualitative study at an internal medicines ward in Norway

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ABSTRACT

Objective Effective communication and patient empowerment before hospital discharge are important steps to ensure medication safety. Patients discharged from hospitals are often expected to assume self-management, frequently without healthcare personnel (HCP) having ensured patients’ knowledge, motivation and/or skills. In this substudy of a larger study, we explore how patients experience medication communication during encounters with HCPs and how they are empowered at hospital discharge.

Design This is a qualitative case study. Data collection was done through qualitative observations of patient–HCP encounters, semi-structured interviews with patients and drug reconciliation. Data were analysed using content analysis.

Setting An internal medicines ward at a university hospital in Norway.

Participants Nine patients aged 49–90 years were included close to the day of discharge.

Results The analysis revealed the following themes: (1) patient-centred care (PCC), which included ‘understanding and involvement in the patient-as-person’, ‘establishment of a therapeutic alliance’, and ‘sharing power and responsibility’; and (2) biomedical (conventional) care, including the subthemes ‘HCPs in power and control’ and ‘optimising medical outcomes, following guidelines’. Even though the elements of PCC were observed in several encounters, overall communication was not sufficiently fostering patient empowerment. Spending time with patients and building relations based on mutual trust seemed undervalued.

Conclusions The results provide a broader understanding of how patients experience medication communication at hospital discharge. Both the patients and the HCPs appear to be inculcated with biomedical traditions and are uncertain about the roles and opportunities associated with PCC. Attention should be paid to patient preferences and to the core elements of the PCC model from admission to discharge to empower patients in medication self-management.

INTRODUCTION

Effective communication and patient empowerment before hospital discharge are important steps to ensure medication safety.1–4 Patients discharged from hospitals are often expected to assume self-management, frequently without healthcare personnel (HCP) having ensured patients’ knowledge, motivation and/or skills.5–10

Over the last decades, healthcare systems have shifted focus from the conventional (biomedical) way of practising medicine to an ambition to become involved in the full range of difficulties that patients experience (biopsychosocial model and patient-centred care, PCC), thus covering a larger picture than purely the biological factors.7,8 In this shift, patients are expected to move from the traditional, passive role, towards being more involved and participating in planning and decision-making regarding their health and treatment.7

In this study, we defined medication communication in accordance with Ozavci et al.,5 that is, verbal and non-verbal exchange and understanding of information about the
treatment, focusing on medications, between patients, patients’ next of kin and any HCP attending to the patient.

Patient empowerment has been described as the purpose in the PCC framework. Patient empowerment is the philosophy of an HCP seeing the patient as an equal, acknowledging them as experts of their own lives. However, progress towards improving post-discharge health outcomes has been slow and the efficacy of interventions is currently indefinite. Patient empowerment and collaboration between patients and HCPs have been implemented in many countries, including Norway.

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To address the need for improving post-discharge health outcomes, this study explores how the PCC framework supports patient empowerment at hospital discharge.

**METHODOLOGY**

**Patient and public involvement**

A representative from the User’s Board of the Hospital Pharmacies Enterprise provided input to the study protocol (see online supplemental additional file 1) and ensured that the information sheet to be handed out and explained to the patients provided a good summary of what the patients needed to know before signing the consent form. The user representative has more than 5 years of experience from the User’s Board and has a master’s degree in welfare management.

**Norwegian hospital context**

Patients admitted to hospitals in Norway receive all their medications from the hospital during their stay, but medications are not dispensed at discharge. Home-dwelling patients who are responsible for handling their medications will normally have to go to a pharmacy of their own choice and at their initiative to collect their prescribed medications after discharge.

**Approach**

This study uses a qualitative research design, consisting mostly of unstructured observations, in addition to semi-structured interviews and medication reconciliations. During the observations, the observer was present and identifiable, but without any role in the social setting. The criteria for reporting qualitative research (see online supplemental additional file 2) were followed to guide this research.

**Setting and sampling strategy**

The study setting was at an internal medicine ward in a university hospital in Norway. Patients were interviewed after discharge. The interviews took place at the patient’s home, at a short-term nursing home department, a café or by telephone 1–2 weeks after discharge.

Inclusion of patients took place from September to December 2019, from Monday to Sunday, during regular daytime working hours, close to the day of their planned discharge. Thereafter patients were followed during HCP encounters through to hospital discharge. Of the 16 patients approached, one declined participation.

The sampling method was purposive. Patients of various ages, ethnicities, estimated length of stay and diagnoses were approached. Patients eligible for inclusion should be ≥18 years, home-dwelling, responsible for their medication administration prior to hospital admission and expected to be discharged to their homes or to a short-term nursing home department. Preterminal or cognitively impaired patients were not eligible. Eligibility of a patient was assessed based on information from the patient’s record and was discussed within the research team. Advice was sought from HCPs on the ward when needed before the patient was approached.

**Data collection**

Patients and HCPs were approached at the hospital by one of the observers (KRB, HBL, and SER; all female), and written informed consent was obtained prior to enrolment. Patients were approached at their rooms, provided with both verbal and written information about the study, and offered time to read the information, before deciding on whether they would consent to participate. The observers disclosed their HCP background to the patients, that is, two pharmacy students and one pharmacist. However, during the observations they dressed to appear more like ‘the girl from university’ than HCPs dressed in white.

Relevant information from the observations was documented in a form, developed and piloted, comprising three patients (see online supplemental additional file 3). The observations were mostly unstructured and had a...
patient-oriented focus on the content in the medication communication and contextual factors, actions, activities and interactions with HCPs. All encounters with HCPs that potentially involved medication communication were observed.

The interviews after discharge were conducted by KRB and HBL and were audiotaped if the patients consented. An interview guide (see online supplemental additional file 4) comprising a list of items and probing questions guided the interviewer. The guide included questions on patients’ experiences of hospital stay, discharge and the period postdischarge, focusing on medication information and patients’ beliefs about medicines. Also included were specific questions based on the observations of the individual patient. In conjunction with the interview, medication reconciliation was conducted according to the integrated medicines management model adapted to the Norwegian setting.45

De-identified data were immediately stored in a protected area for sensitive data at the university. The observations were audiotaped if the patient was in a single room and if the patient and the HCP had consented. Patients provided additional informed consent to interviews that were audiotaped.

Authors’ preunderstanding
Researchers with different backgrounds were involved, providing different perspectives. SER is a clinical pharmacist and a PhD student in clinical pharmacy. KRB and HBL were at the time pharmacy students in their final year (master’s). SK-S is a social scientist holding a PhD in social medicine and working within social pharmacy at the university. YA is a medical scientist with a PhD in medical research. She is currently working as head of research at the Hospital Pharmacies Enterprise. MM is the head of the medical clinic at the study hospital. He is a specialist in internal medicine, digestive medicine and geriatric medicine. LM is a pharmacist with a PhD in pharmacology currently working within clinical pharmacy at the university. The authors had from none to extensive experience with qualitative methods.

As seen above, the research team consisted of persons with different backgrounds (education, experience in hospital setting). However, all but one were female and all had a Northern-European background. The researchers were aware of how their sociocultural positions and value systems might have affected the results and discussed this during the research process.

Analysis
Criteria for inclusion in the analysis were presence of data from observations on the day of discharge and from interviews after discharge. This resulted in the inclusion of nine patients.

Data were transcribed consecutively to prevent memory bias. All transcribed data were analysed in Norwegian using conventional content analysis.46 The first part of the analysis was inductive; codes were derived directly from the first transcripts and a codebook consisting of codes theoretically relevant to the research question was developed in a 1-day consensus session (KRB, HBL, SER, SK-S, YA, LM). Transcripts were read and the codes were suggested by all six analysers individually. These preliminary codes were put on post-its on the wall. First individually and then together, the post-its were merged (if describing the same), put into groups or new codes added (if new codes came up during discussions).46 Several 1-day consensus sessions (including more transcripts) were held, where the experience from coding was discussed and codes slightly changed. All transcripts were imported to the NVivo qualitative data analysis software47 (by KRB, HBL, SER). During this part of the process, new codes were added to the codebook. The last revision of the coding was made using the final codebook. All coding made by one person was audited by the others. The first author (SER) condensed the text from the selected code groups into units of meaning, focusing on how patients experienced medication communication during encounters with HCPs at the hospital and how they were empowered at hospital discharge. Furthermore, after searching for similarities, differences and connections cross-case, the results were clustered into two main themes, PCC (biopsychosocial, empowerment) and the biomedical framework (non-empowerment).48 The content was reduced into a condensate, and quotes that seemed to best reflect the themes were selected. In order to keep interpretations as close as possible to the sociocultural context as possible and ensure interpretative validity, translation into English (condensate and quotes) was done by three of the authors (SER, LM, SK-S) after the analysis. Finally, translation was discussed with a native English-speaking person.

Saturation was considered to have been reached after constantly comparing the experiences and responses of the participants and appraising richness and depth of the data during the sampling period.49 After 15 observed patients, we concluded we had reached saturation. Of the 15 patients in the main study, 6 were excluded for the substudy analysis as they lacked either interviews (n=2), observations on the day of discharge (n=1) or both (n=3).

The patients are presented using pseudonyms. Quotes are from observations if not specified with ‘int’ for interview.

RESULTS
This section covers the results of the thematic analysis of observations and interview data consisting of two parts: PCC (empowerment) and the biomedical framework (non-empowerment). Box 1 contains information about the themes and subthemes.

Nine patients were observed and interviewed, and their demographics and other quantitative data are presented in tables 1 and 2.
PCC: real interest in the whole patient

When looking at HCPs’ behaviour reflecting real interest in the whole patient, essential elements of PCC were observed in several encounters. This could be HCPs listening to and getting to know the person behind ‘the patient’, making an effort to acknowledge the patient as expert of their own lives and supporting them in decision-making.\(^8\)\(^{11}\)

Understanding and involvement with the patient as a person

HCPs often asked patients about their general condition, sometimes asking them to prepare questions in advance of the encounter. Some HCPs sat down and listened actively, inviting patients to share what they had on their minds. When patients expressed complex problems, they experienced that HCPs acted on these; for example, they were offered consultations with a psychologist or a social worker.

Doctor: Do you think of something more you are wondering about? Think through or note it down, later today we can go through the medicines together.

Establishment of a therapeutic alliance

Alliances were built when HCPs recognised the patient as a person, used their names and included them as partners using the plural form ‘we’. HCPs could remember what had been important during the hospital stay; for example, they commented on how the patient’s condition had changed for the better and showed real interest in their further follow-up. Some of the HCPs acknowledged patients’ previous experience and knowledge. Sometimes, HCPs could remember details about patients’ children, jobs and private life, which seemed to have a stimulating impact on the dialogue.

Doctor: That’s definitely a good idea, we will do that.

Nurse: Here are the medicines you are familiar with. Do you want us to go through them together?

HCPs seemed honest and most often kept their promise, such as getting back to the patient if they said they would. Some patients experienced continuity in the follow-up and experienced that HCPs informed them about what was going to happen next and sometimes who would come to visit when.

Nurse: We’ll see you in a while for the doctor’s visit.

Nurse: We’ll be back at 11 o’clock to take your blood pressure.

Doctor: I’ll finish up the papers and the discharge summary and then we can have a little talk around 3 o’clock.

There were a couple of friendly faces that used to come in quite often and I think that helped because you could ask them the questions and they would get to know why you are asking and not wasting their time. —John (male, 58, int)

Sharing power and responsibility

Most of the HCPs seemed to have a focus on sharing information and increasing both the patients’ and their knowledge. Some of the HCPs recognised patients’
information-seeking behaviour. For example, patients who appeared to desire a certain sense of control in medication management were provided with complete information covering all drug names and doses. HCPs also asked specific questions about patients’ experiences with medications, and patients were sometimes given the opportunity to influence decisions. HCPs involved patients’ next of kin when required by the patients and respected patients who expressed not wanting to take on any responsibility in the decision-making.

When one of the patients agreed that the previous, non-compliant use of medications could have contributed to the hospital admittance, this patient experienced strong urge from HCPs not to quit medications after discharge. HCPs explained why medications were important and made efforts to find good solutions. For example, when the patient expressed reluctance to take one of the medications, the HCP changed to another and both parties became satisfied.

I was fussing about the drug combination. Which my body or my stomach is not very fond of. I had to push them before they took my problems seriously, but I argued it through, and got a new medicine. We decided to do that jointly. They explained why I’m getting it, the side effects and that it would take some time. —Edvin (male, 61, int)

One of the patients experienced getting timely motivation and preparation for self-management.

I was quite surprised that they wanted me to do the injections myself right from the beginning. They mentioned it, the second day, “do you want to do it yourself” and I looked at it and thought “I have never given an injection in my whole life” [laughs]. —John (male, 58, int)

HCPs seemed to focus on providing patients with everything they needed and sometimes asked if patients felt safe about the decision of being discharged. Some of the physicians sat down with patients while they went through a customised written discharge summary together. One physician made sure that the patient had his glasses so that they both could read. HCPs summed up and repeated information, either to answer questions the patients had or at their own initiative.

Doctor: Are you still ok with syringes or do you want to have tablets instead?
Doctor: You have a huge list of medicines. The changes in medicines are marked in bold. Did you understand what was new? Take care of the sheet and show it to the home care nurse.

Some patients who experienced elements of the PCC model pointed out in the interviews that more time with and continuity among HCPs as well as timing of information were specific areas for improvement.

I’d quite like to know why they stopped that one medicine. My suspicion may be early on we did have a discussion, and I was not fully conscious. —John (male, 58, int)

**Staying with the biomedical model**

HCPs complied with the biomedical model when they appeared not to show real interest in the patient as a person or building alliances, treating the patient only based on biomedical parameters such as measurements and evidence-based therapy guidelines. Less interest in the patient was observed when HCPs interrupted the patient while speaking, or when they talked to each other without including the patient.

Nurses and nurse assistants thought they knew everything. I didn’t like their personality. I didn’t bother to discuss with them, but when I heard what they said I thought this is some nonsense. —Sigrid (female, 71, int)

**HCPs in power and control**

Generally, HCPs were in power and control over the process on the ward. Most often, HCPs told patients what to expect, for example, practical planning of the day. However, sometimes patients were given promises that were not kept, for example, a nurse saying “I will come back to take a new blood pressure” but then not coming back. Sometimes the discharge was delayed, without the patient being informed in a timely manner.

Generally, I had to wait for medicines to be delivered to me in the morning, because it was up to the doctors to decide which ones I should have. —Heidi (female, 53, int)

Most frequently, patients were informed about changes in their medications after the decision had been made and they were not invited into any discussion about options. Some of the HCPs did not seem eager to inform the patients about medications, although they had the opportunities, for example, when they were administering them. The nurses often talked about other things while handing out the medications, for example, practical planning of the day. Some patients experienced that the medication, name and dose were unknown when asked to swallow it.

Nurse: Here are your medicines. Do you want a glass of water or a slice of bread?

The level of detail in the given information varied and often depended on the patient’s request. HCPs were sometimes unspecific in their communication about medications, and in the interviews patients expressed that this made them uncertain as to when the responsibility for administration was transferred back to them after hospital discharge.
Box 2  Synnøve

“I did not have any expectations to the staff. They were nice and dazzling everyone so it was nothing, it was perfectly fine (...) The doctor had finished the papers and when the nurse gave me the discharge summary I could leave the hospital whenever I wanted. It was listed which medicines I should use and which was new. The only thing that was a bit strange was that the doctor had prescribed a new medicine for... I think it was blood clot, and it did not fit with another medicine that I had used from before. And when I got to the pharmacy to collect my prescriptions, she told me “they don’t go together.” This was a Friday, I let it take its course during the weekend. I had an appointment scheduled with the GP on the following Monday. When I mentioned this, he immediately called the hospital and they replaced the new medicine with another one that was a better fit.” —Synnøve (female, 84, int)

It says butenamid in the discharge summary, is that the same as burinex? And “against heart failure,” isn’t it a diuretic? Diuretic because of heart failure would have been more precise. —Alfred (male, 80, int)

I don’t think we ever clarified whether I should be using that medicine (...) on the letter telling me what I need [reading the generic name]. That’s the same? —John (male, 58, int)

One patient experienced how HCPs seemed surprised when she resisted the changes she was presented with.

They said I should start with a new medicine. I said, no I don’t want to. And then the nurse, no the doctor was like... what? They probably didn’t expect to hear me saying that. —Heidi (female, 53, int)

Some patients on the other hand seemed to derive security from the ‘HCP knows best’ perspective. One of the patients (Synnøve in box 2) told how she was made aware of an error in the hospital doctor’s prescription and how she obeyed the doctor even though she was aware that it was associated with a risk. She trusted her general practitioner (GP) to solve the problem.

Optimising medical outcomes, following guidelines

When HCPs informed patients about why they were given medical treatment, they often explained by referring to biomedical parameters. HCPs focused on optimising the medical treatment, following standardised evidence-based therapy guidelines, for example, for cardiac failure, with less focus on increasing patients’ understanding or preparing them for self-management. Some of the patients could not recall why they were using their medications, or why some medications had been discontinued at the hospital. HCPs’ primary focus seemed linked to how the treatment affected the outcomes, not necessarily listening to patients’ needs. One patient experienced that while the hospital doctors adhered to the biomedical model, the GP had a more patient-oriented approach, and thus they provided different recommendations.

Nurse: You start on a new medicine today; it is more gentle to the kidneys.

Doctor: The ACE inhibitor is very beneficial for the future of the heart, and you have good reasons to use a beta-blocker to prevent the development of heart failure. Diuretics can be adjusted more as needed.

The side effects are a bit troublesome. We [the GP and I] decided earlier to take it out because it was causing my dizziness. At the hospital, they thought I should continue with lisinopril because of the heart having a little too low capacity. But do you have to go dizzy all the time because you have to think about your heart? It gets a bit... tiring so now we [the GP and I] have reduced to every other day. —Alfred (male, 80, int)

DISCUSSION

This study aimed to explore and understand how patients experience medication communication during hospital discharge and how they are empowered through it. Previous studies often melded the perspectives of HCPs, patients and next of kin, and limited observations to discharge conversations only.28–35 We aimed to capture patient experiences through comprehensive observations covering all encounters presumably involving medication communication, including the discharge conversation, in combination with interviews. Even though elements of PCC were observed in several encounters, overall communication was not sufficiently fostering patient empowerment. Spending time with patients and building relations based on mutual trust seemed undervalued.

PCC was observed when HCPs were listening to, recognising and empowering patients in decision-making and self-management. This is known to encourage patients’ medication communication and understanding.15 However, HCPs did not systematically tailor the communication to fill the competence gap between themselves and the patients. Patients were sometimes interrupted despite it being well known that when interrupting the patient’s ‘voice of the lifeworld’, HCPs’ ‘voice of medicine’ effectively strips away the personal meaning of the illness.8

High-quality communication is known to foster patient empowerment, hence promoting positive health behaviour, for example, adherence to medications.9 Empowerment is related to competence and abilities, that is, high self-efficacy is required to over-rule a physician’s prescription or knowing when and how to seek medical advice or support.6 10 16 One patient in our study (Synnøve in box 2) was informed about a potential drug-drug interaction at the pharmacy after discharge which could have led to a reduced effect of the medicine initiated at the hospital. Information seemed not to alter this patient’s adherence to her medical treatment. Adherence is known to be positively associated with ‘HCP’s knows best’ and doctors’ health locus of control.17 However, attempts to empower patients when they are stressed and focused on returning home may increase uncertainty.
and thereby possibly negatively affect empowerment and reduce adherence.6 12 15 50–53

During the interviews, patients mostly expressed gratitude and satisfaction when asked what opportunities they had for patient participation. Differing patient expectations may explain why some of the patients were positively surprised when experiencing PCC, while others responded negatively with the biomedical model. A long tradition with the ‘biomedical model’ may have disabled resourceful patients, who always had been led by powerful HCPs, from taking advantage of their own knowledge. Patients willing to be led by powerful HCPs have an external health locus of control.6 One patient in our study had an internal health locus of control, that is, a high degree of self-efficacy. However, the cause of his hospital admission was probably related to intentional non-adherence to medications, and as this example highlights, internal health locus of control and a high degree of self-efficacy are no guarantee of possessing a satisfactory amount of knowledge to take on the required responsibility of making wise decisions.6 Sometimes, it is hard to evaluate patients’ cognitive abilities and perceived lack of insight because cognitive limitations can be a barrier to HCP’s practising PCC.10 54

In our first substudy, we found that the (same) patients were mostly proactive, able to be involved and seemed motivated to seek instructions from HCPs. However, some patients chose not to ask all the questions they had, and it was evident that patients would have benefited from more information to understand the discharge process.40 The degree to which patients are capable of participation is often dependent on how well informed they are.38 Patients taking on different roles, or HCP’s prejudices, could have influenced HCP’s in delivering either the PCC or the biomedical model.15 55–57 It has been shown that less than 20% of the variability in patient preferences can be explained by situational and demographic characteristics; for example, illness or low degree of education can decrease the desire to be involved, whereas age can both increase and decrease it.38 It is important that HCP’s review their prejudices because thinking of a patient as, for example, ‘vulnerable’, powerless and without agency may lead to paternalism and incorrect estimation of the patient’s capabilities.9 10 32 50 59 60

Building therapeutic alliances, an important concept of PCC, comprises more than HCP’s recognising that a friendly and sympathetic demeanour may increase patients’ adherence to treatment.6 To safeguard patient autonomy it is important to build relationships between oneself as an HCP and the patient based on mutual trust.8 50 61 62 However, organisational staffing pressure and handover between clinical shifts are barriers to building such alliances during hospitalisation.9

According to the biomedical framework, the value of time spent with patients is recognised but not offered great priority.8 To further develop PCC, HCP’s need to embrace dialogues with patients, negotiating about decisional responsibility, with adjustment for capacity, for example, the ‘sick role’.13 25 HCP’s should share more of their knowledge and power; empowering the patient implies acknowledging the person’s agency in the control of outcomes. Improving several aspects of patients’ knowledge and self-confidence and how communication is provided is crucial to empowering patients in the management of medications after discharge. From a patient’s perspective, HCP’s listening more actively could be a good way to inaugurate PCC.1 63 64

A strength of the study is the combination of real-time observations and patient interviews, which is a powerful approach to understand and describe what happened. What patients told did not always equal to what was observed, for example, one patient talking about a 30 min long discharge conversation that actually lasted for 10 min. Because the whole process from hospital admission to hospital discharge was not observed, all encounters supporting self-management were most certainly not observed; however, the interviews made sure that patients’ perspectives were not lost.

A heterogeneous sample of participants were included; however, bias towards more empowered and confident patients, which could impact saturation, cannot be excluded. Saturation was perceived for the main study, comprising data from 15 patients. Some patients were excluded from this specific analysis as they were not interviewed and/or not observed on the day of discharge. Reasons for such lack of data were that participants withdrew their consent for the interview or that they were moved to another ward before discharge. The nine patients included in this substudy did not differ from those excluded by any visible characteristics, such as age or sex. As this analysis had a specific aim, with full observations and rich interview data, the information power is high, although the number of patients is limited.55

Interviews with patients and HCP’s (unpublished focus group interviews with HCP’s) found that they were mostly unperturbed by the presence of the observer, arguing inconceivable observer effects. One reason stated for this was that they were used to having student observers present on the ward. This study was performed at an internal medicines ward located in one university hospital, and it is uncertain how well the study findings inform healthcare contexts that differ from the present context.

**CONCLUSION**

The results provide a broader understanding of how patients experience medication communication during hospital discharge. Both the patients and the HCP’s appear to be inculcated with biomedical traditions and are uncertain about the roles and opportunities associated with PCC. Attention should be paid to patient preferences and to the core elements of the PCC model from admission to discharge to empower patients in medication self-management.
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**Contributors**

SER, SK-S, MM and LM conceptualised the study and developed the method. YA, HBL and KRB contributed to the development of the method. SER, HBL and KRB conducted the data collection. SER, SK-S, HBL, KRB, YA and LM analysed and interpreted patient data. SER, SK-S and LM wrote the original draft. YA, HBL, KRB and MM were major contributors to the writing, review and editing. All authors read and approved the final manuscript.

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**Competing interests**

None declared.

**Patient consent for publication**

Not required.

**Ethics approval**

The Regional Ethics Committee assessed the study and found no ethical approval necessary. The study was approved by the Privacy Ombudsman in Eastern Norway and the University of Oslo.

**Provenance and peer review**

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**Data availability statement**

No data are available.

**Supplemental material**

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