



IASLC 2025 World Conference on Lung Cancer

SEPTEMBER 6-9, 2025 | BARCELONA, SPAIN

wclc.iaslc.org       #WCLC25

PALOMA-2: Subcutaneous Amivantamab Administered Every 4 Weeks Plus Lazertinib in First-Line *EGFR*-Mutated Advanced NSCLC

Susan C Scott¹, Josiane Mourão Dias², Baogang Liu³, Sun Min Lim⁴, Akira Ono⁵,
Vanessa Gutierrez Calderon⁶, Pei Jye Voon⁷, Martin Reck⁸, Nicolas Girard⁹, Samuel Chan¹⁰,
Carlo Genova¹¹, Siddhartha Devarakonda¹², Saugata Das¹³, Ali Alhadab¹⁴, Miao Wang¹⁴,
Janine M Mahoney¹⁵, Jie Zhang¹⁵, Sujay Shah¹⁵, Mahadi Baig¹⁶, Mor Moskovitz¹⁷

¹The Sidney Kimmel Comprehensive Cancer Center, Johns Hopkins University School of Medicine, Baltimore, MD, USA; ²Department of Medical Oncology, Barretos Cancer Hospital, Barretos, Brazil; ³Harbin Medical University Cancer Hospital, Harbin, China; ⁴Division of Medical Oncology, Department of Internal Medicine, Yonsei University College of Medicine, Seoul, South Korea; ⁵Division of Thoracic Oncology, Shizuoka Cancer Center, Shizuoka, Japan; ⁶Medical Oncology Department, Hospital Regional Universitario de Málaga, Málaga, Spain; ⁷Department of Radiotherapy and Oncology, Hospital Umum Sarawak, Kuching, Sarawak, Malaysia; ⁸Department of Thoracic Oncology, Airway Research Center North, German Center for Lung Research, LungenClinic Grosshansdorf, Grosshansdorf, Germany; ⁹Institut du Thorax Curie-Montsouris, Paris, France and Paris Saclay University, Université de Versailles Saint-Quentin-en-Yvelines, Versailles, France; ¹⁰Oncology Department, Queen Alexandra University Hospital, Portsmouth Hospitals NHS Trust, Portsmouth, UK; ¹¹Department of Internal Medicine and Medical Specialties, University of Genoa, Genoa, Italy and IRCCS San Martino Hospital, Genoa, Italy; ¹²Medical Oncology, Swedish Cancer Institute First Hill, Seattle, WA, USA; ¹³Johnson & Johnson, Kolkata, India; ¹⁴Johnson & Johnson, San Diego, CA, USA; ¹⁵Johnson & Johnson, Spring House, PA, USA; ¹⁶Johnson & Johnson, Raritan, NJ, USA; ¹⁷Davidoff Cancer Center, Beilinson Medical Center, Petah Tikva, Israel

Background

- Amivantamab + lazertinib, a third-generation EGFR TKI, is approved in the US, Europe, and other regions for 1L *EGFR*-mutated advanced NSCLC¹⁻⁵
- In MARIPOSA (NCT04487080), amivantamab IV Q2W + lazertinib significantly prolonged PFS^a (HR, 0.70; $P < 0.001$) and OS^b (HR, 0.75; $P < 0.005$) versus osimertinib^{5,6}
 - In the amivantamab + lazertinib arm:
 - BICR-assessed ORR was 86% (95% CI, 83–89) among all participants⁵
 - At a median follow-up of 37.8 months, median OS was not reached; however, the OS benefit vs osimertinib is projected to be >1 year, assuming exponential distribution in both arms⁶
- In Cohorts 1 and 6 of PALOMA-2 (NCT05498428), 1L amivantamab SC Q2W + lazertinib showed a response rate consistent with historical amivantamab IV Q2W + lazertinib⁷

Here we report the efficacy, safety, and PK of 1L amivantamab SC Q4W + lazertinib in *EGFR*-mutated advanced NSCLC

^aMedian follow-up, 22.0 months. ^bMedian follow-up, 37.8 months.

1. Moeres SL, et al. *Cancer Res.* 2016;76(13):3942-3953. 2. Dhillon S. *Drugs.* 2021;81(9):1107-1113. 3. RYBRENT[®] (amivantamab-vmjw) injection for intravenous use [package insert]. Janssen Biotech, Inc; 2025. 4. RYBRENT[®]: EPAR [product information]. Janssen-Cilag International NV; 2025. 5. Cho BC, et al. *N Engl J Med.* 2024;391(16):1486-1498. 6. Yang J C-H, et al. Presented at: European Lung Cancer Congress (ELCC); March 26-29, 2025; Paris, France. 7. Lim SM, et al. Presented at: American Society of Clinical Oncology (ASCO) Annual Meeting; May 31-June 4, 2024; Chicago, IL, USA.



PALOMA-2 Cohort 5 Study Design

Key eligibility criteria for Cohort 5 (N=77)

- Treatment-naïve, locally advanced or metastatic NSCLC
- Documented *EGFR* Ex19del or L858R mutations
- If brain metastases are present, they must be stable^a
- ECOG PS score of 0 or 1

Amivantamab SC Q4W + lazertinib

Prophylactic anticoagulation *recommended*
for the first 4 months of treatment

Dosing (in 28-day cycles)

Amivantamab SC^b:

Subcutaneous abdominal injection with a Q4W dosing regimen of 1600 mg (2240 mg if ≥80 kg) weekly for the first 4 weeks, and 3520 mg (4640 mg if ≥80 kg) Q4W thereafter

Lazertinib: 240 mg orally daily

Primary endpoint:

- ORR by INV^c

Secondary endpoints:

- ORR by ICR^c
- Duration of response
- Time to response
- Clinical benefit rate^d
- Progression-free survival
- Overall survival
- Safety
- PK

^aIncludes asymptomatic or previously treated participants with stable brain metastases. ^bCoformulated with recombinant human hyaluronidase PH20. ^cTumor response was assessed according to RECIST v1.1. ^dClinical benefit rate was defined as confirmed response or stable disease for ≥11 weeks.



Baseline Demographics and Clinical Characteristics

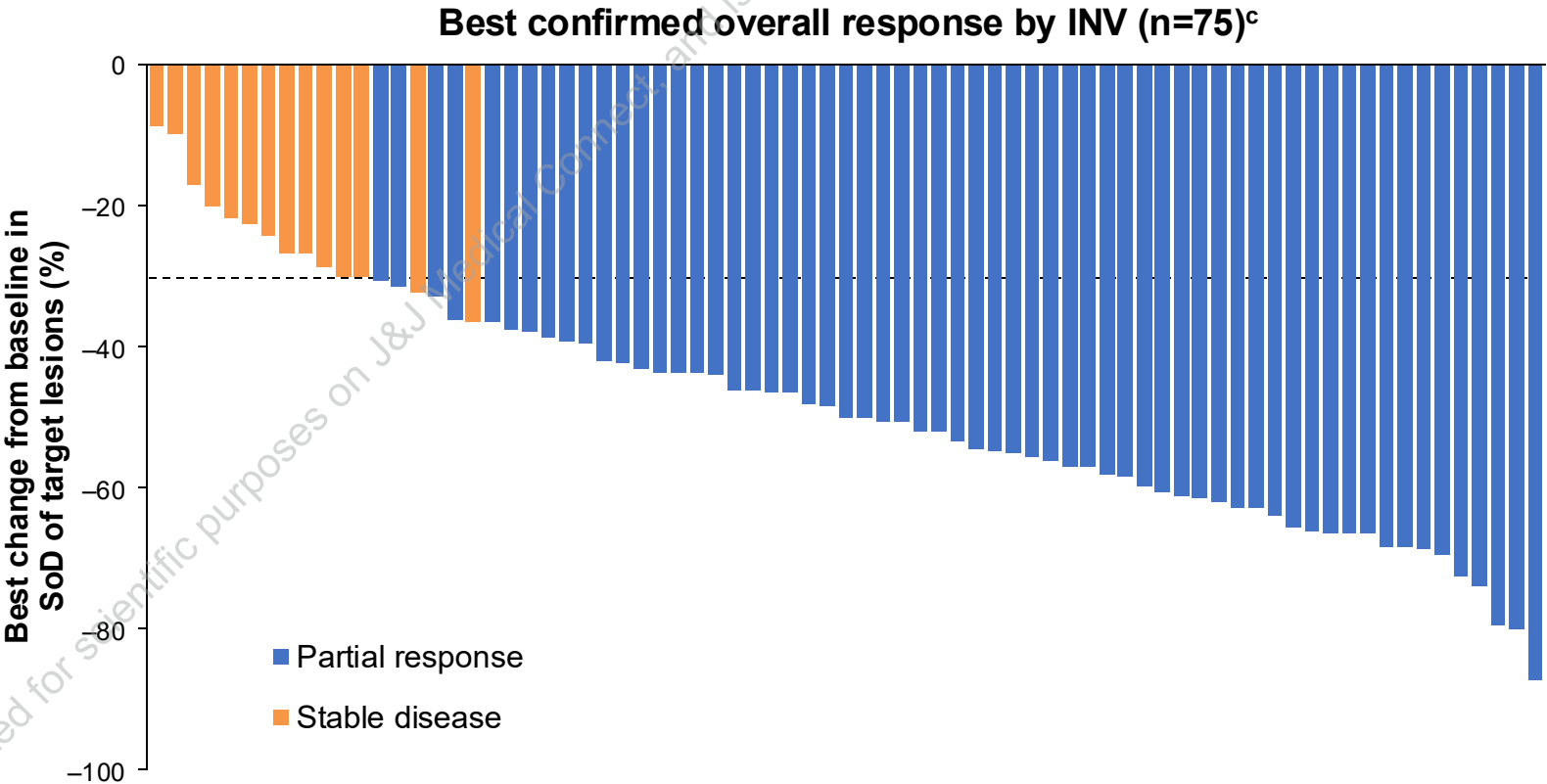
- Cohort 5 enrolled a total of 77 participants
 - Median age was 63 years; 68% were female and 62% were Asian
 - Brain metastases were present in 43% of participants
- As of October 24, 2024, median follow-up was 6.5 months, and 67 (87%) participants were ongoing treatment

Characteristic, n (%)	Cohort 5 (N=77)
Median age, years (range)	63 (31–80)
Female	52 (68)
Race	
Asian	48 (62)
White	27 (35)
Other ^a	2 (3)
ECOG PS score of 1	52 (68)
History of smoking	25 (32)
Brain metastases	33 (43)
<i>EGFR</i> mutation type ^b	
Exon 19 deletion	46 (60)
L858R	31 (40)
Adenocarcinoma histology	77 (100)

^aOther includes Black or African American and multiple. ^bParticipants could be included in more than 1 category.

ORR and Best Response

- Among all participants, ORR was 82% (95% CI, 71–90) by INV^a and 87% (95% CI, 77–94) by ICR
- Results are consistent with the primary analysis of MARIPOSA, which demonstrated an ORR of 86% (95% CI, 83–89) by BICR with amivantamab IV Q2W + lazertinib¹
- Confirmed ORR was 79% (95% CI, 69–88) by INV and 83% (95% CI, 73–91) by ICR^b
- Confirmed CBR was 97% (95% CI, 91–100) by INV and 96% (95% CI, 89–99) by ICR

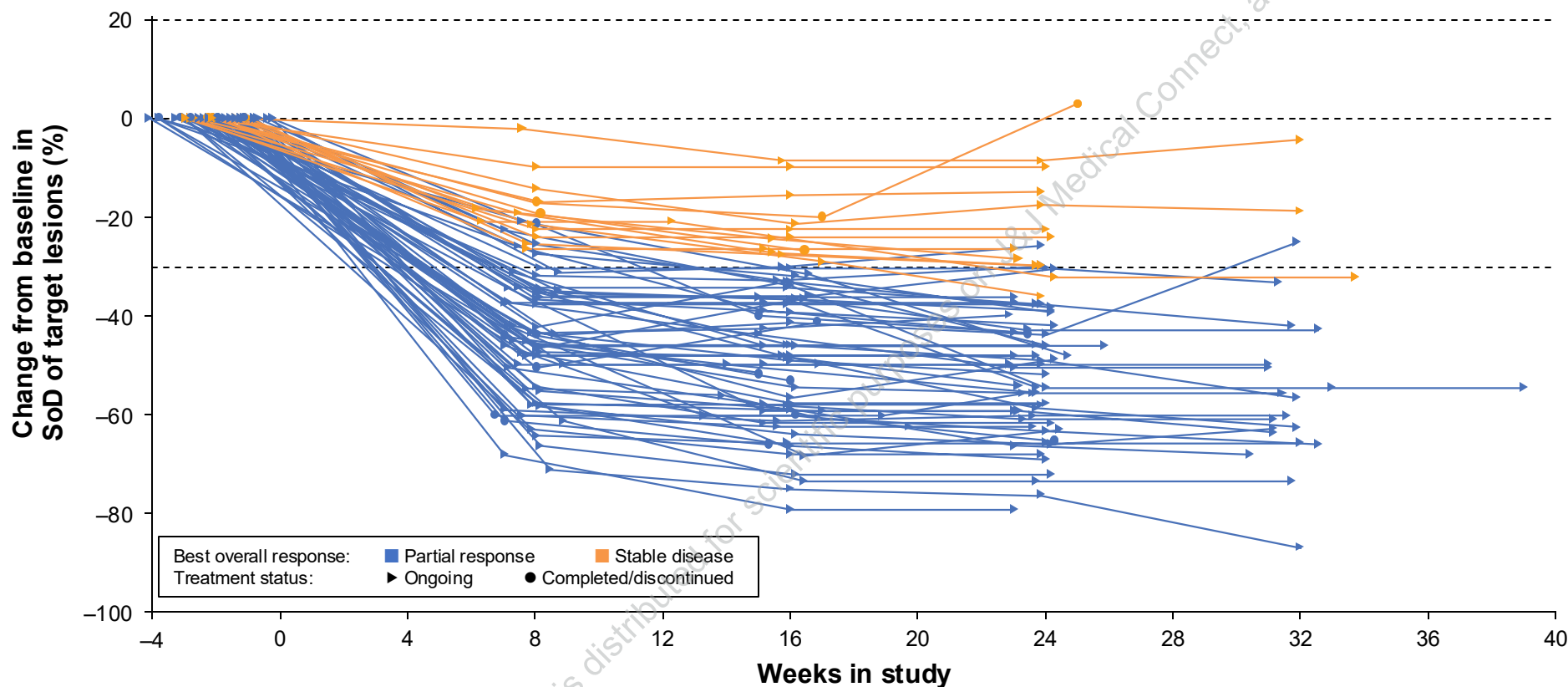


^aThe primary endpoint was met: the null hypothesis of ORR <50% by INV was rejected. ^bConfirmation of responses by repeat assessments were performed ≥4 weeks after the criteria for PR or CR were met. ^cAmong participants with measurable disease at baseline. CBR, clinical benefit rate (defined as confirmed response or stable disease for ≥11 weeks); SoD, sum of diameters. 1. Cho BC, et al. *N Engl J Med*. 2024;391(16):1486-1498.



Antitumor Activity and Secondary Endpoints

Antitumor activity in participants with measurable disease^a at baseline (n=75)



- Among confirmed responders:
- Median time to response was 8.1 weeks (range, 7.0–16.5)
- Median DoR was not reached for estimation, and the majority of responses were ongoing (93% [57/61])
- Median PFS and OS were not reached for estimation

^aBy INV.
SoD, sum of diameters.



Safety Profile



- EGFR/MET-related TEAEs were the most common, with no new safety signals identified¹
 - Discontinuation of all study treatment due to treatment-related AEs occurred in 8% of participants
 - No prophylactic measures for dermatologic AEs were recommended in PALOMA-2
- ARRs^a occurred in 9 (12%) participants (grade ≥3, 1 [1%]), with the majority occurring at first injection (7/9; 78%)^b
 - Rate of ARR was ~5-fold lower compared with amivantamab IV Q2W administration in MARIPOSA (63%)¹

Pharmacokinetics

- Consistent with historical amivantamab IV and SC Q2W data,^{2,c} mean (%CV) amivantamab concentration on Cycle 2 Day 1 was 366 (31) µg/mL (n=56)

Most common TEAEs (≥20%), n (%)	Cohort 5 (N=77)	
	All grades	Grade ≥3
Associated with EGFR inhibition		
Paronychia	56 (73)	4 (5)
Rash	45 (58)	9 (12)
Dermatitis acneiform	31 (40)	6 (8)
Stomatitis	29 (38)	3 (4)
Pruritus	26 (34)	1 (1)
Diarrhea	22 (29)	2 (3)
Associated with MET inhibition		
Hypoalbuminemia	49 (64)	4 (5)
Peripheral edema	28 (36)	0
Other		
Increased ALT	25 (32)	3 (4)
Increased AST	21 (27)	1 (1)
Dry skin	18 (23)	0

^aARRs were defined as Medical Dictionary for Regulatory Activities preferred term "Administration Related Reaction" (referred to as IRRs in prior studies).^bOn or after Cycle 1 Day 1 but before the next dose. ^cMean (%CV) concentration on Cycle 2 Day 1 was 317 (32) µg/mL (n=285) for amivantamab IV, 328 (32) µg/mL (n=50) for amivantamab SC in Cohort 1, and 373 (27) µg/mL (n=42) for amivantamab SC in Cohort 6.
1. Cho BC, et al. *N Engl J Med*. 2024;391(16):1486-1498. 2. Lim SM, et al. Presented at: American Society for Clinical Oncology (ASCO) Annual Meeting; May 31-June 4, 2024; Chicago, IL, USA.



Conclusions

- Participants receiving 1L amivantamab SC Q4W + lazertinib demonstrated a response rate consistent with those who received amivantamab IV Q2W + lazertinib in MARIPOSA¹
- No new safety signals were identified with amivantamab SC Q4W + lazertinib¹
 - ARRs were reduced ~5-fold with amivantamab SC versus amivantamab IV (12% vs 63%)¹
 - Incidence of VTE was low (13%) and consistent with baseline VTE rates observed in NSCLC^{2,3}
- Consistent PK profiles with historical amivantamab IV further support the use of amivantamab SC Q4W + lazertinib⁴
- The Q4W dosing regimen for amivantamab SC + lazertinib is projected to further improve patient convenience



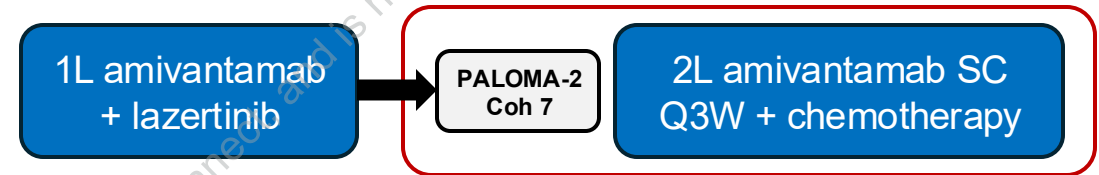
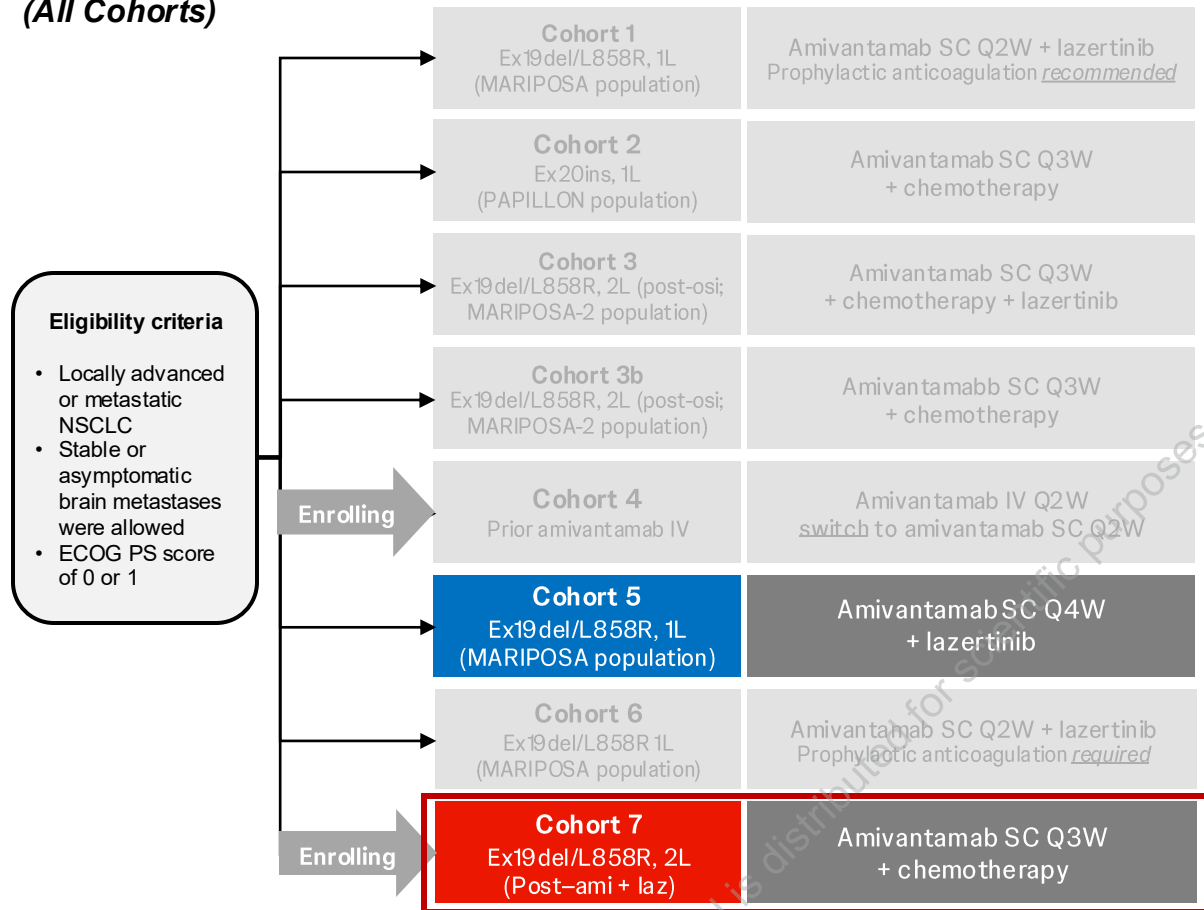
The efficacy of amivantamab SC Q4W + lazertinib is consistent with that of amivantamab IV Q2W + lazertinib,¹ with the added tolerability and convenience benefits of an SC formulation, further supporting it as a new SoC option for patients with *EGFR*-mutated NSCLC

1. Cho BC, et al. *N Engl J Med*. 2024;391(16):1486-1498. 2. Khorana AA, et al. *J Immunother Cancer*. 2023;11(1):e006072. 3. Tagalakis V, et al. *J Thorac Oncol*. 2007;2(8):729-734. 4. Lim SM, et al. Presented at: American Society for Clinical Oncology (ASCO) Annual Meeting; May 31-June 4, 2024; Chicago, IL, USA.

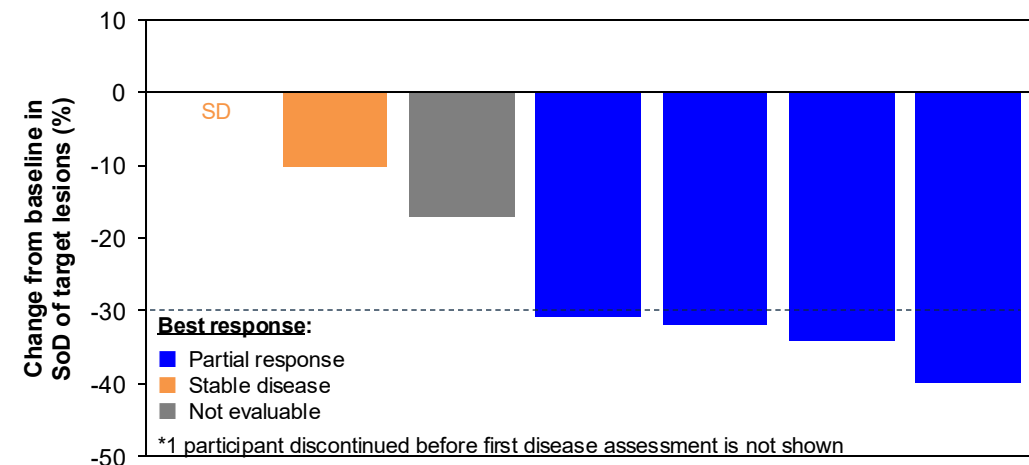


Next: Cohort 7 is Evaluating 2L Amivantamab SC Q3W + Chemotherapy After 1L Amivantamab + Lazertinib

PALOMA-2 Study Design (All Cohorts)



- As of 6 Aug 2025, 10 participants who had disease progression on 1L amivantamab + lazertinib have received 2L amivantamab SC Q3W + platinum-based chemotherapy (median follow-up, 3.6 months)
- Early safety profile consistent with prior report of amivantamab SC + chemotherapy
- Among the 8 response-evaluable participants^a, **ORR was 50%**



^aParticipants who had ≥1 disease assessment or discontinued for any reason prior to first disease assessment.
SoD, sum of diameters.



Acknowledgments

- All authors wish to express our gratitude to:
 - **The participants who were enrolled in the study and their families and caregivers**
 - **The physicians and nurses who cared for participants and staff members who supported this clinical trial**
- Medical writing assistance was provided by Lumanity Communications Inc. and the study was funded by Johnson & Johnson

