Real-World Treatment Outcomes of Amivantamab in Pre-Approval Access (PAA) Participants with Advanced Non-Small Cell Lung Cancer (NSCLC) with *EGFR* Exon 20 Insertion Mutations (ex20ins)

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INTRODUCTION

- Amivantamab is an epidermal growth factor receptor (EGFR)-MET bispecific antibody with immune-cell directing activity[1, 2]
- Amivantamab was recently approved for the treatment of patients with advanced non-small cell lung cancer (NSCLC) harboring *EGFR* exon 20 insertion mutations (ex20ins) whose disease progressed on or after platinum-based chemotherapy
  - Data from the registrational CHRYSALIS trial (NCT02609776) demonstrated an overall response rate (ORR) of 40% and median duration of response of 11.1 months among 81 patients in the efficacy population[3]
- A global pre-approval access program (PAA) was initiated to provide amivantamab to participants with *EGFR* ex20ins advanced NSCLC who did not qualify for or have access to clinical trials

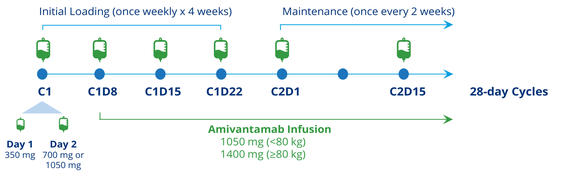
OBJECTIVE

- To describe the real-world experience with amivantamab acquired through the global PAA program

METHODS

- Patients who were eligible for PAA (NCT04599712) had unresectable or metastatic NSCLC with *EGFR* ex20ins that progressed on or after platinum-based chemotherapy
  - De-identified pathology report to confirm *EGFR* ex20ins and investigator's clinical assessment were used to assess eligibility
- Amivantamab (1050 mg; 1400 mg for bodyweight ≥80 kg) was administered intravenously once weekly for the first 4-week cycle, then every 2 weeks thereafter (**Figure 1**)
- For drug re-supply, the following were collected:
  - Investigator's assessment of response (optional)
  - Patient disposition data (optional); data were requested if 2–4 weeks had lapsed between last and new drug supply requests
  - Safety data to meet safety surveillance regulatory responsibilities
- Time to treatment discontinuation (TTD) was estimated using the Kaplan–Meier (KM) method and included all patients who had a record of at least 1 drug supply
  - TTD was estimated as the time between first drug supply and the known or imputed date of treatment discontinuation
  - Patients whose discontinuation status was unknown and who had >45 days lapse since last supply (for a normal supply) were considered as discontinued
  - A drug supply-adjusted limit for a resupply request was applied for patients who deviated from the normal supply schedule
  - Patients who transitioned to commercial amivantamab were censored at date of switch
  - Cox proportional hazards regression was used to estimate relative risk of TTD by baseline characteristics
- Physician-reported best response is presented for patients who had at least 1 drug supply and analyzed by site of insertion: helical region (amino acids [AA] 762-766), near loop (767-772), and far loop (773-775)

Figure 1. Amivantamab dosing schema



C, cycle; D, day

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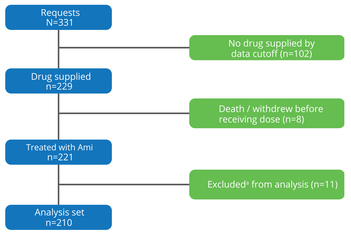
RESULTS

Patients

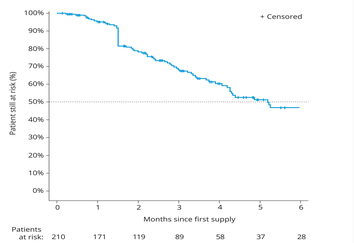
- As of the Oct 29, 2021 data cutoff, 210 patients had received treatment with amivantamab across 115 sites in 18 countries (**Figure 2**)
  - 66.7% from Asia, 19.0% from Europe, 9.5% from North America, and 4.8% from South America
  - Median follow-up was 3.7 months (reverse KM method)
- Reasons for treatment discontinuations included reported progressive disease (n=25), adverse events (n=5), other (n=5), and death (n=3), and imputed discontinuation from no drug resupply request (n=36)
- Among the analyzed population, 77 patients had physician-reported response data
- Patient characteristics of the analysis set and among patients with physician-reported response are presented in **Table 1**
- Median TTD was 5.2 months (95% CI, 4.2–7.2; **Figure 3**)
  - Drop in survival rate at 1.5 months due to patients who did not request a resupply within 45 days of their first supply and are thus assumed having discontinued treatment

Figure 2. Patient disposition



[a]Excluded due to local country requirements prohibiting reporting of data
Ami, amivantamab

Figure 3. Time to treatment discontinuation

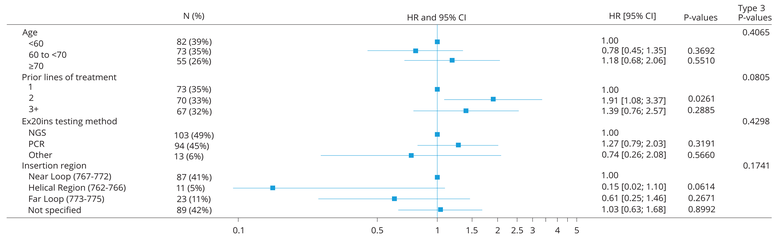


- No statistically significant differences in risk rate of TTD across age groups, ex20ins testing method, and insertion region of exon 20 were detected, with the exception of patients with 2 prior lines of treatment vs one (**Figure 4**)

Safety

- No new safety signals were identified

Figure 4. Relative risk of treatment discontinuation by baseline characteristics



HRs and respective p-values are relative to the first listed level of each variable. p-values of HRs not reported in the figure are: age 60 to <70 vs 70+, p=0.18; testing method PCR vs Other, p=0.30; insertion region Helical vs Far Loop, p=0.19; Helical vs Not specified, p=0.57; Far Loop vs Not specified, p=0.23
CI, confidence interval; HR, hazard ratio

Table 1. Patient characteristics

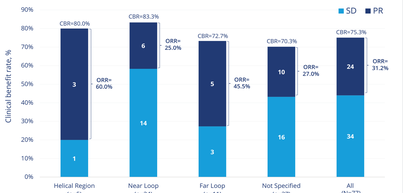
Characteristic	Physician-Reported Response Data (n=77)	Total (n=210)
Age, years		
Median (range)	61.0 (32-81)	62.0 (24–84)
<60	37 (48.1%)	82 (39.0%)
60 to <70	24 (31.2%)	73 (34.8%)
≥70	16 (20.8%)	55 (26.2%)
Prior lines of therapy, n (%)		
1	28 (36.4%)	73 (34.8%)
2	22 (28.6%)	70 (33.3%)
3+	27 (35.1%)	67 (31.9%)
Ex20ins assay, n (%)		
NGS	35 (45.5%)	103 (49.0%)
PCR	35 (45.5%)	94 (44.8%)
Not specified	7 (9.1%)	13 (6.2%)
Insertion region, n (%)		
Helical region (AA 762–766)	5 (6.5%)	11 (5.2%)
Near loop (AA 767–772)	24 (31.2%)	87 (41.4%)
Far loop (773–775)	11 (14.3%)	23 (11.0%)
Not specified	37 (48.1%)	89 (42.4%)

NGS, next-generation sequencing; PCR, polymerase chain reaction

Best response

- Among 77 patients with physician-reported response data, 24 (31.2%) reported partial responses (PR)
- Clinical benefit rate (CBR; PR + stable disease and at least 1 drug resupply) was 75.3%
- Responses were observed across all insertion regions of exon 20 (**Figure 5**)

Figure 5. Response by insertion region of exon 20 among patients with physician-reported response data



CBR, clinical benefit rate; ORR, overall response rate; PR, partial response; SD, stable disease

KEY TAKEAWAYS

- The real-world experience of amivantamab from the PAA program is consistent with that observed from the registrational CHRYSALIS clinical trial[3]
- Responses with amivantamab were observed in patients with *EGFR* ex20ins located in all insertion regions of exon 20

CONCLUSIONS

- Among a real-world population of patients with post-platinum *EGFR* ex20ins advanced NSCLC who received compassionate-use treatment with amivantamab, the TTD and antitumor responses were consistent with or in range of the clinical trial results
- Consistent antitumor activity supports the generalizability of the clinical trial results to a broader population
- Responses were observed across all insertion regions of *EGFR* exon 20, which is in-line with amivantamab's extracellular mechanism of action that is independent of the intracellular location (catalytic domain) of the activating mutation

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https://www.congresshub.com/Oncology/ELCC2022/Amivantamab/Kim

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DISCLOSURES

TMK: AstraZeneca, AstraZeneca/MedImmune, AstraZeneca-KHIDI, Bayer, Boehringer-Ingelheim, Boryung Hanmi, Genmab, Janssen, Merck Serono, MSD, Novartis, Regeneron, Roche/Genentech, Sanofi Takeda. **S-HL:** AstraZeneca, MSD, Roche. **G-CC:** AstraZeneca, Boehringer-Ingelheim, Bristol-Myers Squibb, Eli Lilly, F. Hoffman-La Roche, MSD. **J-YS:** AstraZeneca, Boehringer-Ingelheim, Bristol-Myers Squibb, Chugai Pharma, CStone Pharmaceuticals, Eli Lilly, Janssen, MSD, Novartis, Ono Pharmaceuticals, Pfizer, Roche, Takeda. **MJH:** AstraZeneca, Boehringer-Ingelheim, Bristol-Myers Squibb, Lilly, MSD, Roche. **JKS:** AstraZeneca, Janssen Oncology, Medscape, Navire, Pfizer, Regeneron, Takeda. **AIS:** AbbVie, ADC Therapeutics, Amgen, Arch Therapeutics, Array BioPharma, Astellas Pharma, Astex Pharmaceuticals, AstraZeneca, AstraZeneca/MedImmune, Bayer, Bristol-Myers Squibb, Boehringer-Ingelheim, CytomX Therapeutics, Ignyta, Daiichi Sankyo, Incyte, Gritstone Oncology, Janssen Oncology, Jazz Pharmaceuticals, LAM Therapeutics, Lilly, Loxo, Macrogenics, MedImmune, Merck, Mirati Therapeutics, Newlink Genetics, Novartis, Plexxikon, Roche, Rubius Therapeutics, Takeda, Trovagene. **CAS, AP, JBR, MC, PM:** Johnson & Johnson. **BCC:** Abbvie, AstraZeneca, Bayer, Blueprint Medicines, Boehringer-Ingelheim, Bridgebio Therapeutics, Bristol-Myers Squibb, Champions Oncology, Cyrus Therapeutics, DAAN Biotherapeutics, Dizal Pharma, Dong-A ST, Eli Lilly, Guardant Health, Gencurix Inc, GInnovation, Interpark Bio Convergence Corp, Janssen, Joseph BIO, KANAPH Therapeutic Inc, Medpacto, MOGAM Institute, MSD, Novartis, Ono, Pfizer, Roche, Takeda, TheraCanVac Inc, Yuhan

REFERENCES:

1. Moores et al. *Cancer Res* 2016;76:3942; 2. Vijayaraghavan et al. *Mol Cancer Ther* 2020;19:2044; 3. Park et al. *J Clin Oncol* 2021;39:3391

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