



Development of a Veterans Affairs Based Comprehensive Lung Cancer Survivorship Program



Alisa Hassinger PA-C¹, Jordan Stafford MS¹, Robert Kundich MA¹, Anne Mathews MD², Scott Swartzwelder PhD³, Scott Shofer MD, PhD^{1,2}

¹ Pulmonary Section, Durham VA Medical Center, Durham NC

² Division of Pulmonary, Allergy, and Critical Care, Duke University Medical Center, Durham, NC

³ Department of Psychiatry and Behavioral Sciences, Duke University Medical Center, Durham, NC

Who We Are

- The Institute for Medical Research is the research affiliate for the Durham VA Medical Center in Durham, NC.
- The US Department of Veterans Affairs (VA) is the largest integrated health care system in the U.S.
- Provides health care for almost 9 million Veterans annually
- One of the first health systems to introduce clinical lung cancer screening

Lung Cancer in the VA

- Tobacco use is high among Veterans – 70% report current or prior tobacco use (20% higher than in civilian population)
- Lung Cancer among Veterans represents over 18% of all cancers diagnosed in VA System
- -Six percent of all lung cancers among American males are diagnosed at a VA facility

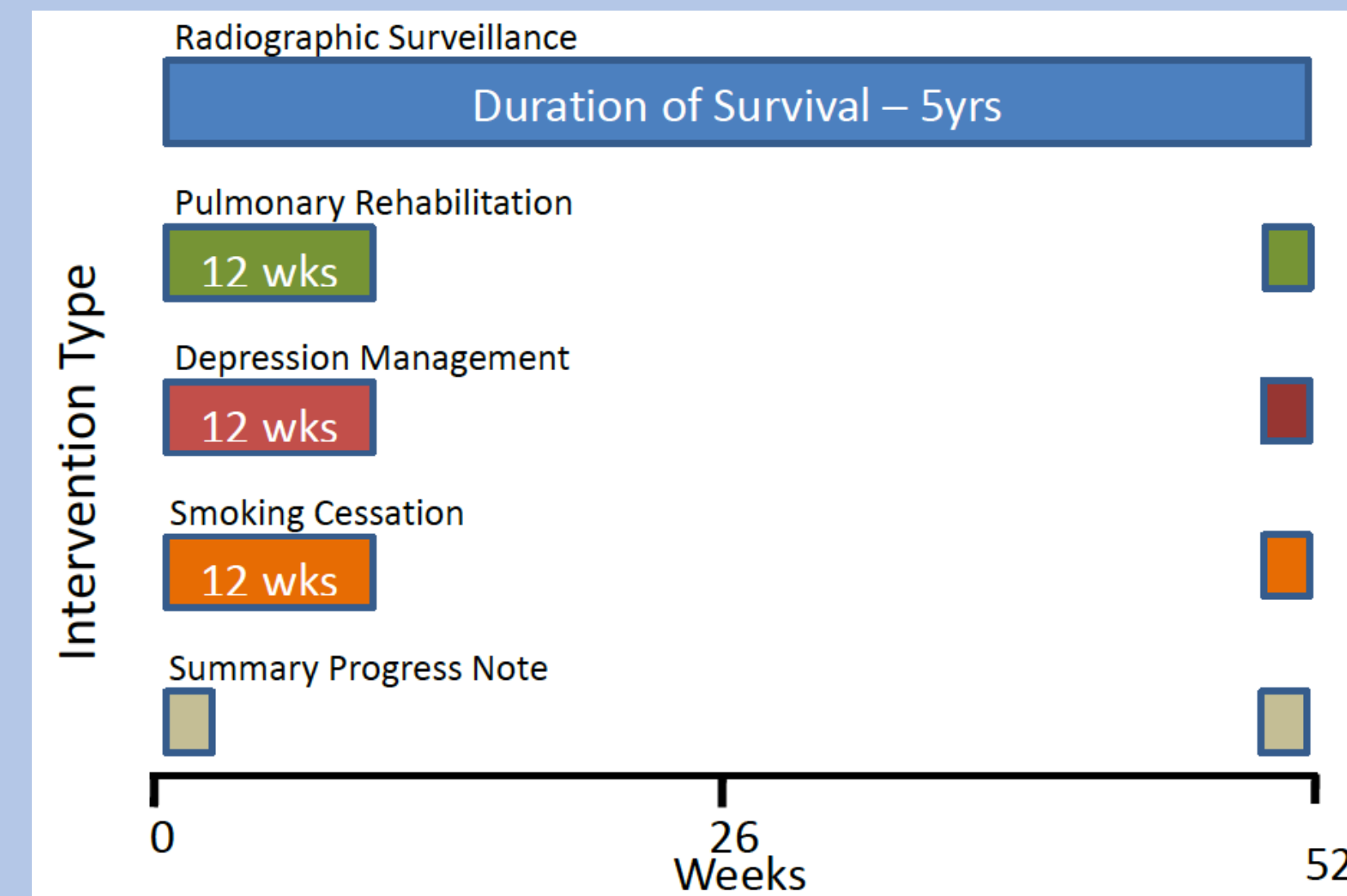
Common Symptoms Are Associated with Poor Outcomes

- Patients with lung cancer often experience physical debility, depression, continued tobacco abuse and inadequate cancer surveillance
- Six minute walk distances < 358m are associated with 7-12 mo shorter survival compared with patients able to walk > 450m
- Depression is present in up to 44% of patients with lung cancer and is associated with increased risk of mortality
- Many veterans with lung cancer continue to smoke. 56% of veterans enrolled in lung cancer screening are active smokers.
- Surveillance for recurrent cancer is often not performed appropriately. Some studies suggest that as few as 61% of patients will receive appropriate radiographic surveillance following curative intent therapy.

Study Aims

- 1) Initiate a telehealth-based pulmonary rehabilitation program to improve physical stamina and manage symptoms of dyspnea.
- 2) Implement a home-based behavioral health program to treat dyspnea, fatigue, and depression using remotely supervised pulmonary rehabilitation and depression management.
- 3) Improve smoking cessation rates in patients being treated for lung cancer
- 4) Develop an electronic tracking system to monitor the quality of surveillance imaging patients receive for the rapid identification of recurrent lung cancer, and to enhance communication between specialty and primary care providers.

Program Design



Program Length

- Week 1-Face to face hospital based enrollment with baseline assessments
- Weeks 2-11: Weekly phone or video call to speak with patient regarding progress or issues related to the program.
- Week 12: Face to face completion assessment with repeated assessments
- 3/6/12 Month Follow up phone or video calls

Findings to Date

Demographic Information

| Number of Participants=11 | Number | Percentage |
|---------------------------|--------|------------|
| Gender | | |
| Male | 10 | 91 |
| Female | 1 | 9 |
| Age | | |
| 50-59 | 2 | 18 |
| 60-69 | 5 | 45 |
| 70-79 | 4 | 36 |
| Race | | |
| Caucasian | 7 | 64 |
| Black | 4 | 36 |
| Tumor Stage | | |
| IA | 4 | 36 |
| IB | 6 | 54 |
| IIIA | 1 | 9 |

Baseline Clinical Data

| Number of Participants=11 | Number | Percentage |
|-----------------------------|--------|------------|
| Smoking Status | | |
| Current | 2 | 18 |
| Previous | 8 | 82 |
| Never | 1 | 9 |
| Frailty Status (n=9) | | |
| Non-frail | 3 | 33 |
| Pre-frail | 5 | 45 |
| Frail | 1 | 11 |
| Mental Health Status | | |
| HADS Score ≥8 | 6 | 54 |
| PHQ-9 ≥5 | 6 | 54 |
| Psychiatric Diagnosis | 9 | 82 |
| COPD Status | | |
| No Diagnosis | 2 | 18 |
| Mild | 1 | 9 |
| Moderate | 6 | 54 |
| Severe | 2 | 18 |

Patient Participation by Program Component

| Number of Participants=11 | Number | Percentage |
|---------------------------|--------|------------|
| Pulmonary Rehabilitation | 11 | 100 |
| Mental Health | 3 | 27 |
| Smoking Cessation | 1 | 9 |

Pulmonary Rehabilitation Walk Data

| N=4* | Avg Steps Week 2 | Avg Step Week 3 | Avg Step Week 4 | Increase 1 Month |
|-----------|------------------|-----------------|-----------------|------------------|
| Patient 1 | 375 | 645 | 507 | 58% |
| Patient 2 | 554 | 751 | 613 | 33% |
| Patient 3 | 7386 | 8467 | 7531 | 2% |
| Patient 4 | 1330 | ** | 4926 | 36% |

**Data Unavailable

Summary

- Patients with lung cancer often have unmet physical and psychosocial needs
- Of eleven enrolled patients, 100% have dyspnea and deconditioning amenable to pulmonary rehabilitation following treatment for lung cancer, including those without a diagnosis of COPD or with only mild COPD
- 82% of enrolled patients have current psychiatric diagnoses and may benefit from focused mental health services
- Early data supports using telehealth services to increase access to care and to engage Veterans in healthcare intended to further Lung Cancer Survivorship.



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