INTRODUCTION

• Patients with advanced EGFR mutation–positive NSCLC have a poor prognosis and high unmet need for targeted therapies **.

• Amivantamab, an EGFR and c-MET inhibitor, has demonstrated efficacy and tolerability in patients with advanced, previously treated, or metastatic NSCLC harboring EGFR Exon20ins mutations, in a prior phase 1/2 single-arm CHRYSALIS study (NCT02609776).

• In this post-hoc analysis of the RWE cohort, a comparative evaluation was performed using data from medical records of study patients in CHRYSALIS, to provide a comparative efficacy for amivantamab versus a pooled basket of treatments, referred to as RW SoC, reflecting current clinical practice, after failure of platinum-based therapy.

• To assess the comparability of efficacy and safety of amivantamab versus RW SoC using an external control cohort comprising patients from medical records during the CAMELLIA-Lung RWE study.

METHODS

• RWE was a non-interventional, pan-European, multisite study designed to identify patients with advanced EGFR mutation–positive NSCLC who had received therapy after platinum-based therapy.

• Patient medical record data was obtained from 198 hospitals in France, Germany, Italy, the Netherlands, Portugal, Spain and the UK (see the Supplementary Material). Patients were included if they had the full data set.

• For the CHRYSALIS cohort, all adverse treatment arm data were used and the index date was the start of any PFS for which inclusion and exclusion criteria were met per patient. Patient data were available from these index dates until death due to any cause, the last follow-up event if the patient was censored, or the last entry date if the patient was lost to follow-up (hereafter referred to as PFS date).

• For the amivantamab-treated patient cohort used in this analysis comprised of patients from the CHRYSALIS studies, locally adjudicated responses in patients with EGFR Exon20ins mutations who had progressed after prior platinum-based therapy (October 3, 2019, PFS date), and 114 patients from CHRYSALIS were compared to 55 LOTs derived from 38 individual RW patients who had received ≥1 line of platinum-based therapy.

• Differences in patient and disease characteristics were adjusted for using inverse probability weighting (IPW).

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• Differences in patient and disease characteristics were adjusted for using inverse probability weighting (IPW) among treatment effect estimates using ATE (ATT) and covariance adjustment

• IPW weights were derived in a propensity score estimated using multivariable logistic regression, including ECOG performance status, prior lines of treatment, presence of brain metastasis, liver metastasis, bone metastasis, lymph node metastasis, other metastatic locations and age.

• A PFS model was developed using a Cox proportional hazards model, with the following covariates: age, gender, number of prior lines of treatment, presence of brain metastasis, liver metastasis, bone metastasis, lymph node metastasis, other metastatic locations, and age.

• The current comparison was done to provide a comparative analysis for amivantamab versus RW SoC, using a pooled dataset of patients representative of a European population with advanced EGFR Exon20ins-mutated NSCLC after failure of platinum-based therapy.

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CONCLUSIONS

• This analysis is, to our knowledge, the first to compare the efficacy and safety of amivantamab to a pooled basket of existing therapies after failure of platinum-based therapy in patients with advanced NSCLC harboring EGFR Exon20ins mutations.

• The results of this analysis are in line with previously published analyses of amivantamab versus a pooled basket of existing therapies.

• Amivantamab compared with European, real-world (RW) care (SoC) in adults with advanced non-small cell lung cancer (NSCLC) with activating epidermal growth factor receptor (EGFR) Exon 20 insertion mutations (Exon20ins), after failure of platinum-based therapy.

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