

Enhancing inclusion in cancer prehabilitation: A case study using ethnographic methods to explore access, acceptance, and adherence

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Additional file 1

I-Prehab Case Study Data: Table of results from qualitative coding

I-Prehab Case Study Data

Table of results from qualitative coding

Abbreviations

Staff participant job roles: DT, dietitian; PT, physiotherapist; OT, occupational therapist; TAP, therapy assistant practitioner; PA, prehab assistant; PTI, physiotherapy technical instructor; ACPL; Anaesthetist and Clinical Prehab Lead; AHP, allied health professional.

Socioeconomic Status: IMD, index of multiple deprivation (1=most deprived, 5=least deprived)

INT, research team interviewer

Sites are labelled A-G to preserve anonymity

Patient demographics codes (red indicates IMD 1 or 2; green indicates IMD 4 or 5)

Cancer site: UGI, upper gastrointestinal; CRC, colorectal; LU, lung; PR, prostate

Gender: F, female; M, male

Age: 40-49, age range between 40 and 49 years inclusive

Ethnicity: W, White; BC, Black Caribbean; A, Asian

Psychological assessments: HADS = score on Hospital Anxiety and Depression Scale, A = HADS anxiety score, D = HADS depression score, ↑ = HADS score above normal range; SE = self-efficacy, G = general self-efficacy, NU = nutrition self-efficacy, EX = exercise self-efficacy, ↓ = low self-efficacy defined as a score less than the median value

Category	Sub-category	Extracts/quotes from qualitative data
Individual – Internal Patient Factors		
Trust in healthcare professionals	Trust out of necessity	Patient explains he will do anything to help, “If you say jump a foot, I’ll jump two.” (CRC, M, 60-69, W) Observation “...whatever they suggest, if it’s going to be beneficial to me, then I’ll happily do it. Because they’re the ones that know ... what’s going on. They can see the bigger picture, whereas I just see me.” (LU, F, 70-79, W, ↑A↑D, ↓EX) Interview “You can scare yourself daft doing that you know, you can ... you can read far too ... I’d rather just listen to the experts and listen to what they’re telling me.” (PR, M, 60-69, W, ↓NU) Interview “I like to be in control of the situation. And for once in my life, I’m not in control of it. So, I’m really in the hands of other people, professionals that know what they’re doing. And I just have to trust that they will do everything right, really. So, you know, you just have to put yourself in other people’s hands. And for somebody like me, that’s probably not the easiest thing in the world to do.” (CRC, F, 70-79, W) Interview “I wouldn’t say for a long time, but yeah... I envisage it while I need to do it ... once they say, ‘Okay, we’re going to do the op’, then that signals to me that I’m probably in a fit enough state for them to warrant doing it.” (CRC, M, 70-79, W, ↓G↓NU↓EX) Interview
	Trust based on prior experiences	<i>Positive experiences enabling trust</i> “...the people that I’ve met on this little bit of a journey, I’ve just, well, I’ve been blown away by just how knowledgeable people seem to be...” (CRC, F, 70-79, W) Interview Patient: “Some doctors don’t tell you everything, but my doctor has been fantastic.” (CRC, F, 50-59, W) Observation “It’s helped us cope with it, and they’re genuine people, and it’s sound advice.” (UGI, M, 50-59, W) Interview <i>Negative experiences leading to lack of trust</i> Mentions that he was sick of nagging by the previous dietitian about meals. (UGI, M, 40-49, W) Observation Frustrating not knowing who to go to about different things – gets told not important when rings up. (CRC, M, 80-89, W) Observation

		“...‘I don’t work in the heart team, I work in lungs.’ ‘Go and ask my nurse.’ He was really dismissive, horrible man. I asked the nurse, and she said, ‘Well, it’s not our department, we wouldn’t have that information.’” (LU, F, 60-69, W) Interview
Knowledge, beliefs, and preferences	Knowledge and understanding of prehab	<i>Understanding</i> Patient: “...like rehab, but before.” (UGI, F, 70-79, W) Observation “It’s really good to try and get as strong and well as you can before surgery which, obviously I know that as a normal, sensible person.” (CRC, F, 40-49, W) Interview Patient understanding: ‘Build up my fitness prior to the operation’. (UGI, M, 70-79, W) Observation Prehab clinician: “Do you know what prehab is and why you are here?” Patient: “Yes - All explained to me.” (LU, F, 50-59, W) Observation “I was told that the best way of preparing for surgery... was to make sure that I was as fit as possible. So that the recovery would be as effective and as quick as possible...” (CRC, M, 70-79, W, ↓NU) Interview “...helps prepare for surgery, get fit”; “...get myself better in mind and body. Help myself as much as I can.” (UGI, M, 60-69, W, ↓G↓EX) Observation “...she’s had previous breast cancer as well, so she’s been through the system, so she kind of knows what to expect, so she wants to get in and get out in good time.” (LU, F, 70-79, W) Staff Interview “...he said you’ll need this to build your muscles up and give you strength and to deal with this radiotherapy and... like I said, all the advice, good sound advice, practical...” (UGI, M, 70-79, W, ↓EX) Interview “Just looking at straight after the surgery, how quickly your muscles just deteriorate... It just absolutely disappears, it’s amazing how quickly, you know, the muscle wastages, and that’s why they want you just to keep moving and keep walking and just having that, knowing that in the background even though it’s something that I would normally do anyway... sometimes yeah, it’s just, it’s the furthest thing from your mind, especially during that period, but... just knowing that you’ve just got to keep moving and do what you can, but also knowing that, oh there’s not much you can do at this point and it’s just sort of waiting to get past this period and then actually doing that work afterwards.” (UGI, M, 40-49, A, ↑D) Interview “I think the idea of it struck me as being really sensible ... Thinking about proactively working rather than just, you know, getting to surgery and then thinking, oh, I wish my muscles were better, I wish my diaphragm was working better, you know. All the things that I’m going to need to have working really well. I didn’t even know that, but now I do. And I understand why I need to have my diaphragm working well and so on. So, I think the whole principle of working proactively, to me, makes absolute sense. You know, why

		wait until you find out you should have done something when you've got every opportunity to do it before you actually get to surgery.” (CRC, F, 70-79, W) Interview <i>Lack of understanding</i> Patient: ‘I’m not sure what your services are.’ (CRC, M, 70-79, W) Observation Occupational Therapist asked patient and patient’s wife if knows what this appointment is about. Patient: ‘We are completely in the dark.’ (CRC, M, 80-89, W) Observation Carer: “Until the meeting started, we didn’t really know that that’s what it was going to be about.” (CRC, M, 80-89, W, ↓G↓EX) Interview “Well, it’s always difficult the first time, because you don’t know what to expect...” (CRC, M, 70-79, W, ↓G↓NU↓EX) Interview “I think his whole understanding of the whole process might limit him a bit. I think there was a bit of a confusion, we tried my best to sort of explain it but, I don’t know if he got it completely, so I did try and change the explanation to try and tailor it towards him.” (UGI, M, 60-69, W, ↓G↓NU↓EX) Staff Interview “I think it (prehab) might have been mentioned in my first appointment. I think I thought prehab was fitness for anaesthetic, but actually that’s a separate thing. But basically, I don’t know, I’ve just been getting letters through my door, I don’t really know what anything is, and I turn up to the appointments.” (UGI, F, 30-39, W, ↑A, ↓NU↓EX) Interview Physiotherapist asks, “Do you know what’s happening?” Patient says, “I am a bit confused.” (LU, M, 60-69, W, ↓NU) Observation
	Belief in benefits of prehab	<i>Positive beliefs</i> “I think the idea of it struck me as being really sensible ... Thinking about proactively working rather than just, you know, getting to surgery and then thinking, oh, I wish my muscles were better, I wish my diaphragm was working better, you know, all the things that I'm going to need to have working really well. I didn't even know that, but now I do.” (CRC, F, 70-79, W) Interview “...I’m eating far less processed foods so I’m hoping that, you know, those things will help and that as I, as I go on I can find more specific information as to what to eat and what not to eat and that I should keep happy and I hope that..., along with the exercises and the breathing exercises, that by the time I come to have my operation I will be in a lot better place to cope with it all.” (LU, F, 70-79, W) Interview <i>Negative beliefs</i> “...having talked to my nursing friend, we went to school together when we were five, and she’s a lung specialist sister, and she said, ‘Oh, for goodness’ sake, as long as you’re doing what you are doing, I

		wouldn't worry about all these extra exercises'. But there you go, that's her opinion." (LU, F, 70-79, W, ↓G↓NU) Interview "He didn't see the point of (prehab) screening... tried to cancel the appointment." (CRC, M, 80-89, W) Staff Interview
	Beliefs about current lifestyle	"And so, I thought, well, I do a lot of walking anyway. What I hadn't really thought about at all until I came to the prehab was this whole notion of resistance training because I was merrily going around thinking, well, I'm walking and I'm doing that regularly quite a lot every day. But other than that, I haven't really changed anything. Because my diet was okay, as far as [name] I was concerned..." (CRC, F, 70-79, W) Interview "Had other ones where I think they think, they just think they don't need it. They think they're fit enough." (Site F) Focus Group Patient explained that she used to go to exercise classes with husband and doesn't think would be beneficial since active already. (LU, F, 70-79, W, ↓G↓NU) Observation "I don't think I'm going to get any fitter than I am." (CRC, M, 70-79, W) Observation "...nothing too strenuous... I don't jog or run marathons or anything like that, but just try to stay active, erm, you know, as much as possible really." "...from my point of view, I was already quite active..." "...from my point of view, because I, I had a, I already live, you know, had a lifestyle beforehand, a lot of the prehab meetings, the questions that I would receive they're kind of like, 'Oh, carry on'. So, erm, I guess it's difficult from that point of view, you know, as opposed to someone who may not have been doing a lot of that. You know, eating well or exercising and things like that, already, erm, but it was just, it's good knowing that, that what you're doing, just keep, keep on doing it." (UGI, M, 40-49, A, ↑D) Interview "No, no, change in regime there, because I'm always quite active anyway." (UGI, F, 70-79, W, ↓G) Interview "I was pretty well eating the right stuff ... My daughter always says 'Well, you eat quite healthy Mum' ... 'You don't live out of the microwave, and you like to make your own things.'" Like I make my own lasagnes and stuff like that. And pasta dishes and things, you know, I'll make them myself, and I enjoy it, yeah. Yeah. I've always, I've always loved cooking anyway..." (LU, F, 80-89, W, ↓G↓NU↓EX) Interview "I found it reassuring that I was doing the right sort of things. That's always nice to hear. I did think I would be told that my diet could improve. So that came as a bit of a surprise." (CRC, F, 60-69, W, ↑A) Interview
	Preferences for lifestyle and activities	"I don't want to spend all my time doing exercises, at my age... You could die of boredom, couldn't you?" (CRC, M, 70-79, W, ↓G↓NU↓EX) Interview

		“It’s that idea of exercise. A lot of people just don’t fancy it.” (Site F) Focus Group Patient does not take up offer [of group exercise sessions]. Says may join swimming class, “like to keep to myself”. (UGI, M, 60-69, W) Observation “I don’t go to the gym or anything like that. I have a few times over the years, as you can imagine. I’m not young, but it’s never really been for me. That kind of organised exercise just doesn’t do it for me. I like to walk.” (CRC, F, 70-79, W) Interview Patient explains that he is on his bike every day, explaining that he has always used a bike and doesn’t like the car. (CRC, F, 60-69, W) Observation “He seemed a bit like he might not... didn’t really want to do (prehab).... (he) does his own training.” (LU, M, 70-79, W/BC) Staff Interview “I think it depends on what it was really. I certainly wouldn’t be prepared to sit in a support group, for example. I don’t think I’d like that.” (CRC, F, 60-69, W, ↑A) Interview “He was going to do it himself... he wouldn’t have wanted my support (with activity).” (PR, M, 60-69, W, ↓NU) Staff Interview “I’m into nutrition anyway and into physical activity...” (UGI, F, 30-39, W, ↑A, ↓NU↓EX) Interview “In terms of eating, I love my food, so I think there were a couple of times where they’re just wondering how I could keep eating what I was eating. I’d always sort of push it to the limit so, it didn’t always end up well. Erm, so I’d always trial and error, you know, in terms of food and, and that keeps on going even up to today, so, erm, the amount of food I eat I think is still, above average for someone that’s been through the, er, you know, when I’m able to, I guess anyway.” (UGI, M, 40-49, A, ↑D) Interview
	Language and literacy	<i>Health literacy</i> ‘He’s clearly done a lot of research around his own condition and his nutrition.’ (CRC, M, 60-69, W) Staff Interview “...considering she kind of used the service before, had been through it, and had a lot of information and knowledge around her condition, from [the hospital], which is really good.” (UGI, F, 50-59, BC) Staff Interview Patient says he exercises by walking, weightlifting. Says he’s not going to be hungry unless energy is spent. Knows appetite increases because he’s at end of chemo cycle. (UGI, M, 70-79, W) Observation Patient says, “You are supposed to be talking and exercising, aren’t you? Learnt it in the gym.” (LU, F, 70-79, W) Observation

		“I do quite a lot of lifting and carrying and that sort of thing, which I suppose is resistance in some way. But I've not really thought of that as a means of keeping my other muscles reasonably strong. So, I learned something from that. So, I thought, well, I'll see what the exercises are like and give it a try ... I've been more aware, I suppose, of the kind of exercise that I need to be doing. I think what's sort of happened is a better understanding of what's happening to my body when I do the exercise that I have been doing.” (CRC, F, 70-79, W) Interview “Well, I think knowing that I need to make my muscles as good as they can be and I know protein's obviously good to build your muscle strength up, and vegetables and green veg and stuff, I'm just trying to be more conscious about eating more protein to be read to get better. So, I do know what a good diet is, sometimes I don't do it, but I, I do know how, about how to eat well.” (CRC, F, 40-49, W) Interview Patient was diagnosed with coeliac disease at 20 years old; says awareness of nutrition and discipline was pivotal in dealing with this. (UGI, F, 70-79, W) Observation <i>Digital literacy</i> PT: “What are you like with tech?” Patient: “Yeah good.” (UGI, F, 60-69, W) Observation “I'm used to Zooming and stuff like that. I have done online exercises before.” (CRC, F, 60-69, W, ↑A) Interview “I am hopeless with my phone... All this technology...I leave to my daughter to help me with.” (LU, F, 70-79, W, ↓G↓NU) Interview Physiotherapy Technical Instructor: “Yeah, it's certain generations isn't it, they've got ... they're just not used to internet, apps, heartrate monitors, watches, all that stuff, which goes all above their head, so it's a massive barrier to try and get them online to do actual classes.” (Site F) Focus Group “I do worry about internet access though, erm, I know a lot of the older patients having lower GI surgery, erm, we did, er, just a survey a few months ago in, in clinic and, er, and it was all QR codes and all they had to do was get the phone out and link it, but none of the 50 patients we had wanted to do it on the QR code, they just wanted to do it on paper because they couldn't.” (Site A) Focus Group “Lots of patients either don't have an email address, or, if they do, they're like, ‘...I never read them’.” (Site C) Focus Group Prehab Administrator: “I offer it to every patient, when I book them in for their screening, I'll ask them if they need any tech support in accessing the appointment as well, so the offer's always there, from the initial call up until they're booked in.” (Site B) Focus Group “They tell you to go online, and there's online forms and tell you what's going on. And I just, yeah, I just forget about it then, you know. They always ask me a question I don't understand. Of course, because
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		you're online, you can't ask anybody what they mean... But then I come off it and then then I just, forget about it.” (PR, M, 60-69, W/A, ↓G↓NU↓EX) Interview
	Identity and self-image	<i>Fit of prehab with patient identity</i> “Difficult to lift heavy things but I still do it. There is nothing I can’t do.” (PR, M, 60-69, W) Observation “I don't want bloody Arnold, I don't want muscles out there like Popeye and stuff like that, you know what I mean? I want to get on in life.” (CRC, M, 70-79, W, ↑A) Interview “...his own attitude and I don't think that's a short-term thing like I think it's his mentality from day dot really, so he never goes to a GP, he never goes to the doctor, if any problems he just kind of gets on with it and that's what the family said, he's never been to the GP once.” (CRC, M, 70-79, W) Staff Interview “So, he's trying to figure out what kind of support he would need and what he feels able to take on board. He's quite a practical man. He doesn't, I felt, not so comfortable talking about his emotions. So, he was just trying to see what kind of support that he would find helpful.” (UGI, M, 60-69, W) Staff Interview “I think you could have like a bit of an old-fashioned view that men aren't supposed to cry, men aren't to show any weakness, and because his daughter also gave a comment, ‘Dad you don't have to be this macho man now’.” (CRC, M, 80-89, W) Staff Interview “...well-being side of it is probably the least popular.... peoples’ opinions of ‘I don’t need that.” (Site F) Focus Group “They did mention that they were a little bit kind of conscious over sort of how they are, how they look, those sorts of things. Some of the initial suggestions weren’t sort of acceptable to him because of, you know, how he felt about his body size or shape, I suppose.” (CRC, M, 70-79, W, ↑D, ↓G↓EX) Staff Interview “It was a bit embarrassing for me to go there (prehab group exercise class), people my age, and I felt ... I felt a bit of a prat to be honest, um, just walking on slow. And then she asked me to pick up two weights, which is two little ... like two dog bones... And I said you’ll have to give me something heavier than that. And so... they’re just being protective, but um, it was just a mild bit of exercise. But when I left there, I felt fine, and I felt well yeah, you’ve got me out, it’s got me moving, so I’m quite happy there... When you’re younger you push yourself until you’re fully aching and you just go that bit further, but now when I’m too old for all that, I’ve just got to take it easy.” (CRC, M, 70-79, W, ↑D, ↓G↓EX) Interview “I’m stubborn ... I won’t give in to any exercise regime they give me ... they can run me into the ground. But it won’t, it won’t bother me.” “But then I’ve never considered myself a person that goes to the gym and wears shorts... Yes, I don’t feel uncomfortable now.” (CRC, M, 70-79, W) Interview

		“We’re fighters, see?” (UGI, M, 50-59, W) Interview <i>Effect of cancer diagnosis on patient identity</i> “...and he made it very clear that he’d been married for 64 years, and he had been her carer. And he obviously, you know, it’s quite a big part of his identity, so by me just being like, oh we can get carers in, we, you know, that could jeopardise then his, his kind of desires to, I don’t know, interaction...” (CRC, M, 80-89, W) Staff Interview “Apparently, I am... I hate saying it, but now I’m classed as disabled. Never thought I’d say that I must admit. Don’t like it. But if it helps financially, I’ve got to go down that route.” (UGI, M, 60-69, W) Interview
Emotional and physical capacity	Burden of diagnosis, symptoms, and treatment (for cancer and comorbidities)	“It’s simply that behaviourally they cannot manage that level of change at such a stressful time.” (CRC, F, 80-89, W, ↑A↑D) Staff Interview “It’s mentally upsetting amongst, to be honest. It’s trying to motivate yourself to keep going all the time. I’m finding that a lot harder now. You know, before, I just kept working, working, working, and now it’s, oh, I can’t be bothered with this.” (PR, M, 60-69, W/A, ↓G↓NU↓EX) Interview “I did offer a home visit or telephone follow-up, and they didn’t seem so keen on that at the time. I think probably because they’ve got a lot going on, which is the nature of what we see when these patients come through.” (UGI, M, 70-79, W) Staff Interview “An exercise class, you mean? Possibly, yeah. As I say, I’m trying not to change too much of my working week, I call it, even though I’m not working. And I’m incorporating it in. I don’t want to take on too much. But yeah, because I know after this, it’s going to hit the rest of the family isn’t it. So, I’m trying to keep everything as normal as possible. I’m not saying I’m fantastic in house, I’m not there doing my exercises all the time, but I do my bit. I just feel I’m keeping on the move.” (UGI, F, 70-79, W) Interview “It’s purely the side effects of chemo. Some people end up feeling weak, fatigued, tired, just generally unwell, ... So, they just generally don’t feel well enough or strong enough to come to prehab. We encourage them to come if they feel well enough. It’s not always the case.” (Site F) Focus Group Patient says that he struggled to eat food for 6 weeks after chemo. Patient explained that since having the chemo, it had altered things. (CRC, M, 60-69, W) Observation “...quite substantial (weight) loss over 3 years.... just not enjoying making food and not really looking after herself.” “There was a bit of overwhelm.... compounded [by] quite complex dietetic advice given previously.” (CRC, F, 80-89, W) Staff Interview “We’ve had people who physically just can’t manage.” (CRC, F, 80-89, W, ↑A↑D) Staff Interview

		Patient says all preop(erative) assessment hasn't stopped, has had to cancel other stuff for hospital appointment. Feels overwhelmed. (CRC, F, 70-79, W) Observation Patient likes bingo but (says she) can't afford to go. Husband says that it's because she is worried about risk of falling. (CRC, F, 50-59, W) Observation "If he starts getting (angina) symptoms, which is more likely without the beta blockers, he may think, 'I don't wanna do it.'" (CRC, F, 60-69, W) Staff Interview "Some of them feel guilty because they've got friends, relatives, taking them to hospital appointments that they feel are more important than asking them to bring them, so they just feel like they can't ask." (Site F) Focus Group Carer: "Trouble is, we're getting appointments for all sorts of blooming things now." (LU, F, 70-79, W, ↑A↑D, ↓EX) Interview "And I've given her those, that advice and those exercise plans, again transport is a bit of an issue for this lady, along with some of her mobility and pain levels." (LU, F, 60-69, W, ↑A↑D, ↓G↓NU↓EX) Staff Interview "I think this patient has still got a lot going on, sort of from an investigation process. So, they're still awaiting two or three things maybe. So, from that side of things, I think there might be a little bit of just general sort of anxiety around, definite towards the treatment pathway because treatment has not been confirmed yet." (LU, M, 70-79, W) Staff Interview "It is overwhelming. I've found it overwhelming and my husband who, he was worse than me with the diagnosis. The thing is, as you say, you could ask me on another day, and everything would be negative." (UGI, F, 70-79, W, ↓G) Interview "It definitely hit me a lot harder this round of chemo. So, for this week, for example, I haven't really been out of the house ... other than hospital appointments... For a few days I've been in bed for 18 hours." (UGI, M, 40-49, A, ↑D) Interview
	Acceptance of cancer diagnosis	<i>Acceptance</i> (Talking about wife) "So, you know, we've accepted that, and it's part of getting better." (UGI, M, 70-79, W, ↓EX) Interview "It is what it is, I mean I wish I didn't have cancer, I wish it... I wish I didn't have the diagnosis, that's not, that's not going to get you anywhere, is it?" (UGI, F, 70-79, W, ↓G) Interview "Just knowing that there's an endpoint and that there was a cure, made it a lot easier... I feel that there's a different diagnosis or, you know, then obviously it would have been much tougher but knowing that this was curable, it's taken out now and, you know there, there is this, you know, I just had to go through in

		stages and never thought too far ahead, but, erm, yeah, just knowing, just get through this, this next day... I'd never really thought too deeply about it, and that's sort of helped me get on and get me through it." (UGI, M, 40-49, A, ↑D) Interview "But actually, I don't feel anxious. Because partly coming back again to the prehab, I feel as though 'Right, this is what I'm working towards'. I'm going to deal with this. And erm I mean it might be that my illusion will be shattered and it'll be more serious than I'm bargaining for, but at the moment I've got in my head." (CRC, M, 70-79, W, ↓NU) Interview <i>Lack of acceptance</i> "I picked up a few things with regards to, like, she felt she had imposter syndrome. So even though she'd been given this diagnosis, she couldn't understand why she wasn't having like side effects or, you know, she just felt quite healthy. As healthy as she could feel. So yes, she was really struggling with the diagnosis because she couldn't understand why it was her and she you know why she didn't have any side effects or issues. So, it was very much of a shock to her." (UGI, F, 70-79, W) Staff Interview "The worrying, yeah, talking about it. Because as I said, if I don't talk about it or laugh about it, I'll end up crying all the time. So, the last three weeks that I did first find out they had to do the op, I was constantly crying. I thought, why me? What have I done in the world to deserve this?" (CRC, F, 50-59, W) Interview "I can't bring myself to go to a cancer support centre...even the thought of it is making me tear up." (UGI, F, 30-39, W, ↑A, ↓NU↓EX) Interview "I'm doing my best to ignore the situation" ((laughs)). (CRC, M, 80-89, W, ↓G↓EX) Interview "I think his coping mechanism maybe was, well, until I'm told otherwise, you know, I haven't got cancer." (CRC, M, 80-89, W) Staff Interview
	Anxiety and low mood	"So, I'm trying not to dwell on things that are negative because it's very easy to do that. And the trouble is, you know, I don't find it easy to... I'm probably a person that's a bit of a control freak... But if you let yourself dwell on the scary, you really wouldn't sleep, would you? So, I tend, I try not to do that." (CRC, F, 70-79, W) Interview Patient says they are doing everything to be fit and every time doctors tell them that they have to be stronger, they get anxious. Patient says, "I am really trying but all this is too much". (CRC, F, 40-49, W, ↑A↑D, ↓G↓EX) Observation "...because of low appetite and everything else....to say to her 'increase your protein' that's going to be a heck of a challenge.... anxiety driving." (CRC, F, 50-59, W) Staff Interview 'Can sometimes feel down.' (CRC, F, 80-89, W) Observation

	Caring responsibilities	“I mean I know I am being fickle but erm, as I say, I’ve just got a lot on my plate at the moment trying to do everything as I say and having a friend as well who has fell off a chair and has broken erm her vertebrae in her back. So, I am trying to run around doing her shopping for her as well. I mean it’s all a lot of commitments for me at the moment and doing this as well.” (LU, F, 70-79, W, ↓G↓NU) Interview “I think her lifestyle, obviously she’s a full-time carer for her daughter so that obviously takes up quite a lot of her day. Sounds like her needs are quite demanding from the daughter in terms of manual handling...” (LU, F, 50-59, W) Staff Interview “He has a daughter who has learning disabilities who he looks after on Mondays.” (LU, M, 70-79, W/BC) Staff Interview “So, he is the main carer for his wife, who’s housebound and his son, who has Down’s Syndrome. Erm and he was quite apprehensive and slightly reluctant to be attending prehab because of yeah, dependencies at home.” (CRC, M, 80-89, W) Staff Interview “Other barriers that we’ve had kind of more recently as well where the patients themselves have been carers for their loved ones, so they might not be able to commit to the full three times a week.” (Site F) Focus Group
	Work and financial responsibilities	<i>Lack of time or capacity for prehab</i> “... I worked and worked, right up to the, the Saturday before the operation, because I had it on the Monday.” (UGI, M, 60-69, W, ↓G↓NU↓EX) Interview “Some still work as well and they’ve got financial problems ... ‘I’m self-employed; I’m not going to have any income coming in so I’m going to work up until my surgery’. You know, or the people they work nights... A few still work.” (Site F) Focus Group “...he works nights, erm, so that could potentially be a barrier to attending...” (CRC, F, 60-69, W) Staff Interview “Again, I suppose I could say the fact that he’s still working. That poses a bit of a challenge because you’ve... he may have less time to do the prehab.” (LU, M, 60-69, W, ↓NU) Staff Interview “But then you’ve got the stress of all the financial sides of it. And when you go from earning a nice amount of money per week, a month, to literally a quarter of it a week...” (UGI, M, 60-69, W) Interview “I think perhaps any challenges he has are time constraints because he lives on a small holding. Erm from what he said, there is so much work. He’s got, livestock as well as he grows all his own vegetables. So, he said that he could be out 4 or 5 hours a day. So, one of the constraints could be time constraints for him.” (PR, M, 60-69, W) Staff Interview

		“There's the financial side of it, the financial assistance, but it's just been because I work with somebody all the time, I just can't take the time off to go and get these things into place, but I, I am gonna have to do it now in the next week or so. I have been in contact with people. But as I say, it's just... it's just having the time. And I'm not very good at, you know, dealing with this type of stuff, and I put it off to another day...” (PR, M, 60-69, W/A, ↓G↓NU↓EX) Interview “We've got a physiotherapist that... she could look at a home programme. But because he's working all day, I don't think it's gonna meet his need.” (PR, M, 60-69, W/A, ↓G↓NU↓EX) Staff Interview <i>Supportive work environment</i> “If after a walk I feel like, well okay, I've sort of run down the battery, I'll go to sleep for a couple of hours and just sort of listen to my body in that way... I'm just lucky to have that flexibility with work that I could just, you know, for the most while do that.” (UGI, M, 40-49, A, ↑D) Interview “...depends on how supportive their managers are.” (Site F) Focus Group
Motivation	Fear of disability and/or death	Patient is concerned that he will not wake up from the operation. (CRC, M, 60-69, W) Observation “The thing I'm worried about is, because he said to me that there's a possibility that I'd have to go to intensive care. And that's what I don't want. Because my brother went into intensive care, and he never came out. You know, that's what's going through my mind.” (CRC, F, 50-59, W) Interview Patient is concerned that side effects of medication (hormones) may decrease quality of life to extent that life is no longer worth living. (PR, M, 70-79, W) Observation “I can put that to the back of my mind, because I'm not trying to get myself worried about anything, I'm just accepting the operation has got to be done and I'm only concerned after the operation, whether it is successful. That's ... that's the thing, so at the moment, I'm just keeping it to the back of my mind, and taking things as they are.” (CRC, M, 70-79, W, ↑D, ↓G↓EX) Interview <i>Counter examples</i> “Okay, so I was just saying with this patient, erm, not trying to look for problems but he seemed quite, erm, I was going to say, I was going to say blasé really, but a bit kind of almost too laid back about what was going on, erm, well his wife wasn't anxious.” (CRC, M, 70-79, W, ↓G↓NU↓EX) Staff Interview “That didn't seem to daunt her. It was just... ‘this is what's gotta happen. I'll deal with it and manage it when we get there.’” (UGI, F, 70-79, W) Staff Interview “I was like, oh great, you know, at that point, you're thinking you're going to have to, you know, you're going to die, but I've kind of like, no, I'm going to fight this and, and I'll get through whatever, to get through.” (CRC, F, 40-49, W) Interview

	Desire for treatment and recovery	“...getting through this surgery as well as I can has got to be the priority.” (CRC, F, 70-79, W) Interview “Getting fit, so I know that the immediate... me coming out of the anaesthetic, I will be okay.” (CRC, F, 50-59, W) Interview Patient wants to prepare as well as possible for treatment. (PR, M, 60-69, W, ↓NU) Observation “Not that I intend going anywhere anytime soon. Don't get that. Don't get that opinion from me, please. I'm fighting this...” (UGI, M, 60-69, W) Interview “So there will be some going back to the surgeon, and sometimes it's, if they're not engaging here with prehab and we're worried about them, it might be then that the surgeon has a chat with them about, you know, I don't really think you're able to undertake the operation, unless you're able to do more in prehab. And then that has worked in one or two patients.” (Site F) Focus Group “I wasn't fit for the operation, so this would help me through that procedure to see if we can do the op, with it being such a big operation. And basically, I've just got to give it a go and see if it makes any improvement to my health.” (CRC, F, 80-89, W, ↑A↑D) Observation “...hopefully I'll get back to what I called normal before; pottering about in the garden, doing a bit more, doing a bit of painting. I like to keep myself busy, keep myself active.” (UGI, M, 70-79, W, ↓EX) Interview “I've had so many medical appointments, and they're all miserable and negative... so I was actually really looking forward to prehab because it felt like a really positive one.” (UGI, F, 30-39, W, ↑A, ↓NU↓EX) Interview
	Improving physical fitness, nutritional status, and functional ability	<i>Observing changes and experiencing success increases motivation</i> “I noticed that the arm muscles are gone. And that's in a space of two months. And it's like, oh, okay. Right. I need to get these weights.” (UGI, M, 60-69, W) Interview “I'm improving now as ... my diet's improved and stuff. So, I've put on a bit of weight and, you know, so things have improved over the last two weeks, which is great.” (CRC, F, 40-49, W, ↑A↑D, ↓G↓Ex) Interview “I seem to have perked up since I've gone to prehab....it gives me more confidence.... I feel like it's doing me good.” (CRC, F, 50-59, W) Interview “Well, they told me that it had, just today, when I was on the bike, there was an improvement with my heart and my lungs, yeah. ... I don't do a lot of exercise because to be honest I don't feel like it, now I get very, very tired all the time, I am asleep most of the time too and I know it's a bit of a drag to think I've got to go to prehab yeah but then after you've been you feel a lot better for it; but I do come in here.” (CRC, F, 80-89, W, ↑A↑D) Interview

		"I feel my fitness levels have improved.... I want to make myself as fit as possible." (CRC, M, 70-79, W, ↓NU) Interview Patient: "I would love to build this up" (pointed to thigh of amputated leg). (CRC, M, 70-79, W) Observation "... I didn't have the confidence before to walk a long distance. My, my walking distance in... that would be to go to a National Trust place, get out of the car, walk to the café, and let my wife walk round the gardens. But actually, I feel more confident now." (CRC, M, 70-79, W) Interview "Some people are quite competitive, so they'll want to beat it, and they're like, oh, okay, I got 60, I'll try and get a bit more than that, and a lot of time it does help, and I do see people trying more..." (CRC, M, 80-89, W) Staff Interview "a little cough.... once every hour.... I do find that helps." (LU, F, 80-89, W, ↓G↓NU↓EX) Interview "And then I've been eating ridiculous things like, er, he was laughing, a Magnum at 12 o'clock at night, because he said there's no such thing as bad carbs and it's worked, it's worked, so I've got to carry on with the lovely [supplement] drinks." (UGI, F, 70-79, W, ↓G) Interview Taking up to 5 meals per day and has put on some weight and is pleased with it. (UGI, M, 70-79, W, ↓EX) Observation "I'm finding the ACBT exercises very effective in helping to clear... to clear and control mucus, so that's been very helpful." (LU, F, 70-79, W, ↑D, ↓Ex) Interview "Doing the exercises is making it a bit easier to walk a bit further." (LU, F, 70-79, W) Interview "I think he's the sort of person that if he's not challenged, he'll become bored... he needs to be tested, he needs to be motivated to keep going, so constantly motivating him." (CRC, M, 70-79, W, ↑A) Staff Interview "I think if she has a low mood, it's because she's not feeling well, she's in pain... and she's throwing up all the time. I think my mood would be really low at that point because she couldn't see herself getting better. But you could see a real shift of her saying from last week to this week, I haven't thrown up for eight days, and it's been great. You know, so she had a real turnaround, so that's quite nice for her." (PR, M, 70-79, W) Staff Interview <i>Not observing change reduces motivation</i> "I can't say that I can see any improvement or any difference whatsoever." (LU, M, 60-69, W, ↓NU) Interview "I've been doing that one... spirometer, yes. Yeah, so I've been doing that one as well, but ... I don't see improvement or benefit from that one, particularly." (LU, F, 70-79, W, ↑D, ↓Ex) Interview
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	Early or previous experience of prehab	<i>Positive experience</i> “If we can get them to the first session, they’ll usually settle down and enjoy it.” (CRC, F, 50-59, W) Staff Interview “...this week now will be my third time to come (to prehab), and but it was, yeah, it was really, well, this, I can't explain it to you. It's like somebody's giving you support, which you, once you get your diagnosis, you think that's it, I just wait now, I go in and have an operation, but there's a lot leading up to it, and I've met people here that are here for the same thing, all being prepared, obviously, for surgery, and everybody's more positive. You're working towards something.” (UGI, F, 70-79, W) Interview Patient says she did lung rehab twice (7 years ago, and last year), was a good way to meet people. (CRC, F, 50-59, W) Observation <i>Negative experience</i> “Me being the kind of person I am, when I heard get fit for essential surgery, I went mental for it, like I went home, I went into the gym, I was going on bike rides. I then immediately after that appointment, went and did the first run I'd done since being pregnant, as long and hard as fast as I can go. I didn't know you're not supposed, erm, excessively exercise on steroids, erm, it's very dangerous. And so, the next day... and I felt great after the run, I was like, yeah, I've got this, I'm going to beat cancer, who cares, I'm going to run. The next day I woke up and as soon as I stood up, I started vomiting... and I couldn't keep water down and I, I couldn't look after [name of baby], I couldn't get out of bed, and I got really scared... A massive step back and so basically what I've tried to do is ignore that (prehab) session, which was such a shame because I was so pumped up for it and excited, I was so pumped up for afterwards... I actually tried to do the opposite and slowed down.” (UGI, F, 30-39, W, ↑A, ↓NU↓EX) Interview
Self-efficacy	Confidence to exercise	<i>Self-confidence</i> “...she's previously had heart issues... she feels confident with regards to exercising. She's always exercised, you can see that by the way... with posture and everything is really good, the strength is good.” (UGI, F, 80-89, W) Staff Interview “She's already going to yoga, Pilates and Zumba. That she's already aware of them and quite confident to go to exercises. She's scored 10 out of 10 on the confidence scale. So, she's not nervous or anxious about going to class.” (CRC, F, 60-69, W, ↑A) Staff Interview Physio explained re. group exercise session – Strengthening exercises, social. Discussed what to wear and bring to exercise session. Therapy Assistant Practitioner booked patient into exercise class – explained to patient where to park and where the building is; showed map on computer screen. (CRC, M, 50-59, W) Observation

		“[I] felt great about being able to do it (gym).” (LU, F, 80-89, W, ↓G↓NU↓EX) Interview “The other ones are the shoulder and arm stretching, which, because I had breast cancer last year, I had a set of exercises for my shoulders and arms, and I find those ones are easier than the ones in the prehab key. It’s moving similar muscles, but it’s just doing it in an easier way.” (LU, F, 60-69, W) Interview <i>Lack of self-confidence</i> “He’d done exercise in the past and his wife said that he didn’t keep it up so I decided to follow through on that then and explore that a bit further just in relation to his motivation and his confidence really to erm maintain lifestyle choices because obviously sometimes if they know that they don’t maintain it then they’re not going to be motivated to engage in the first place.” (CRC, M, 70-79, W, ↑A) Staff Interview “She’s already lacking confidence about going to the exercise and what she’s going to be able to manage, and she gets pain in some of her joints and things.” (CRC, F, 80-89, W) Staff Interview “...some of the exercises, you know, probably not doing them right, but I think they do tend to try and put you right, and tell you, ‘Well look, we need to do that’, so yeah, they are supportive in that sense... But no, normally I find it quite easy to do ... No, it’s just probably I wouldn’t get round to doing it, that’s all.” (CRC, M, 70-79, W, ↓G↓NU↓EX) Interview “If someone said to me ‘Do those exercises at home’, I’m not sure I’d trust myself to do them as vigorously; I’d do them.” (CRC, M, 70-79, W, ↓NU) Interview Patient enjoys riding her bike but is too scared to continue. Physiotherapist: “Coming here will help build your confidence.” (UGI, F, 60-69, W) Observation
	Confidence to make dietary changes	<i>Self-confidence</i> Patient is confident that he can increase his protein intake. (LU, M, 70-79, W/BC) Observation Patient knows protein is needed. Can eat cheese pastry, will struggle, but still eat it. Patient says, “anything better than nothing.” (UGI, F, 70-79, W, ↓G) Observation “Generally, I cook my own food and cook for the family... you can always make tweaks when you do that.” “I saw with Ensure that the amount of sugar that it’s in there for the amount of protein... so I found another protein shake that would give me even more protein with a miniscule amount of comparative sugar to what Ensure would give me.” (UGI, M, 40-49, A, ↑D) Interview <i>Lack of self-confidence</i> “I can’t go in the kitchen and create food. You know, it just, that’s not me.” (PR, M, 60-69, W/A, ↓G↓NU↓EX) Interview

		“Well, I do my best with it because some days you just, you gotta push yourself to eat some days because you just haven't got the appetite.” (UGI, M, 60-69, W) Interview Patient states that he wants someone to say, ‘eat this’. (UGI, M, 80-89, W) Observation
Individual – External Patient Factors		
Physical environment	Access to equipment	Patient has an exercise bike but has not used it for a month. (PR, M, 60-69, W/A, ↓G↓NU↓EX) Observation Patient does weight training with neighbour who has home gym. (CRC, M, 70-79, W) Observation “So, he already had a static bike at home, which he uses for 10 minutes a day. So instead, I offered him the home exercise programme, because they said they had some little weights at home, which is great, you don't have to have them, but great that they do, so offered him that...” (CRC, M, 80-89, W) Staff Interview “Obviously, he's a higher-level patient and, he just said, you know, if the group is too full or whatever, that he's quite happy to be able to take the exercises he's been given, because he does have a home gym, and carry on.” (LU, M, 70-79, W) Staff Interview “I also go to my own gym as well.” (LU, M, 70-79, W/BC) Interview
	Access to suitable space for exercise	“...got a gym in the sports hall, but it's finding the time at the moment.” (PR, M, 60-69, W, ↓NU) Interview “I live at the top of the hill and where I go to do most of my walks is... I go where I've got a variety of flat walking and hilly walking, so I, you know, I'm stretching myself, you know, both in testing, and to the sort of ability of how steep a walk I can do.” (LU, F, 70-79, W) Interview Patient says he is okay at home, finds incline difficult outside. Wife mentions they frequent [named shopping mall]. It's flat and has benches (both need to stop and rest); other places don't have this. (UGI, M, 70-79, W) Observation
Social environment	Isolation	Patient explains that “it gets real (at prehab) because you can talk about it (cancer) here.” Patient doesn't talk about cancer at home... (UGI, F, 60-69, W) Observation Patient lost her son 6/7 years ago and is estranged from her daughter-in-law and grandchildren. (CRC, F, 80-89, W) Observation “I think he's quite a lonely gentleman, and he does suffer a little bit with his mental health.” (LU, M, 60-69, W, ↓NU) Staff Interview “It was only a small thing, but I think [name] said, ‘so you have a good support network then?’, and that's when I started crying... because we don't... I've got a husband supporting me through this, with a little kid, it's so much more than... we need a bigger support network...” (UGI, F, 30-39, W, ↑A, ↓NU↓EX) Interview

		“...you're just concentrating on all the paperwork and especially being on your own because you can't rely on anybody else to do it or help you.” (UGI, M, 60-69, W) Interview “I've been on my own for so long. Well, I've always been on my own, basically. But, yeah, you get into a way of life, and it's hard to change it.” (PR, M, 60-69, W/A, ↓G↓NU↓EX) Interview
	Presence and support of family or friends	<i>Positive effect</i> “Driving, again, she relies on her son to drive, so if the son is not available, she may be limited in how far she can travel and get to places, so she relies very much on her son to get around to places.” (CRC, F, 50-59, W) Staff Interview Patient not driving now. Partner drove patient to appointment. (UGI, M, 60-69, W) Observation Patient's daughter/son-in-law drove patient to appointment but stayed in waiting room. (CRC, M, 70-79, W) Observation Family provided extra information and clarification. (UGI, M, 60-69, W, ↓NU) Observation Back in work – people there are supportive. Lives with cat. Three adult children – Hasn't told them anything yet. (UGI, M, 60-69, W, ↓G↓NU↓EX) Observation Occupational Therapist says that she could arrange transport for Wednesday; Patient has sister visiting that week. Occupational Therapist says, “We encourage social days”. (CRC, F, 80-89, W) Observation “Husband force feeds me. He makes sure I have plenty of protein.” (CRC, F, 50-59, W) Interview Daughter tried to let patient answer questions but provided additional information or answered questions where patient can't remember. “Good job I've got my brain sat next to me” (referring to daughter). (CRC, F, 80-89, W) Observation Family member helping patient to access online appointment. (CRC, M, 80-89, W) Observation Patient lives by themselves. Has family and friends. Patient says has two supportive sons ‘who let me do nothing.’ (LU, M, 70-79, W) Observation “I mean, I go out, I've got a couple of friends just down the road, I pop down there and have a coffee with them.” (LU, F, 70-79, W, ↑A↑D, ↓EX) Interview “My wife is obviously keeping tabs on me, like, making sure I'm not trying to smoke too much, making sure I'm eating...” (UGI, M, 50-59, W, ↑D, ↓NU) Interview “My husband has nagged at me, he said you haven't had your drink today, but it's worked.” (UGI, F, 70-79, W, ↓G) Interview

		“...with the help of my wife, she’s just constantly putting food in front of me, so even though you don’t feel like it, if it’s there in front of you, then you just pick at it...” (UGI, M, 40-49, A, ↑D) Interview “Going back to the support that this patient has at home, like his wife is supporting him... He’s obviously capable of doing his own fortification and making his own meals, but if motivation is one of the things that he’s struggling with, or fatigue is one of the things that he’s struggling with, then the fact that he has someone there on hand to help him prepare stuff, or even prepare it for him, will hopefully combat some of those issues”. (UGI, M, 50-59, W) Staff Interview “Emotionally, I think I’m pretty strong. I think we, well not so much I, but we are coping pretty good because we do, we’ve been married 56 years, so we rely on one another quite a lot.” (UGI, M, 70-79, W, ↓EX) Interview Patient declines extra support. Says she speaks to daughters or friends if she has any worries. (UGI, F, 70-79, W) Observation Partner says she has been “fortifying food”, gives examples of cream in food, switch to full-fat yoghurt and puddings. Explains her background as a nurse. (UGI, M, 60-69, W, ↓G↓EX) Observation <i>Negative effect</i> “I do what I can if I... and everybody then tells me, oh, don’t overdo it, you know, so it’s difficult, because everybody’s trying to protect you and then you think ‘should I do that, should I...?’” (UGI, F, 70-79, W, ↓G) Interview “Her husband was interjecting a bit which I think isn’t something that is done in a, in a negative way, it’s just that’s the way he is, so it’s just trying to focus more on [Name], the actual patient, rather than get sidetracked too much with her husband I thought was, can be challenging.” (CRC, F, 70-79, W) Staff Interview “I think the booklet says three times a day for the exercise but I just think you know having talked to my nursing friend, we went to school together when we were five and she’s a lung specialist sister and she said oh for goodness sake as long as you’re doing what you are doing I wouldn’t worry about all these extra exercises.” (LU, F, 70-79, W, ↓G↓NU) Interview “...but she did have issues obviously listening to the, the conversation and her husband tended to talk a lot over her. I did, did check a few times and in joke really, in gest, to try and get him to be a little bit more quiet so that the patient can answer the questions.” (CRC, F, 80-89, W) Staff Interview
	Stigma of cancer or disease	Patient had been feeling a bit panicky and was worried about what other people thought. (LU, F, 80-89, W, ↓G↓NU↓EX) Observation

		“He said he felt embarrassed that he had cancer.” (CRC, M, 60-69, W) Staff Interview Patient mentions she hasn’t spoken to others in her social circle about diagnosis due to location of cancer. Says liver cancer associated with alcoholism. Doesn’t drink, but speaks about stigma... (UGI, F, 70-79, W) Observation “I stopped going ... because I was coughing all over the gym and people were looking at me.” (LU, M, 70-79, W/BC) Interview
Transport – availability, cost, and acceptability	Public transport	“...I would rather spend those five hours doing, going out doing walking and exercising at home than spending a lot of it, a lot of the time sitting on a bus or hanging around waiting for buses that tend, most of the time, not, not to turn up.” (LU, F, 70-79, W) Interview “So, we’ve offered the classes but she’s, erm, she just stated now, she’s got, erm, a two-hour bus journey up to the, er, up to the hospital or she has to take a taxi which again is quite, you know, it’s quite, it gets quite costly for the patient...” (LU, F, 70-79, W) Staff Interview Patient: “That’s all it [the bus] costs. It beats having to get into [place name], find a car parking space, pay a fortune.” ... Carer: “We’ve got an itsy bitsy blinking bus service, it goes from here down to er, [place name], which is the ... by, you know, the village. You’ve got to go down to [place name] first, don’t you?” Patient: “Yeah, they go down to [place name] first on the bus that goes down there.” Carer: “Second bus there.” Patient: “Then you’ve got to get the six, which goes into [hospital], then you’ve got to get another bus that goes to the hospital.” Carer: ((laughs)) “And yet the hospital’s only just over the hill there ((laughs)).” (LU, F, 70-79, W, ↑A↑D, ↓EX) Interview “The patient did mention that they used to go out for classes, but they prefer walking, so giving them that option of doing some more things at home if they wanted to, as opposed to sort of having to go out to a class if the weather is quite poor, because they’re not a driver, might be a bit helpful. Again, it’s sort of that relying on public transport.” (LU, F, 70-79, W) Staff Interview “There’s some people that just don’t want to get the bus. The stigma of getting the bus.” (Site F) Focus Group
	Hospital transport	“We did have a couple, don’t get me wrong it wasn’t every single one, but most of them, because if you said, well I can get you transport, because they didn’t want to put their family out again, they’re already coming to all these different points with procedures, they don’t want to come out again, so a lot of them then would come on transport or something...” (Site A) Focus Group

		“...well this particular patient used ambulance transport to come in for the appointment today. And we have had patients in the past that have used ambulance transport to come to classes and it’s not something that we sort of discourage, again we do encourage them, but obviously it’s down to patient choice. We know sometimes ambulance transport, because they can sometimes be collecting a few people...” (LU, F, 60-69, W, ↑A↑D, ↓G↓NU↓EX) Staff Interview “We nearly had to take this lady home ourselves because they couldn’t promise that transport would come and pick her up.” “The downside is that patients are here for hours basically. Their appointment is only two hours, they’re brought a lot earlier, they’re either early or late for the appointment, and some of them can be sat there, two, three hours waiting ...” (Site F) Focus Group Patient: Well, I get the taxi there, and taxi back, and it's all paid by the National Health. INT: ...how did you find out about that? Patient: Well, when I went for my assessment, the lady I saw who did my assessment, she got the information for me, and then she did all the transport. ... They’ve always been on time. Sometimes, we have to pick up other people, so I have to get it a little bit earlier. But I'm up anyway, so... I am the first one to be picked up, and the last one to be dropped off. But they're brilliant. They are good, and they say if you need to stop at any time, you know, get some air... They're really good. INT: Okay, and if that service wasn't available, how would you have managed to have got to prehab then? Patient: Well, I wouldn't have done, because I'm out in the sticks a bit. (CRC, F, 50-59, W) Interview “I think we had a patient recently who couldn’t get to [hospital], that was what the problem was, and he wanted to just stop altogether, because he was getting transport, um, that was a bus, but it was taking like two hours to get it to stopping off to the hospital. And then by flagging it, that was the issue, he now has a taxi coming.” (Site G) Focus Group
	Car	“So, we offered a... offered the opportunity to attend class in [Place], which is closest to his home environment. And he’s happy to travel because he is driving, he’s happy to travel that distance to [Place].” (UGI, M, 70-79, W) Staff Interview “I don’t drive, and my husband doesn't drive, so it would have been really difficult, and it would have caused me a lot of anxiety anyway [travelling to prehab without hospital transport].” (CRC, F, 50-59, W) Interview Patient had to stop driving that week. The patient had concerns how he was going to get to the prehab facility. (CRC, M, 80-89, W) Observation

		Patient doesn't drive and relies on her husband for transport. (CRC, F, 70-79, W) Observation
Technology	Internet access	"They might not have the internet access." (Site F) Focus Group "I'd say off the top of my head, the patients who we have the most trouble getting online are the ones in the more rural areas where the internet connection isn't as good. There's a lot of patients who I think... there was one that we got to a face-to-face appointment because even though he did have internet, he openly said that it couldn't support a video call with a clinician." (Site B) Focus Group "Perhaps if we did have a better system, I might partake more, but it's a no-no at the moment, and I can't see it improving, you know, we're not going to have fibre or anything, in any foreseeable future." (UGI, F, 70-79, W, ↓G) Interview
	Access to digital devices	"We are looking at how we can provide support from a digital first perspective, but that has its own challenges in itself in terms of accessibility to equipment and... broadband width and ability to undertake some of the sessions that way." (Site B) Focus Group Virtual group with Occupational Therapist offered, but patient doesn't have technology to join a virtual group. (LU, M, 60-69, W) Observation Physiotherapist offers a virtual class as an alternative, offering to lend an iPad to the patient. Patient is not keen on technology and doesn't accept the virtual option. (CRC, F, 50-59, W) Observation "When you start talking to them about that, they, they're sort of like, oh, I can't do that ... IT wise, which is a shame, because we've got the stuff for them." (Site F) Focus Group
Interpersonal – Relational Factors		
Alignment of expectations	Misalignment of expectations for prehab	<i>Cancer care worker and patient</i> "I was a little bit disappointed that they don't seem to offer much in the way of nutritional advice, which... when you're facing cancer and surgery, you want to sort of feel that you're eating in the best way ... I think it was my fault because I just expected perhaps more than what the service was offering, really." (LU, F, 70-79, W) Interview "I went in there expecting to do exercises and, you know, climbing on the stairs and whatever to see if... that's what I was expecting in all honesty, but it wasn't, you know, it was basically a conversation, wasn't it really..." (LU, M, 60-69, W, ↓NU) Interview "I'll be honest with you, I thought... I was hoping that I would be told I was physically okay and that was good." (CRC, F, 60-69, W, ↑A) Interview

		“...when we asked him, ‘what did he expect of the service?’, he said he didn’t really know what to expect.” (UGI, M, 70-79, W) Staff Interview Patient: I think before I went into prehab, I thought the thing I want to get out of it is making sure I’m in the right mental space. I thought, out of all the things I need, that’s what I need most... I don’t think there was any of that in the prehab. I think I got told, go see your GP, slash, go to [cancer charity]... and that’s not what I was expecting to hear. I was expecting it all to be really joined up... it was also, for me to find out if we could access support for me and my husband because obviously it’s a thing you go through as a family... he’s been able to access some counselling through work afterwards but that’s not because of prehab, it was almost in the absence of anything, he’s had to find an alternative. INT: Yeah, so you were hoping that the prehab service would offer you as a family some of that support. Patient: That very much was my expectation, and I think that was the gap that we needed as a family as well. INT: Yeah, and was that expectation from, kind of, the professional that referred you or the medical team, or was it from your own sort of understanding of prehab? Patient: Just my own understanding and looking up, because you said the words ‘emotional support’... I think that was on the information as well. (UGI, F, 30-39, W, ↑A, ↓NU↓EX) Interview “I think I was a bit disappointed with physiotherapy, because I think we were at cross purposes... I thought I was going there for my back, to have some instruction on how to strengthen my core and my back.” (LU, F, 70-79, W, ↑A↑D, ↓EX) Interview Patient expressed that he was relieved. He thought the dietitian was going to say he can’t eat this, can’t eat that. (CRC, M, 70-79, W, ↓NU) Observation
	Managing expectations	“...with the assessment, they come in, they can have a little look [at the prehab gym] and get a bit of a feel for it.” (CRC, F, 50-59, W) Staff Interview Therapy Assistant Practitioner explained purpose of follow appointments/telephone calls and referral when booking appointments. Agreed dates with patient. (UGI, M, 60-69, W) Observation Patient given dates for prehab sessions straight away – ‘next session in diary before patient leaves.’ “We want that continuity of care.” BC “...we want them to know exactly when they are coming back again and what’s to be expected.” (CRC, M, 70-79, W) Staff Interview “...I think part of this initial assessment has to be about education. Because I think like he did, you know, he comes in thinking I’m going to tell him off for eating chocolate. And of course, the whole prehab nutrition education and conversation. Whilst we want to talk about a balanced diet and good nutrition. It’s

		not, it's generally not what the patient is expecting. So, we do have to make a point of simplifying and giving those key themes. To get them on the right track." (CRC, M, 70-79, W, ↓NU) Staff interview Physiotherapist says post-op education is part of prehab, but preop is main focus. Says can still refer for post-op equipment or exercise. (CRC, F, 70-79, W) Observation
Communication	Miscommunication	<i>Between cancer care worker and patient</i> "It (prehab pilot) wasn't very high uptake at first, but it was because we weren't selling it right, we weren't explaining it properly." (Site A) Focus Group "I think probably he's somebody who takes snippets and runs with them. So, it's that he's taking the negative sign of, okay, never cycle again." (PR, M, 70-79, W) Staff Interview "So, I followed up with that with the nurses and they said he hasn't... I just got an email back to say that actually he hasn't had any advice of the sort." (CRC, M, 70-79, W) Staff Interview Patient complains about appointments being changed frequently. CNS apologises, asks patient to contact her for confirmation. Acknowledges that it is frustrating situation, validates communication mismatch. Acknowledges that information can be overloaded sometimes. (UGI, M, 75-79, W) Observation "I think there was a bit of a confusion, we tried my best to sort of explain it but, I don't know if he got it completely, so I did try and change the explanation, erm, to try and tailor it towards him, erm, he was quite a jokey character saying, so we almost made it into a, well come along, have a go and see how it goes and, and to that he responded well to that." (UGI, M, 60-69, W, ↓G↓NU↓EX) Staff Interview <i>Between healthcare professionals/departments</i> "...when discussing this with the patient, the patient's a little bit frustrated because she feels like that the two specialties are not communicating, which I can understand." (LU, F, 60-69, W) Staff Interview
	Clear and consistent two-way communication	<i>Enabling understanding</i> "So, absolutely, exercise class isn't the be-all and end-all, but it is taking that time to talk to people, to get to know people, what makes them tick as humans." (Site C) Focus Group "...continuation of the same messages.... we're not working at odds with one another." (CRC, M, 60-69, W) Staff Interview Therapy Assistant Practitioner gave verbal encouragement, 'You're doing well', 'Just over halfway now'. (CRC, M, 70-79, W) Observation Therapy Assistant Practitioner providing lots of verbal instructions during assessments. (UGI, M, 60-69, W, ↓NU) Observation

		Physiotherapist checking that patient is using the Inspiratory Muscle Trainer device correctly during practice – giving patient verbal cues. (Lu, M, 50-59, W) Observation “I’ve got good people around me and they... stage by stage they explained every little step they were taking, baby steps or big steps and they were telling me all that they were going to do... how long it’s going to take, what are the side effects, and they were really nice and there was no, ‘Oh, he’s down there tomorrow, he’ll explain to you later on’. No, none of that. They told me every, like today, they [oncology team] told me every little thing, and they showed it to me like, as well, you know... I could understand it, and they sit down, and it was great, and they put your mind at rest don’t they, like? You feel relaxed...” (UGI, M, 60-69, W, ↓G↓NU↓EX) Interview “If anything does change...he’s got an open access back to me so he can always...speak to me at any time.” (CRC, M, 50-59, W) Staff Interview Clinical Nurse Specialist: Side effects increase as treatment progresses, especially with radiotherapy. Often swelling, soreness at site. Describes it as “sunburn on the inside”. (UGI, M, 75-79, W) Observation Patient not familiar with supplements. Dietitian: ‘Supplements are usually high in protein and low in calories. But if prescribed (by us), they will be high in protein and calories.’ (UGI, M, 80-89, W) Observation <i>Distractions/barriers</i> Prehab Assistant, Physiotherapy Student, and patient’s partner speaking over each other at times. Patient occasionally confused. Patient stops during test occasionally to ask what was said. [Second Prehab Assistant comes in during test to speak to first Prehab Assistant, briefly] [Partner takes phone call] (CRC, F, 80-89, W) Observation “He wasn’t really forthcoming with that information ... but whether he’s not relaxed when the dietitian isn’t there... and he’s giving information to other people that he’s not giving to the dietitian, which unfortunately is something that happens. I don’t know why it happens, but it seems to happen erm where they don’t want to, not because they’re not doing stuff.” (UGI, M, 50-59, W, ↑D, ↓NU) Staff Interview Therapy Assistant Practitioner: “Any history of anxiety or depression?” Patient reports: “not really”. Patient’s partner reports patient is on medication for depression. (LU, M, 50-59, W) Observation “So, she just took me to the end of the corridor, and she’s got it all set up there, hasn’t she? ... ‘Yeah, faster, yeah, come on, quicker, quicker...’ I wanted her to shut up.” (UGI, M, 60-69, W, ↓G↓NU↓EX) Interview
	Acknowledgement and reassurance	‘OK to feel breathless in test.’ (LU, F, 80-89, W, ↓G↓NU↓EX) Observation “They might simply want a chat and reassurance that they’ve done OK.” (CRC, M, 70-79, W) Staff Interview

		Occupational Therapist: “You’ve got a lot going on with health and wife’s death. We are here to support you. I will be at class, and we will keep in touch.” (UGI, M, 70-79, W) Observation Dietitian: “...must be difficult to wrap your head around that.” (UGI, F, 70-79, W) Observation Dietitian: ‘...all really reassuring.’ Praises protein choices in sandwich filling and dinner. Dietitian reassures about diet, says is a good portion size. (CRC, F, 60-69, W, ↑A) Observation Dietitian praises food choices. Good that she’s having protein twice a day. ‘Protein is important.’ ‘Any sort of meat/fish is good.’ (CRC, F, 80-89, W) Observation Physiotherapist provides reassurance re. activity level. (UGI, M, 70-79, W) Observation Dietitian: ‘that’s the best part at the moment...’ (white fish) Occupational Therapist: ‘oh, that’s put a smile on your face!’ Dietitian: ‘...really encouraging, that!’ (CRC, F, 70-79, W) Observation “Involving him in the class, so actively making efforts to speak to him, asking how he's finding it, making it personal to him, so make him feel like he's included in the group. So, I think that's the worst thing you could do if you felt as an outsider you don't feel part of the group, so definitely be included in the group.” (CRC, M, 70-79, W, ↑A) Staff Interview “So maybe like trying to build a bit of rapport with him and like educating him a little bit on like how important it is to look after him, and if he’s okay, then he is able to, you know, be the best carer and the best husband he can to keep [Name] at home safe.” (CRC, M, 80-89, W) Staff Interview Dietitian: “...quite a big food weekend, I like the sound of that!” (UGI, M, 40-49, A, ↑D) Observation Dietitian praises food choices. Explains smaller portion sizes and adding in snacks is good. (UGI, F, 70-79, W, ↓G) Observation Therapy Assistant Practitioner: ‘Nothing wrong with your strength.’ (UGI, M, 60-69, W) Observation Prehab Assistant responds: “...here to support you. If you go ahead with surgery, we’ll get you ready; on the right track with fitness, diet and mental health.” (UGI, M, 70-79, W) Observation Verbal instructions for handgrip test from Therapy Assistant Practitioner; ‘Good job’. ‘You’ve got a good consistent pace.’ (UGI, M, 70-79, W) Observation
	Establishing safety to ask questions	Patient is interested in how the appliance works and is inquisitive, asking lots of questions about the machine. (CRC, M, 70-79, W, ↓NU) Observation “We need to know. And some people forget that bit, so it’s making sure they know what they can come and talk to us about.” (CRC, M, 70-79, W, ↓NU) Staff interview

		“The staff were very good and ... I was asking a lot of questions, and they were giving me the right answers. There is, there’s not, I’m not going to go away thinking I don’t know anything now.” (LU, M, 70-79, W/BC) Interview “And I made sure of saying to the family members that were outside, if anyone’s got any questions or queries, feel free to pick up the phone and, you know, we can touch base.” (LU, M, 70-79, W) Staff Interview Clinical Nurse Specialist: “Don’t be afraid to reach out, never something too small/silly.” (UGI, F, 70-79, W) Observation Dietitian: “If something doesn’t make sense, just ask.” (CRC, F, 50-59, W) Observation
	Use of humour	Prehab Assistant and patient joke about height and weight [Prehab Assistant measures height twice]. (CRC, F, 60-69, W, ↑A) Observation Dietitian finishes with assessment, says Physiotherapist is next. Patient: “Not going on weights!” [jokingly] Physiotherapist: “Will get you running on treadmill.” [jokingly] Patient: “Don’t think so!” (CRC, F, 70-79, W) Observation Dietitian concerned about hydration. Patient laughingly asks if ‘we are aiming for champagne?’ Says he’s ‘nearly there’. (UGI, M, 70-79, W, ↓EX) Observation Patient: “I used to be a football coach”. Therapy Assistant Practitioner: “You dress like a football coach.” [Laughing] (CRC, M, 50-59, W) Observation Patient says that he is “looking forward to the operation for a break”. Both patient and dietitian laughing. (CRC, M, 80-89, W) Observation Dietitian: “Sorry about all the paperwork, the NHS likes to kill trees.” All laughed, and patient seemed to loosen up a little and smile. (CRC, F, 50-59, W) Observation While measuring blood pressure, physiotherapist jokes, “You have done it before, have you?” Patient says, “7000 times” and laughs. (LU, F, 60-69, W) Observation Occupational Therapist joking ‘lovely chef upstairs’ (referring to daughter). Patient: ‘Head nurse’ (Laughing). (CRC, F, 80-89, W) Observation
Reciprocity and connection	‘Prehab buddy’	“She (my wife) comes with me. She prompts me, come on, let's go. I'll laugh going in there... ... she had a little bit of a cough over the last couple of weeks, and she hasn't been up to the matter. So, I have been coming on my own. I will do it if I got to. But if I haven't got to, I'll get out of it. That's the way I am.” (CRC, M, 70-79, W, ↑A) Interview

		Carer: He'll have a main meal, which I made sure, I make sure that he has more meat... INT: I think your wife's there in some exercise classes, or do you go to all of them? Carer: I've been to all of them so far. INT: Yeah, and do you sort of help him with the instructions? Carer: The first couple of times I did... But, er, the first one, I just sort of tried, because I thought I had to sit there ... But the second time I went with him then, she said, oh, you can follow him round and... I mean just to give him the confidence to know that he's not doing something wrong, you know? INT: And has that helped? Patient: Yes, it's helped, yeah. INT: Compared to the first time when she was not following you around? Patient: Well, it's always difficult the first time, because you don't know what to expect so, yeah... INT: Mhm and any challenges with, erm, the diet, the nutrition? Patient: No, not really. Er, I just make sure that, well she makes sure I get what I'm supposed to have... (CRC, M, 70-79, W, ↓G↓NU↓EX) Interview Patient says her daughter (nurse) is encouraging her to make healthier choices (yoghurt instead of ice cream). (CRC, F, 80-89, W) Observation 'Doing it with my husband...' (UGI, F, 30-39, W, ↑A, ↓NU↓EX) Interview "I think the concept of having a buddy with them to egg them on a bit, and keep up their stuff at home, as you were saying. Erm, particularly from the exercise as well, but equally the other stuff, yeah, is really important. Because otherwise they're on their own and they, you know, they won't bother, or they'll be doing it wrong or you know, whatever, but someone egging them on, you know, 'come on, we've got to go for that walk now', and you know, it's really important. And then ultimately, you've got two people with a new healthy lifestyle going forward, you know, post-op as well." (Site F) Focus Group
	Peer support from other cancer patients	"...men aren't to show weakness.... he'll be the quiet one in the wellbeing groups, and just taking it in, and hopefully by speaking with other men of the group he may feel comfortable to start to open up." (CRC, M, 80-89, W) Staff Interview Patient: Well, maybe, yeah, like, like group sessions if you didn't want to do the gym. INT: Why do you think that would have helped them? Patient: Well, involvement with people that is experiencing the same sort of thing, if you see what I mean. (CRC, F, 50-59, W) Interview "I enjoy doing it, and I'm meeting different people as well, which is good for my mental health. It makes me feel a lot better. I don't feel like I'm the only person on the planet that's got an illness." (CRC, F, 50-59, W) Interview

		Carer: Yeah, you all have a laugh and get on quite well. INT: Is that... do you enjoy the social aspect of the class? Patient: Oh yeah. Yeah. We can slag each other off [laughs]. (CRC, M, 70-79, W, ↓G↓NU↓EX) Interview “...then obviously to give them opportunity in the class with other patients there, so that they feel more inclined to give things a go really, whereas sometimes when you offer them one-to-one appointments, it sometimes can feel a bit like too much especially with everything else they've got going on. So, we feel there's a big element of peer support really, both from us and from the patients...” (UGI, M, 70-79, W) Staff Interview “Colorectal type patients, so far, we've seen a lot of anxiety around a stoma bag, and I think that's where the peer support definitely comes in because some of the patients come in, they've already had stoma bags and maybe they're waiting on the second op, so that really can help break down some of those barriers ... When they go to class this is where they all start to talk to each other about how they're coping, the symptoms they're experiencing...” (CRC, F, 80-89, W) Staff Interview “I was speaking to his partner and his partner said that err he's not very... he's quite a shy person, so I think he would definitely benefit from this, and I think he's, looking at some of his questionnaires to do with his anxiety, you know, he seems, I think she said he was bottling stuff up. So, I think this would greatly help him be in a situation where other people are going through the same thing, so he can talk to other people in that group.” (CRC, M, 70-79, W, ↑D, ↓G↓EX) Staff Interview “They absolutely love them (group exercise classes), and they asked to go back all the time, but... They ask, a lot of them do.” “I bet it's because they have biscuits there...” “They do in the [place name] one, because they have coffee and they have tea and they have like a chat, so we're trying to, again...” (Site C) Focus Group “He said don't Google it, but there's really good Facebook support group and other things, and that's where you can get some solid information from. Obviously, I Googled it, but solid information did come from that group, and I found it really a good place for support.” (UGI, F, 30-39, W, ↑A, ↓NU↓EX) Interview “Classes, once we started talking about those a bit more, he seemed to relax at the thought of there might be peers in there that are either still having investigations or have had surgery, so he seemed a bit open to that...” (LU, M, 70-79, W) Staff Interview “The tiny little daily things that you think are insurmountable but everyone else is suffering the same thing, well not everyone but some people are, and they come up with the most unique solutions to dealing with these kind of issues.” (LU, F, 60-69, W) Interview
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		“So, if they’ve done three or four weeks of prehab, they do tend to come back in. And especially they’ve been, I know it sounds daft, but they’ve been in with somebody, if I’ve been in with [SPP], and you both come back in, it’s ... they’re quite happy, because, oh, I’ve just seen [patient] again now, and they’re kind of getting that community feel, so they’re getting that social support as well. You know... ‘How was your surgery?’ ‘This went well, that went well.’ ‘Oh, you’re having that pain too’, or ‘You’re having this too’. It makes them feel a little bit better, gives them a bit more reassurance as well... If they’ve done the prehab, especially the classes, they do tend to come back in afterwards... that’s not even a hard sell; we’re just kind of saying to them, you’ve got the option afterwards, and most will say yes.” (Site E) Focus Group “...but for a lot of them, they get some extra benefit out of it, ‘cause there’s so much peer support that goes on within the group and we have seen friendships develop from group, and participation and even groups that carry on by themselves afterwards, with it being a friendship group has, has actually happened, you know, and they carry on, and they meet afterwards which is brilliant”. (Site B) Focus Group
	Finding common ground, enabling rapport	<i>Reciprocal shared interest</i> Developed rapport; very chatty Therapy Assistant Practitioner said she recognised the patient; Established they used to live in the same area. (UGI, M, 60-69, W, ↓G↓NU↓EX) Observation Therapy Assistant Practitioner and patient from same place; chatting about local places and house prices. (UGI, M, 70-79, W) Observation Patient and dietitian talk about Six Nations rugby. (UGI, M, 80-89, W) Observation Clinical Nurse Specialist and patient talk about cliffs in Penarth. (UGI, M, 60-69, W) Observation Therapy Assistant Practitioner and patient discussing activities for disabled daughter and other disabled adults – developed rapport. (LU, F, 50-59, W) Observation Patient and Prehab Assistant have good rapport – speak about local health centre. (CRC, F, 60-69, W, ↑A) Observation Prehab Assistant and patient talk about recent illnesses. (UGI, M, 40-49, W) Observation Prehab Assistant and patient talk about dog breeds – long conversation. (CRC, F, 70-79, W) Observation Prehab Assistant, patient and partner talk about motorbikes, horses, etc. (CRC, F, 70-79, W) Observation “I was happy to get more of a rapport and speak outside of dietetics as well so that’s kind of where the whole talking about Ireland and his grandparents and everything came from. I think that will help him going forward as well because now he will know me as the Irish dietitian erm which is a lot of places for a dietitian.” (UGI, M, 40-49, W) Staff Interview

		<i>Demonstrating interest in the person</i> Patient observed that 6-minute walk test like walking version of the bleep test. Chatted with TAP about bleep test – Used to do it with football team when a coach. Also chatted about football fitness training. (CRC, M, 50-59, W) Observation Participant and Therapy Assistant Practitioner chatting about car during walk test. (UGI, M, 50-59, W) Observation Occupational Therapist asks if he enjoyed it (job). Patient says yes, explains job further. Occupational Therapist asks if this is something patient hoping to continue? Patient: 'yes'. (CRC, M, 70-79, W, ↓G↓NU↓EX) Observation "My personal approach is making a little bit of small talk with him and really engaging, asking questions about his hobbies or just lifestyle or... his previous experiences..." (CRC, M, 70-79, W) Staff Interview Therapy Assistant Practitioner offered the patient a drink of water after 6-minute walk test; Patient accepted. Told the patient how far he had walked. (LU, M, 70-79, W) Observation
	Continuity of staff	"...so erm this patient was previously known to me, so I had a good rapport with him already cos I'd already spoken to him before." (UGI, M, 80-89, W) Staff Interview "For us, I think that we realise that the importance of building the relationships is really important and that's why we're trying, you know there's obviously a good presence with the two key Therapy Assistant Practitioners that run the exercise classes but obviously for us as the clinicians then it's important that we have a presence at the class and that's why I'm keen to attend really, to build that rapport with people, to keep those conversations going..." (UGI, M, 70-79, W) Staff Interview "...with someone like him, I'll have multiple chances because I cover a Monday class, and the education will be on Wednesdays. That means I'll see him at least twice a week, including then any separate appointments that we have. So, I think kind of building that rapport and that encouragement, I think will help motivate him." (CRC, M, 70-79, W, ↑A) Staff Interview "At this point it's hard to say how much he would reach out himself because of how we present it, but I think maybe just building that rapport, given the contact details, maybe it might allow things to progress really and of course like he had a good rapport with [Therapy Assistant Practitioner], so encouraging her as a contact so, you know, it doesn't always have to be me, it's about the best person really isn't it. So, so obviously we would keep that in mind..." (CRC, M, 70-79, W) Staff Interview

	Impact of technology	“Whereas now we’re using the computers which are on the desk, so I’m turned slightly away from the patient, and I feel, I feel it’s nicer to explain, but sometimes that can feel a bit impersonal ... If they are having an emotionally challenging day, I will abandon the computer.” (UGI, M, 80-89, W) Staff Interview Physiotherapist explains everything is electronic, need to type, explains they’re not ignoring her. (CRC, F, 60-69, W, ↑A) Observation Staff: I’ve seen it a few times when they apply the pressure to the machine, they’re not actually sucking the air in, so, erm, it looks like they’re doing it, but they’re not, and so I was looking at the screen, it was catching a little bit, then it was dropping out, so I thought, okay, erm, I’ll explain it in a different way, so I said, take that out, do a big suck in, that’s it, now do that through the machine and then it worked absolutely fine, so yeah. It’s probably just the way I described it, it could have been the way he interpreted it, but once it had been cleared up it was alright, he got it. INT: Do you find that by pointing to the screen that helps with their understanding? Staff: I feel like it does, but I don’t know whether it actually does. I feel like it might give them an idea of like, oh, yeah, I can’t see anything, oh, now I can, I’m doing it right. (CRC, M, 80-89, W) Staff Interview “I need to lay some hands on people, particularly with the stomal rehabs to make sure that they are engaging correctly and that’s something that I can’t do virtually, erm, even if virtual’s working brilliantly and I can see them perfectly, we haven’t quite got the technology where I can pop some hands through the screen and pop my hands on them and make sure they are engaging their trans-ab perfectly, to prevent stomal herniation. So, you know, yeah, there’s always going to be that mismatch sometimes of what we can offer.” (Site B) Focus Group “With virtual groups you need two members of staff... from all of our groups, not just the activity, but from a safety issue, ‘cause if you’ve got somebody that suddenly disappeared off screen, you need somebody that’s free to actually give them a call and see what’s going on.” (Site B) Focus Group
Structural – Patient-Provider System		
Prehab pathway	Referral to prehab	<i>How prehab is introduced</i> “...it really needs to start with the surgeon, ideally, mandating it as part of a, right, you’ve got this cancer, can I have an operation, we need to do another scan, we need to do this, and you need to go to prehab. Prehab is essential to get you fitter and stronger; otherwise, it’s going to add lots of complications. So, if the surgeon mandates it, in the patient’s mind – oh well, I’d better do that then. It’s much more effective. Then the cancer nurse specialist needs to reinforce it as they walk them round to the pre-op assessment,

		and then pre-op assessment nurse needs to reinforce it again and actually make the referral, so that hopefully by the time they come to you guys, it's a done deal." (Site F) Focus Group "... I think if it's, you know, reiterated by the surgeons, the pre-op nurses... You know, by the time they come to us hopefully they kind of understand, you know, the benefits of it really." (CRC, M, 60-69, W) Staff Interview "... it's coming at it from different aspects. It's us giving her that, that message, preop, surgeons, consultants giving her that message, so it's that consistent message that, you know, this is good for you, and it is going to help you." (Site F) Focus Group Patient introduced to prehab by surgeon. "They said they had a prehab team which they would have liked me to get involved with just to check my wellbeing, my diet and physio and things like that." (CRC, F, 40-49, W, ↑A↑D, ↓G↓EX) Observation Patient: I was referred by a consultant. And I thought it was for my back, not for my cancer. INT: Okay. So did the consultant er, provide any information about prehab, or ...? Patient: No, just that it would do me good to go. (LU, F, 70-79, W, ↑A↑D, ↓EX) Interview Patient says: "Nurses say they (exercises) help with recovery as well." (LU, M, 80-89, W) Observation "It sounds like she's already taken [surgeon's] advice into consideration and starting to try and increase her physical activity at home..." (LU, F, 70-79, W) Staff Interview Patient says 'CPET anaesthesiologist was keen for me to come to prehab' (due to steroids). (CRC, F, 70-79, W) Observation "It's what it does for you as well, so it's, yes, you need to go to the gym because that means when you come out of your surgery you will be, you'll recover quicker, you'll feel... and all that jazz. I think they don't... They don't understand that." "Seeing the longer thing, but also, they can make, like with the cardiac rehab in particular, it is seen as part of their treatment... Where we don't sell it like that." (Site A) Focus Group <i>Referral pathway</i> Prehab Coordinator: Yeah, it depends on the pre-op nurses. A lot of them are really good at erm, explaining the benefits, but then a lot of them, what I get, they've been told that much, it's a lot to take in. (Site F) Focus Group Anaesthetist and Clinical Prehab Lead: I'm stopped in the corridor often now by anaesthetic colleagues, other people who work in theatre, saying ooh, we had a patient down yesterday and he was raving about prehab in the anaesthetic room rather than being a quivering nervous wreck. Kept going on and on about prehab and so we managed to get him off to sleep ((laughter)). And, you know, so that's great, isn't it? And
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		that, so that side of things filters through to all the surgical teams, probably more powerfully than us saying, oh it's really good, you should send your patients to prehab. (Site F) Focus Group "We're now seeing patients on treatment and post-treatment as well." (Site B) INT: Were you given any sort of information of what prehab would be like when the referral was made to them? Patient: I don't think so. No. I don't think so. They just suggested that I speak to this lady. (PR, M, 60-69, W/A, ↓G↓NU↓EX) Interview Prehab referrals from CNSs (Clinical Nurse Specialists) at point of high suspicion of cancer diagnosis i.e. all suspected cancer patients. CNSs refer patients who agree to prehab referral. (Site B) Focus Group "Quite often the response when call patient following referral is... 'I've just had investigations, I've just spoken to our CNS and got lots of information, so, could I have... a bit more information and a little bit of time to think?' We don't ever really close the door on any referral that comes in. We always give them the information to come back to us if they want to." (Site B) Focus Group Clinical Nurse Specialist: We've been using the prehab programme for quite a while now, and we tend to refer to patients at the point of suspicion of a cancer, and that's normally on an endoscopy. (Site C) Focus Group Clinical AHP Cancer Lead: We pick up referrals for any treatment, whether that be surgery, neoadjuvant, and so on and so forth. (Site C) Focus Group Therapy Assistant Practitioner: A CNS has looked at your information and thought you would benefit from a referral. (UGI, M, 60-69, W, ↓G↓EX) Observation "So, patients are quite fortunate in terms of as soon as the referral is received from anywhere in the MDT, it's actioned within one working day, so patient's notes are accessed, and patients are often telephoned, and a plan made with that patient, extremely quickly." (Site E) Focus Group Clinical Nurse Specialist: So they have the initial consultation with the surgeon, then we see them, pre-assess them for surgery, and if it's on the list then to help rehab, then we'd start it, I think the last year maybe, just send an email straight over before the letter is dictated and put up, and the physios pick it up. (Site E) Focus Group
	Time available for prehab	Physiotherapist: So, if someone hasn't been given enough time to physically optimise them before they have a surgical date, we can discuss that with the team. INT: About whether there might be worth having a bit of a delay on the surgery to ...? Physiotherapist: Yeah, you can push back. (Site E) Focus Group

		“So, they don’t get the full four weeks with us, which is disappointing from our point of view, but I’m sure from the patient... they’re getting their surgery in quickly.” (Site F) Focus Group Clinical AHP Cancer Lead: We say two weeks is needed, we’re not going to make, you know, we’re good, but we don’t have a magic wand, we’re not going to make a difference in less than two weeks really... (Site C) Focus Group INT: ...do you have a criteria on they need to have a certain amount of time available to be accepted into the prehab service? Prehab Lead: A minimum of two weeks. (Site B) Focus Group “He won’t be for surgery for 3 weeks, so we’ve got time.” (CRC, M, 80-89, W) Staff Interview Physiotherapist explains that benefit might be limited due to short duration between prehab and surgery (4 days). (CRC, F, 80-89, W) Observation “I did the one, and then about two days later, I got the letter from [Treatment centre] saying your treatment is due to start from the 12th. So luckily, I hadn’t got to do it anymore, the fitness things.” (UGI, M, 60-69, W, ↓G↓EX) Interview
	Location of prehab	“...so come to an exercise class, which was quite local to his home, and he was aware of the local area which may have influenced the decision.” (CRC, M, 70-79, W, ↑A) Staff Interview “Because when they first brought up prehab, I thought, oh, I can't get down here. Because it means my children are going to lose work. And we're talking about hours out of work, not just an hour. But then, when it was said then, like [unclear: 00:18:52], where they met you, I thought, oh, that's great. I can drive there myself. Over here, I can drive here. 35, 40 minutes and I'm there. So no, I think it is good to have some in different areas. So, it encapsulates a heck of a lot more people.” (UGI, F, 70-79, W) Interview “I issued both the seated and standing exercise programme to be done at home. A couple of different reasons. First of all, this patient’s location is quite far from where our classes are being held so realistically, classes would sort of be a bit of a no-no and unfortunately, we don’t have anything in that local area to the patient at the moment.” (LU, M, 70-79, W) Staff Interview “It’s [laughs], at the minute I drive slowly, but it’s a minimum an hour and a half driving, plus the stress of trying to park in that stupid car park. Erm, last time we came we left at half past 11 for a half past 2 appointment. That’s how stressful I find it, but to come by bus is like three hours, four hours. ...if the prehab was available, I would have it. I would be against having to come to [prehab location] every day for an hour, or once a week, or whatever it is, whatever the thing is, for an hour... When I know they do it in [Area 1] and [Area 2] and [Area 3] and in about five other places near me.” (LU, F, 60-69, W) Interview

		“And pre-op, I mean anyone who lives in Anglesey for example... it’s prehab, but are you going to be able to come three times a week for half a day every week? But basically, the answer’s no straight away, so we didn’t even refer them to prehab.” (Site F) Focus Group “I think distance. A lot of patients – we cover a large area and most of the support we offer is here - they already live 40-45 minutes away. So that would be a barrier to them accessing what support we might be able to offer her.” (UGI, F, 70-79, W) Staff interview “I have to say prehab are good, especially if we’ve got patients travelling, if we do explain they’ve got an appointment on, on Monday, they will, will, you know accommodate that.” (Site C) Focus Group “I would imagine his main gripe would be coming into [name] Leisure Centre, the cost associated with that, it would probably be about a two-hour round trip of a 20–30-minute drive in plus 20–30-minute drive out, plus an hour’s class, twice a week... I don’t think it’s that much of a time commitment, but some people do. So yes... I think that would be his main issue.” (UGI, M, 60-69, W, ↓NU) Staff Interview “...people just aren’t familiar with... I wouldn’t have known where to go, to be honest.” (Site F) Focus Group
	Prehab follow-up	“His awareness of nutrition is there; it’s just in my mind I’m questioning the practice of that. I will be talking to him again.” (CRC, M, 70-79, W) Staff Interview “...it’s reassuring that it’s there, it’s reassuring knowing that you’ll keep contact.” (LU, F, 70-79, W, ↑D, ↓Ex) Interview “...it’s been followed up, it hasn’t been like one visit, here’s your exercise plan, get on with it.” (LU, F, 70-79, W) Interview “Especially during the early stages now, so we’ll keep in contact with them on a weekly basis and if they are regular, sort of keeping up with all of their exercises, we might sort of take it down to once every two weeks.” (LU, M, 70-79, W) Staff Interview “So, I will be catching up with him so that I can provide that encouragement, that accountability, really, in terms of ‘What have you done? What have you been doing?’ Yeah, so it’ll be doing that. It’ll be keeping on top of him and making sure that he’s doing something.” (UGI, M, 60-69, W) Staff Interview “We’ll be in contact with him, one, in the classes we’ll chat to him... when he first comes to class, to get his confidence... I’ll be sort of showing him round the class and then also I’ll have him down for phone calls every two weeks just to get any treatment updates, so if he’s got any surgery dates, and then if he needs any sort of further sort of interventions. ... as for adhering to the classes, like I said, if he doesn’t turn up, we’d probably be ringing say ‘Oh, I noticed you weren’t in class last week, everything okay?’ And hopefully then persuade him to come back.” (CRC, M, 70-79, W, ↑D, ↓G↓EX) Staff Interview

	Referral or signposting to other services	<i>Mental health</i> Offered separate referrals to [cancer charity] counselling support for patient and wife. No cost, 10 sessions but flexible. 2-3 week waiting list. Patient and patient's wife accept referral. (CRC, M, 70-79, W) Observation "...those ones, it would be good if we had a direct link that they could be referred to, rather than go through the GP and then go through the mental health services and a very lengthy process. I have tried to find if there's any ways that we could have a direct pathway, but no. Which is a shame." (Site F) Focus Group "I think I got told go see your GP, slash, go to [cancer charity] ... and that's not what I was expecting to hear. I was expecting it all to be really joined up and accessing... so I haven't accessed any mental health support because I'm not going to go to my GP, am I, because I'd have had my surgery by the time I get anything." (UGI, F, 30-39, W, ↑A, ↓NU↓EX) Interview Patient: "It feels as if I am in a horror film that doesn't stop." Occupational Therapist: "Have you had support from [cancer charity]?" Patient: "No, they are busy." (CRC, M, 60-69, W) Observation <i>National Exercise Referral Scheme (NERS)/Exercise</i> "We have tried some referrals, for the last few years, patients to NERS who are coming up to operations especially lower GI who would benefit from an improvement exercise and both before the operation and rehabilitation afterwards. But NERS is set up by local authorities so as already said you have to pay as a patient to do it, and then each area is slightly better off, slightly worse than the others, they've got big waiting lists. Other patients referred to NERS and then being phoned up after the operation saying can we have an assessment now rather than before, because there's too much of a waiting list. There are some problems with it; some areas are okay and we'll get the patients in that week but, you know, we don't get any feedback from them..." (Site A) Focus Group "We've got NERS like... which we can kind of link into in their area which ... might accept them in the build up to their surgery potentially, but we would consider different options, yeah." (Site F) Focus Group "...linking with leisure would be one option... But we don't have those links at the moment." (Site G) Focus Group <i>Financial advice</i> Patient thinking and says could be thinking about finance, the next steps. Physiotherapist says they have a service, CISS, and they can have a look. Patient says they would be interested. (PR, M, 60-69, W/A, ↓G↓NU↓EX) Observation
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		“The ladies suggested I ring [cancer charity]. I did ring him. Err and that's another thing, I haven't rang them back. But yeah. Because they were able to put... helping me with the energy costs. But then I just say I haven't, that's another thing that's on the to-do list.” ... “I did speak to them, and it was more about the financial side of things.” (PR, M, 60-69, W/A, ↓G↓NU↓EX) Interview Occupational Therapist says she can speak to [cancer charity] for grant, asks for consent to refer her to [cancer charity]. (CRC, F, 50-59, W) Observation “Well, [[cancer charity]] got me in touch with all the relevant departments. Because, like Universal Credit, Department of Work and Pensions regarding PIP.” (UGI, M, 60-69, W) Interview Occupational Therapist says can refer to [cancer charity] for financial advice. Patient says he can ring them. Occupational Therapist says either is fine but can refer to local one. Patient accepts. (PR, M, 50-59, W) Observation “But they said there's money there for you, they can do this for you, they can do that for you, they can do this for you. You don't have to work if you don't want to...” (UGI, M, 60-69, W, ↓G↓NU↓EX) Interview Patient: “This (cancer) isn't bothering me, it's the money side of things.” Clinical Nurse Specialist says can assist with chasing that [referral to cancer charity] up. (UGI, M, 40-49, W) Observation <i>Social care</i> “I can't really offer what the brother is asking for, which is like somebody coming out two or three times a week to check he's doing his exercises. Sometimes that's not really a service we can provide in the community.” (UGI, M, 70-79, W) Staff Interview “And maybe just having like a direct link with social workers... especially for the ones recently that are sole carers for their wives and they're going in for surgery as well.” (Site F) Focus Group
	Cross-service overlap	<i>Misalignment or disconnect of overlapping services</i> “And interestingly enough, since coming on the prehab diet here, to build that up. All the things that I'm supposed to be eating to build my muscles and strength up are the things I shouldn't be eating for my diabetes. So, that is an interesting... I mean I might just be misreading it.” (CRC, M, 70-79, W) Interview “He doesn't see it as a priority, but also, I think the consultant said any damage, it's a bit late now if there's any damage. But, of course, we would say, isn't it, we know over the long term there can still be benefits to giving up really, so yeah, we'll follow up on that one.” (CRC, M, 70-79, W, ↓G↓NU↓EX) Staff Interview

		“Obviously, every time you go there, they, they’re sort of replicating it with dietitians and, and people that are looking after you, which is good, but obviously it would probably be better if you just had one person centrally doing it all.” (UGI, M, 50-59, W, ↑D, ↓Nu) Interview “...and they get diagnosed there, they get an A4 little plastic thing full of all information that they go away with and they come to see them in clinic and then for their surgery and then they give them, are told to ignore all of that and actually they’re family’s read some of that, so it’s who’s right, the Breast Care Wales one, and they try to say oh but we tell you the same thing.” (Site A) Focus Group <i>Managing overlap of prehab with other services</i> “So, I was conscious not to step on any toes or duplicate any work that has already been done by the team that’s actually managing him I suppose in this case, it’s cohesion between healthcare professionals which is going to help. So, I actually emailed the managing team [at different health board] today, just to let them know that I’d spoken to him. And they are planning to follow him up again, they know now, and they can reinforce... so I guess in that same breath, reinforcement of the information I’ve given.” (UGI, M, 60-69, W) Staff Interview “We normally tend to work around the diabetes rather than... you know, it’s more important they get enough calories and proteins from their food at this time, so if there is any issue with the like glucose level, they speak with the diabetic nurse, and they can, you know, increase their medication rather than a restricted diet because of the diabetes.” (UGI, M, 50-59, W) Staff Interview Dietitian confirms that patient has already seen a dietitian (different health board). Dietitian explains how services differ. (UGI, M, 70-79, W) Observation Patient was given advice from another medical facility to cut out Bran flakes and gives a low fibre diet. Patient is confused about diet (and is) querying eating white bread. Dietitian says the clinic should have been clearer that the patient is fine to eat white bread. (CRC, M, 80-89, W) Observation
Mode of prehab delivery	Integrated prehab	‘One-stop shop’ (Site A) Focus Group “But yeah, there’s always that link, and the cancer nurse specialist, stoma nurses, patients are really worried about their colostomies, you know, might want some more input, some of them might be unsure and want to go back and speak to the surgeon again, about, you know, what type of operation they’re having, etc. So yeah, there’s a sort of constant channels of communication back to the other teams.” (Site F) Focus Group “It’s after the gym sessions, so they do the gym session first, and then come through here, and then have various different wellbeing sessions, and [name] does the Tai Chi, and we do relaxation sessions and various things really.” (Site F) Focus Group

		“...then they can actually deliver their, you know, here’s some additional aids that will help you cut down and stop smoking. Whereas if you just signpost them, it’s up to them to make an effort to go into the hospital, you know, and they just don’t bother. So, I think again, the more you can deliver to the patient while you’ve got them, the more successful you’re going to be actually getting them to better comply.” (Site F) Focus Group “...I think it’s kind of like a little education system for them as well, and the most important thing is to make it fun. But a lot of them, they tend to look forward to coming, because they know, even though we’re doing exercise, because me and [prehab assistant’s name] do the three disciplines as well to support it, they can ask us questions on that as well. So, it’s kind of a massive support mechanism.” (Site D) Focus Group “I do find it’s very good to be in an MDT (Multi-disciplinary team) clinic, but it’s very hard to get that... because we have such a... each of us have such a small amount of time with the patient.” (CRC, M, 70-79, W, ↑A) Staff Interview
	In-person vs remote (virtual or home-based) prehab	“I suppose the difficulty with that is over the phone, if he’s got hearing problems, that doesn’t always work either... So, like I said, I’m going to try and explore the home visit option. It would be difficult to get [TAP] there, if she was a good option, because of covering the classes, but we’ll just see what we can achieve on the day, really.” (CRC, M, 70-79, W) Staff Interview “He did express several concerns with coming in, and he clearly did want to have more of a home-based programme. Given his slight frame and his loss of weight, it would be better if we saw him in person to try and build him up a little bit more, or at least somebody saw him in person.” (UGI, M, 60-69, W, ↓NU) Staff Interview “Some of the exercises, you know, probably not doing them right, but I think they do tend to try and put you right, and tell you, ‘Well, look, we need to do that’. So yeah, they are supportive in that sense.” (CRC, M, 70-79, W, ↓G↓NU↓EX) Interview “So that group face-to-face stuff is really powerful. And you know, the coffee room area is a really important part of prehab. And you know, that’s completely missed by the remote service.” (Site F) Focus Group “We do offer some home exercise programs which we can send out in the post, which we can do things like TheraBands. We would still ideally like to assess them just to check their clinical suitability for exercise, but we can post out home exercise programs.” (Site F) Focus Group “I think we definitely need to be looking more... I think, ultimately, it’ll be a hybrid approach. And how we best deliver, recognising we’ve got some high-risk patients that we do need to start thinking a bit differently about how we’re meeting those needs.” (Site B) Focus Group

		Wife: Patient ‘wouldn’t have made it to in-person prehab appointment’ – Didn’t have the energy. (CRC, M, 80-89, W) Observation Patient at risk of falls; therefore, not safe to complete sit-to-stand test in virtual consultation. (CRC, M, 80-89, W) Observation
	One-to-one vs group prehab	Patient says he is pessimistic, doesn’t want to transfer this to other people in groups. Not comfortable sharing feelings/emotions. (PR, M, 70-79, W) Observation “It's difficult because we're having to do this in a group setting, so they're not always going to open up. They're not always going to say exactly what they think, and especially in this kind of [online] platform.” (PR, M, 60-69, W) Staff Interview “Another conscious decision I made purely down to the fact, from her test results, she scored quite low and poorly on those. I think she wouldn't get the support she needed in a class setting. She is very much more of a one-to-one individual who needs that bit more one-to-one support. She's not a falls risk, but she has deconditioned. She may not be able to cope with a full sort of class setting. Again, all the exercises that will need to be tailored to her...” (CRC, F, 70-79, W) Staff Interview “...but obviously for us as the clinicians then it's important that we have a presence at the class and that's why I'm keen to attend really, to build that rapport with people, to keep those conversations going and then obviously to give them opportunity in the class with other patients there so that they feel more inclined to give things a go really.” (UGI, M, 70-79, W) Staff Interview “It was a bit embarrassing for me to go there, people my age, and I felt ... I felt a bit of a prat to be honest, just walking on slow.” (CRC, M, 70-79, W, ↑D, ↓G↓EX) Interview
	Visual demonstration	Dietitian shows the patient a visual poster to explain how building patient will help with the outcome of the operation. (CRC, M, 70-79, W) Observation Dietitian points to chat on the wall as a visual cue, explains that (the) more protein consumption, quicker (the) recovery. (CRC, M, 70-79, W) Observation “I used the slides then just because they're the same ones used in the universal group. So, they're just useful information and guidance. The Eat Well plate, fantastic way of just looking at visually, you know, this is how it should look, and it often doesn't look like that for me.” (CRC, F, 60-69, W) Staff Interview Handgrip strength – Therapy Assistant Practitioner verbally explained what involved. Then gave physical demonstration before asking patient to start. ‘May do BIA depending on result.’ Verbally explained what test involves. (CRC, M, 70-79, W) Observation

		Physiotherapist also explains about ACBT technique and demonstrates it to the patient. (LU, M, 60-69, W) Observation Physiotherapist explains about spirometer and demonstrates technique. (LU, F, 70-79, W) Observation Physiotherapist demonstrates all the exercises. Physiotherapist says, “I want you to get lightly breathless during warm-up and moderately breathless during the exercise.” (LU, F, 70-79, W) Observation
	Written information	Patient looks at the exercise plan and looks at the exercise pictures and says, “that’s handy”. (LU, F, 70-79, W) Observation Patient: “I think they left a list, a dietary list, didn’t they?” Carer: “They give you a list, a list of things that are good, good to eat and things.” Patient: “But knowing me, I probably didn’t read it.” (CRC, M, 70-79, W, ↓G↓NU↓EX) Interview “I was sent the leaflet... a basic leaflet, basically really saying what it was before...” (LU, M, 60-69, W, ↓NU) Interview “So, this patient, I issued both a seated and standing home exercise plan, ACBT leaflet which helps with bringing up secretions, a breathlessness booklet, and an incentive spirometer.” (LU, M, 70-79, W) Staff Interview Occupational Therapist gives patient a leaflet about diet. (CRC, M, 80-89, W) Observation Dietitian gives patient leaflet on how to intake more protein – “here’s where you find the protein” points to leaflet. (CRC, M, 70-79, W) Observation “He spoke to the OT yesterday, and she ... she sent us a link with a sheet to help you think about things to help to take your mind off... um, what’s her name? [name], she’s the occupational therapy, they went up yesterday, at a link on email, there is a Zoom option, but [name] would rather just do it at home and read the link that she sent.” (CRC, M, 70-79, W, ↑D, ↓G↓EX) Interview
Resources	Space constraints	<i>Lack of privacy for prehab assessment</i> “I felt very self-conscious doing this running. I really didn't like doing that with so many people in the room and me just running around. I thought that was really bad. I didn't like that. I did it.” (CRC, F, 60-69, W, ↑A) Interview Patient leaning forward and hands crossed. Someone is talking out loud behind. Patient says “Sorry, I can’t hear you.” (LU, F, 60-69, W, ↑A↑D, ↓G↓NU↓EX) Observation Prehab Assistant upset about situation [having to share room], says is unprofessional, had sensitive information. (UGI, M, 40-49, W) Observation

		<i>Limited capacity</i> “Yeah, space availability, so um, within the cancer centre, we’ve significantly outgrown our premises, um, so space is a real issue.” (Site G) Focus Group Occupational Therapist: “... we obviously need locations then for assessment isn’t it, because we do struggle with assessment capacity.” (Site D) Focus Group Delay in starting test as room in use by another patient and Prehab Assistant. (UGI, M, 70-79, W) Observation
	Limited funding for prehab	“So [Health Board] funded the staff.” “...a lot of the actual equipment has come from [Cancer Charity], and they’re very keen because it’s right up their street; it’s actively helping the cancer patients, and the patients love it, and it’s a good project for them...” (Site F) Focus Group “We’ve been told that there is no funding, so that’s been the major sort of barrier for us actually preventing it. We’ve got people who want prehab and everyone’s saying we want to promote it, and we want to deliver it, but we’ve got no ringfenced service for prehab.” (Site A) Focus Group “They’ve got a ringfenced budget, they’ve got physios and other things to follow patients up... North Wales has shown how they’ve got the benefit in doing prehab and what the benefits are, and then you come to a health board without any money for it and then we’re just trying to string stuff together and do the best we can with no money.” “It’s like a postcode lottery then isn’t it? It is, it’s like a postcode lottery.” (Site A) Focus Group
	Staffing	Prehab service needs to incorporate a coordinator. (Site F) Focus Group “So, everything just comes back to location, and, you know, it would be great if we had a bigger team so that we could cover it...” (Site E) Focus Group Occupational Therapist: ...like the complex ones that kind of need more like a counsellor. You know, maybe they’d benefit from more that aspect. Anaesthetist and Clinical Prehab Lead: A clinical psychologist. Occupational Therapist: Yeah, like a proper psychologist. (Site F) Focus Group “And then we can, they’ll pass the baton back to us to monitor that way to improve the protein, but she may still be following then a nutritional programme as set by the complex dietician, the specialist dietician as it should be, especially because we don’t have a dietician in the house at the moment.” (UGI, F, 60-69, W) Staff Interview

		“You know, with a small team, if a couple of people are away on leave, it’s a big hole effectively, and clearly the patient, you know, can’t extend their stay to get the whole effective thing. They need to get in within that short time frame, so that sort of flexibility within the team and cross covering and you know, cross, you know, fertilisation of each other’s strengths, so that everyone has... knows the basics in all the areas is really important.” (Site F) Focus Group Occupational Therapist: We kind of offer minimal face to face appointments again in the three counties, different times, but that’s very restricted, you know, according to staff availability and being able to, you know, get the right room and the right place, so, we are certainly doing everything we can to be inclusive but there are challenges out there. (Site B) Focus Group “Some of these referrals are not being made and because of... - being devil’s advocate - some of the referrals are not being made because of the difficulty accessing the service. It’s not that the patient doesn’t need it, it’s just that it’s because it’s difficult to get in. So, we do get a lot of referrals, so, quite late on we’re like, if we’d have seen this person earlier, we could have been a lot more help, but we’re just not getting...” (Site A) Focus Group
	Equipment	Blood pressure cuff not big enough. (CRC, F, 80-89, W, ↑A↑D) Observation “And probably more generally speaking in terms of the numbers in the class, we sometimes run out of dumb bells or the multi gym, and people might be queuing.” (Site F) Focus Group “No, it sounds easy, doesn’t it? Just order it. Six months later, we’re still waiting for the trust to sign it off, even though they’re not paying for it.” (Site F) Focus Group “She’s already struggling with milky supplements... we only, here in [site], hold one juice type.” (UGI, F, 70-79, W) Staff interview
Staff knowledge, beliefs, and preferences	Definition and components of prehab	“I think we probably need to define what is prehab, because whilst we have some pretreatment clinics going on with the health board, we don’t have any prehab, to my understanding of what prehab means, so I think to make sure we’re all talking from the same starting point of what prehab is and therefore what should be provided because...” (Site A) Focus Group “So, to me it’s, in head and neck we do pretreatment, so that’s about preparing for your surgery or your oncology treatment, thinking about side effects and that sort of thing, but what they’re not getting is things like the exercise, the, erm, the nutritional, what do you call that things nutritional...” “Screening?” “Yeah, screening, optimisation is actually the word I was going for, you know, they’re not necessarily meeting other patients, that would be all the things that I think might be really helpful but, yeah, yes, we do see them but is it prehab, no it’s not.” (Site A) Focus Group

		“It’s about keeping them strong throughout the chemotherapy while also preparing them I guess, for how difficult it is and the, the challenges that they’re going to face during this time, because it’s not, it’s not an easy thing to go through... Just prepare them for everything going forward, give them information on how the chemo is going to affect them, how it might affect their eating and drinking. Erm and then how to overcome that... Hopefully.” (UGI, F, 70-79, W, ↓G) Staff Interview “There’s no standards out there. So, at the moment, it is like a bit of trial and error.” (Site D) Focus Group Therapy Assistant Practitioner explained prehab offer. Peri-op 1:1 or send out information to patient. “Can meet with you to explain what to expect when going into hospital for surgery.” E.g., what clothes to take/wear, exercises to do in bed in hospital etc. (CRC, M, 70-79, W) Observation Occupational Therapist: Team of occupational therapist, physiotherapist, and dietitian. Have links to other services as well. For those with confirmed and suspected (cancer) diagnosis. To get fit for treatment – surgery in your case – and after treatment is also an option. Make you as fit as you can. Will look at activity/exercise, nutrition/diet, and wellbeing. (PR, M, 50-59, W) Observation
	Boundaries of practice	“He had a lot of questions specifically about his cancer.... I feel the [cancer charity] nurses would be best to answer those questions.” (CRC, M, 60-69, W) Staff Interview Occupational Therapist: They’re so like complex now, and this is not really my remit, so kind of stay in my competency really here. Anaesthetist and Clinical Prehab Lead: Yeah, I mean, we’ve had patients with suicidal thoughts and all sorts of stuff... (Site F) Focus Group “...it’s thinking of yourselves as prehab practitioners rather than a dietician and a physio and that, so that your sort of traditional roles are a bit more blurred and broadened, and yes, the really difficult patients will need that extra input from the specific speciality that you can cover all the basics on.” (Site F) Focus Group Dietitian is not in today, so Occupational Therapist is covering and going through the assessment. (CRC, M, 80-89, W) Observation “It’s an MDT (Multi-disciplinary team) approach, so erm having the rest of the team knowledgeable on nutrition and screening and recognising actually he could do with seeing the dietitian.” (UGI, M, 70-79, W) Staff Interview “It is trying to signpost them because we don’t know everything, we can’t know everything, so it is signposting them to people that will and then just having an understanding of what those people might be able to help with and then setting that expectation as well.” (UGI, M, 40-49, W) Staff Interview

		“So, I did mention to raise that with [Name], his CNS (Clinical Nurse Specialist), and because I feel like she was more equipped for the questions.” (UGI, M, 60-69, W) Staff Interview “To be honest, I don’t know how appropriate it would be, if I’m honest. I don’t know whether I’d need to speak to my line manager about this case. Because I’m not sure. Or I’d speak to, erm, the lead mental health, erm, OT (Occupational Therapist) about it, this case, because I don’t know, I don’t want to be a trigger.” (CRC, M, 70-79, W) Staff Interview “...the initial screening we still cover everybody else’s, it’s an interdisciplinary, er, screening, so if it’s, for example, it’s highlighted that it’s physiotherapy needs, I will still ask about nutrition and I will still ask about wellbeing.” (Site B) Focus Group INT: I also remember you asking her about having suicidal thoughts; so, could you expand on that further why that question was asked? Staff: We ask that, I think we’re probably one of the only prehab services who do ask because we need to know and if people don’t get asked those questions... and actually if you ask the question, there is something we can do about it either. (CRC, F, 40-49, W, ↑A↑D, ↓G↓EX) Staff Interview
	Preference for in-person group prehab	Physiotherapist: Ideally, we’d want them to come to the class. We feel that they do better in a supervised class where we can monitor them and then progress them, compared to a more remote way, for example, telephone consultations and a home exercise program. (Site E) Focus Group “But, you know, if it’s exercise-based or whatever, fair enough, but actually educating people, I think that works best by doing that face to face.” (Site A) Focus Group “But a lot of centres or just... only have a remote service; they won’t have a nice big unit like this... There’s a lot that they’re missing out. And even... like all aspects of the exercise, if you see an old chap next to you really going for it, then you think, ‘Oh, I better get on with it too’... So, it’s powerful.” (Site F) Focus Group “I think the way the gentleman described it yesterday, it was like, you can say that you’re doing the exercises, but we like to see you doing the exercises so that we know that you’ve done ‘em, which is fair enough really, ‘cause obviously they can see how much I’ve progressed...” (UGI, M, 50-59, W, ↑D, ↓NU) Interview “He needs to have the skills and knowledge to do exercise at home, which he currently lacks. So, it would be better to see him in class first to try and build up those skills and knowledge, and independence with it. And then he can move on. Erm, but yes, if he likes the class, again, that would be my favourite thing, if he comes to my favoured courses, that he comes to class.” (UGI, M, 60-69, W, ↓NU) Staff Interview
	Skills and knowledge for behaviour change	“We’ve also got to make sure that the staff have got the right skill sets to be able to go through all of those, so as [Dietitian]’s talked about, you know, advanced communication skills, it’s really, really important to

		be able to build that rapport, and also having that toolkit of awareness of referrals on, where to go to, etc.” (Site G) Focus Group “I think probably more around the knowledge of you know what they can do, so to help give them some control back in a situation where they do struggle to have control over things. So, it helps them to, there’s some things that they can do that they can control.” (UGI, F, 70-79, W) Staff Interview “We talked about her diet, so it was things that she could remember that were meaningful to her and that, and then instead of really sort of, really going into the detail of protein and why, it was a very generalised description of that and more on those key words of the protein in her diet really consisted of certain meats, a bit of fish, some dairy and she hated eggs didn’t she? ...And yoghurt she liked. So, we had four or five key words, as long as she went from here and those were the things she remembered to try and prioritise in her diet. That would be step one.” (CRC, F, 70-79, W) Staff Interview “...he’ll see how much it affects his ability to do that positively and then again that really positive reinforcement would make him feel you know more... or put exercise higher up his priority list.” (UGI, M, 60-69, W, ↓NU) Staff Interview Patient says, ‘a little short of breath now’. [Staff] says that it is a really good measure and can be used to set weekly target for the exercise. (UGI, M, 60-69, W) Observation “I think some of those patterns are quite ingrained with him. So, I think maybe changing his day-to-day might be difficult. I think we’ve given him the information. I think if he maybe tries it, as in tries splitting up that activity, if he sees a benefit, then he’s going to follow it through.” (CRC, M, 50-59, W, ↑A, ↓G) Staff Interview “So, it’s trying to break that a little bit of hopefully with some of the Tai Chi movements and the mindfulness we can get her to rethink her routine in that way. With the 5Ps she says this is how she is, that she does boom and burst, and it’s trying to change some of those patterns. I think once people do try that and think techniques work, then they can carry them on.” (CRC, F, 60-69, W) Staff Interview
Person-Centred Prehab		
Individualisation and holistic approach	Prehab advice and support specific to patient resources, culture, environment, needs, and priorities, and adapting advice if/when these change	<i>Adapting to the individual</i> “Functional assessment helps us guide what she might be able to do in the gym.” (CRC, F, 50-59, W) Staff Interview “She’d be like, ‘right, add this amount of water and things to it, stick it in the freezer and use it as a lollipop’ and she would do, and she could kind of be like ‘I’ve mixed this, we can mix up and things with Angel Delight’ and she said ‘they’re like two for 29p in Home Bargains’ and ‘mix it up’ and things, ‘so they can

		make this'. You know and that catered for those patients that couldn't afford those things, but they still see themselves as having those treats, which is really sad and things, isn't it?" (Site A) Focus Group "...with the meal things, I'll always ask them exactly what they've eaten, so I can put protein in the context of, 'Well, on this meal, maybe....' 'When you're having your chicken curry'.... adapting it to a way they can understand." (LU, M, 70-79, W/BC) Staff Interview "I think the assessment went well, we had to make some changes in terms of how we approached things, so to make the information more accessible for the patient... it was quite clear early on that she was very overwhelmed." (CRC, F, 70-79, W) Staff Interview "... he was quite apprehensive and slightly reluctant to be attending prehab because of yeah, dependencies at home. So, I suggested maybe if he just attend once a week and do the home exercise, so at least he's having some sort of a programme." (CRC, M, 80-89, W) Staff Interview "I didn't go very much in detail on diet and... at that time, because he was emotional, and it wasn't really appropriate. And that's why I kind of switched towards the travelling and kind of just comforting him because at that time it doesn't really matter what he's eating or drinking if he's not really sure what his plan [is]..." (UGI, M, 60-69, W) Staff Interview "She had unfortunately lost her sister a couple of days before the clinic. So, when I went in to the patient, I kind of assessed the situation. I didn't feel invasive amount of dietetic information was a priority really." (UGI, F, 50-59, BC) Staff Interview "...I know he mentioned about alcohol and things, erm and really I think with kind of treatment it should be avoided erm but I know that with the way he asked me about it, it was something that was kind of important to him and it's important I think for us to have that flexibility in mind to have the best for the patient as well... and just kind of give it to them as we wouldn't recommend it, but obviously if you have one you know if it's important to you and it's going to make things feel like normal for you, that's important too for quality-of-life purposes." (UGI, M, 80-89, W) Staff Interview "...it sounds like the full implication of her diagnosis was still sinking in, so that we know that means her needs could change really over the course of our prehab period with us, so we'll just monitor that through the class." (UGI, F, 70-79, W) Staff Interview "Keep asking him how we can modify things, how we can progress, how he's finding it, if he's finding it too easy, too hard, so that we are constantly challenging him. I think he's the sort of person that if he's not challenged, he'll become bored, he needs to be tested, he needs to be motivated to keep going, so constantly motivating him." (CRC, M, 70-79, W, ↑A) Staff Interview
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		Patient explains used to do around 16,000 – 20,000 steps/day, always active. Physiotherapist: ‘Is that something you’d want to get back to?’ Patient: ‘Yes.’ Physiotherapist: ‘Will try to get you back, will take time.’ (CRC, F, 70-79, W) Observation “...another conscious decision I made purely down to the fact from her test results she scored quite low and poorly on those. Erm... I think she wouldn’t get the support she needed in a class setting. She is very much more of a one-to-one individual who needs that bit more one-to-one support.” (CRC, F, 70-79, W) Staff Interview “...but it was really more about trying to identify if they had any concerns post-surgery because of the limited time that we had, and I suppose the advice really was because she identified how they were going to cope as a family to support her aunt after surgery.” (CRC, F, 80-89, W) Staff Interview “...this patient seemed to be very motivated and had good health beliefs, so we were really personal with it, not really ‘What can you do for me?’ but ‘What can I do for me?’ So, identifying that in the patient was a reason also why prescribing the home exercise programme rather than classes...” (CRC, F, 40-49, W) Staff Interview Therapy Assistant Practitioner did fatigue questionnaire with patient, that is usually sent to patient prior to starting group, to decrease burden on patient. (LU, M, 50-59, W) Observation “... and they said, you know, just do a little walk every day, erm, I, I live in an apartment so I, I walk up the steps, up and down a few times which is great, erm, which keeps me going like, you know, and they said to do that, that’s great...” (UGI, M, 60-69, W, ↓G↓NU↓EX) Interview “So, I just asked him, really, to try and condense what was important to him, because otherwise, if you haven’t got that engagement, that motivation, I suppose, at the start, it’s really hard to engage patients.” (PR, M, 50-59, W) Staff Interview “I gave the patient the ACBT leaflet, because the patient mentioned that they’re quite productive and find it getting very sort of stuck in their throat.” (LU, M, 70-79, W) Staff Interview <i>Lack of tailoring of prehab</i> “... it didn’t sort of address, erm, individual specific needs but that, that was, it’s not a complaint... it’s just something of that’s how I felt, I was a little bit disappointed that I’d gone with specific personal issues and they weren’t addressed really.” “That’s the thing I felt, that was the one thing I felt that it wasn’t, erm, individualised if that’s the word.” (LU, F, 70-79, W) Interview “...but it just didn’t seem ... it was ... for me it seemed like anybody could have come in off the street and got the same treatment ...
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		It was just sort of general information, you know, while we were talking.” (LU, F, 70-79, W, ↑A↑D, ↓EX) Interview
	Challenging assumptions about the individual	<i>Tailoring prehab after checking assumptions about individual needs and preferences</i> Dietitian asks carer if patient wants carer to be addressed and translate for patient, or if he should address patient directly. Patient says Dietitian can communicate via carer. (CRC, F, 80-89, W) Observation “I asked him what was important to him, because I had, I suppose, an agenda of what I felt was important. So, when I asked him what was important to him, it was pain, financial concern and pelvic health. So that was his main goals, I suppose, in relation to mine, where my concerns were pain and nutrition.” (PR, M, 50-59, W) Staff Interview Physiotherapist checked with patient that had made correct assumption he wouldn’t want to travel to Cardiff two times a week for group exercise sessions. (UGI, M, 70-79, W) Observation <i>Tailoring prehab based on assumptions about the individual</i> “Now, ideally, I want to embed that for everybody, but I probably went and did a little bit more, but I probably added more onto the plan because I knew that she could probably do it ... I was confident that she could do a bit more and would probably appreciate a bit more as well.” (UGI, F, 70-79, W) Staff Interview “...he works in the medical field as well, so yeah, it’s about catering the information depending on like what the patient knows or doesn’t know already. So again because of the nature of his field he has experience with nutrition and medicine erm to, yes giving him the tools to make the decisions that, yeah informed decisions basically.” “...you do tend to assume knowledge or like prior knowledge of different people and again working in the field that he does, and you don’t, like a professor is quite a high like academic title to achieve as well so you can assume either increased knowledge or like yeah, education, higher education levels.” (UGI, M, 80-89, W) Staff Interview “...in relation to this gentleman, he had obviously some psychological needs, some of them complex, which we didn't go into the details of. Erm but really, I suppose I reviewed advice he'd been given by a Clinical Nurse Specialist in [place name] and just checked whether he'd followed through on any of those, which he said he had for some of them and some that were still outstanding. So, from my point of view, I didn't feel it necessary to... and complicate it by offering too many other alternatives.” (UGI, M, 50-59, W) Staff Interview “She was a bit vague about what she was doing, so I didn't 100% believe her. So, I thought coming to class, it would actually give us a bit more structure, a bit more exercise.” (CRC, F, 50-59, W) Staff Interview

		Prehab Assistant: "...same as Cardiff ['s prehab], [so I] don't need to explain prehab." (UGI, M, 40-49, W) Observation "She's as independent as she can, but she's still got an independence, and her daughter just pops by to help with meal preparation and the occasional shower when she has it. So, I took from that that everything else she's managing really well, you know, but I could have asked, just made sure, you know, rather than assuming, because there's fantastic support in the community. We could have done a community referral." (CRC, F, 80-89, W) Staff Interview "I did think about it afterwards and I thought on reflection you know I mean assuming that because she's a SEN teacher making that assumption that she's got the tools you know that is an assumption but to be honest you know she would have had a lot of training in those kind of areas. So, it wasn't so much of an assumption as to be unreasonable, and she could have... you know, I gave her the opportunity to discuss." (CRC, F, 60-69, W) Staff interview "I had a quick chat with my colleagues before I came in, the ones that had seen her before and she, erm, I thought she might be quite a hard one to engage because she didn't seem to want to be there, from what it sounded like." (CRC, F, 70-79, W) Staff Interview "He is out of area so he's not gonna travel down to classes." (UGI, M, 70-79, W) Staff Interview
	Assessing and adapting to individual risk	<i>Risk associated with health condition (physical or mental health), symptoms or injury</i> "I talked about I was in hospital for colitis, cancer's, or potential cancer's, been an incidental finding, erm, and ... she asked me when did my last colitis flare end, and when she said that, I thought you don't know what a colitis flare is... because I'm still on steroids and it was only a few weeks ago I was in hospital with colitis, and so I tried to do a bit of explaining about it myself... Me being the kind of person I am, when I heard get fit for essential surgery, I went mental for it, like I went home, I went into the gym, I was going on bike rides. I then immediately after that (prehab) appointment, went and did the first run I'd done since being pregnant as long and hard as fast as I can go. I didn't know you're not supposed, erm, excessively exercise on steroids, erm, it's very dangerous... The next day I woke up and as soon as I stood up, I started vomiting... And then with both of those times and then really tired and really dehydrated in some ways, preparing and recovering from those tests. So, I've actually just tried to ignore prehab...and actually just listen to my body a little bit more which I am good at, given my colitis illness..." (UGI, F, 30-39, W, ↑A, ↓NU↓EX) Interview "It allows her then to exercise at home, so again, we've advised her not to do any weighted exercises, so just purely bodyweight, because of the hernia." (LU, F, 70-79, W) Staff Interview

		“With regards to her sort of personal medical history, it’s going to be a little bit trial and error, and I think it’s going to be a bit more closer monitoring that’s needed on our side of things.” (LU, F, 60-69, W, ↑A↑D, ↓G↓NU↓EX) Staff Interview “...but they won’t let me do it because I’ve got a heart condition as well... which to my mind is all the more reason to try and get it fitter, but, you know, apparently not.” (LU, F, 60-69, W) Interview “...ultimately, I don't think it's safe, so I've chosen to not give them any exercises that are going to exert them at the moment.” (LU, F, 60-69, W) Staff Interview “We do have a third option, which could potentially be that we could go to his home as well, if we’re finding that, you know, he is quite a high-risk cardiac patient. So, we wouldn’t want to, you know, potentially leave him to his own devices.” (LU, M, 60-69, W) Staff Interview “I didn't give her the breathlessness or the airway clearance booklets because she's not complaining, wasn't complaining of any breathlessness issues and she doesn't regularly struggle with airway clearance with her phlegm and things.” (LU, F, 60-69, W) Staff Interview “Although we'll tailor his program to accommodate for his breathlessness that he gets, so there'll be lots of rest periods, it could be that he does a session and then he's, because he's not used to it he's got very sore muscles or really, really fatigued for a day or two and so he might miss out the session potentially, so that's one thing that might crop up.” (CRC, M, 80-89, W) Staff Interview Prehab Assistant explains importance of monitoring breathlessness due to pacemaker. (UGI, M, 70-79, W) Observation Dietitian explains they have to be careful with (oral nutritional) supplements as they have increased sugar, and patient has increased blood glucose levels. (CRC, F, 80-89, W) Observation Prehab Assistant demonstrates test, shows modification for turning for knee pain. (UGI, F, 70-79, W) Observation “So, the Tai Chi, mindful movement is a gentle but still meaningful movement and would not affect her joints or aggravate her rheumatoid arthritis.” (CRC, F, 60-69, W) Staff Interview “He had a bit of a resting tremor and some slight bradykinesic movements, so I think for him it’ll be more around the timing of his medication. So, he is on timed meds, so we would ideally like to tie in the prehab session kind of an hour, an hour and a half, after he’s had his timed meds just to make sure that it’s within his system and not coming towards the end of that therapeutic window where the meds might be wearing off.” (CRC, M, 70-79, W) Staff Interview “I don’t know how appropriate (wellbeing) session would be.... I’d speak to lead mental health about it. I don’t want to be a trigger.” (CRC, M, 70-79, W) Staff Interview
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		<i>Risk of non-adherence</i> “...so, she’ll have weekly phone calls, so, erm, again because she’s out of area, so we tend to do them once a week to... where we check in with the patient making sure that they’re compliant.” (LU, F, 75-79, W) Staff Interview “But during that consultation it didn’t seem like it was the right time to kind of question him given the interaction we had around it.” (UGI, M, 70-79, W) Staff Interview “The only thing would be, considering she had a recent bereavement, erm, mood might not be the best and often in those kinds of situations people don’t look after themselves as much. Again, it depends. Erm... and that’s why I’ll be catching up with her sooner; so, she is a vulnerable patient. And a vulnerable high-risk patient, given her background.” (UGI, F, 50-59, BC) Staff Interview “Other than that, I think he will do everything, I think even he took the supplements even though he didn’t like them that type of thing so I wasn’t, I wouldn’t be worried that he would just go off on his own and not do things I’ve told him.” (UGI, M, 80-89, W) Staff Interview “He’s quite on top of things. He had his diary and things like that. So, he’s trying to figure out what kind of support he would need and what he feels able to take on board.” (UGI, M, 60-69, W) Staff Interview “I think he’s the sort of person that if he’s not challenged, he’ll become bored...” (CRC, M, 70-79, W, ↑A) Staff Interview
	Involving members of patient’s social support network while centring the patient	“It’s trying to use the whole family resources involving them.” (Site A) Focus Group “And we really encourage them to bring their loved ones with them. Because we reiterate information, and they then can reiterate that information at home or in the car on the way home...” “We encourage family members to come along. Relatives and carers can form a support group.” (Site F) Focus Group “I think her husband is a helpful resource for us erm he, he himself has diabetes and had to change how he eats and drinks. Because of it, he manages little and often intake, which is helpful because that’s, that’s the sort of intake style we promote for our upper GI patients.” (UGI, F, 70-79, W, ↓G) Staff Interview “I think she (patient’s wife) was taking more the lead on the situation with the nutrition which is very common erm with elderly patients. Erm where particularly elderly men to women, often women are a little bit more around the food situation, that’s just kind of from experience.” (UGI, M, 80-89, W) Staff Interview “It’s not much different erm except for the textures as needs be erm and I think the daughter will be very well aware that we want weight gain, not weight loss for her so erm I’m not too concerned about that at the moment. Generally, you can tell, when you’re chatting because it has happened before, it happens a lot.

		Erm and you just have to kind of politely you know, say that that's not the right information and just speak directly to the patient erm because they're the one that's under our care, really." (UGI, F, 70-79, W) Staff Interview "Well, it's always been the case really that we understand that the patient and any family members are going through a journey and some of it will be kind of side by side but obviously they'll have their own experiences of that. So we recognise that the stress of each of them impacts on the other so that involves their communication, their coping strategies and so that's why we're very keen where we can and for me, I'm very keen to be in the assessment clinic to meet people face to face again, we build that rapport and then I can work out the dynamics between them so that we can support them because as I said you know... even in a relationship different people have different ways of coping with things and then I try to offer support you know together if I can ideally and but sometimes separately..." (UGI, M, 70-79, W) Staff Interview "From my point of view, knowing that his wife understands that he struggles with this kind of ongoing behavioural change and to be motivated, that's why it was good to have her involved in the appointment. Because obviously then they can work together as a team hopefully to kind of combat some of those things and you know enhance the benefits of why it'll be important for him to keep it going." (CRC, M, 70-79, W, ↑A) Staff Interview "...just to get him talking so his family can talk on his behalf and then you're about creating that rapport with the patient. So yes and no, yes and no, it was a yes and no, now and then, it's appropriate to speak to family just to get okay will you get them on board with it but really making eye contact with the patient, direct questions to him, asking for his opinion and waiting to give him the time to respond. And yes, really make it a person engaging him so that he feels he's the one that's answering and not his family and giving that power to him and not the family as well." "The son seemed to be on board, and the son seemed to engage and said, 'Okay, I'll keep an eye on him and make sure he does it, get him out walking'." (CRC, M, 70-79, W) Staff Interview "She did have issues, obviously, listening to the conversation and her husband tended to talk a lot over her. I did check a few times and in joke really, in jest, to try and get him to be a little bit more quiet so that the patient can answer the questions... like I did make a few jokey comments about leaving the patient to speak for herself. He did then kind of back-off but then after about two or three minutes then he took control again." (CRC, F, 80-89, W) Staff Interview Dietitian gives number to daughter, then to patient. Daughter: "Oh (it's nice to be) included then." (UGI, F, 70-79, W) Observation
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	Fit with habits, commitments, and preferences	<i>Positive fit minimises burden of prehab, increasing engagement</i> “We encourage them to do what they can and want to, and then while they’re here, they’ve got that opportunity for us to educate and work on them to attend the other bits.” (Site F) Focus Group Dietitian, re. high protein chocolate pudding: “I am trying to appeal to your sweet tooth.” (CRC, M, 70-79, W) Observation “...the opportunity for telephone calls or home visits or seeing people in the class gives people the opportunity in the best way that suits them really.” (UGI, M, 70-79, W) Staff Interview “So, I think just looking at, so the picture combined, she’s got lots of things going on, so trying to make it as easy for her as we can and she’s quite keen; she is engaging. So, I think she will do these bits.” (LU, F, 60-69, W, ↑A↑D, ↓G↓NU↓EX) Staff Interview “I guess having it as part of my lifestyle... It’s something that I would do anyway, regardless, and I tried to keep that going pretty much until surgery... Dare I say even during chemo, for the first round anyway, I was still able to incorporate that, you know, things that I was doing. I mean obviously, I had to make a few adjustments, but you know, from an exercise point of view, I was always going to try and keep that going for as long as possible.” (UGI, M, 40-49, A, ↑D) Interview “If we were able to offer her maybe after-work appointments so that we could then offer her different times rather than try to squeeze it into the two days she doesn't work, that might be a good way of doing it.” (CRC, F, 60-69, W) Staff Interview <i>Negative fit limiting engagement</i> “I’ve just never been one for going into... for exercises. No, I’ve just got my daily routine that’s always kept me going.” (LU, F, 80-89, W, ↓G↓NU↓EX) Interview Patient and partner not enthusiastic about options. (CRC, F, 70-79, W) Observation “I think they ought to take into account people who are extremely busy. I’ve just got so many things on.” (LU, F, 70-79, W, ↓G↓NU) Interview “...we are getting... more of the, you know, the patients that are being diagnosed with cancer are working age, and they’re still trying to remain in work before their treatment, so sort of attending the groups at 10am on a weekday isn’t always, you know, practical, possible for them.” (Site B) Focus Group Patient: ...carried on as I was before, to be honest ... working as an electrician, I'm on my feet all day... INT: ...apart from the work, do you do any other sort of physical activity? Patient: No, to be honest, I live on my own. It's, like, Saturday is, sort of, odd job day type of thing, and then Sunday, day off type of day. (PR, M, 60-69, W/A, ↓G↓NU↓EX) Interview
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Shared decision-making	Offering choices	“But the actual one he took was a class which initially we thought we had no chance the way he was behaving at the start, but by the end, I think he kind of, after we discussed the options and explained everything, he came round to the idea and yeah he was more than happy to come to the class.” (CRC, M, 70-79, W, ↑A) Staff Interview “The advice I'd given her and the government guidelines, I think, were hopefully enough at her level to kind of continue the work. Obviously, I offered the class as an option to become a bit more, to work more on the strength and resistance side.” (CRC, F, 60-69, W, ↑A) Staff Interview Dietitian explains that she needs to take patient's weight saying that the patient has two options, that she can take patient weight on weighing scales or on the bioelectrical impedance machine (BIM), but the BIM will require here to take her shoes off. Patient says she will go on the BIM machine. Dietitian offers her a hand to take shoes off, patient refuses. (CRC, F, 80-89, W) Observation Physiotherapist offers a virtual class as an alternative, offering to lend an iPad to patient. Patient is not keen on technology and doesn't accept the virtual option. (CRC, F, 50-59, W) Observation “He'd have had to have engaged himself and so we needed to establish whether he was in a mindset to do that, because if he wasn't actually, we're wasting his time..... erm, by talking to him today, so we offered him that, that decision really.” (CRC, M, 50-59, W) Staff Interview Therapy Assistant Practitioner asked if patient felt able to do the 6-minute walk test, due to back. Patient said will try. (UGI, M, 60-69, W) Observation “...he said obviously you might not feel that you can attend, but that's not a problem, like, it's just that we'd like you to attend... If you feel up to it.” (UGI, M, 50-59, W, ↑D, ↓Nu) Interview Patient asks if they should increase the frequency or have larger portions. Staff says they could have more meals or adding extra butter to the toast, cheese (Patient says they love it) to add the calories and then decide which one works best for them. (CRC, M, 50-59, W, ↑A, ↓G) Observation

	Negotiating goals	Dietitian: Asks about increased number of supplements. ‘Can you manage 5 (/day)? Would have to do 2/time. See how you feel, if it’s fine, then great.’ Patient proposes 1½ supplements/time as a solution. Dietitian okays it. (UGI, M, 75-79, W) Observation Dietitian reassures patient. ‘We can work with that; ready meals have their own place (within diet).’ (UGI, M, 70-79, W) Observation “It was just making him aware of how he could make small changes, like alternating the caffeine with the non-caffeinated, you're not asking him to give it up completely, and so it's manageable.” (UGI, M, 60-69, W) Staff Interview
	Supporting informed decision-making	“He has experience with nutrition and medicine erm to... yes giving him the tools to make the decisions that, yeah informed decisions basically.” (UGI, M, 80-89, W) Staff Interview Dietitian offered and encouraged Occupational Therapist referral. Suggested benefits but not pushy. Agreed with patient could wait and refer later if needed but also suggested might be helpful now to learn techniques to help later. (CRC, M, 50-59, W) Observation Dietitian offered Occupational Therapist telephone appointment. Initially, patient said maybe later to Occupational Therapist. Patient then agreed might be helpful and agreed to a telephone call with Occupational Therapist. Arranged call with Occupational Therapist for tomorrow morning. (UGI, M, 70-79, W) Observation “I suppose people have their own ideas, don’t they, in terms of, you know, so they have their own ideas, and all you can do is give them the information and the advice, and then it is really up to them as to whether they follow it or not. All you can do is give them that information and let them make an informed decision based on that.” (UGI, M, 40-49, W) Staff Interview Patient is on x2 Ensure drinks a day. Occupational Therapist wants this to be reviewed... has access [to dietitian] for specialist advice. Patient is asked, “You in agreement?” Both (Patient and partner) reply, “yes”. Occupational Therapist explains, “because of the lack of food intake.” (CRC, F, 50-59, W) Observation