

Take a Breath and Jump In

The New Age of Pulmonary Treatment



For patients who may be at risk for lung cancer, the pool of diagnostic and treatment options has improved dramatically over the last decade. Furthermore, enhancements in minimally-invasive diagnostic and therapeutic procedures have elevated the impact the pulmonology suite can have on an ever-broader patient population.

The United States Preventive Services Task Force (USPSTF) recently updated its recommendations for annual screening for lung cancer with low-dose computed tomography (LDCT) in qualified adults aged 50 to 80 years, an update expanding the population eligible for screening from the first official guidelines published in 2014. In 2016, the American College of Chest Physicians changed its lung cancer guidelines to recommend Endobronchial Ultrasound Transbronchial Needle

Aspiration (EBUS-TBNA) for lung cancer diagnosis and staging.

Patient awareness of the screening recommendations is rising, in part due to the effort of the American Lung Association, which, with the Ad Council, created its “Saved By the Scan” campaign. This public service initiative encourages former and current smokers to visit SavedByTheScan.org to take a [lung cancer screening eligibility quiz](#) and talk to their doctor about getting screened.

Screening rates have been lackluster, however, with some studies showing less than 5% of eligible patients being screened. As such, there is room for improvement and rationale to bolster a lung cancer screening program. Many healthcare facilities have found that the introduction of a proactive population screening program has had positive effects outside of just lung cancer, positively identifying and supporting patients with COPD and other lung diseases. Are your facility, infrastructure, and staff prepared for this potential influx of patients?

The Patient Need is Compelling

Lung cancer is the most common cause of cancer-related death in the western world. Recommending screening to your age appropriate, “20-pack-year” patients should be a first step. It will be important to be ready for potential follow-on care.

An Olympus-sponsored study completed by the Medical University of South Carolina (MUSC) in 2008 looked at revenues generated based on billing for 200 consecutive patients undergoing EBUS during a set period of time. Once cancer is identified via the CT scan, EBUS facilitates diagnosis and staging in a single procedure – all critical to the treatment path.

The MUSC results for total dollar amount of downstream revenue per patient was an average of \$9,874, not including consultative physician fees.

Taking into account inflation, facilities could be looking at a one-third higher revenue according to BLS CPI estimates. A subsequent study published in CHEST⁷ in 2012 showed that the number of new patients who continued care at the facility because of EBUS closely rivaled the number of existing EBUS patients (see Table 1).

As more diagnostic modalities become available, we are likely to see more studies evaluating new lung cancer-focused procedures. Today, physicians are increasingly presenting cases in which ElectroMagnetic Navigation Bronchoscopy (ENB) is discussed as another route to improving patient

care. Olympus recently acquired Veran Medical for its single-use bronchoscope offerings as well as its SPiN navigation ENB system that allows for enhanced guidance for peripheral lung nodules. A broad range of offerings may help providers improve the procedure flow along the patient pathway.

Community Quality of Life

The USPSTF estimates that its change from a 30-pack-year to 20-pack-year threshold for screening would double the number of people eligible for screening – adding hundreds of thousands to the

pathway. Your choice to meet this rising demand can mean the opportunity to also address other respiratory disease states.

COPD, for example, affects more than 15 million people in the US – rendering many of them unable to go about daily life as they struggle for air. The Spiration Valve system offers patients with severe emphysema a customized, minimally invasive treatment option for lung volume reduction with a favorable risk-benefit profile.

The Spiration Valve is a small umbrella-shaped one-way valve that is placed inside the airways of the diseased lung, redirecting air away from the areas most affected by emphysema and toward healthier lung areas, allowing the patient to breathe more easily.¹³

The EMPROVE clinical trial concluded that the Spiration Valve offers a favorable risk benefit profile, with a short procedure time.¹⁵

Being able to boast a healthier patient population in your region, addressing disease earlier and with better outcomes, also paves the way for being ahead of models such as value-based care. Maybe it's time to take a deep breath and jump in. ■

Table 1: EBUS Patients Continuing Care, New and Existing⁷

EBUS-Initiated Encounters	New Patients Continuing Care	Existing Patients
Radiologic studies	275	305
Consults (includes initial consult for EBUS-TBNA)	459	470
Hospitalizations	33	31
Procedures (surgery, interventional radiology, and other endoscopy)	44	61
Radiation therapy	240	310
Chemotherapy	88	88

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To see how Olympus is innovating pulmonary diagnosis and treatment [CLICK HERE](#).

¹ <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/lung-cancer-screening>

² [https://journal.chestnet.org/article/S0012-3692\(15\)00030-6/fulltext#relatedArticles](https://journal.chestnet.org/article/S0012-3692(15)00030-6/fulltext#relatedArticles)

³ Jemal A., Fedewa S.A. Lung cancer screening with low-dose compute tomography in the United States – 2010 to 2015. *JAMA Oncol.* 2017; 3: 1278-1281.

⁴ <https://www.who.int/news-room/fact-sheets/detail/cancer>

⁵ [https://journal.chestnet.org/article/S0012-3692\(12\)60091-9/references](https://journal.chestnet.org/article/S0012-3692(12)60091-9/references)

⁶ https://www.bls.gov/data/inflation_calculator.htm

⁷ Pastis, N, Simkovich, S, Silvestri, G. Understanding the Economic Impact of Introducing a New Procedure. *CHEST Topics in Practice Management.* 2012; 2: 505-512.

⁸ [https://journal.chestnet.org/article/S0012-3692\(17\)32190-6/pdf](https://journal.chestnet.org/article/S0012-3692(17)32190-6/pdf)

⁹ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4700374/>

¹⁰ Mallow C, Lee H, et al. Safety and Diagnostic Performance of Pulmonologists Performing Electromagnetic Guided Percutaneous Lung Biopsy (SPiN Perc)™ *Respirology* 2019

¹¹ https://www.uspreventiveservicestaskforce.org/uspstf/sites/default/files/file/supporting_documents/lung-cancer-newsbulletin.pdf

¹² Chronic Obstructive Pulmonary Disease: Basics About COPD. Centers for Disease Control and Prevention. <https://www.cdc.gov/nchs/fastats/copd.htm>. Accessed July 22, 2019.

¹³ <https://svs.olympusamerica.com/patients-and-family>

¹⁴ Criner GJ, Delage A, Voelker KG, for the EMPROVE Trial Investigator Group. The EMPROVE Trial - a Randomized, Controlled Multicenter Clinical Study to Evaluate the Safety and Effectiveness of the Spiration® Valve System for Single Lobe Treatment of Severe Emphysema. *American Thoracic Society International Conference Abstracts.* 2018:A7753-A7753. doi:10.1164/ajrccm-conference.2018.197.1_MeetingAbstracts.A7753.

¹⁵ Risks included adverse events such as COPD exacerbations, pneumothorax, pneumonia and death.