

Shared Decision-Making in Stage I Lung Cancer Treatment

A Multiple-Methods Analysis of a Patient Education Guide

Reid Keller, Saylor Hardin MPH, Shannon Phillips PhD, RN, Eric Klipsch MD, Barry C. Gibney DO, Brian Lally MD, Kathryn E. Engelhardt MD MS
Division of Cardiothoracic Surgery, Medical University of South Carolina

INTRODUCTION

- Surgical resection and stereotactic body radiation therapy (SBRT) are both reasonable options for some patients with early-stage lung cancer ^{1,2}
- Our decision aid guides patients with stage I lung cancer in their choice between stereotactic body radiation therapy (SBRT) and surgery
- This multiple methods study gathers data about the acceptability of this tool in clinical practice

METHOD

- A patient education tool was previously developed at a large tertiary referral center and tailored to our clinical setting through key informant and focus group interviews with patients and clinicians ³
- The acceptability of this novel tool was measured using open-ended post-clinic interviews in accordance with the ASSESS tool as well as the Standards for Reporting Implementation Studies ^{4,5}
- Patient receives a follow-up survey once a treatment decision has been made using validated measures of shared decision making including CollaboRATE, SHARED-Q10, SDM-Q-9

RESULTS

Theme	Definition	Quotations
No Choice	The feeling that there is no choice to be made, usually because the alternative is perceived as no treatment at all. This describes patients who were unaware, even after meeting the treating provider, that there are different ways to effectively treat lung cancer.	"Well, there's always a risk of surgery, so we know that. And he explained everything. And, you know [...] I have no choice. I have to do this right. You know, I don't want this [node] to get bigger. And this is why we're doing it." - S12s.
Predetermined/Initial Preferences	This theme is defined by patients being aware there is a decision to be made but coming to their clinic visit prepared with a final decision. This was often based on prior experience of themselves or a family member, input from the referring provider, or personal research on the internet.	"Well, first of all, I knew I wanted to have the surgery." - S12s "I really I just wanted to get it out, you know [...] have it removed. I just wanted [it] removed. You know, when I told that to the doctor. But she gave me a bunch of options, and I guess [that is] the option I chose." - S1s
Preferred Relationships	The patient-provider relationship for decision making can exist on a spectrum ranging from a patient making their decision with no input from their provider to the alternative. Most patients that contributed to this theme, however, appeared to defer decision making to their provider.	"Like I told him, this is my first goat rodeo, but it's not yours, right? [...] You seen this no telling how many times. And [...] I think you know better about this situation than me." - S3s
Decision Team	Patients who included other people beyond the patient provider dyad in the decision-making process reported having a family member in medicine.	"I've got my youngest daughter is, uh, is a nurse. So some of the questions that I had come up between visiting, visiting with the doctors, uh, she was able to help me navigate some questions that that came up." - S10sr
Considerations	Each patient relayed a unique value system where some are most concerned with local recurrence or distant spread, some are more concerned with their ability to tolerate the treatment, and others were concerned with how the treatment may affect their quality of life.	"She would have to take my whole upper lobe. And, uh, I wasn't real crazy about that, uh, because that's a lot of tissue, and it's going to hamper my life." - S24sr "I felt more comfortable with his suggestion of surgery because I don't want to do radiation and it not work, and then have to come back and go through all this again." - S3s
Potential Misconceptions	After having a clinician review the patient comments, there were some instances where patients made statements that are not medically sound. This indicated misconceptions could be contributing to a patient's decision	"He seems to think that once this I out, I should have more lung capacity. Uh, so he said my breathing should get better, uh, with that stuff out of my lungs." - S3s
Independent Study	We were interested to understand how the education tool was being used in practice. Most patients reported looking at the tool on their own after the visit.	"He discussed it with me first, and then he hand gave me the, um, handout and said that I could take it home, that I didn't need to make any decisions that day, and that I could bring that home and look through it and take my time to make a decision." - S22s
Acceptability	In this initial pilot study, most patients found the tool acceptable. Respondents noted the simplicity made the information easy to understand.	"I think the details were perfect because like I said, I don't know anatomy. And, you know, people are doctors because they're a lot more educated than I am about this kind of thing. And, um, you know, I think it explained it very simply and very easy to understand." - S20s

Table 1: Eight Central Themes and Qualitative Findings from Interviews with Patients Participating in the Shared Decision-Making Study (n=22)

Question:	Strongly Disagree (%)	Disagree (%)	Neither Agree nor Disagree (%)	Agree (%)	Strongly Agree (%)
I know which options are available to me.	0	0	0	28	72
I know the benefits of each option.	0	0	0	39	61
I know the risks and side effects of each option.	0	0	11	39	50
I am clear about which benefits matter most to me.	0	0	0	44	56
I am clear about which risk and side effects matter most to me.	0	0	0	50	50
I am clear about which is more important to me (the benefits or the risks and side effects).	0	0	0	44	56
I have enough support from others to make a choice.	0	0	11	22	67
I am choosing without pressure from others.	0	0	11	22	67
I have enough advice to make a choice.	0	0	0	33	67
I am clear about the best choice for me.	0	0	0	33	67
I feel sure about what to choose.	0	0	11	22	67
This decision is easy for me to make.	0	0	11	39	50
I feel I have made an informed choice.	0	0	11	22	67
My decision shows what is important to me.	0	0	5	28	67
I expect to stick with my decision.	0	0	5	28	67
I am satisfied with my decision.	0	0	5	28	67

Table 2: Quantitative Findings from Post-Interview Surveys with Patients Participating in the Shared Decision-Making Study(n=29)

CONCLUSIONS

- Results indicate the acceptability and usefulness of our tool in the decision-making process between surgery and SBRT
- Findings suggest it may improve goal-concordant care delivery
- Other forms of decision aids may be useful, uncovering a need to discover novel ways to support patients in deciding cancer treatment

REFERENCES

1. Chang JT et al. Stereotactic ablative radiotherapy versus lobectomy for operable stage I non-small-cell lung cancer: a pooled analysis of two randomised trials. *Lancet Oncology* 2015; 16(6): 630-637
2. Franks KN et al. SABRTooth: a randomised controlled feasibility study of stereotactic ablative radiotherapy (SABR) with surgery in patients with peripheral stage I nonsmall cell lung cancer considered to be at higher risk of complications from surgical resection. *European Respiratory Journal* 2020; 56(5): 2000118
3. Houston AJ et al. Developing an Educational and Decision Support Tool for Stage I Lung Cancer Using Decision Science. *Annals of Thoracic Surgery* 2023; 115(2): 299-308
4. Ryan N et al. Development of the ASSESS tool: a comprehensive tool to support reporting and critical appraisal of qualitative, quantitative, and mixed methods implementation research outcomes. *Implementation Science Communications* 2022; 3: 34
5. Plsekock H et al. Standards for Reporting Implementation Studies (StaRI) Statement. *BMJ* 2017; 356:e7995