

2019 Reporting of Outcomes

Low Dose CT Lung Screenings

Lung cancer is the second most common form of cancer in the United States and is the leading cause of cancer related deaths among men and women. The LUNGeVity Foundation reports that every 2.2 minutes someone is diagnosed with lung cancer and that only 19% of those diagnosed with lung cancer will survive for 5 years or more. Survival rates improve when lung cancer is found at an early stage when it is still small and has not spread.

The Centers for Disease Control and Prevention reported that in Burke County from 2011 – 2015, 85 lung and bronchus cases were reported for every 100,000 people and that 57 people died of lung and bronchus cancer. In comparison national data indicates 60 lung and bronchus cases for every 100,000 people and 43 deaths. The Carolinas HealthCare System Blue Ridge Cancer Registry identifies lung cancer as the second most commonly diagnosed cancer in Burke County.

Research shows the largest risk factor for lung cancer is smoking with 85% of all lung cancer diagnoses related to smoking history. Only 10-15% of newly diagnosed lung cancers are among people who have never smoked. Current and former smokers are at higher risk of developing lung cancer as they age. The current median age of diagnosis is 70 years of age.

Approximately only 15% of lung cancer cases are diagnosed at an early stage. Typically, lung cancer is advanced and a non-curable stage when initially diagnosed. Symptoms such as cough and shortness of breath may be mistaken for other problems and delay diagnosis. Until recent years there was not a proven method of screening for lung cancer as there is for other cancers, for example, mammography for breast cancer and colonoscopy for colon cancer. The U. S. Preventive Services Task Force recommends annual screening for lung cancer with low-dose computed tomography (LDCT) in adults age 55-80 years who have a 30 pack year smoking history or greater (number of packs per day multiplied by the number of years smoked) and currently smoke or have quit within the past 15 years. The goal of LDCT lung screening is to detect lung cancer at an early stage

when it is treatable and more likely to be cured. The National Lung Screening Trial showed a 20% reduction in mortality rates with the use of routine LDCT. Due to this recommendation Carolinas HealthCare System Blue Ridge now provides LDCT screening services through the Imaging department. Because of our affiliation with Levine Cancer Institute, Burke County residents have access to a grant funded mobile LDCT lung screening service for uninsured and Medicaid patients.

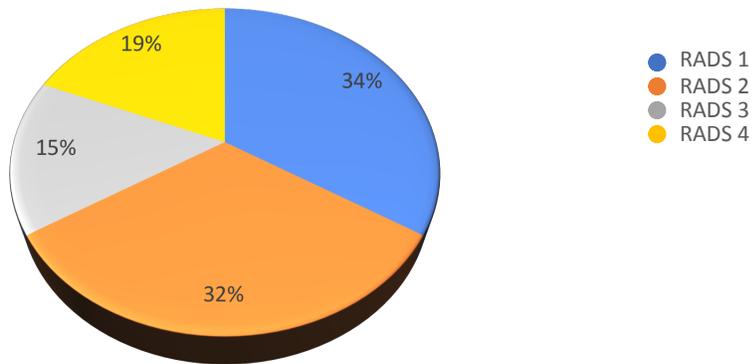
Lung-RADS is a quality assurance tool developed to standardize lung cancer screening CT reporting and management recommendations. The following is the reporting format:

- Lung RADS 1 or 2 - continue annual screening with LDCT in 12 months
- Lung RADS 3 - follow up with a LDCT in 6 months
- Lungs RADS 4A – follow up with a 3 month LDCT; PET/CT may be used when there is a ≥ 8 mm solid component
- Lungs RADS 4B – chest CT with or without contrast, PET/CT and/or tissue sampling depending on the *probability of malignancy and comorbidities. PET/CT may be used when there is a ≥ 8 mm solid component

Four screenings were offered in Burke County in 2018 by the Levine Cancer Institute mobile lung screening services and screened 59 people. The results follow:

- Lung RADS 1 – 20
- Lung RADS 2 – 19
- Lung RADS 3 - 9
- Lung RADS 4 - 11

Low Dose CT Screening -
Lung Screening Performed
by Levine Cancer Institute
Mobile Services

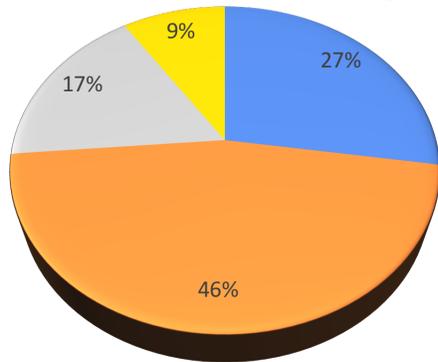


The mobile screening resulted with two people diagnosed with lung cancer; one was diagnosed at an early stage 1B and one was diagnosed with late stage disease and subsequently expired.

281 LDCT lung screenings were performed in 2018 by CHS Blue Ridge Radiology. The results follow:

- Lung RADS 1 – 77
- Lung RADS 2 – 130
- Lung RADS 3 – 48
- Lung RADS 4 – 26

Low Dose CT Screening -
Lung
Screening performed by
CHS Blue Ridge Radiology

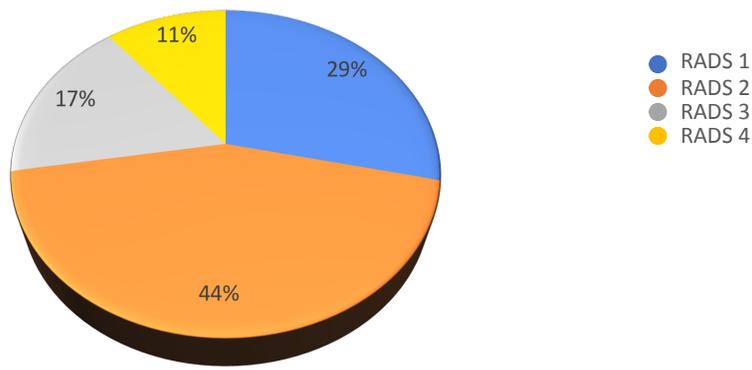


- Lung RADS 1
- Lung RADS 2
- Lung RADS 3
- Lung RADS 4

Combining the data from the mobile screening services and imaging services, 340 LDCT lung screenings were performed in 2018 for patients receiving care in Burke County. The combined results follow:

- Lung RADS 1 – 97
- Lung RADS 2 – 149
- Lung RADS 3 – 57
- Lung RADS 4 – 37

Low Dose CT Screening -
Combined data of Blue
Ridge Radiology and Levine
Cancer Institute Mobile
Services



Many journal or article authors observe that patients without insurance coverage present with higher stage disease upon diagnosis. The limited data associated with these screenings validates the observations of various authors. The Lung RADS 4 results represented 19% of the total patients screened by the Levine Cancer Institute mobile LDCT screening services for Medicaid and uninsured patients. Lung RADS 4 results from the LDCT lung screenings performed by Blue Ridge Radiology represented 9% of the total patients screened by their imaging services.

Levine Cancer Institute Blue Ridge employs a lung navigator to oversee the lung screening program. The lung navigator confirms patient eligibility, assist patients in coordinating follow up care due to abnormal findings, and ensures adherence to yearly screening through accurate data management. The navigator role is designed to decrease fragmented care, coordinate services and guide all lung cancer patients through the health care system in an efficient and compassionate manner.