Patient Education: Low-Dose CT Screening

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Project mentor: Kim Sikule, M.D.
Problem identification

- New low-dose CT (LDCT) scans for annual lung cancer screening in high-risk patients\(^1\) present a difficult preventative health dilemma for our patients.

- Increased utilization should lead to a greater proportion of patients presenting with early-stage (more treatable) cancers.

- LDCTs present an specific opportunity for intervention in rural areas\(^2\) (like Milton, VT), which in general have lower rates of cancer screening.\(^3\)

- However, concerns about radiation, and a lack of comprehensive understanding of risks and benefits seem to prevent many high-risk patients from being screened.
Public Health Cost

- In the United States, cancers of the lung and bronchus are persistently the foremost cause of cancer-related death and the second most frequently incident cancers.\(^4\)

- Non-small cell lung cancer (NSCLC), an assortment of specific histologies that together account for 85% of all lung cancers, is unique in that, when diagnosed at an early stage and managed with guideline-directed treatment, is potentially curable.\(^5\)
Community Perspective

“Many high-risk patients are discouraged from obtaining low-dose CT screening for lung cancer because they lack an understanding of the risks and benefits of the scan and fear the potential outcome of having a positive result”.

–UVMMC Radiation Oncologist

“Even though I know my smoking makes me higher-risk for lung cancer, I know CT scans expose you to radiation, and I worry about that”

–Anonymous Patient
Intervention & Methodology

- Literature search conducted to discern current recommendations, implications, and challenges of LDCT screening

- A brochure was written using patient-centered language and displayed at Milton Family Practice
Response

“This is written in a plain language and in a way a lot of our patients will be able to understand and have a lot of their questions answered”.

—Clinical Care Assistant

“I think this is very clear, organized, and written in language that patients will be able to understand”.

—Family Medicine Resident
Proposed Effectiveness Evaluation

Sample: 25-50 patients aged 40-70

Measures:

- Pre-test containing items concerning the safety and utility of LDCT screening.
- Patients given 20 minutes to read LDCT brochure on their own
- Post-test containing the same items

Analysis: comparison of pre-test and post-test scores indicating incident patient education on LDCT screening from brochure.
Future interventions

- Automated algorithm in EMR that flags patients who are candidates for screening
- Ongoing investigation of effectiveness of LDCT screening in the community, particularly within rural populations
- Effectiveness of training primary care practitioners to read and interpret LDCT scans (LDCT screening is hampered in rural areas by relatively fewer radiologists available to read scans).
References


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If not consenting as above: please add the interviewee names here for the department of Family Medicine information only.
Name: _______________________________________________________________