Physician Patterns of Care in Patients with EGFR Mutation+ NSCLC: AN INTERNATIONAL SURVEY ABOUT TESTING AND TREATMENT CHOICES

BACKGROUND

Non-small cell lung cancer (NSCLC) is the most common form of lung cancer,¹ which accounts for 80-85% of all lung cancer cases.² There are three main types of NSCLC (adenocarcinoma; squamous cell carcinoma; large cell carcinoma).¹ Often, lung cancer is diagnosed at a late stage (‘advanced’) which can make it even more difficult to treat.³ International guidelines⁴ recommend molecular testing for EGFR mutation and ALK rearrangements in lung cancer patients at diagnosis, and that these test results should guide treatment decisions to ensure the right treatment is given according to the cancer and mutation type. This is important because patients who have EGFR mutation-positive advanced NSCLC for example, can benefit from targeted treatments which can improve progression-free survival and overall survival⁵,⁶,⁷,⁸

However, in 2015 an international survey concluded that despite guidelines, not all NSCLC patients were tested / received test results before treatment initiation; with country and regional variances in testing rates.⁹

To identify year-on-year improvements and changes, an international survey, sponsored by Boehringer Ingelheim, was conducted in 2016 to further understand NSCLC mutation testing and identify factors affecting treatment decisions, as well as uncover physician understanding of different treatment options.

METHODOLOGY

An online survey was conducted in 11 countries (Canada, China – newly added in 2016 – France, Germany, Italy, Japan, South Korea, Spain, Taiwan, UK and US). 707 physicians who treat patients with advanced NSCLC were included. Respondents varied from oncologists, pulmonologists and thoracic/respiratory surgeons. As China is a newly added country, the majority of results track year-on-year comparisons and therefore exclude China for comparison purposes.

ABOUT NSCLC

EGFR mutation-positive NSCLC is a subtype of lung cancer. EGFR mutations are found in 10-15%¹⁰,¹¹ of Caucasian and 40-50% of Asian patients with NSCLC¹²,¹³,¹⁴,¹⁵. A mutation test is used to identify what type of tumour a patient with NSCLC has, and the result of this test is an integral part of an ideal diagnosis process as it helps physicians decide what treatment is best suited for the patient and their cancer type. There are various forms of treatment used in the management of lung cancer, including targeted therapy using tyrosine kinase inhibitors (TKIs). Recent data has helped physicians make informed treatment decisions between first- and second-generation TKIs.⁸

KEY SURVEY FINDINGS¹⁶ Despite some year-on-year improvements, personalised treatments for EGFR mutation-positive advanced NSCLC patients are still being underutilised

- Globally* EGFR mutation testing rates requested by physicians before first-line therapy were high, consistent with 2015, but rates varied between regions
- Nearly one in five* newly diagnosed patients tested for EGFR mutations did not receive their test results in time to guide treatment decisions. Whilst there is an improvement on 2015 with nearly one in four patients, this still represents a significant shortfall
- Prolonging survival / extending life was the most important therapy goal in first-line treatment
- Globally* nearly four out of five patients with EGFR mutations were treated with TKIs first-line; however, only half of physicians perceived differences between TKIs
TESTING RATES BEFORE FIRST-LINE THERAPY
Globally* the rate of EGFR mutation tests requested by physicians before first-line therapy was high, consistent with 2015; however, this varied between regions.

The main reasons why patients were not tested were consistent with 2015:
- Insufficient tissue / not enough tissue
- Tumour histology (tissue and cell type of a tumour)
- Poor general health (performance status)
- Long turnaround time of the results

When patients were tested, nearly one in five* patients did not receive their test results in time to guide treatment decisions.

There was an year-on-year reduction in turnaround time of test results, with the majority of physicians having received results within 10 business days. However, for nearly one in four patients globally* results took longer.

CONCLUSION
While the average rate of EGFR mutation tests requested before first-line therapy remains high, consistent with 2015, and improvements in the availability of test results prior to first-line therapy are seen, a large proportion of EGFR M+ NSCLC patients are still not receiving targeted treatment with TKIs based on mutation status. Incomplete implementation of guidelines is still observed. The main barriers to testing, including receiving results in time, must be addressed if treatment equality for all eligible patients can be achieved. Physician education and closer guideline concordance are key steps to further improve outcomes.

*excludes China for comparison purposes versus 2015 survey **differs significantly from 2016 (p<0.01)