

Amivantamab Plus Chemotherapy vs Chemotherapy in *EGFR*–mutant Advanced NSCLC After Progression on Osimertinib: A Post-progression Analysis of MARIPOSA-2

Ryan D. Gentzler, Alexander I. Spira, Barbara Melosky, Scott Owen, Timothy F. Burns, Erminia Massarelli, Misako Nagasaka, Bruno Fang, Rachel E. Sanborn, Socar Arrieta, Cynthia Card, Federico Cappuzzo, Karen Xia, Pei-Ling Chu, Sujay Shah, Socar Arrieta, Brooke Diorio, Sangela Girvin, Parthiv Mahadevia, Japanua M. Bauml, Karen L. Reckamp

¹Hematology/Oncology, University of Virginia Cancer Center, Charlottesville, VA, USA; ²Virginia Cancer Specialists, Fairfax, VA, USA; ³British Columbia Cancer Agency, Vancouver, British Columbia, Canada; ⁴McGill University Health Centre (MUHC), Montreal, Quebec, Canada; ⁵UPMC Hillman Cancer Center, Pittsburgh, PA, USA; ⁶City of Hope Comprehensive Cancer Center, Duarte, CA, USA; ⁷University of California Irvine School of Medicine, Orange, CA, USA; ⁸Astera Cancer Care, East Brunswick, NJ, USA; ⁹Earle A. Chiles Research Institute, Providence Cancer Institute of Oregon, Portland, OR, USA; ¹⁰Instituto Nacional de Cancerologia, Mexico City, Mexico; ¹¹Arnie Charbonneau Cancer Institute, Calgary, Alberta, Canada; ¹²IRCCS Regina Elena National Cancer Institute, Rome, Italy; ¹³Janssen Research & Development, Spring House, PA, USA; ¹⁴Janssen Research & Development, Raritan, NJ, USA; ¹⁵Cedars Sinal Medical Center. Los Angeles, CA, USA.

Organisers











The QR code is intended to provide scientific information for individual reference, and the information should not be altered or reproduced in any way



DECLARATION OF INTERESTS



Ryan D. Gentzler

Grants or research funding to institution: Pfizer, Amgen, Chugai, Merck, AstraZeneca, Janssen, Daiichi Sankyo, Alliance Foundation, Takeda, ECOG/ACRIN, Jounce Therapeutics, Bristol Myers Squibb, National Cancer Institute (NCI), Big Ten Research Consortium, Hoosier Cancer Research Network, SWOG, Dizal, Mirati, and Helsinn

Payments or honoraria: Clinical Care Options, OncLive, Targeted Oncology, and Society for Immunotherapy of Cancer (SITC), American Society of Clinical Oncology (ASCO), Medstar Health, and Aptitude Health

Support for attending meeting and/or travel: International Association for the Study of Lung Cancer (IASLC), ASCO, Dava Oncology, and Tempus

Participation in advisory boards: AstraZeneca, Takeda, Gilead, Janssen, Mirati, Daiichi Sankyo, Sanofi, Oncocyte, Jazz Pharmaceuticals, and Merus

Leadership or fiduciary roles: Hoosier Cancer Research Network Thoracic Clinical Trial Working Group, ASCO Scientific Review Committee, *Journal of Clinical Oncology*: Meeting Abstracts, NCI Investigational Drug Steering Committee, and IASLC World Conference on Lung Cancer 2024 Planning Committee

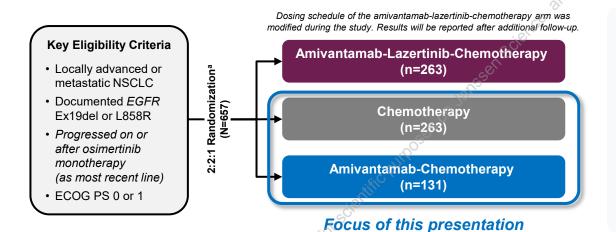








- Amivantamab is an EGFR-MET bispecific antibody with immune cell-directing activity 1-3
- Lazertinib is a highly selective, CNS-penetrant, 3rd-generation EGFR TKI with efficacy in both activating EGFR mutations and T790M⁴⁻⁶



Secondary Endpointsb:

- Objective response rate (ORR)
- Duration of response (DoR)
- · Overall survival (OS)
- Intracranial PFS
- Safety
- Time to symptomatic progression (TTSP)
- Time to subsequent therapy (TTST)
- PFS after first subsequent therapy (PFS2)

Exploratory Endpoint^b:

• Time to treatment discontinuation (TTD)

CNS, central nervous system; ECOG PS, Eastern Cooperative Oncology Group performance status; EGFR, epidermal growth factor receptor; NSCLC, non-small cell lung cancer; PFS, progression-free survival; TKI, tyrosine kinase inhibitor.



1. Moores SL, et al. Cancer Res. 2016;76(13):3942-3953. 2. Vijayaraghavan S, et al. Mol Cancer Ther. 2020;19(10):2044-2056. 3. Yun J, et al. Cancer Discov. 2020;10(8):1194-1209. 4. Ahn M-J, et al. Lancet Oncol. 2019;20(12):1681-1690. 5. Cho BC, et al. J Thorac Oncol. 2022;17(4):558-567. 6. Soo RA, et al. J Thorac Oncol. 2023;18(12):1756-1766.





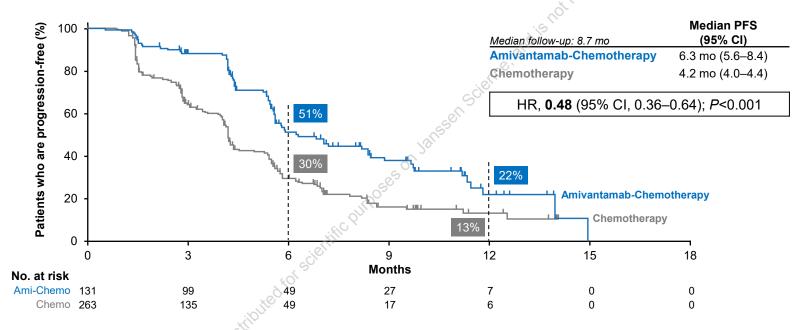
^aAnalyses were further stratified based on osimertinib line of therapy, history of brain metastases, and race (Asian vs non-Asian).

^bA graphical testing strategy was used to control for Type 1 errors. PFS, ORR, and then OS were included in the hierarchical testing. P values are nominal for all other secondary and exploratory endpoints.

MARIPOSA-2

Primary Endpoint: Progression-free Survival by BICR

At a median follow-up of 8.7 months, amivantamab-chemotherapy reduced the risk of progression or death by 52%



Consistent PFS benefit by investigator: HR, 0.41 (8.2 vs 4.2 mo; P<0.001)

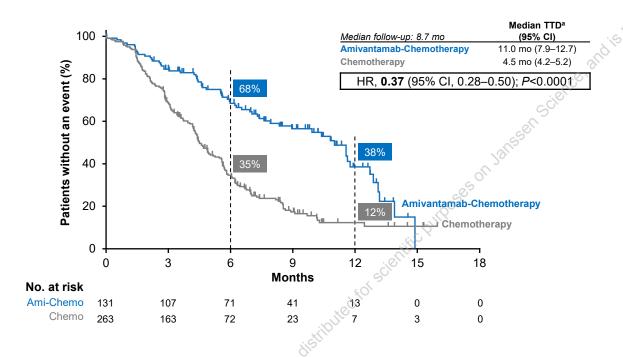








Median TTD was longer with amivantamab-chemotherapy compared to chemotherapy



- In the amivantamab-chemotherapy arm,
 42% (55/130) of patients versus 71%
 (173/243) of patients in the chemotherapy arm had progressive disease
- Among those with disease progression, 35% (19/55) and 16% (28/173) of patients, respectively, continued treatment beyond progression
- Median duration of treatment post-progression was:
 - 18.3 weeks (95% CI, 9.0–NE) for amivantamab-chemotherapy
 - 9.0 weeks (95% CI, 6.0–16.4) for chemotherapy

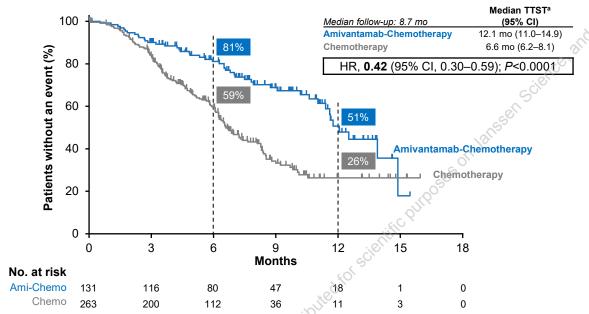




Time to Subsequent Therapy

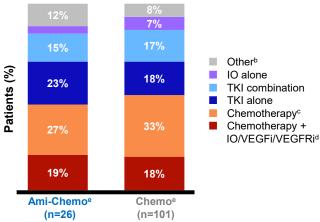


Median TTST was longer with amivantamab-chemotherapy compared to chemotherapy



Most Common First Subsequent Therapy Classes

- In both arms, 63% of patients with disease progression and discontinuation of study treatment received a subsequent therapy
- Most common therapies were docetaxel and osimertinib



aTTST was defined as the time from the date of randomization to the start date of the first subsequent anticancer therapy following study treatment discontinuation, or death, whichever occurred first. The other category included bispecific monoclonal antibodies, antibody-drug conjugate—based regimens, ALK TKIs, herbal, and other investigational agents. In the Ami-Chemo and Chemo arms, 19% and 23% of patients received single-agent chemotherapy, respectively, and 8% and 10% of patients received doublet chemotherapy. In the Ami-Chemo and Chemo arms, the most common chemotherapy was docetaxel (12% and 15%, respectively). The most common chemotherapy + IO/VEGFi/VEGFRi were bevacizumab + paclitaxel. bevacizumab + pemetrexed, docetaxel + ramucirumab, and atezolizumab + bevacizumab + carboplatin + paclitaxel (4% each) for the Ami-Chemo arm and docetaxel + ramucirumab (7%) for the Chemo arm. eIn the Ami-Chemo and Chemo arms, the most common subsequent therapies overall were docetaxel (12% and 15%, respectively) and osimertinib (23% and 14%, respectively).

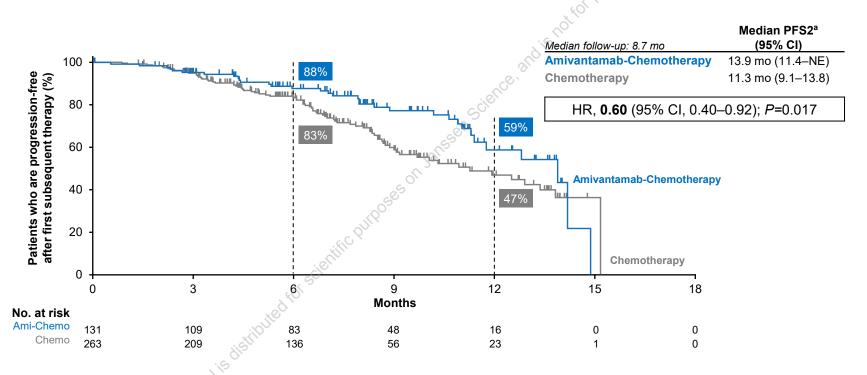


Ami-chemo, amivantamab-chemotherapy; ALK, anaplastic lymphoma kinase; Chemo, chemotherapy; EGFR, epithelial growth factor receptor; IO, immuno-oncology; TKI, tyrosine kinase inhibitor; VEGFi, vascular endothelial growth factor inhibitor; VEGFRi, vascular endothelial growth factor receptor inhibitor. European Lung Cancer Congress 2024





Amivantamab-chemotherapy reduced the risk of second disease progression or death by 40%





PFS2 was defined as the time from randomization until the date of second objective disease progression after initiation of subsequent anticancer therapy, based on clinical progression as determined by the investigator or death, whichever occurred first.

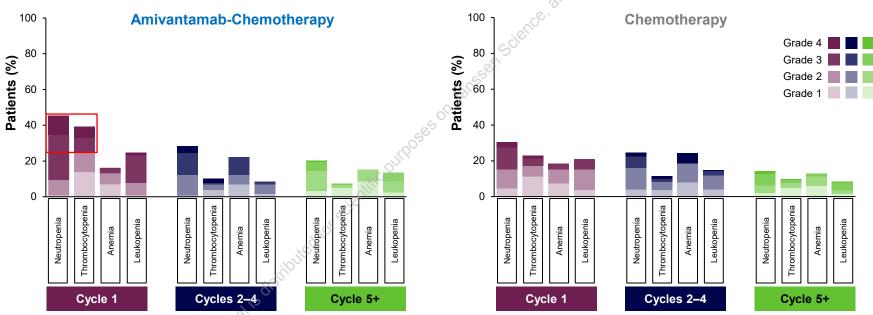






Hematologic AE Onset^a and Severity Over Time

- Labs were measured weekly in Cycle 1 for both arms and less frequently for subsequent cycles
- Hematologic AEs were:
 - Highest in Cycle 1 and decreased over time
 - Similar between both arms from Cycle 2 onward







Conclusions



- Compared to chemotherapy, **amivantamab-chemotherapy** in patients with *EGFR*-mutant advanced NSCLC after disease progression on osimertinib significantly prolonged:
 - Time to treatment discontinuation (11.0 months vs 4.5 months; HR, 0.37; P<0.0001)
 - Time to subsequent therapy (12.1 months vs 6.6 months; HR, 0.42; P<0.0001)
 - Progression-free survival after first subsequent therapy (13.9 months vs 11.3 months; HR, 0.60; P=0.017)
- Subsequent therapies received were similar in both arms, with osimertinib and docetaxel being the most common
- The higher incidence and severity of hematologic AEs for amivantamab-chemotherapy was limited to Cycle 1, with profiles similar between both arms from Cycle 2 onward



Amivantamab-chemotherapy represents the new standard of care among patients with *EGFR*-mutant advanced NSCLC after disease progression on osimertinib





Acknowledgments



- Patients who participated in the study and their families and caregivers
- Physicians and nurses who cared for patients and staff members who supported this clinical trial
- Staff members at the study sites and involved in data collection/analyses
- Medical writing assistance was provided by Lumanity Communications Inc., and funded by Janssen Global Services, LLC



The QR code is intended to provide scientific information for individual reference, and the information should not be altered or reproduced in any way.

