

Impact of crizotinib on patient-reported symptoms and quality of life (QOL) compared with single-agent chemotherapy in a phase III study of advanced ALK+ non-small cell lung cancer (NSCLC).

Vera Hirsh, Fiona Helen Blackhall, Dong-Wan Kim, Benjamin Besse, Hiroshi Nokihara, Ji-Youn Han, Vanessa Roberts Tassell, Arlene Reisman, Shrividya Iyer, Alice Tsang Shaw; McGill University Health Centre, Montreal, QC, Canada; The Christie National Health Services Foundation Trust, Manchester, United Kingdom; Department of Internal Medicine, Seoul National University Hospital, Seoul, South Korea; Institut Gustave Roussy, Villejuif, France; Division of Thoracic Oncology, National Cancer Center Hospital, Tokyo, Japan; Center for Lung Cancer, National Cancer Center, Goyang, South Korea; Pfizer Oncology, La Jolla, CA; Pfizer Specialty Care, New York, NY; Pfizer Oncology, New York, NY; Massachusetts General Hospital Cancer Center, Boston, MA

Background: PROFILE 1007 compared the efficacy and safety of the ALK inhibitor crizotinib (N=172) with that of standard-of-care chemotherapy (pemetrexed [PEM; N=99] or docetaxel [DOC; N=72]) in patients with advanced ALK+ NSCLC. The primary endpoint was progression-free survival. The main objective of our present post-hoc analyses was to compare patient-reported outcomes in the crizotinib arm with those of the DOC and PEM subgroups in the chemotherapy arm. **Methods:** Patient-reported outcomes were assessed at baseline, on day 1 of each cycle, and at the end of treatment using EORTC QLQ-C30 and lung cancer module QLQ-LC13. Higher scores (range 0–100) indicate higher symptom severity or better functioning/QOL. Time to deterioration (TTD) was defined as time from randomization to the earliest time with a ≥ 10 -point increase from baseline for pain in chest, dyspnea, or cough and was compared between groups using an unstratified log-rank test. Repeated measures mixed-effects analyses were performed to compare change from baseline scores, with no adjustment for multiple comparisons. **Results:** Completion rates at baseline were $\geq 90\%$ in each group and scores were well balanced. Crizotinib treatment was associated with a significantly longer TTD compared with PEM (median, 5.6 vs. 1.9 mo; HR, 0.66; 95% CI, 0.48–0.92; $P=0.013$) or DOC (median, 5.6 vs. 0.9 mo; HR, 0.37; 95% CI, 0.26–0.54; $P<0.0001$). A significantly greater improvement from baseline was observed with crizotinib compared with either the PEM or DOC subgroups for global QOL ($P<0.01$), cough ($P<0.001$), dyspnea ($P<0.0001$), pain in arm or shoulder ($P<0.0001$), pain in chest ($P<0.0001$), pain in other parts ($P<0.01$), fatigue ($P<0.05$), insomnia ($P<0.05$), and pain ($P<0.0001$). A significantly greater improvement was also observed with crizotinib compared with DOC for functioning ($P<0.05$), alopecia ($P<0.0001$), and hemoptysis ($P<0.0001$). **Conclusions:** Crizotinib treatment showed a significantly greater improvement from baseline in key patient-reported lung cancer symptoms and global QOL compared with DOC and PEM, in addition to improved efficacy previously reported. Clinical trial information: NCT00932893.