

Supplementary Table 6. Surgeon codes and quotes

Themes	Surgeon codes	Surgeon quotes	
		Barrier to participation	Facilitator to participation
Understanding and attitudes towards placebo	Role of placebos in orthopaedic surgery practice	SQ1: <i>"I'm not sure if a placebo effect would be as strong in surgery - orthopaedics is probably more mechanically-based and anatomically-based. And there's psychological things involved in that, but you've still got a mechanical problem"</i> (Surgeon 06)	SQ2: <i>"I realised very early on in the piece that there was a great value in the way you interacted with the patients. My view is you get 25% improvement before we've actually done anything if you get into a good understanding with your patient"</i> (Surgeon 18)
	Knowledge of placebo trials; validity of placebo trials	SQ3: <i>"I think it was the predominant study that kind of tried to kill what we were doing with knee scopes. It got published in [a high impact journal] and every GP read it. But I didn't think it was a very good study. When you look at the patient selection for the study it was anyone with knee pain and some of those people should never have had a scope to begin with"</i> (Surgeon 10)	SQ4: <i>"A big renowned orthopaedic body like Australian Orthopaedic Association, Royal College of Surgeons or a big orthopaedic group which has got more than twenty people and they can, with a big reputation, so then it won't be tarnished."</i> (Surgeon 15) SQ5: <i>"Do a really good quality study that that makes surgeons ashamed to do the operation"</i> (Surgeon 17)
Attitudes towards randomisation and perception of equipoise	Surgical biases, perception of equipoise, culture of research in surgery;	SQ6: <i>"I've got these preconceived notions of about what benefits patients. And I'm quite conservative in who I offer surgery to. So, I don't offer them a procedure unless I genuinely believe that the steps of that procedure will improve their outcomes. I would personally find it difficult to deliberately undercook them or underperform just to see what happens"</i> (Surgeon 13)	SQ7: <i>"In orthopaedics, there's these clear-cut areas, like the parachute, like you've broken your leg, we're going to fix it. But there's other areas where it's become mission creep. Just because we've got a tool that can logically fix the problem, we've never done the study to say: Does the problem need fixing?"</i> (Surgeon 17)
Perception of risk	Balancing risks and benefits;	SQ8: <i>"Well, I think the fact that if it requires an anaesthetic and that adds risk to the patient, I would have difficulty involving a patient that might have a very small risk of an anaesthetic complication in a trial where I know the placebo is not going to be in any way therapeutic".</i> (Surgeon 21)	SQ9: <i>"It's something that's relatively minimally invasive. So, it's not like you need to do a big incision. It's patients that a lot will get better without surgery - potentially get better without surgery anyway. If you were to do a placebo type trial all really need to do is make two small incisions on the front of the knee, which you could close up. So potentially it's a</i>

		very low morbidity trial to do a placebo type study." (Surgeon 11)	
Ethical concerns	Type of procedure, blinding	<p>SQ11: "If you bury the placebo arm amongst the group of, as you said, five different procedures, it may make the ability of the placebo arm to be more hidden to all parties, if you know what I mean. If you just did a sham incision of the skin, the patient doesn't wake up with a knee full of fluid and the patient would be able to tell whether they've had a placebo versus an arthroscopy" (Surgeon 02)</p> <p>SQ12: "This sounds bad, but how do you make the sham procedure painful enough so you can't make an obvious differential between the two groups?" (Surgeon 08)</p>	<p>SQ10: "Say if you're doing a hip replacement versus not, you do the approach and then open the hip joint formally, actually making a cut into the hip joint which is cutting the capsule, that increases the risk of infection into the hip joint. And if you just made a skin incision, it completely removes that risk. So it's balancing the risk to try and obtain the best placebo" (Surgeon 19)</p>
	Impact on patient-surgeon relationship; the hippocratic oath; improving patient care	<p>SQ13: "Part of you admires it because it's very scientific. But another side of you sees it almost as patient abuse...As a surgeon, there's something so sacred about the touch and as a surgeon when you're cutting the skin and all those things, there's a bond between you and the patient. And that I think, will sit uncomfortably with many of us, making the cut and actually not doing anything therapeutic. Of course, we don't consider the fact that our so-called therapy might be harmful in its own right... If I were to dissect it out and mull it over, then maybe I would come to a place where I would be willing to be part of such a study. But I guess there's like a hurdle somewhere inside me, a balloon that needs to pop or a hurdle I have to overcome so that I can feel confident in my conscience that I haven't done an awful thing" (Surgeon 17)</p>	<p>SQ14: "If you can prove that the outcome of that study is going to save thousands of people from not getting operated on" (Surgeon 14)</p> <p>SQ15: "Well, this is coming down to like the pillars of medicine and you know, beneficence and non-maleficence. Obviously if yes, you can do an operation, but that doesn't mean that you should. And if there's clear evidence to show that it does not help the patient, then I strongly advocate that that should be what we should be doing and we should be embracing that and not offering arthroscopies for arthritic knees" (Surgeon 19)</p>