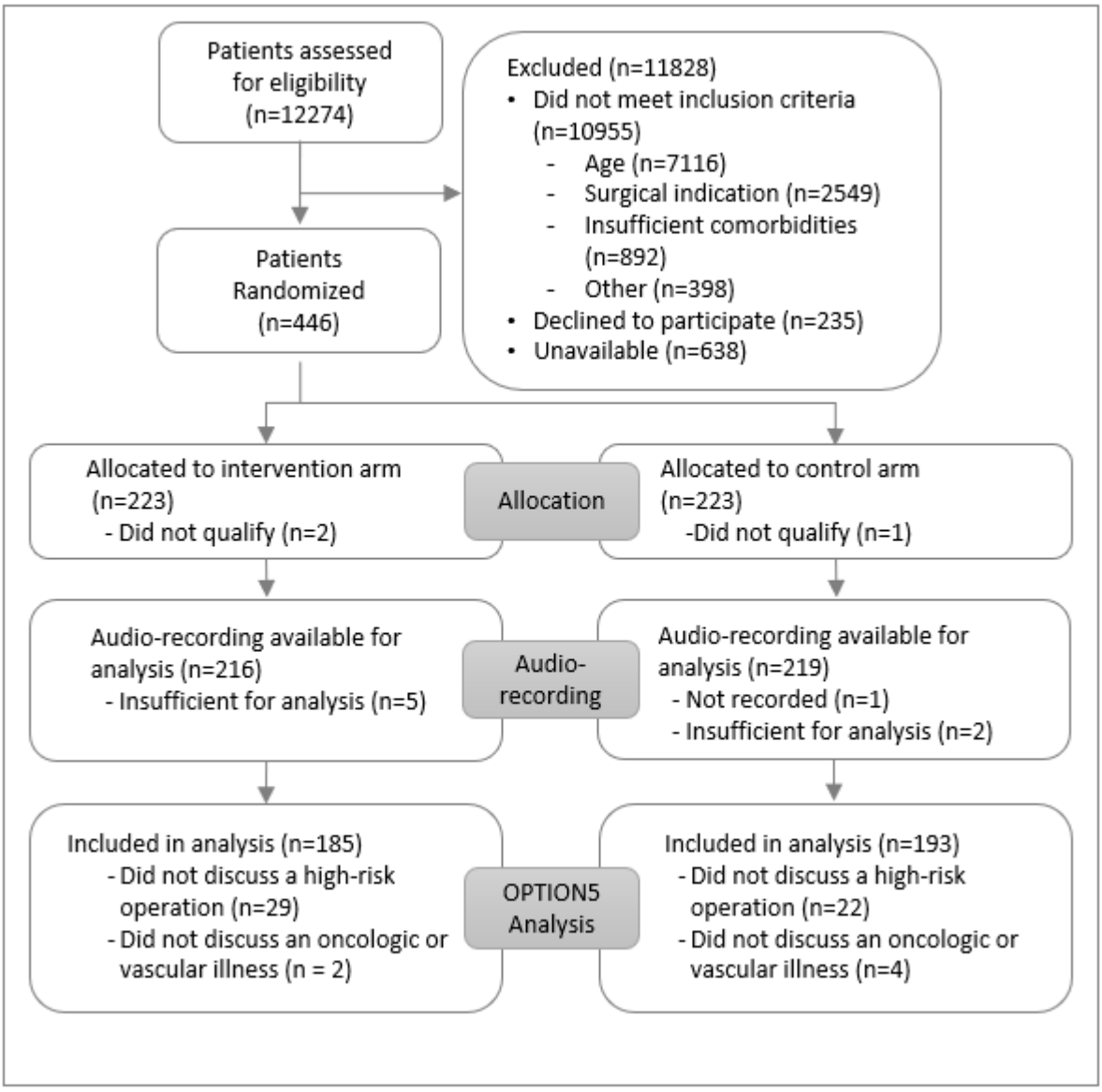
Supplementary Online Content

Baggett ND, Schulz K, Buffington A, et al. Surgeon use of shared decision-making for older adults considering major surgery: a secondary analysis of a randomized clinical trial. *JAMA Surg.* Published online March 23, 2022. doi:10.1001/jamasurg.2022.0290

This supplementary material has been provided by the authors to give readers additional information about their work.

eFigure. CONSORT Diagram for Patients Enrolled in the Study



eAppendix 1. OPTION5 Rubric With Descriptions and Exemplar Phrases for Subdomain Scores Adapted for Surgical Consultations[A]

If a resident or another clinician is present *while* the enrolled study surgeon is in the room, incorporate the other clinicians' comments into your scoring. The goal is to code a conversation about a decision and this conversation includes many things.

Item 1. For the health issue being discussed, the clinician (1) draws attention to or re-affirms that alternate treatment or management options exist or that the (2) need for a decision exists. If the patient rather than the clinicians draws attention to the availability of options, the clinician responds by agreeing that the options need deliberation.		
Score	**Description**	**Notes**
0	No alternatives mentioned, no mention of need for decision at all OR doesn't respond to patient question about alternatives (If they do any of the 3 things they get higher than 0 score) (MD states need to deliberate about alts. mentioned by patient to get higher than 0 score)	
1	Get credit for doing minimal effort of any: call attention to a decision, presents alternatives or responds to patient's question about alts.	
2	Must both say there is a decision AND there are options (more than one treatment is mentioned (can include palliative care or "do nothing")	
3	MD says we need to make a decision AND alternatives have been described as valid/not ridiculous (do nothing, or you die), does not make the point that this is preference sensitive	
4	MD says we need to make a decision AND that it's preference sensitive, AND alternatives have been well described as valid/not ridiculous (do nothing, or you die)	
		Item 1 Score =

Item 2. The clinician reassures the patient, or re-affirms, that the clinician will support the patient to become informed and to deliberate about the options. If the patient states that they have sought or obtained information prior to the encounter, the clinician supports such a deliberation process.		
Score	**Description**	**Notes**
0	No mention of patient partnership, helping match preferences with treatment options	
1	MD conveys empathy or any acknowledgement of patient/family emotions/fears but does not make a point of how MD will provide support. Examples: “I know this is a difficult decision.” “Many families of patients in the ICU tell me this can be an overwhelming experience.”	
2	ANY: Mentions partnership, working together, matching surgeon expertise with patient values/goals	
3	MD provides clear indication of support, but not specific to decision-making. Example: “Our team cares about you and will do whatever we can to help you get through this.”	
4	MD provides explicit support of patient/family in deliberation. Examples: “My role is to provide you with information and to guide you” “the decision that you and I make together”	
		Item 2 Score =

TREATMENT OPTIONS	**PROS**	**CONS**
Option 1		
Option 2		
Option 3		

Add all treatment options discussed in table (including name of surgery) – even if the pros and cons are not discussed

Treatment plan at end of consult:	

Item 3. The clinician gives information, or checks understanding, about the pros and cons of the options that are considered reasonable (including taking 'no action'), to support the patient in comparing the alternatives. If the patient requests clarification, explores options, or compares options, the clinician supports the process. (we are not going to worry about check for understanding here)		
Score	**Description**	**Notes**
0	No pros and cons of any treatment described	
1	Pros OR cons of one option (no second option)	
2	Pros AND cons of one option (no second option) OR says two options but only gives the pros OR cons of one of the options	
3	Pros OR cons of both (all) options	
4	Pros AND cons of both (all) options. Must state ALL to get a 4.	
		Item 3 Score =

Item 4. The clinician makes an effort to elicit the patient's preferences in response to the options that have been described. If the patient declares their preference(s), the clinician is receptive / supportive.		
Score	**Description**	**Notes**
0	No phrases for deliberation, doesn't ask if patient has questions	
1	Asks if patient has "any questions" (cursory effort)	
2	Asks a more sophisticated question about whether the patient has questions/input "does this make sense to you?"	
3	Non-specific question for deliberation in unclear context	
4	Uses a clear question for deliberation – (how are you thinking about this, what is important to you now, how does this outcome seem to you?)	
		Item 4 Score =

Item 5. The clinician makes an effort to integrate the patient's preferences as decisions are made. If the patient indicates how best to integrate their preferences as decisions are made, the clinician is supportive. (this is about the recommendation/need to make a recommendation at some point, i.e. come back and reconsider, – do they make one and is it related to the patient's preferences, "this is what we are going to do AND this is why")		
Score	**Description**	**Notes**
0	Makes a decision without patient input OR doesn't make a decision AND doesn't note that the decision will be deferred	
1	"It's up to you, you decide" OR gets deferred based on another test (clinical momentum)	
2	Decision gets deferred but recognition of patient preferences incorporated somehow	
3	Surgeon makes a plan, some suggestion that this would be aligned with pts values	
4	Surgeon makes a recommendation and says that it is concordant with what is important/valuable to the patient (uses what the patient has said to promote this as the right decision; says that this is the right decision based on a specific value the patient has)	
		Item 5 Score =

TOTAL OPTION SCORE						
Item	**1**	**2**	**3**	**4**	**5**	**Total**
Score						

[a] Previously published in JAMA Surgery (Taylor 2017).

eAppendix 2. Coding Taxonomy for Surgeon Reluctance (n = 91)

For instances of reluctance that could fit within multiple categories, we selected the predominant reason for the surgeon's reluctance.

Category (n)	**Example Phrases**
Not a surgical candidate due to comorbidities, risks, or age (34)	*I really wanted to talk it over with you some because part of the reason I'm worried about surgery is I feel like you're barely better from an operation you had a year ago…Yeah and this would be a much bigger operation than that one overall in terms of difficulty of recovery…How much of an insult it is to your body to have a, to have this operation done…*
Surgery not indicated (21)	*And the risk that we have is if we take out too much of your lung, at some point we're not gonna be able to take out the next one. To take this one out here, we would have to take out the whole of the lung on the-the top of the lung on the right…30-40% chance that, as we follow this, it goes away.*
Surgeon prefers a different type of intervention (16)	*And so to me, the question is, is there something we can do to try to get rid of these without having to put you through another big operation?*
Surgeon promoting chemotherapy or radiation instead (10)	*So then we have to take some other things into consideration. For example, your health. Okay? I mean, I know you have some arthritis, you have diabetes, you have high blood pressure, so you have some other medical problems…So in that case, you know, the radiation may be a little safer for you as opposed to the surgery.*
Diagnosis not amenable to treatment (6)	*Now, um, that kind of surgery is pretty significant surgery, you know? And knowing that you're going to go for a very significant surgery without giving you a curative option, and not possibly doing very well out of surgery, then we discussed what other options we might have to offer you, you know, um, how can I say—comfort?*
Other (4)	*that's little bit of that discussion we've been having all along – which is, sometimes less is more for some patients, right?*

eAppendix 3. Mean and Median OPTION5 Subdomain Scores

Scores were rescaled to range 0 to 20; higher scores indicate greater shared decision making.

	Domain 1	Domain 2	Domain 3	Domain 4	Domain 5
Mean (SD)	6.89 (6.01)	4.14 (5.47)	12.34 (4.8)	6.92 (5.57)	4.52 (5.42)
Median (IQR)	5 (0-10)	0 (0-5)	10 (10-15)	5 (5-10)	5 (0-10)

Note: Subdomain scores reported elsewhere may be reported unscaled (0-4).
OPTION5 = Observing Patient Involvement Scale