Lung Cancer Screening Development Process

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We created a decision tool designed to help people compare reasonable options for lung cancer screening. It presents an evidence-based summary of lung cancer screening vs. no screening, and is designed to be used to complement clinical discussions with a health care provider.

Development Process:

1. We gathered relevant stakeholders and experts at our institution. We made sure to include a multidisciplinary team of thoracic surgeons (2), radiologists with expertise in lung cancer screening (2), and a behavioral scientist with expertise in decision making and health communication (1).

2. We thoroughly reviewed the literature and data on lung cancer screening outcomes, including data from the most recent and largest randomized trial on lung cancer screening as well as clinical guidelines from various national organizations.

3. We searched for literature on patient preferences and factors that might be important for them to consider about lung cancer screening.

4. PS and MP drafted the first version of the tool following guidelines for decision tool development. Information was framed in a neutral/unambiguous way to avoid implicit judgments. Risks and benefits were conveyed numerically using frequencies and the same denominator. We created the tool with a reading level under grade 8 (Flesch-Kinkaid grade 7.4). We presented the information in a side-by-side comparison format allowing users to more easily compare pros and cons of options. We reported a publication date and update policy, and we disclosed the developers and their affiliations.

5. We sent it to the rest of the team for comments (BM, SB, and DG). We revised it for accuracy, readability and clarity of language, and sent it back to the team for additional comments. This process continued for 5 different iterations of the tool.

6. We engaged 4 lay advisors to provide us feedback on language and clarity of the tool. We revised it again with their input.

7. We also sent it to the team of leaders at Siteman Cancer Center involved in lung cancer screening implementation planning and made final edits, including updating the risk of false alarms based on Lung-RADS data (Pinksy et al 2015) that was applied to NLST data (NLST, 2011 & 2013), as that is the criteria we will use at Siteman Cancer Center.

8. The last step involved formatting it for the patient packets without changing approved content.

9. We will pilot the tool as we implement lung cancer screening at Siteman to ensure it meets patients' decision needs.

References:

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