Developing an Educational and Decision Support Tool for Stage I Lung Cancer using Decision Science

What We Did

- Shared decision making is recommended for high-risk, operable early stage lung cancer.

- We created an education and decision support tool for patients with clinical stage I lung cancer deciding between radiation therapy and surgery.

Decision Tool Development and Testing Process

- There were 10 iterations of the tool before we had a version to test. We followed these steps:
    1) scoping reviews of the literature
    2) prototype development
    3) pre-testing with stakeholder advisors
    4) piloting in practice
    5) refining the tool for implementation and testing

- We refined our workflow once we realized that not everyone was eligible for all options
- Workflow: nurse coordinators informed research staff when a clinician used the tool, if a patient was willing to be contacted about a survey. Research staff called and/or emailed patients the survey

Results: Patient Characteristics

- N=56 recruited; 43/56 (77%) returned surveys
- Mean age = 70.0 (SD 9.2, range 46-84)
- 56% female, 88% White, Non-Hispanic
- 58% ≤ HS degree
- 58% had a HH income <$45,000/year
- 37% had limited health literacy

Table 1: Most Important Factors in Decision Making

Additional years of life	37 (86.0%)
Take care of self soon after treatment	36 (83.7%)
Physical side effects of treatment	33 (76.7%)
Lower chance that the cancer returns	32 (74.4%)
Fewer visits for follow-up	30 (69.8%)
Costs of care	13 (30.2%)

Table 2: Decision and Information Outcomes

Did MD talk about surgery? Yes	35 (81.4%)
Did MD talk about radiation? Yes	41 (95.4%)
Who first discussed options?	
Thoracic surgeon	13 (30.2%)
Pulmonologist	9 (20.9%)
Medical oncologist	6 (14.0%)
Primary care clinician	4 (9.3%)
Radiation oncologist	3 (7.0%)
Decisional Conflict Yes, experiencing conflict	6 (14.0%)
Decision Choice	
Surgery	15 (34.9%)
Radiation	36 (83.7%)
Unknown	5 (11.7%)
Quality of Communication: Excellent Strongly Agree or Agree	37 (86.0%)

Next Steps

Focusing on sustained use in routine care, working with clinical teams
Sharing findings with participants and stakeholders