

Appendix 2 to Churchill L, Pollock M, Lebedeva Y, et al. Optimizing outpatient total hip arthroplasty: listening to key stakeholders. *Can J Surg* 2018.

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

Appendix 2: Supplementary Data Sorted by Main Theme, Category, Sub-category, and Participant Group

Theme	Category	Sub-category	Inpatient THA	Outpatient THA
1.Supporting the transition home				
	Use of oral analgesics	Use of pain medication as prescribed vs. able to cope without medication	<ul style="list-style-type: none"> • I took the prescribed long-term hydromorphone drugs. I probably could have been off them earlier, but I was on them for I think about 13 days [Participant L]. • Probably the first two weeks it was mostly just him taking it easy, getting a lot of rest. I think the pain medications really helped him sleep a lot so just took it easy the first couple of weeks [Participant K caregiver]. 	<ul style="list-style-type: none"> • Pain pills and that are a big part of recovery for the first week or so [Participant D]. • I was very surprised, no aches or pains and really, I let up on my medication the first evening there and it caught up with me later because I thought, this is great, there are no aches and pains but then it caught up with me that evening but then I got on to them, they were a little stronger [Participant D]. • [I] didn't use them on daily basis but on the days where I felt I needed them to help me through the day, if I was doing something extra, a physical exercise or shoveling snow or moving furniture, it helped taking pain medication [Participant H]. • I don't know whether I have a particular high threshold but I'm quite happy to cope with a small amount of pain without taking anything [Participant E]. • I had been given a lower dose painkiller and I took three of those and I took I think maybe two or three Tylenol and that would have been what I took throughout the whole recovery time [Participant E]. • The wound was good and he really, like I said, he didn't take anywhere near the pain medication he could have taken so that wasn't too bad [Participant G caregiver]. • <i>So, the next day you woke up and you didn't have any issues from then on?</i> I can't recall any. No pain

				<p>medication, nothing. <i>No pain, medication. Wow.</i> No, not even the Tylenol [Participant C].</p> <ul style="list-style-type: none"> • I had no pain whatsoever and that was amazing for me. Like I couldn't put full pressure on it the way I wanted but there was no pain [Participant C].
	<p>Mobility as form of physical therapy</p>	<p>Passive vs. active approach to recovery</p>	<ul style="list-style-type: none"> • I think I might have pushed myself the day before, I couldn't tell you, I don't know where it came, why it came and I do bed rest as soon as something happens I do bed rest [Participant J]. • Probably the first two weeks it was mostly just him taking it easy, getting a lot of rest. I think the pain medications really helped him sleep a lot so just took it easy the first couple of weeks [Participant K caregiver]. 	<ul style="list-style-type: none"> • I really feel if you're lying in bed all day then you're in trouble so what I did is, you know. I would get up and I would try and putter around the house even if it was just walking around in the house and reading magazines, so be prepared, have things to entertain you [Participant B]. • I was out in the bush clearing trees about five or six days after this was done because for me that was therapy so I had the cane in one hand and the snips in the other [Participant C]. • She wanted to get outside. That was her therapy [Participant C caregiver]. • The weather was so nice, if it was a nice day we went outside and made sure he had the walker or whatever, his crutches and encouraged him to walk in the laneway because the weather was good and I think just being outside, I'm a believer of fresh air and sunlight, those things are healers too, you just can't stay in a bubble [Participant D caregiver].

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

	Effective mobility messages	Patient confidence to grade mobility	<ul style="list-style-type: none"> • He did a bunch of homework with the Arthritis Society and he has done yoga for about 10 years so the prep and the procedure went hand in hand, it was good [Participant M caregiver]. • I worked at them and I think that was one reason this experience has been positive. So, you were working on the stretches before surgery also? Yes, for about a month and half strengthening and yeah, I'm walking good now a month later and I think that is one reason why [Participant M]. • Within a very short period of time I didn't use the walker say after about two days I went to the crutches and then very quickly went to a single crutch and then to a cane so the whole process moved along quite well [Participant L]. • You know what? She hardly uses the walker, hardly did at all, she was great with that except when 	<ul style="list-style-type: none"> • • I was in pretty good shape when I went into this as well and I'm a long-distance hiker so the idea is we are going hiking again in the summer this year [Participant E]. • The two things I wanted to get back to was curling and biking. Christmas Day was mild, I was afraid to get on my bike because I didn't know if getting on and off would be a problem so on Christmas Day I got on my bike and did 17 miles so then I got that back and last week I got curling back, I'm back to everything I wanted to do [Participant H]. • Yeah and I was able to get upstairs in the house the first day no problem [Participant D]. • I went outside and then I would just walk up and down our street once a day and then eventually twice a day and then eventually without the cane but I would take the cane with me just to hold it just in case I need it and then eventually without the cane and then I started to walk further each day [Participant E]. • Just going and walking around the block, these things were scary because I thought, I didn't know what the limitation was on the hip... (and what I was going to do to it but I found I understood how strong the hip was and through doing that like) ... [I]f you overcome your fear to try these new things
--	-----------------------------	--------------------------------------	--	---

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

			<p>she was in pain [Participant J caregiver].</p> <ul style="list-style-type: none"> • We had rented a walker for him and he did not need the walker at all. He used crutches [Participant K caregiver]. • This past week he’s been actually walking the kids to school because he’s feeling great. Yeah, the first couple of weeks he couldn’t walk them to school [Participant K caregiver]. 	<p>and persevere through the pain, then you find out that you can do a lot. It’s amazing what you can do with this new hip [Participant H].</p> <ul style="list-style-type: none"> • Doing the exercises too because you were to do them three or four times a day, and so many times to build up so that really worked well. That was a big part of getting back fast [Participant D]. • I did my exercises and kept building stronger as day per day went along and I came along quite fast really. Yeah, I wish I had it done earlier because you can’t believe the change [Participant D]. • He was walking in no time, he started walking around the block and then... the physiotherapist suggested to start taking weights on the walk on the side he was operated on so he would take a weight and then it was no time at all that he gradually did his full walking route [Participant H caregiver].
	Caregiver support	Caregiver support as essential	<ul style="list-style-type: none"> • I will stress all my ability of doing what I’m doing, my wife has a lot to do with it. And she’ll say to me “[T], walk straight,” you know, or she will say to me, “You’re not doing this or you’re not doing that [Participant M]. 	<ul style="list-style-type: none"> • If you didn’t have a partner like I did, like my husband was there so he was amazing. Really, I was good to go when I left [Participant C]. • I had to help her get out of bed, put the foot thing, assist her getting up, in and out of bed, help her to the toilet sometimes [Participant B caregiver]. • I can’t remember how long it took before my wife could put her socks on so you have to be prepared

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

			<ul style="list-style-type: none"> • She helped me make sure I had the right drugs. Of course, dressing. Putting my... I couldn't reach down to put my clothes over that leg and my socks and slippers. Meals. She's been a godsend, anything I needed [Participant M]. • It's going to be a lot of work. This person is not going to be able to do a lot for themselves, you are going to be the person helping them, even getting out of a chair, getting into a chair, certainly getting dressed, undressed, in and out of bed, toileting and sponge baths [Participant I caregiver]. • From the first few hours it was everything and it gradually lessened like he was not allowed to get that cut wet right so you know getting washed up in the morning and dressing, helping him get changed was a lot at first and then it gradually got better [Participant F caregiver]. 	<p>for the kind of morning and evening set of activities at least that you will have to be involved in [Participant E caregiver].</p> <ul style="list-style-type: none"> • The first couple of days she was struggling a little bit and it was up to me to make absolutely sure she got the right sequence of pills and painkillers [Participant E caregiver]. • So really, I just sort of monitored his medication a little bit for him and made sure he was eating and sleeping and I had to help him bath until he could shower and actually only for the first week and then when I went back to work he was bathing on his own as well so really, I just sort of had to be the chief cook [Participant G caregiver].
--	--	--	--	---

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

<p>Caregiver support</p>	<p>Patient independence, seeking help when needed</p>	<ul style="list-style-type: none"> • He’s been through another leg injury so he’s sort of... I’m there if he needs me because I’m working at home but he’s pretty self-sufficient [Participant K caregiver]. • She helped me bathe and shower a couple of times and then I said I could do it, so then sometimes she said, “Well let me wash your legs,” I said, “I can do that”. I didn’t have a problem. No, it was good. I didn’t need any help [Participant M]. • So, for us the biggest challenge... Because ‘J’ is young, we have children, the biggest challenge for us is I’m the chauffeur. So, it’s not so much caring for him, ‘J’ can take care of himself, it’s me having to chauffeur everyone around [Participant K caregiver]. 	<ul style="list-style-type: none"> • Well there was nothing that I couldn’t do. I mean I could do the vacuuming and the cleaning and my own meal prep and that type of thing [Participant C]. • I didn’t do much of anything other than her Fragmen. I did the driving for six weeks. But beyond that, the day after we got home she was using the walker and the day after that she was using the cane. She did her own meal preparation, she did her own dressing, I literally did nothing [Participant C caregiver]. • It was actually not what I expected because he did very well on his own. I was mostly just watching [Participant G caregiver]. • So really, I just sort of monitored his medication a little bit for him and made sure he was eating and sleeping and I had to help him bath until he could shower and actually only for the first week [Participant G caregiver]. • He would put my socks and underwear on, that sort of stuff, help me with my pants, but that was about it [Participant B]. • I mean I had to put his shoes on and stuff like that but there wasn’t a whole lot of care giving [Participant H caregiver].
--------------------------	---	---	--

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

	Caregiver support	Support network	<ul style="list-style-type: none"> • I work from home so I was there. The first week, there were a couple of days that I did have to go into the office so his mother came and stayed in the house just in case there was anything he needed [Participant K caregiver]. • I was familiar with [the injections] sort of because they're all different and so my daughter came over the first time and made sure I did it right [Participant M caregiver]. • At two weeks out I didn't feel like he was quite ready to go and so I just had a friend stay with him and that was comforting for him [Participant D caregiver]. 	<ul style="list-style-type: none"> • She'd have a shower and I'd assist her and come over and help. One of her sisters would come over sometimes and helped [Participant B caregiver]. • Personally, we had 'M's sister that we could rely on. Yeah, and like we did really well because any time we had a question, 'M' called her sister up and talked to her [Participant F]. • I think for me I think it was great. We had all the help we needed and I, of course. We also have a church that is supportive [Participant M caregiver].
	Caregiver support	Caregiver support from allied health	<ul style="list-style-type: none"> • Physiotherapy was great coming to the house after, what was it, three days I believe and she was very good [Participant D]. • Having CCAC come in and help with the wound, that's a big thing to me because I wanted to make sure it was healing properly [Participant K]. 	<ul style="list-style-type: none"> • So you said the nurse that came to visit you was essential. Yes, it was, that really clarified for me, the first time through I thought I had picked it all up but just checking off the list again was really good [Participant E caregiver]. • OT had been there to make sure we had the toilet right and the staircase had hand rails [Participant D caregiver].

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

	Caregiver support	Managing dual roles	<ul style="list-style-type: none"> • I mean I went back to work obviously but every day after work I would come and check on them for a few hours and then go back to my house or stay there, depending on how their day was going [Participant J caregiver]. • We are lucky she works from home so she would take off an hour or so [Participant K]. 	<ul style="list-style-type: none"> • Yeah, he stayed home and then when he went back to work. He sort of split his day and he would go in early in the morning and then come home, by early I mean 5 o'clock and then he would come home about 7:30 and help me with breakfast and medication stuff. This was the first few days when he went back to work, then he'd come home at lunchtime and he did that for a couple of weeks until I felt I was okay and then I think he just came home to give me some company sometimes [Participant E]. • So she took the first week off and stayed home with me and towards the end of the week you could already feel the difference. And then the following week I stayed home by myself but I had no problem [Participant F].
	Caregiver support	Connection to previous experience	<ul style="list-style-type: none"> • Well she's already had a hip replacement and this is her second and like we had all of the materials [Participant C caregiver]. • I've been through a few knee surgeries where I've had the same 	<ul style="list-style-type: none"> • I was given a book and because my husband had gone through that with his knee surgery I knew exactly what I was in for [Participant J]. • Well having been through it before, I was in the hospital for two days lying in the bed, and I thought I could do this at home [Participant A].

			thing happen so I kind of knew what to expect [Participant K].	
2.Challenges for transitioning home				
	Pain	Determining optimal activity levels	<ul style="list-style-type: none"> I pushed myself, my muscles were inflamed and there were nights I didn't sleep as well because I was doing too much [Participant F]. 	<ul style="list-style-type: none"> What I learned is that your body is going to tell you what you can and can't do so if you, you know, bend a certain way and if it hurts then don't bend like that again. So I think that if you listen to your body, regardless what the doctor says, this isn't going to hurt or that isn't going to hurt, it doesn't mean it's not going to hurt for you [Participant B].
	Pain	Concerns with medication	<ul style="list-style-type: none"> He didn't like being stuck with a needle and I didn't like sticking him with one [Participant I caregiver]. I think her thing is she is scared to take too much of it because it is a narcotic [Participant J caregiver]. 	<ul style="list-style-type: none"> The meds too, like no one told us to make sure we take, like he thought oh I'm feeling really great because they really loaded him full of meds here and when he got home after the first day he thought well maybe I can cut back a little, I shouldn't take these ones as much right and he got really in hot water doing that so the pain came back full force and it took longer to get it down again, right [Participant H caregiver]. Yes, you wanted to have the pain controlled but you didn't want him to be so dopy that he was at risk of

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

				<p>falling. So, I found that was sort of like a seesaw but, you know, I gave it as it was necessary [Participant D caregiver].</p>
	Mobility	Managing initial transfers	<ul style="list-style-type: none"> We got him up the stairs in the back, along the hallway and he basically stayed up there for the first week. He didn't even attempt to come down the stairs... He was like in a lot of pain and everything for the first week and it was almost like things changed around and he was able to do a few more things and once he started he just took off [Participant A caregiver]. 	<ul style="list-style-type: none"> I was worrying, like am I going to have to help him in and out of bed because he is so much taller and I know I could do it but no one has ever taught me how to do it so I don't know how to do it so that was one of the things that I had my concerns before but he was a superstar [Participant G caregiver, outpatient]. The first couple of hours I was home were a challenge. The biggest challenge was actually walking up the step to get into the house [Participant E].
	Caregiver support	Challenge of dual roles	<ul style="list-style-type: none"> For us it's just because we have kids, we shared these chores, now I have to take over all of his, you know, like normally he would get the kids to school in the morning, now I have to stop work in the morning, because I start at 7 in the morning, get the kids to school, 	<ul style="list-style-type: none"> I took a week off of work but that was because I had to, not that I had to supervise him 24-7 but yeah it was a little bit more I think then I thought [Participant F caregiver].

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

			<p>that sort of thing [Participant K, caregiver].</p> <ul style="list-style-type: none"> It was very crazy and having to go back and forth because I'm not just doing it singly at their house, I have my own house too [Participant J caregiver]. 	
	Caregiver support	Dealing with unexpected or adverse symptoms	<ul style="list-style-type: none"> I think maybe she had overdone it and was on her leg too much so it swelled up her ankle, her foot, her knee, the whole thing and I called here and talked to the resident and they said just keep an eye on it and if it gets worse come in, but it didn't get worse, finally it was better after two days [Participant J caregiver]. 	<ul style="list-style-type: none"> The first [time he fainted] was that night and then the next morning so I was not prepared for that at all, it scared both of us. I would have, I did not know what to do, they said to call the hospital but you still don't know, because I hadn't read anything about fainting, nothing [Participant F caregiver]. He vomited after he got home and I think it was just normal with the anaesthetic but again we didn't know if this is going to continue or is it just the once [Participant H caregiver].
3.Unique considerations for SDD				
	Satisfaction with SDD	Preference for SDD	N/A	<ul style="list-style-type: none"> People I talk to, if you have to go in for a hip, this is the way you got to do it [Participant F].

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

- | | | | | |
|--|--|--|--|--|
| | | | | <ul style="list-style-type: none">• Much improved and I'm recommending this experience to other people, to a family member [Participant C].• it was such a smooth sail in the hospital, I couldn't be more impressed, it was such a smooth sail from the minute we started the process until we finished. That was very positive and rewarding for me because I did that and you really wonder, it was perfect for him, is it like this for most? [Participant D caregiver].• I think the system is great. I left there, I was in the hospital there for seven hours and back home and having coffee at three o'clock, everything has gone really well from day one and like you said, having the support at home is the biggest thing to keep you going and doing your exercises every day [Participant D].• I was happy with the whole program, it worked out well for me [Participant H].• I was very happy to be home, I was able to get around because I had already done it before so I was comfortable on my walker, even on my crutches because I had stairs to go up and down and I think I really got better earlier because I was at home [Participant B].• he was ready to go. I guess I was surprised that he was up and walking around and everything was moving so quickly but I mean it's not like I can't |
|--|--|--|--|--|

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

				<p>handle it right, like that was great and he did want to go home, he didn't want to stay overnight so it was just perfect [Participant H caregiver].</p> <ul style="list-style-type: none"> • But what I felt when I was at home is that I felt comfortable, I felt I didn't have the noise of the hospital [Participant B]. • I thought it was awesome I was able to go home the same day and not spend a night in the hospital [Participant H].
	Education	Timing of education	N/A	<ul style="list-style-type: none"> • [I] was still under the anaesthetic and certainly during the recovery stage here that afternoon when the pharmacist came to talk to me and the physiotherapist I think she was came to talk to me quite honestly, I had no idea what they were saying [Participant E]. • If my husband hadn't been there it was like gobbity goop. I was too early for people to come and talk to you and give you information about what you are supposed to be doing [Participant E]. • They tried to tell her how to use the pills when she was partially under anaesthetic, if I hadn't have been there she would have had no idea [Participant E caregiver]. • I wasn't there when physio were there... Just to see what they want him because when we got home, he's in his walker, there was a bit of confusion,

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

				<p>okay like put this leg first, well what did physio say [Participant A caregiver].</p> <ul style="list-style-type: none"> • I'm glad 'M'[caregiver] was there because I think they were telling me things that were going over my head. I think I was a little dopey from surgery [Participant A]. • I wasn't here for the discharge information but 'J' didn't have any concerns, there was nothing that worried me so [Participant K caregiver].
	Education	Expectations for recovery	N/A	<ul style="list-style-type: none"> • I think we should have looked more at okay, you know, what side the hip was because we realized when I got him into bed that he was actually laying on the wrong side of the bed in terms of getting up out of bed, we should have had him on the other side so once we figured that out, we were good. Again, it was just, you know, I should have looked at more of that stuff too to realize what might be involved. So once we got those little kinks out of the way it went perfect [Participant F caregiver]. • I guess more of the things to watch, maybe just some of the things to watch for, because like I said when her legs swelled up I panicked, right, I didn't know what to expect so maybe someone to tell us that's expected, that kind of stuff. Issues that may

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

arise and what to do if they do arise [Participant J caregiver].

- The first was that night and then the next morning so I was not prepared for that at all, it scared both of us. I would have, I did not know what to do, they said to call the hospital but you still don't know, because I hadn't read anything about fainting, nothing [Participant F].
- They were making her sick, she has a low tolerance to Morphine which didn't help, convulsions and stuff and we had to get that straightened out and finally we figured out that she had better management when she took the meds according how they were prescribed but they didn't make that clear [Participant B].
- It was good to be in our own home... if we had to do it again, no qualms about it at all, it was just the expectation, we didn't know what to expect with the anaesthetic and I wasn't quite sure, yes, my hip pain was gone but I still had surgery pain [Participant F].

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

				<ul style="list-style-type: none"> • Yeah it was a little bit more I think then I thought because everyone said oh the surgery was perfect, it goes great, you will be up and atom in no time flat but it's still surgery so it wasn't that the hip, the surgery fixed everything but it was getting better from everything else [Participant F caregiver] • Everyone was like ahh this is a great thing to do, we don't go through the muscle, it's quicker healing, it's quicker, quicker, quicker, but that's one thing they don't tell you. [expectations regarding surgery pain] [Participant A caregiver].
	Medication	Effects of anesthesia	N/A	<ul style="list-style-type: none"> • She was really happy to get out the same day. She didn't want to spend any time in the hospital, so for the personal satisfaction of not having to spend time in the hospital even though she was a bit groggy when she came home [Participant E caregiver]. • I was just worried that it was so soon and the effects of the anaesthetic and is there any side effects? Am I going to be in a crisis at home with him? The first 24 hours, I didn't know what to look for? Because I think it's pretty broad what they say, they just say if you have any issues, just call but what kind of issues? We don't want to bother people just for little piddly issues that maybe could be explained [Participant H caregiver].

Appendix 2 to Churchill L, Pollock M, Lebedeva Y, et al. Optimizing outpatient total hip arthroplasty: listening to key stakeholders. *Can J Surg* 2018.

DOI: 10.1503/cjs.016117

© 2018 Joule Inc., or its licensors

Online appendices are unedited and posted as supplied by the authors.

				<ul style="list-style-type: none">• The first day is a lot of pain. He also had to urinate a lot and we didn't know some of this stuff so it have helped if you were told that this could be a side effect of the anaesthetic [Participant H caregiver].• The next day it would have been harder for him to get into the house because he wouldn't have had as much pain medication in him and they froze that, so that was still frozen until 10 at night. So, if they'd had sent him home the next day he wouldn't have had those things and I think he would have had a lot more problems just getting up the stairs and into the house right and in and out of the car [Participant G caregiver].
--	--	--	--	---

Note. This appendix provides further data to substantiate and illustrate key themes and categories. Participants A-H and their caregivers are part of the outpatient group; Participants I-N and their caregivers are part of the inpatient group.