

Advanced Lung Cancer: Patient Segmentation and Referral Patterns in the US

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Introduction

MDoutlook® introduces excerpts from an MDoutlook's OncoScape™: Patient Segmentation and Referral Patterns for Advanced Lung Cancer in the US. This research is based on an on-line survey across multiple specialties, including oncologists, surgeons, primary care and emergency room physicians, that suspect and diagnose advanced lung cancer.

OncoScape Methodology

- Primary research phase involved multiple surveys in the US to verified and validated medical oncologists, radiation oncologists, surgeons, pulmonologists, primary care physicians and emergency room physicians with an identified involvement in or suspicion of lung cancer utilizing targeting parameters
- Fielded: 2014
- Research via 45-minute interactive web-based survey instruments, utilizing proven MDoutlook methodology and proprietary technology
- Response: 447 physicians across medical specialties from MDoutlook's proprietary cancer panels
- Patients were separated by prior treatment experience
- Analysis and reporting by physician segmentation, treatment setting and patient segmentation

Commercialization Considerations: Importance of Patient Segmentation When Defining the Market Size

When developing complex forecasting models, patient demographics are often considered and epidemiological information collected in each market. The limitation to this approach is that epidemiological information does not equal market size. Not all patients will be considered as candidates for a particular therapy. Therefore, patient segmentation upfront is needed to adequately and informatively define the market size.

MDoutlook analysts performed a segmentation study to quantify the volume of the US market for patients in advanced (inoperable or metastatic) lung cancer who had not (yet) undergone any systemic therapy for the advanced disease. Patients with suspected or confirmed lung cancer were split into 3 staging groups key to our clients' commercialization strategy:

1. **"Treatment Naïve"**- patients who initially present with advanced (inoperable or metastatic) disease and have never been diagnosed with or treated for any type of lung cancer

2. **“Recurrent – No Prior Chemotherapy”** - those who have been treated previously because of early (operable) lung cancer and whose disease has now recurred to an advanced (inoperable or metastatic) state. They did NOT receive any adjuvant chemotherapy as part of their treatment for early lung cancer
3. **“Recurrent - Chemotherapy Experienced”** - patients who have been treated previously because of early (operable) lung cancer and whose disease has now recurred to an advanced (inoperable or metastatic) state. As part of their treatment for early lung cancer, they received adjuvant chemotherapy. For this staging group, we asked respondents to consider patients who received their adjuvant chemotherapy from them or from another physician as being “NEW to you for advanced disease”

Classification of Lung Cancer Patient Types

	NonSquamous NSCLC	Squamous NSCLC	SCLC	Totals
Treatment Naïve	43.2%	10.4%	8.8%	62.4%
Recurrent – No Prior Chemo	14.7%	3.8%	3.3%	21.8%
Recurrent – Chemotherapy Experienced	10.5%	2.7%	2.6%	15.8%
Totals	68.4%	16.9%	14.7%	100%

Conclusions

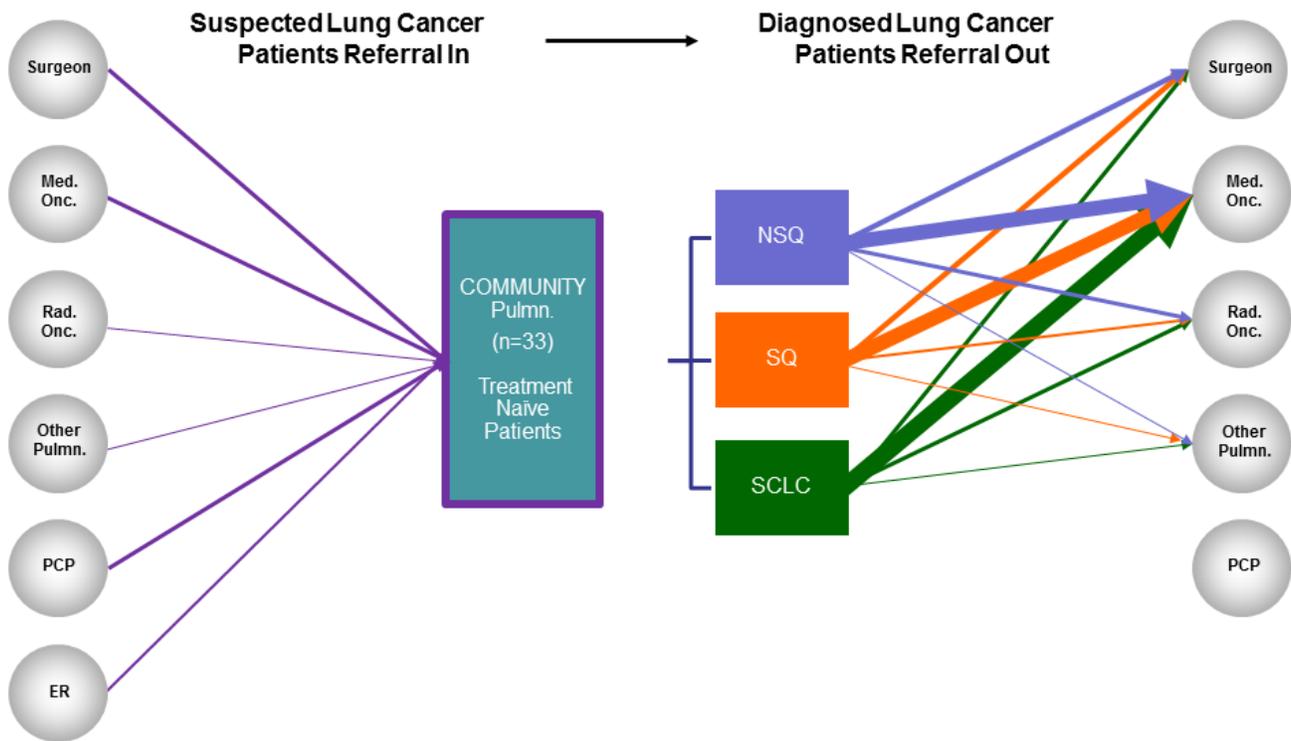
- Over 60% of all patients diagnosed with advanced lung cancer present for the first time as inoperable or metastatic
- A higher percentage of patients recur that did not have initial chemotherapy (21.8%) vs those that had prior chemotherapy (15.8%)
- Small Cell Lung Cancer accounts for less than 15% of advanced lung cancer patients
- The data was compared and mapped against data from other primary and secondary sources epidemiology to quantify the full U.S. market (data not shown)

Commercialization Considerations: Importance of Patient Referral Patterns when Developing Forecasts and Launch Strategies

Once the patient population is clearly defined and segmented, it’s equally important for forecasting and launch strategies to understand the costs that will be needed to reach the treating physicians of these patients. To accomplish this, an understanding of who is treating the patients when needs to be established. With referral patterns mapped out, a picture begins to develop of what it takes to reach and unlock the targeted patient population. This allows the dedication of defined commercialization resources in the most focused way.

MDoutlook analysts used the segmented patient populations to map the referral patterns from the time the patients were suspected of advanced lung cancer, through diagnosis and onto the treating physicians. There emerged important, major and sometimes subtler differences between patient segments, the diagnosis and subsequent management of patients. A rather striking example is shared below.

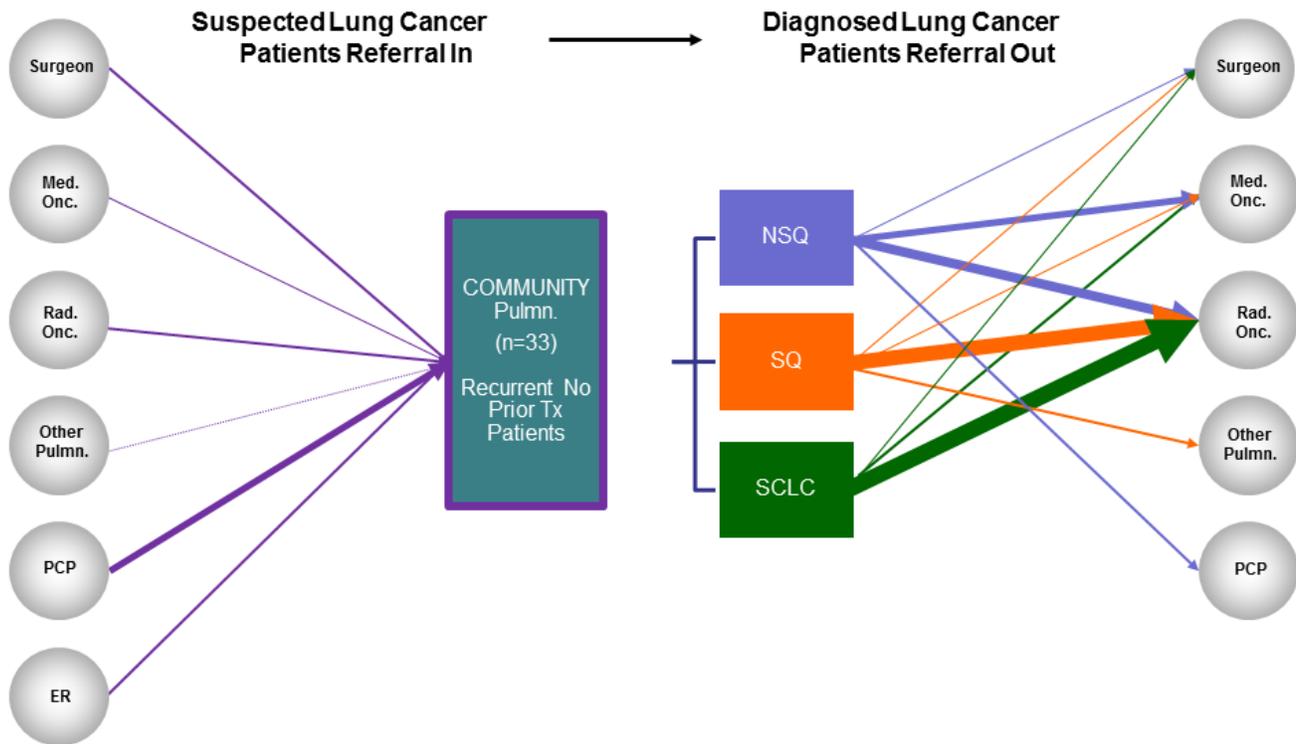
Community Pulmonologists’ Referral Pattern of Treatment Naïve Patients



Conclusions

- Patients suspected of, but not previously diagnosed with, advanced lung cancer are referred to community pulmonologists from multiple specialties
- Once newly diagnosed with advanced lung cancer, the vast majority of patients, regardless of histology, are referred to medical oncologists for treatment

Community Pulmonologists' Referral Pattern of Recurrent No Prior Chemotherapy Patients



Conclusions

- Suspected recurrent advanced lung cancer patients are predominantly referred to community pulmonologists from primary care physicians
- In stark contrast to treatment naïve patients, community pulmonologists refer the majority of their diagnosed advanced lung cancer patients, who are recurrent without chemotherapy experience, to radiation oncologists for treatment



Impact on Your Commercialization Strategy

Building the commercialization strategy for new medicines or new indications is a daunting challenge, ever more so in oncology. Many factors, considerations and assumptions must be weighed and decided. Critical to any planning (and subsequent measurement of success) is reality-based market sizing and correctly quantified segmentation, including patients, physicians and treatment settings.

MDoutlook has supported many clients in doing exactly this using multi-channel intelligence assets and our proprietary panel of more than 95,000 cancer treaters. MDoutlook strengthens your commercialization efforts with primary research and actionable insights.

For More Information: contact us to discuss your oncology intelligence needs at info@mdoutlook.com or +1.404.496.4136. Thank you!