

Sacituzumab Govitecan Plus Pembrolizumab vs Chemotherapy Plus Pembrolizumab in Patients With Previously Untreated, PD-L1 Positive, Advanced or Metastatic Triple-Negative Breast Cancer: Primary Results From the Randomized, Phase 3 ASCENT-04/KEYNOTE-D19 Study

Clinical solid tumor oncology

Jens Huober¹, Sara M Tolaney², Evandro de Azambuja³, Kevin Kalinsky⁴, Sherene Loi⁵, Sung-Bae Kim⁶, Clinton Yam⁷, Bernardo Rapoport^{8,9}, Seock-Ah Im¹⁰, Barbara Pistilli¹¹, Wassim McHayleh¹², David W Cescon¹³, Junichiro Watanabe¹⁴, Manuel Alejandro Lara Banaelas¹⁵, Ruffo Freitas-Junior¹⁶, Javier Salvador Bofill¹⁷, Maryam Afshari¹⁸, Dianna Gary¹⁸, Lu Wang¹⁸, Catherine Lai¹⁸, Peter Schmid¹⁹

¹Breast Center St. Gallen, HOCH Health Eastern Switzerland St. Gallen, Switzerland; ²Dana-Farber Cancer Institute, Harvard Medical School, Boston, MA, USA; ³Institut Jules Bordet Hôpital Universitaire de Bruxelles (H.U.B.) and Université Libre de Bruxelles (ULB), Brussels, Belgium; ⁴Winship Cancer Institute, Emory University, Atlanta, GA, USA; ⁵Peter MacCallum Cancer Centre, Melbourne, Australia; ⁶Asan Medical Center, University of Ulsan College of Medicine, Seoul, Republic of Korea; ⁷The University of Texas MD Anderson Cancer Center, Houston, TX, USA; ⁸The Medical Oncology Center of Rosebank, Clinical and Translational Research Unit (CTRU), Saxonworld, South Africa; ⁹Department of Immunology, Faculty of Health Sciences, University of Pretoria, Pretoria, South Africa; ¹⁰Seoul National University Hospital, Cancer Research Institute, Seoul National University College of Medicine, Seoul National University, Seoul, Republic of Korea; ¹¹Department of Cancer Medicine, Gustave Roussy, Villejuif, France; ¹²AdventHealth Cancer Institute, Orlando, FL, USA; ¹³Princess Margaret Cancer Centre, UHN, Toronto, Canada; ¹⁴Junteno University Graduate School of Medicine, Tokyo, Japan; ¹⁵Oncology Center of Chihuahua, Chihuahua, Mexico; ¹⁶CORA – Advanced Center for Diagnosis of Breast Diseases, Federal University of Goiás, Goiânia, Brazil; ¹⁷Medical Oncology Department, Hospital Universitario Virgen del Rocío, Seville, Spain; ¹⁸Gilead Sciences, Inc., Foster City, CA, USA; ¹⁹Centre for Experimental Cancer Medicine, Barts Cancer Institute, Queen Mary University of London, London, UK

Conclusions¹

- ASCENT-04/KEYNOTE-D19 is the first randomized, phase 3 study to evaluate the efficacy and safety of an ADC/checkpoint inhibitor combination for first-line treatment of patients with PD-L1+^a mTNBC
- SG + pembro led to a statistically significant and clinically meaningful improvement in PFS vs chemo + pembro (median 11.2 vs 7.8 months; HR, 0.65; 95% CI, 0.51-0.84; $P < 0.001$)
 - PFS benefit was observed across prespecified subgroups
- OS data are immature, but an early trend in improvement was observed
- ORR was higher (including an increased complete response rate), and responses were more durable with SG + pembro vs chemo + pembro
- The safety profile of SG + pembro was consistent with the established profiles of either agent; no additive toxicity was observed

Results from ASCENT-04/KEYNOTE-D19 support the use of SG + pembro as a potential new standard of care for patients with previously untreated, PD-L1+, locally advanced unresectable or metastatic TNBC

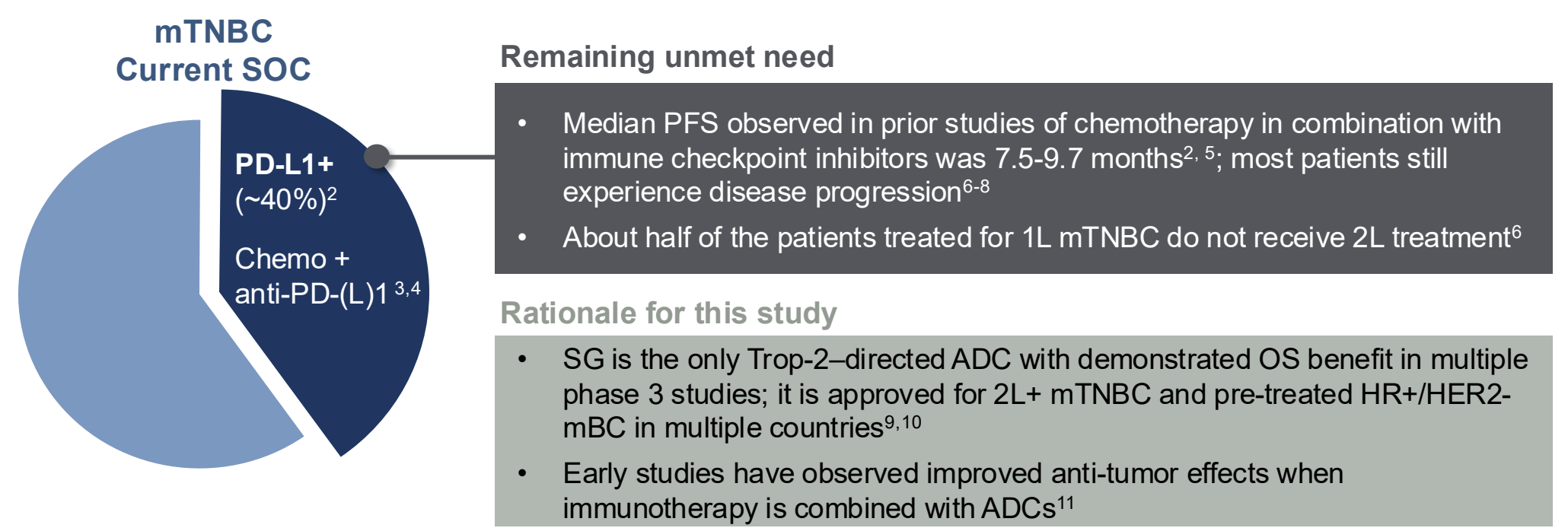
Key Takeaways: ASCENT-04/KEYNOTE-D19 Phase 3 Study¹

- There is an unmet need for better treatments in the first-line setting for patients with PD-L1+ mTNBC
- SG + pembro led to a statistically significant and clinically meaningful improvement in PFS vs chemo + pembro
- These results support SG + pembro as a potential new first-line standard of care

Data cutoff date: March 3, 2025
 CPS ≥ 10 per IHC 22C3 assay (Dako, Agilent Technologies)
 ADC, antibody drug conjugate; chemo, chemotherapy; DOR, duration of response; HR, hazard ratio; mTNBC, metastatic triple-negative breast cancer; ORR, objective response rate; OS, overall survival; PD-L1, programmed cell death ligand 1; pembro, pembrolizumab; PFS, progression-free survival; SG, sacituzumab govitecan; TNBC, triple-negative breast cancer.
 1. Tolaney S, et al. Sacituzumab Govitecan Plus Pembrolizumab vs Chemotherapy Plus Pembrolizumab in Patients With Previously Untreated, PD-L1 Positive, Advanced or Metastatic Triple-Negative Breast Cancer: Primary Results From the Randomized, Phase 3 ASCENT-04/KEYNOTE-D19 Study. Presented at ASCO 2025.

Introduction

Unmet Need in Previously Untreated, PD-L1+, Locally Advanced Unresectable or Metastatic TNBC¹

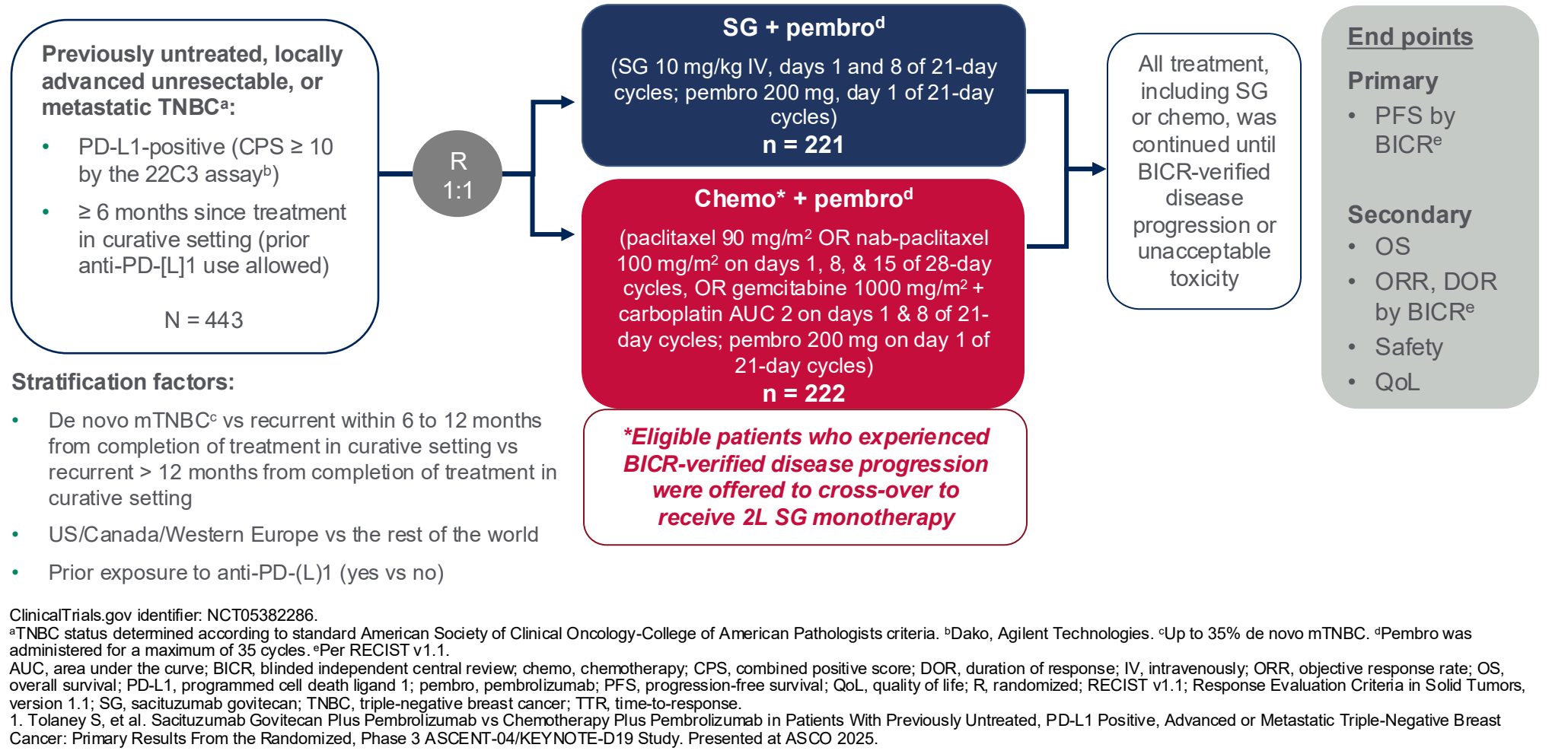


We present the primary results from the global, randomized, phase 3 ASCENT-04/KEYNOTE-D19 study of SG + pembro vs chemo + pembro in previously untreated, PD-L1+, locally advanced unresectable or metastatic TNBC

1L, first line; 2L, second line (and further); ADC, antibody drug conjugate; chemo, chemotherapy; HER2, human epidermal growth factor receptor 2; negative; HR+, hormone receptor positive; mBC, metastatic breast cancer; mTNBC, metastatic triple-negative breast cancer; PFS, progression-free survival; OS, overall survival; PD-L1, programmed cell death ligand 1; pembro, pembrolizumab; SG, sacituzumab govitecan SOC, standard of care.
 1. Tolaney S, et al. Sacituzumab Govitecan Plus Pembrolizumab vs Chemotherapy Plus Pembrolizumab in Patients With Previously Untreated, PD-L1 Positive, Advanced or Metastatic Triple-Negative Breast Cancer: Primary Results From the Randomized, Phase 3 ASCENT-04/KEYNOTE-D19 Study. Presented at ASCO 2025.
 2. Cortes J, et al. *N Engl J Med*. 2023;387(13):217-228. 3. Gennari A, et al. *Ann Oncol*. 2023;35(12):1475-1485. 4. Recommended with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Breast Cancer V4.2025. © National Comprehensive Cancer Network, Inc. 2025. All rights reserved. Accessed April 22, 2025. To view the most recent and complete version of the guideline, go online to NCCN.org. NCCN makes no warranties of any kind whatsoever regarding their content, use or application and disclaims any responsibility for their application or use in any way. 5. Schneir P, et al. *J Clin Oncol*. 2018;36(22):2108-2121. 6. Punt K, et al. *OncoTarget*. 2025;30(3):e14872. 7. Skinner KE, et al. *Future Oncol*. 2021;18(15):151-161. 8. Gaurav V, et al. *Curr Treat Options Oncol*. 2023;24(6):1024-1035. 9. TRODOLV (sacituzumab govitecan-hvy) [prescribing information]. Foster City, CA: Gilead Sciences, Inc.; March 2025. 10. TRODOLV (sacituzumab govitecan-hvy) [summary of product characteristics]. County Cork, Ireland: Gilead Sciences Ireland UC; August 2023. 11. Nicolio E, et al. *Cancer Treat Rev*. 2022;106:102395.

Methods

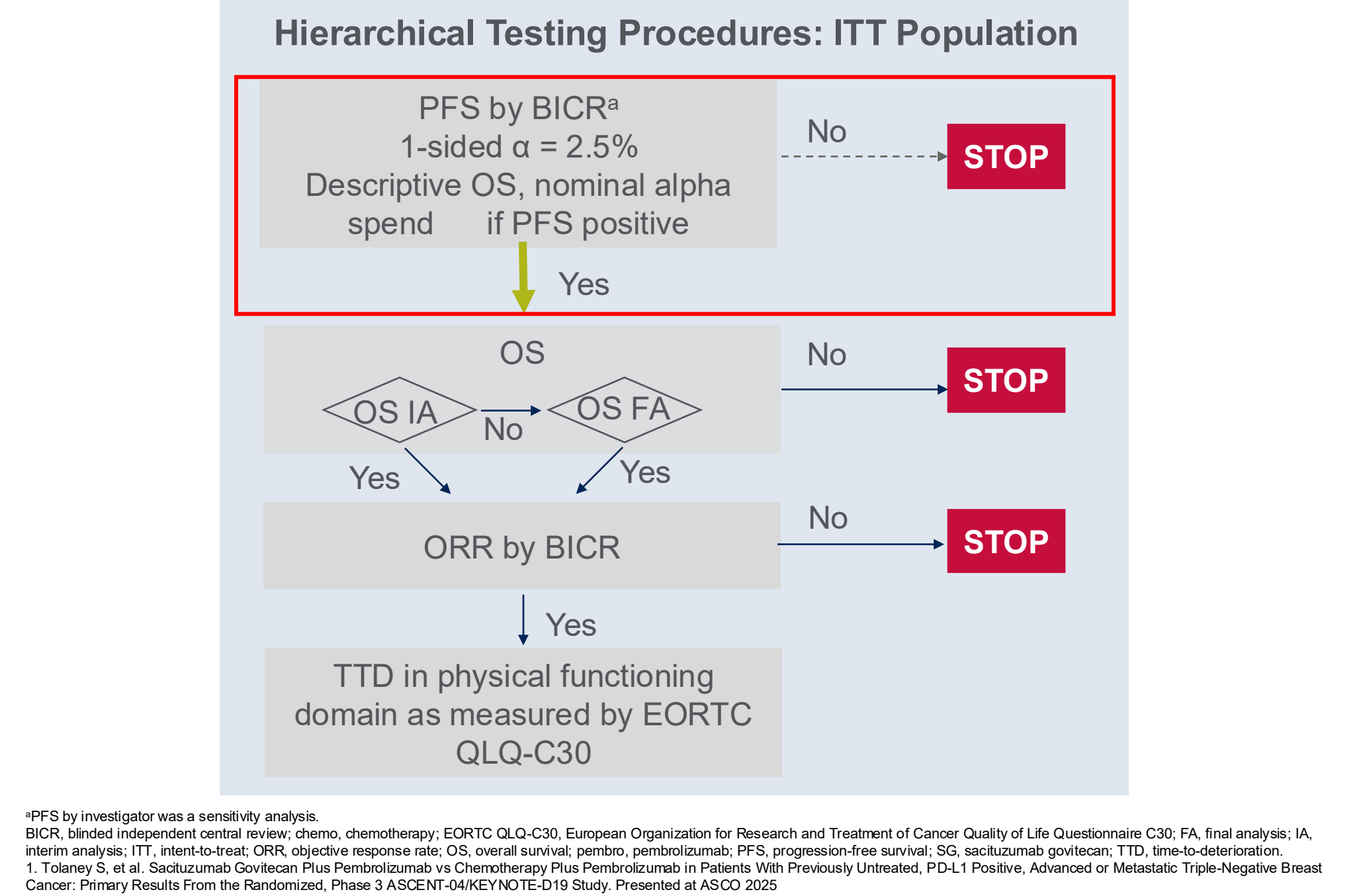
ASCENT-04/KEYNOTE-D19 Study Design¹



Statistical Analysis

- Enrollment was planned for ~440 eligible patients
- To control for overall type I error, a hierarchical testing procedure was implemented
 - At primary analysis, PFS will be tested at 1-sided alpha of 2.5%
 - OS will be summarized descriptively at the time of primary PFS analysis; if PFS is positive, a nominal alpha will be spent
 - If PFS is significant at primary analysis, at the time of OS analysis, formal sequential testing of OS, ORR, and then TTD of physical functioning will be performed
- Data cutoff date for Primary PFS: March 3, 2025
 - There were 249 observed PFS events by BICR
 - Median follow-up was 14.0 months (range, 0.1-28.6)
 - At the data cutoff date, 95 patients (43%) in the SG + pembro group and 52 patients (23%) in the chemo + pembro group continued to receive study treatment

Statistical Analysis¹



Results

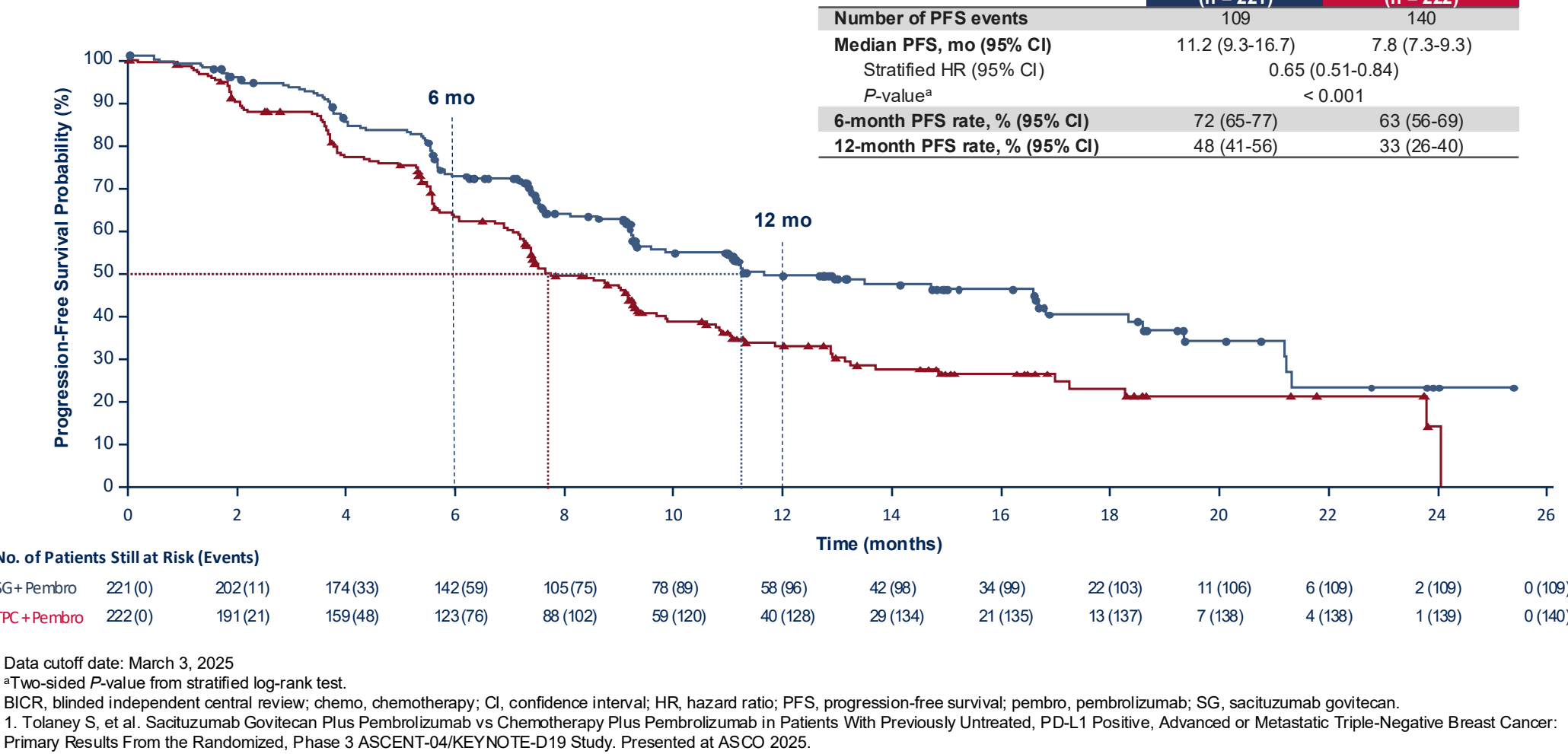
Demographics and Baseline Characteristics¹

ITT Population	SG + Pembro (n = 221)	Chemo + Pembro (n = 222)
Female sex, n (%)	221 (100)	222 (100)
Median age, (range) yr	54 (23-88)	55 (27-82)
≥ 65 yr, n (%)	58 (26)	57 (26)
Race or ethnic group, ^a n (%)		
White	139 (63)	118 (53)
Asian	43 (19)	63 (28)
Black	13 (6)	11 (5)
Other/not specified	26 (12)	30 (14)
Geographic region, n (%)		
US/Canada/Western Europe	85 (38)	85 (38)
Rest of the world ^b	136 (62)	137 (62)
ECOG PS at baseline, ^c n (%)		
0	156 (71)	154 (69)
1	65 (29)	67 (30)
Curative treatment-free interval, n (%)		
De novo	75 (34)	75 (34)
Recurrent within 6-12 mo	40 (18)	40 (18)
Recurrent > 12 mo	106 (48)	107 (48)

Data cutoff date: March 3, 2025.
^aAs reported by the patients; "other" includes American Indian or Alaska Native, other, and not permitted. ^bRest of the world includes Argentina, Australia, Brazil, Chile, Czech Republic, Hong Kong, Hungary, Israel, Japan, Malaysia, Mexico, Poland, Singapore, South Africa, South Korea, Taiwan, and Turkey. One patient in the chemo + pembro group had an ECOG PS of 2. ^cPD-L1 status assessed using the IHC 22C3 assay (Dako, Agilent Technologies) at the time of enrollment. ^dOther metastatic sites include pleura, pleural effusion, skin, soft tissue, chest wall, and muscle. ^eActual chemo received was consistent with what was selected prior to randomization; however, two patients were randomized but did not receive treatment. ^fWhite 20 patients were included in the stratified subgroup of prior response to anti-PD-(L)1 therapy (yes) per the ITT; only 6 patients received prior treatment with anti-PD-(L)1 agents per the clinical database.
 Chemo, chemotherapy; CPS, combined positive score; ECOG PS, Eastern Cooperative Oncology Group performance status; HR, hazard ratio; mTNBC, metastatic triple-negative breast cancer; ORR, objective response rate; OS, overall survival; PD-L1, programmed cell death ligand 1; pembro, pembrolizumab; PFS, progression-free survival; SG, sacituzumab govitecan; TTD, time-to-deterioration.
 1. Tolaney S, et al. Sacituzumab Govitecan Plus Pembrolizumab vs Chemotherapy Plus Pembrolizumab in Patients With Previously Untreated, PD-L1 Positive, Advanced or Metastatic Triple-Negative Breast Cancer: Primary Results From the Randomized, Phase 3 ASCENT-04/KEYNOTE-D19 Study. Presented at ASCO 2025.

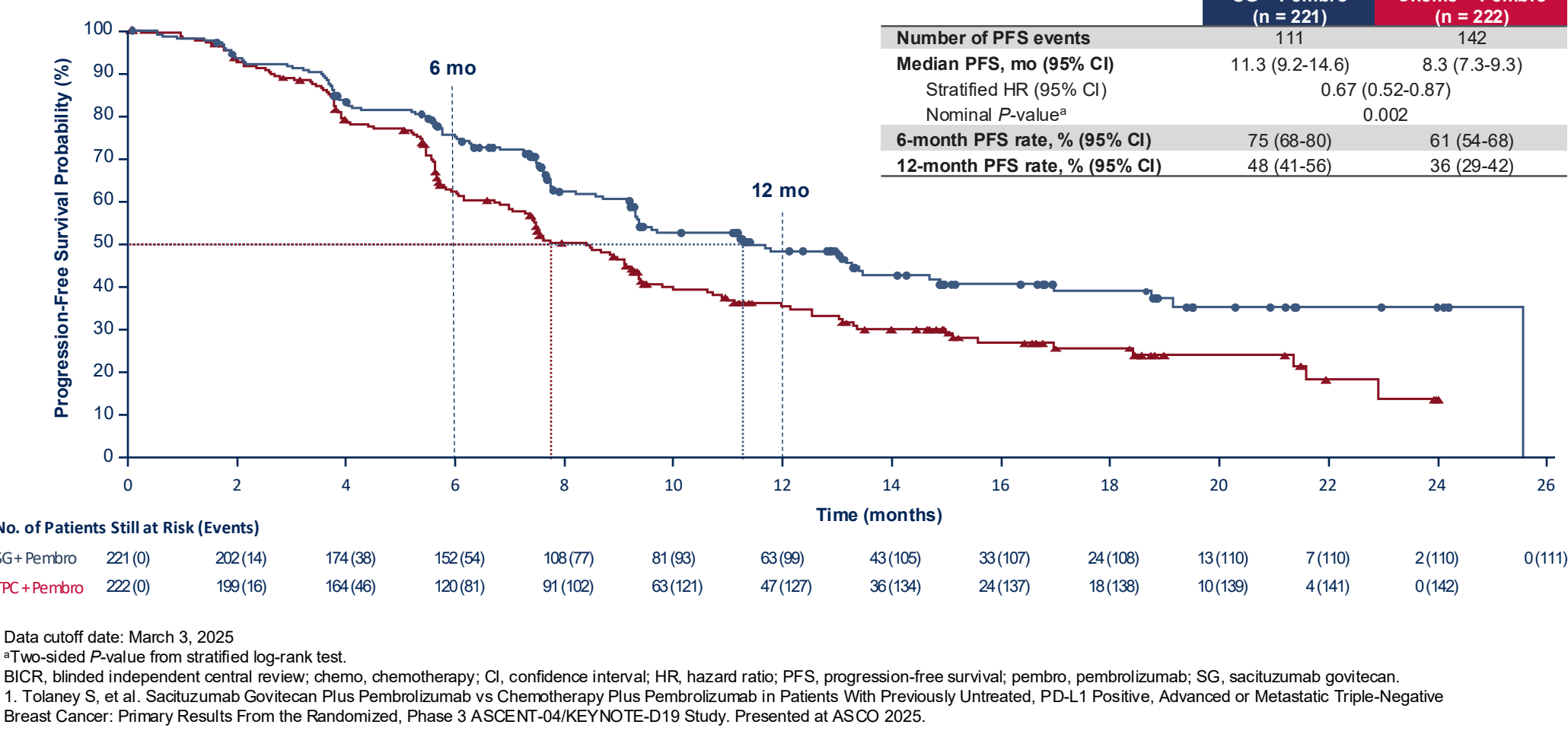
Results, cont'd

Progression-Free Survival by BICR¹



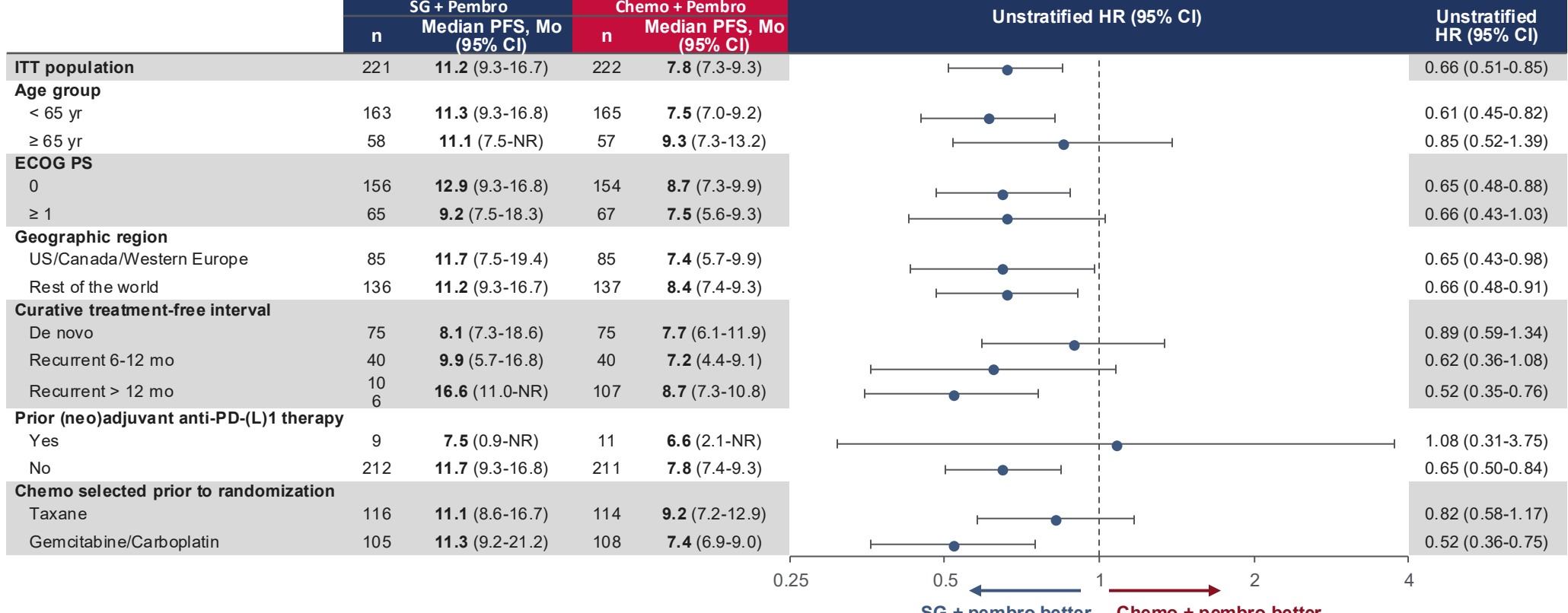
- SG + pembro demonstrated statistically significant and clinically meaningful improvement in PFS vs chemo + pembro by BICR analysis, with a 35% reduction in risk of disease progression or death

Progression-Free Survival by Investigator Assessment¹



- PFS by investigator assessment was consistent with the BICR analysis, demonstrating PFS benefit with SG + pembro vs chemo + pembro

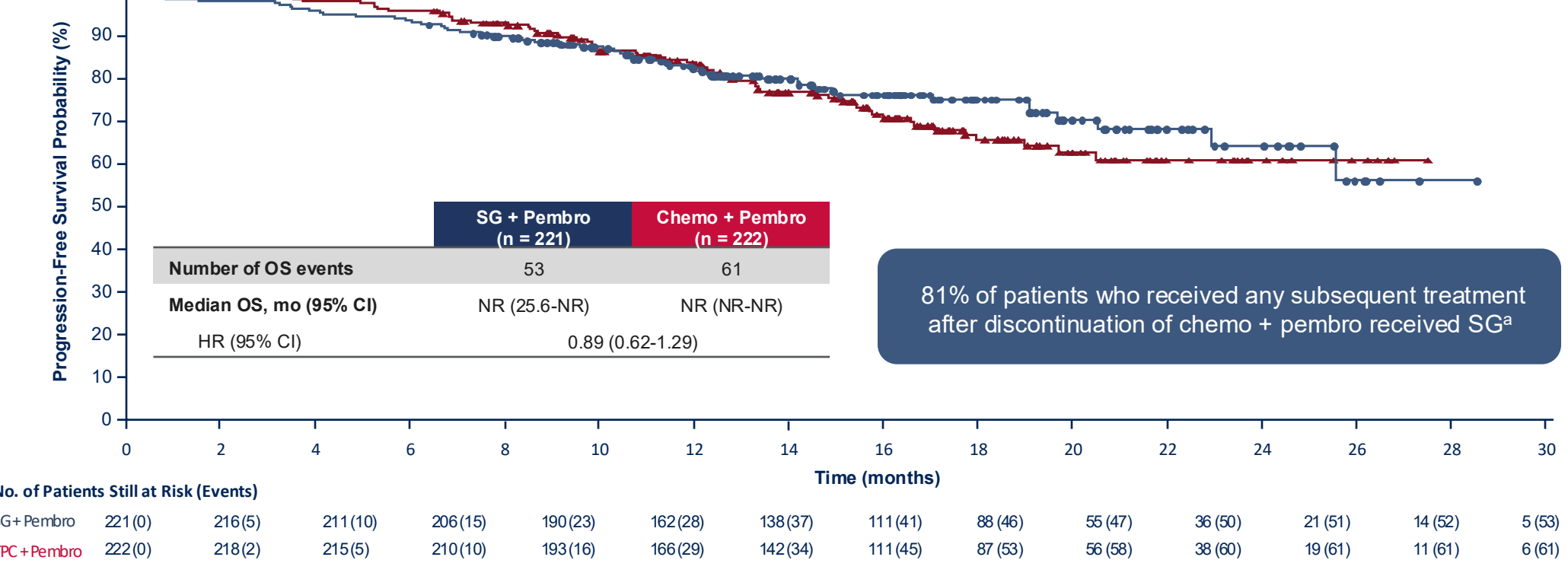
Subgroup Analysis of Progression-Free Survival by BICR¹



Data cutoff date: March 3, 2025.
 BICR, blinded independent central review; chemo, chemotherapy; ECOG PS, Eastern Cooperative Oncology Group performance status; HR, hazard ratio; mo, months; NR, not reached; PARP, poly ADP-ribose polymerase inhibitor; PD-L1, programmed death ligand 1; pembro, pembrolizumab; PFS, progression-free survival; SG, sacituzumab govitecan.
 1. Tolaney S, et al. Sacituzumab Govitecan Plus Pembrolizumab vs Chemotherapy Plus Pembrolizumab in Patients With Previously Untreated, PD-L1 Positive, Advanced or Metastatic Triple-Negative Breast Cancer: Primary Results From the Randomized, Phase 3 ASCENT-04/KEYNOTE-D19 Study. Presented at ASCO 2025.

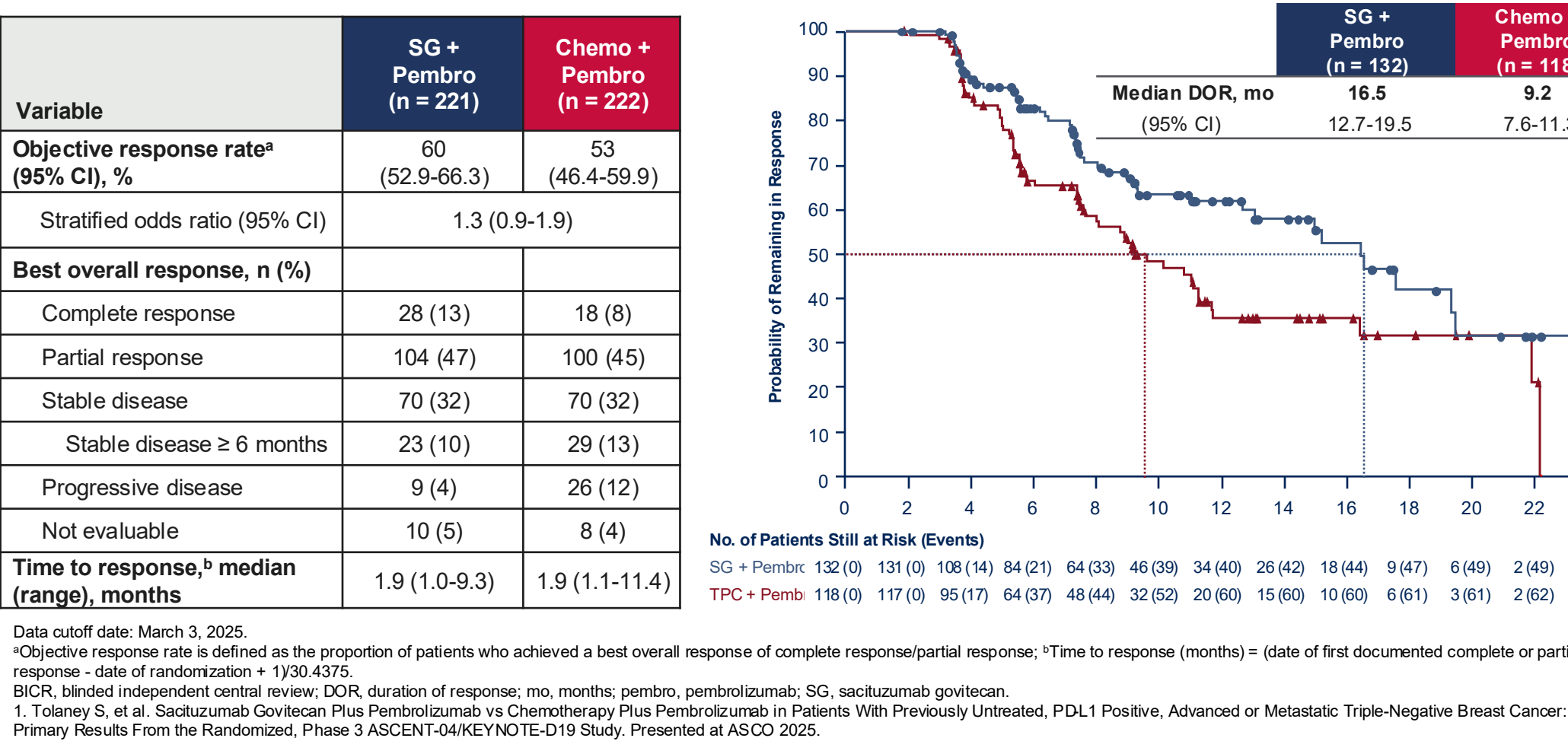
- PFS benefit was observed for SG + pembro vs chemo + pembro across pre-specified subgroups

Descriptive Overall Survival at Primary Analysis¹



- OS data were immature (maturity rate, 26%), however, a positive trend in improvement was observed for SG + pembro vs chemo + pembro

Tumor Response and Duration of Response by BICR¹



- A substantially longer duration of response and a higher overall response rate (including an increased complete response rate) was observed for SG + pembro vs chemo + pembro

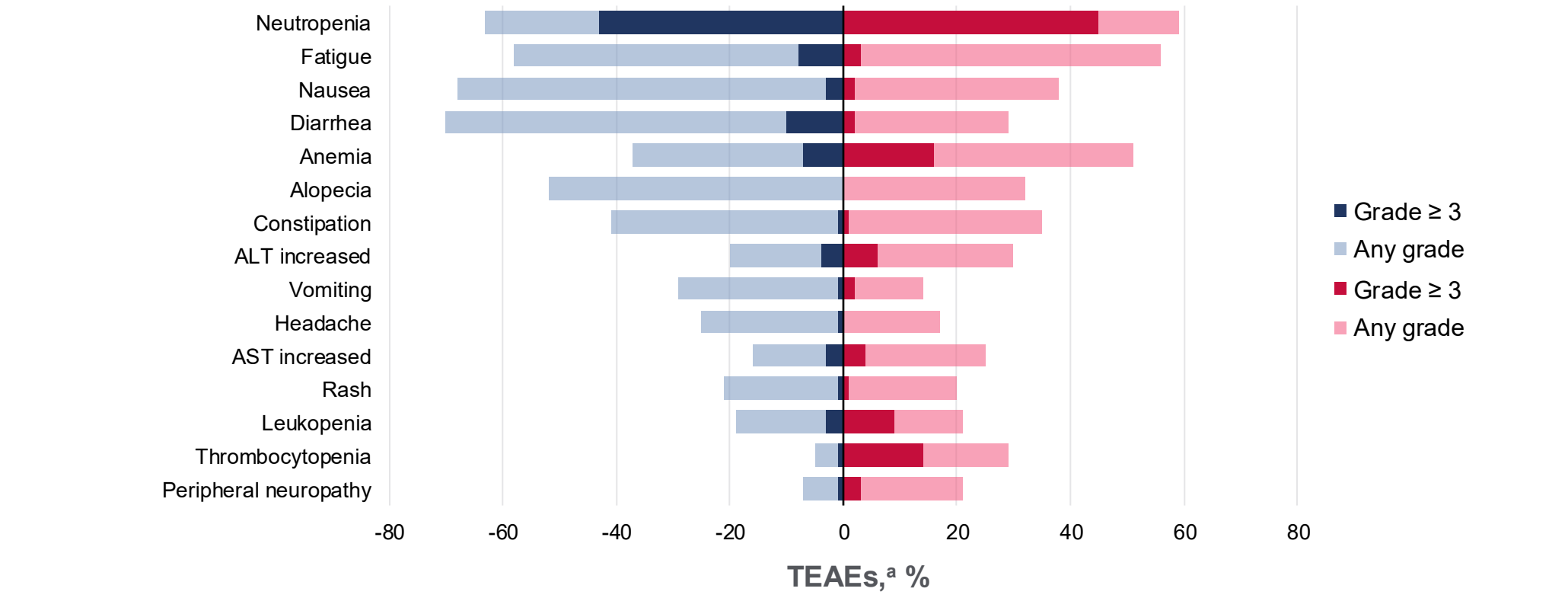
Exposure and Safety Summary¹

ITT population	SG + Pembro (n = 221)	Chemo + Pembro (n = 222)
Treatment component	SG	Pembro
All treated patients, n	221	220
Median duration of treatment, mo (range)	8.9 (0.0-27.1)	6.4 (0.0-25.6)

TEAEs were defined as any adverse events that began or worsened on or after the first dose of study drug up to 30 days (or up to 90 days for SAEs) after the last dose of study drug or the initiation of subsequent anticancer therapy (including crossover treatment), whichever occurred first. Data cutoff date: March 3, 2025.
^aTEAEs were defined as any adverse events that began or worsened on or after the first dose of study drug up to 30 days (or up to 90 days for SAEs) after the last dose of study drug or the initiation of subsequent anticancer therapy (including crossover treatment), whichever occurred first. Data cutoff date: March 3, 2025.
^bThe most common any-grade TEAEs that led to treatment discontinuation were pneumonia (1%) for the SG + pembro group and neutropenia/peripheral (1%), pneumonia (1%), and thrombocytopenia (2%) for the chemo + pembro group. There was no dose reduction for pembrolizumab per the protocol. ^cTEAEs leading to death were pneumonia, sepsis, neutropenic sepsis, pulmonary embolism, and suicide (1 each), as well as 2 deaths of unknown cause in the SG + pembro group, and cardiac arrest, large intestine perforation, pneumonia, sepsis, post-procedural complication, and death of unknown cause (1 each) in the chemo + pembro group. Chemo, chemotherapy; pembro, pembrolizumab; SAE, serious adverse event; SG, sacituzumab govitecan; TEAE, treatment-emergent adverse event.
 1. Tolaney S, et al. Sacituzumab Govitecan Plus Pembrolizumab vs Chemotherapy Plus Pembrolizumab in Patients With Previously Untreated, PD-L1 Positive, Advanced or Metastatic Triple-Negative Breast Cancer: Primary Results From the Randomized, Phase 3 ASCENT-04/KEYNOTE-D19 Study. Presented at ASCO 2025.

- Despite longer duration of treatment with SG + pembro, rates of grade ≥ 3 AEs were similar for both groups. TEAEs leading to dose reduction or treatment discontinuation were lower with SG + pembro

Most Common Adverse Events (≥20% in any group)¹



TEAEs were defined as any adverse events that began or worsened on or after the first dose of study drug up to 30 days (or up to 90 days for SAEs) after the last dose of study drug or the initiation of subsequent anticancer therapy (including crossover treatment), whichever occurred first. Data cutoff date: March 3, 2025.
^aTEAEs were defined as any adverse events that began or worsened on or after the first dose of study drug up to 30 days (or up to 90 days for SAEs) after the last dose of study drug or the initiation of subsequent anticancer therapy (including crossover treatment), whichever occurred first. Data cutoff date: March 3, 2025.
^bTEAEs were defined as any adverse events that began or worsened on or after the first dose of study drug up to 30 days (or up to 90 days for SAEs) after the last dose of study drug or the initiation of subsequent anticancer therapy (including crossover treatment), whichever occurred first. Data cutoff date: March 3, 2025.
^cTEAEs were defined as any adverse events that began or worsened on or after the first dose of study drug up to 30 days (or up to 90 days for SAEs) after the last dose of study drug or the initiation of subsequent anticancer therapy (including crossover treatment), whichever occurred first. Data cutoff date: March 3, 2025.
 ALT, alanine aminotransferase; AST, aspartate aminotransferase; chemo, chemotherapy; pembro, pembrolizumab; SG, sacituzumab govitecan; TEAE, treatment-emergent adverse event.
 1. Tolaney S, et al. Sacituzumab Govitecan Plus Pembrolizumab vs Chemotherapy Plus Pembrolizumab in Patients With Previously Untreated, PD-L1 Positive, Advanced or Metastatic Triple-Negative Breast Cancer: Primary Results From the Randomized, Phase 3 ASCENT-04/KEYNOTE-D19 Study. Presented at ASCO 2025.

- The AEs observed are consistent with the known profiles of both SG and Pembro

Adverse Events of Special Interest¹

	SG + Pembro (n = 221)	Chemo + Pembro (n = 220)
AESIs, ^a n (%)		
Any Grade	143 (65)	132 (60)
Grade ≥ 3	43 (19)	51 (23)
Any Grade	6 (3)	3 (1)
Grade ≥ 3	2 (1)	2 (1)
Any Grade	30 (14)	56 (26)
Grade ≥ 3	11 (5)	19 (9)
Any Grade	5 (2)	10 (5)
Grade ≥ 3	4 (2)	1 (1)
Any Grade	4 (2)	19 (9)
Grade ≥ 3	2 (1)	2 (1)
Any Grade	2 (1)	5 (2)
Grade ≥ 3	2 (1)	2 (1)
Any Grade	1 (1)	2 (1)
Grade ≥ 3	1 (1)	1 (1)
Any Grade	0	2 (1)
Grade ≥ 3	0	2 (1)

AESIs were adverse events determined based on a prespecified list of Medical Dictionary for Regulatory Activities (MedDRA) terms, which was updated with each new version of MedDRA. Immune-mediated adverse events were determined based on a prespecified list of Medical Dictionary for Regulatory Activities (MedDRA) terms, which was updated with each new version of MedDRA and specified as immune-mediated by the investigator. Data cutoff date: March 3, 2025. ^aAESIs observed in ≥ 5% of patients in either group are presented. ^bGrouped term.
 AESI, adverse event of special interest; chemo, chemotherapy; pembro, pembrolizumab; SG, sacituzumab govitecan.
 1. Tolaney S, et al. Sacituzumab Govitecan Plus Pembrolizumab vs Chemotherapy Plus Pembrolizumab in Patients With Previously Untreated, PD-L1 Positive, Advanced or Metastatic Triple-Negative Breast Cancer: Primary Results From the Randomized, Phase 3 ASCENT-04/KEYNOTE-D19 Study. Presented at ASCO 2025.

- AESIs were consistent with the known safety profiles of each agent; no new safety concerns were observed and no increased rates of AESIs were observed when combining SG with pembro