

Benefit of Rusfertide Maintained in Patients (Pts) With Low-Risk or High-Risk Polycythemia Vera (PV): Efficacy and Safety Subgroup Analysis From the Randomized Controlled Phase 3 VERIFY Study

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Background

- Polycythemia vera (PV) is a myeloproliferative neoplasm characterized by excessive erythrocytosis<sup>1,2</sup>
- In addition to having an increased risk of thromboembolic events (TEs)<sup>3</sup> and secondary malignancies,<sup>4</sup> patients with PV frequently report debilitating symptoms, including fatigue, pruritus, and problems with concentration<sup>5,6</sup>
- Treatment guidelines for patients with PV recommend controlling hematocrit (Hct) <45% to minimize the risk of TEs and help manage patient symptoms<sup>2,7</sup>
- Rusfertide is a first-in-class, self-administered subcutaneous peptide mimetic of the endogenous hormone hepcidin, the principal regulator of iron homeostasis<sup>8,9</sup>
- The ongoing phase 3 VERIFY study (NCT05210790) assessed rusfertide vs placebo added to current standard-of-care (CSC) therapy (phlebotomy with or without cytoreductive therapy [CRT]) in patients with PV who had inadequately controlled Hct and were receiving frequent phlebotomy<sup>10</sup>
- Treatment with rusfertide led to statistically significant improvement in the primary endpoint of clinical response (p<0.0001) and all four key secondary endpoints (p<0.05 for each endpoint) vs placebo at Week 32<sup>11</sup>

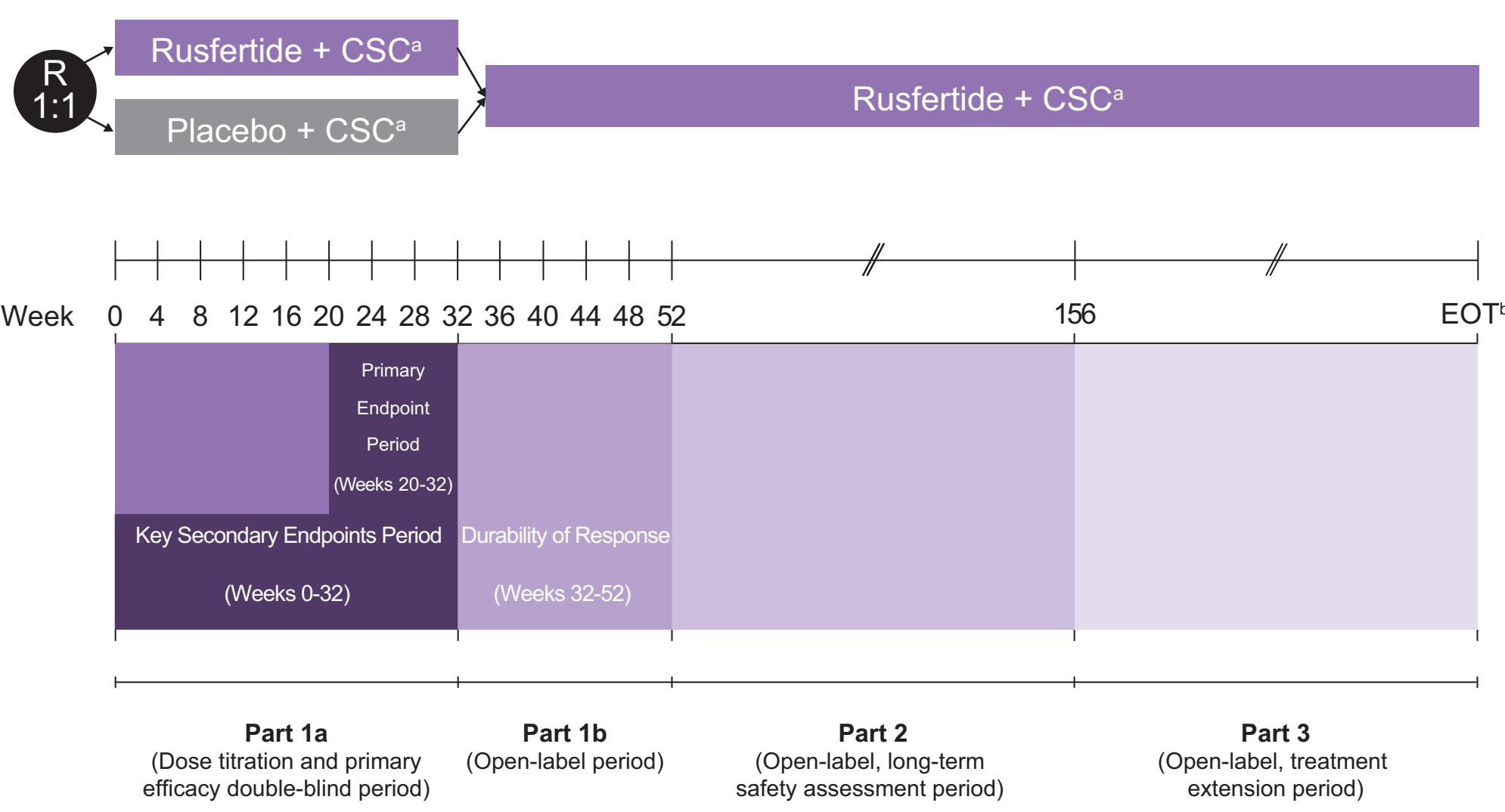
Objective

- To investigate whether clinical outcomes and safety were similar in patients with low-risk PV (ie, <60 years old and no TEs prior to study entry) or high-risk PV (≥60 years old and/or occurrence of a TE prior to study entry) in VERIFY

Methods

- In VERIFY, patients requiring frequent phlebotomy with or without CRT to achieve and maintain Hct <45% were randomized (1:1) to receive once-weekly rusfertide or placebo from baseline to Week 32 (**Figure 1**)
- After 32 weeks, all patients were eligible to receive rusfertide during the open-label parts of the study
- The primary endpoint was the proportion of patients achieving a clinical response (defined as an absence of phlebotomy eligibility from Weeks 20-32)
- Phlebotomy eligibility was defined as a confirmed Hct ≥45% and ≥3% (absolute) higher than the baseline Hct or Hct ≥48%
- Four key secondary endpoints were also evaluated
- Key secondary efficacy endpoints (baseline to Week 32) included the mean number of phlebotomies<sup>12</sup> and the proportion of patients with Hct <45%
- Key secondary patient-reported outcomes (PROs) included mean change from baseline at Week 32 in scores on the Patient Reported Outcomes Measurement Information System Fatigue Short Form 8a (PROMIS Fatigue SF-8a) T-score and the Myelofibrosis Symptom Assessment Form Version 4 Total Symptom Score-7 (MFSAF TSS7)
- Safety outcomes assessed throughout the study included the frequency and severity of treatment-emergent adverse events (TEAEs) and serious adverse events (SAEs)

Figure 1. VERIFY Study Design



CSC, current standard-of-care; EO<sup>b</sup>, end of treatment; R, randomization.  
<sup>a</sup>Current standard-of-care therapy (phlebotomy with or without cytoreductive therapy).  
<sup>b</sup>Participation in Part 3 will end when the last randomized patient completes Part 2.

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12. Pre-specified primary endpoint for the European Medicines Agency.

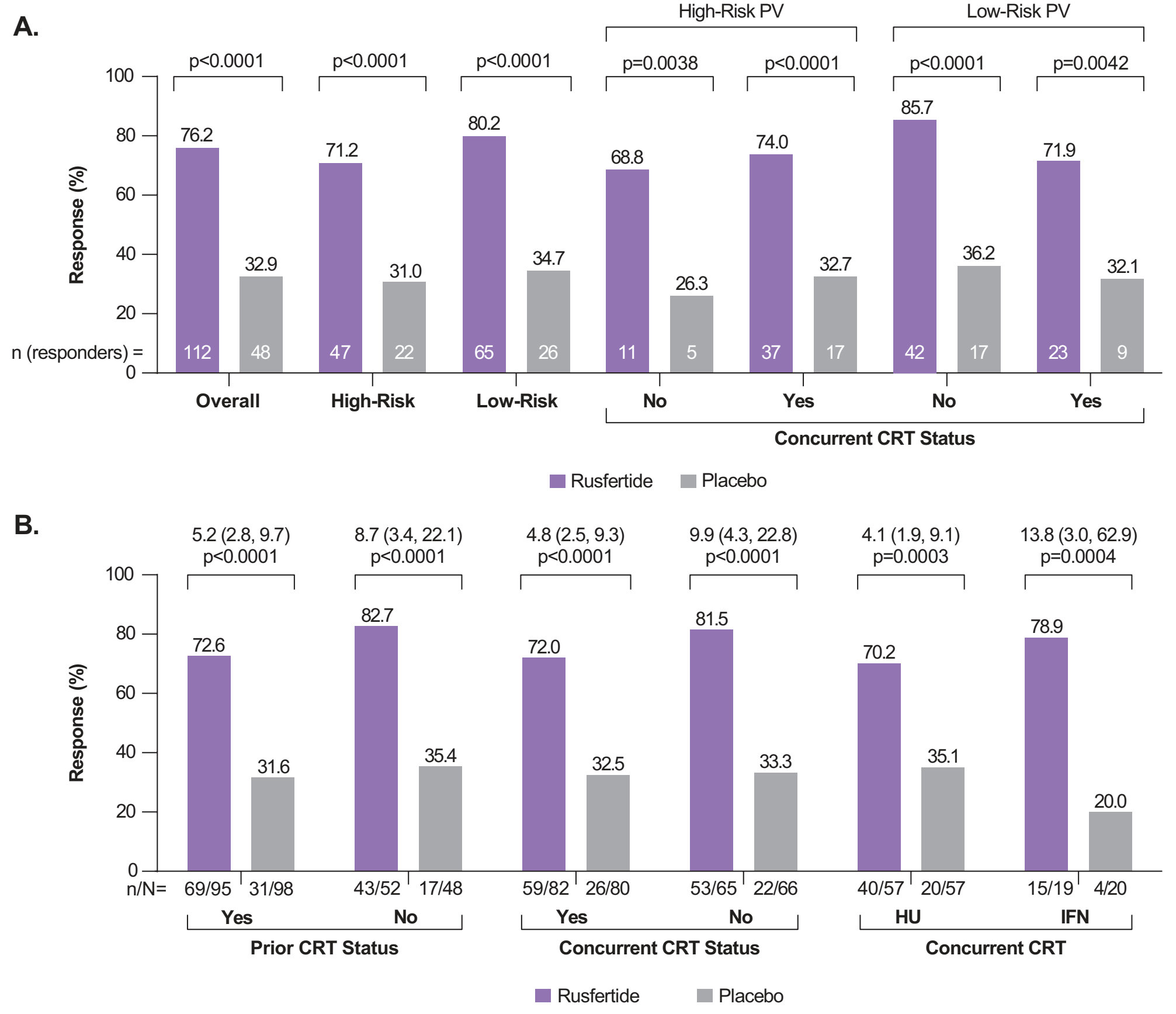
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DISCLOSURES

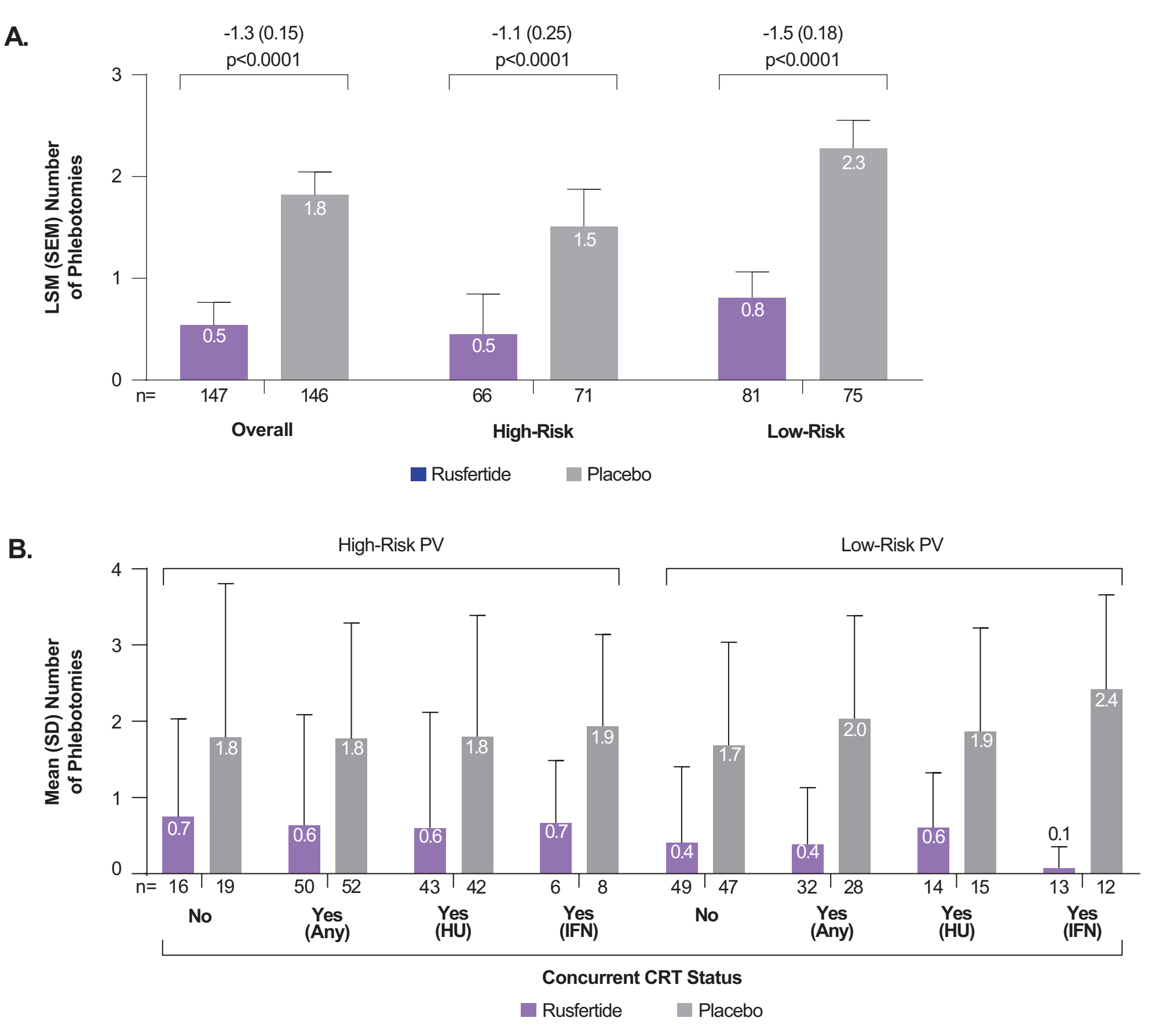
**NP** reports institutional grants from Protagonist Therapeutics, Inc., Novartis, Stemline Therapeutics, Samus Therapeutics, AbbVie, Cellectis, Affymetrix/Thermo Fisher Scientific, Daiichi Sankyo, Plexion, and Mustang Bio; consulting fees from Blueprint Medicines, Pacylex Pharmaceuticals, Inc., Immunogen, BMS, Clearview Healthcare Partners, Astellas Pharma US Inc, Protagonist Therapeutics, Inc., Triptych Health Partners, and CTI Bio Pharma Corp.; honoraria from Incyte, Novartis, LFB Biotechnologies, Stemline Therapeutics, Celgene, AbbVie, Mustang Bio, Roche Molecular Diagnostics, Blueprint Medicines, DAVA Pharmaceuticals, Springer Science + Business Media, LLC, Aptitude Health, and Neo Pharma, Care DX; travel support from Stemline Therapeutics, Celgene, AbbVie, DAVA Oncology, and Mustang Bio; advisory board participation with Blueprint Medicines, Pacylex Pharmaceuticals, Inc., Immunogen, BMS, Clearview Healthcare Partners, Astellas Pharma US Inc., Protagonist Therapeutics, Inc., Triptych Health Partners, and CTI Bio Pharma Corp.  
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Figure 2. Patients in the Rusfertide Arm Had Improvements in Clinical Response Between Weeks 20-32 vs Placebo by (A) Risk Category and (B) CRT Status



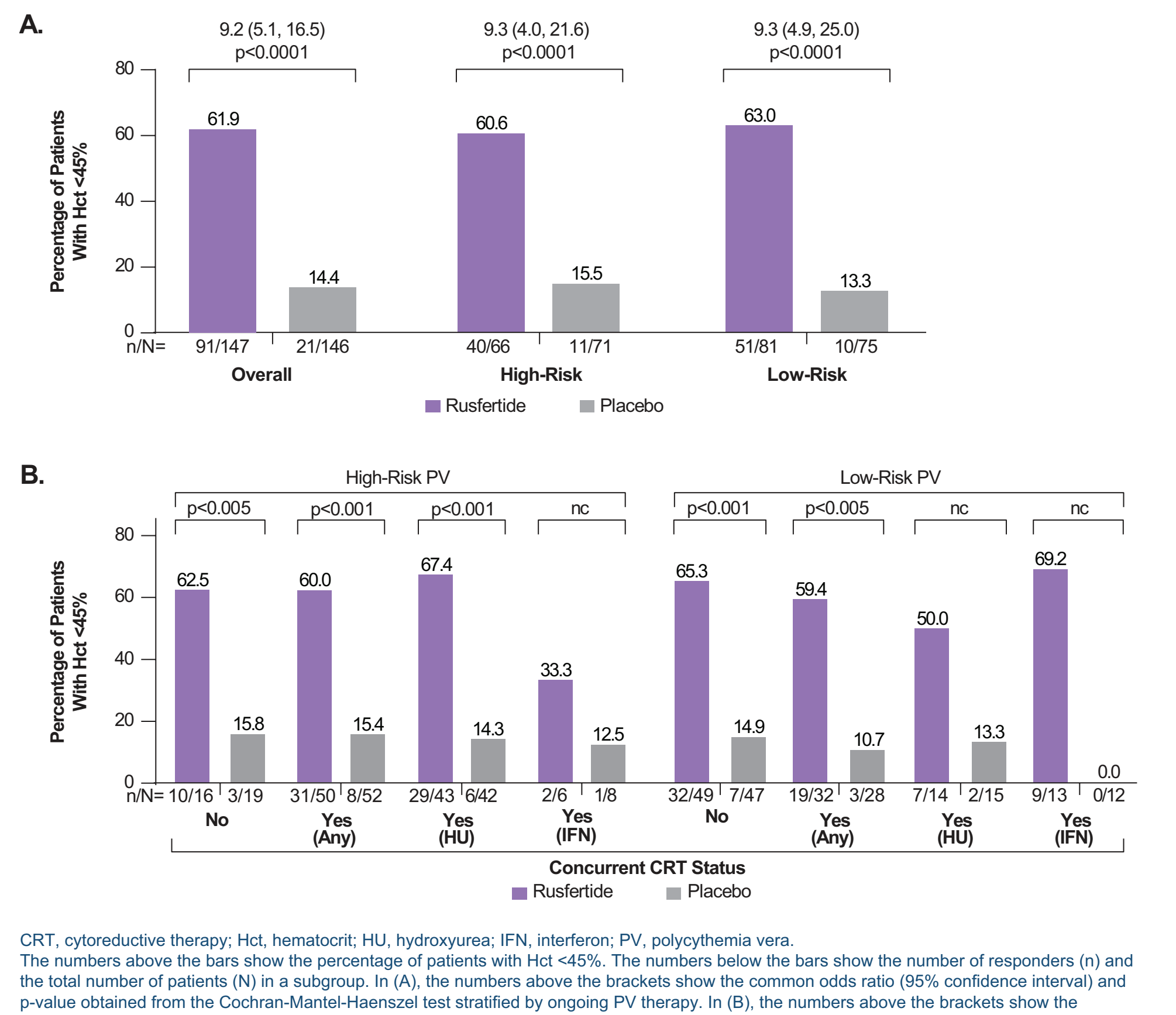
CRT, cytoreductive therapy; Hct, hematocrit; HU, hydroxyurea; IFN, interferon; PV, polycythemia vera. Numbers above the bars show the percentage of patients with a clinical response. In (A), numbers above the brackets show the nominal p-value obtained from the Cochran-Mantel-Haenszel test stratified by ongoing PV therapy. Numbers at the bottom of the bars show the number of responders (n) and the total number of patients (N) in a subgroup. In (B), the numbers above the brackets show the common odds ratio (95% confidence interval) and p-value obtained from the Cochran-Mantel-Haenszel test stratified by ongoing PV therapy. The numbers below the bars show the number of responders (n) and the total number of patients (N) in a subgroup. Interferon (IFN) includes interferon, peginterferon alpha-2a, and ropeginterferon alfa-2b.

Figure 3. Rusfertide Reduced the Mean Number of Phlebotomies From Baseline Through Week 32 vs Placebo Irrespective of (A) Risk Category and (B) Concurrent CRT Status



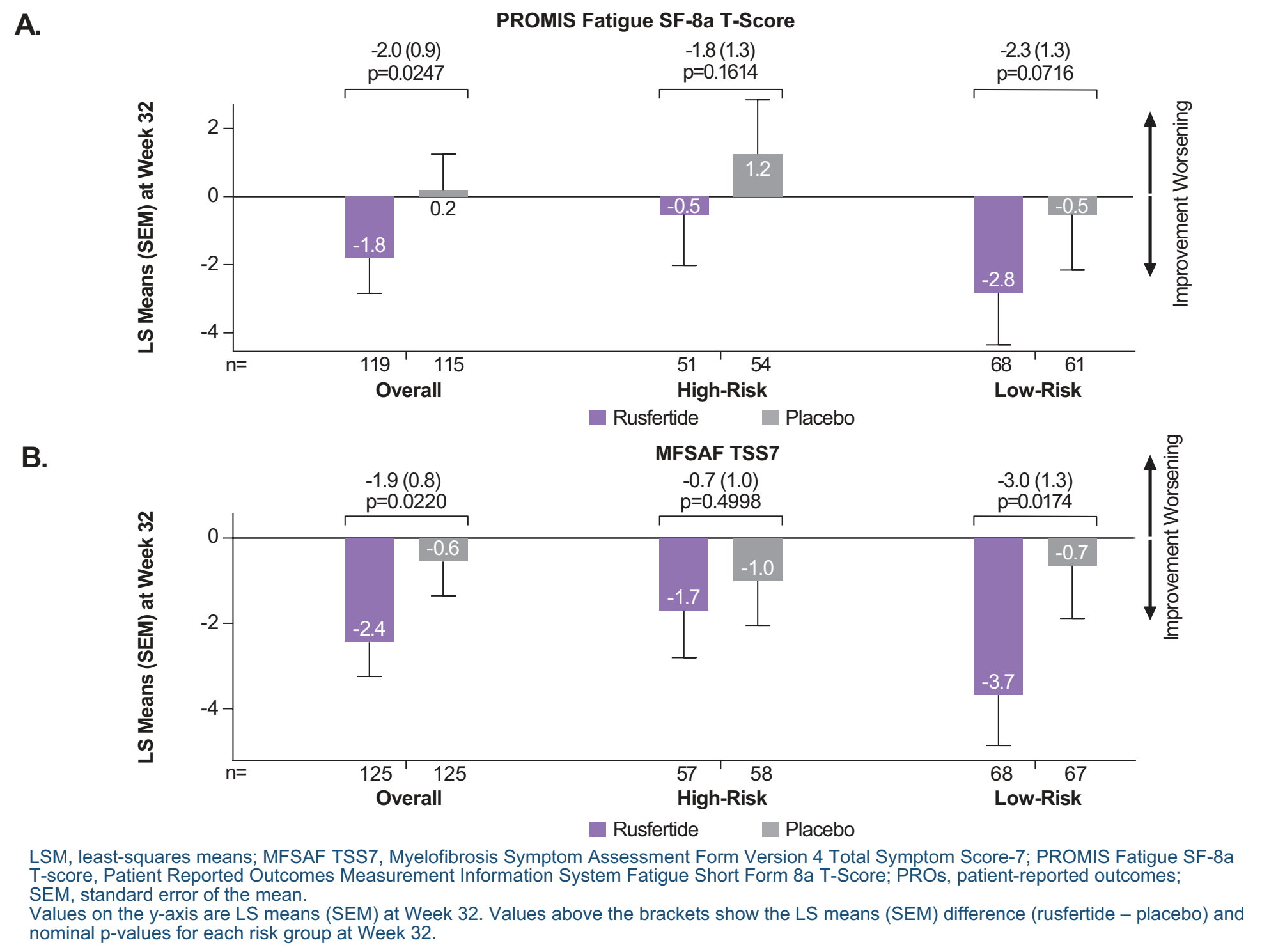
ANCOVA, analysis of covariance; CRT, cytoreductive therapy; HU, hydroxyurea; IFN, interferon; LSM, least-squares means; PV, polycythemia vera; SD, standard deviation; SEM, standard error of the mean. The numbers below the bars show the number of patients (n) in a subgroup. In (A), numbers above the brackets show the LSM difference (SEM) and p-values obtained from an ANCOVA model adjusted for pre-treatment number of phlebotomies, treatment, and stratification variable. Numbers inside the bars show the LSM (SEM) number of phlebotomies. In (B), numbers inside the bars show the mean (SD) number of phlebotomies. Interferon (IFN) includes interferon, peginterferon alpha-2a, and ropeginterferon alfa-2b.

Figure 4. Rusfertide Improved Hct Control <45% From Baseline Through Week 32 vs Placebo Irrespective of (A) Risk Category and (B) Concurrent CRT Status



CRT, cytoreductive therapy; Hct, hematocrit; HU, hydroxyurea; IFN, interferon; PV, polycythemia vera. The numbers above the bars show the percentage of patients with Hct <45%. The numbers below the bars show the number of responders (n) and the total number of patients (N) in a subgroup. In (A), the numbers above the brackets show the common odds ratio (95% confidence interval) and p-value obtained from the Cochran-Mantel-Haenszel test stratified by ongoing PV therapy. In (B), the numbers above the brackets show the nominal p-values obtained from the Cochran-Mantel-Haenszel test stratified by ongoing PV therapy, not calculated (Mantel-Haenszel criterion <5).

Figure 5. (A) PROMIS Fatigue SF-8a T-Score and (B) MFSAF TSS7 Score at Week 32 for Rusfertide vs Placebo in Both Risk Groups



LSM, least-squares means; MFSAF TSS7, Myelofibrosis Symptom Assessment Form Version 4 Total Symptom Score-7; PROMIS Fatigue SF-8a T-Score, Patient Reported Outcomes Measurement Information System Fatigue Short Form 8a T-Score; PROs, patient-reported outcomes; SEM, standard error of the mean. Values on the y-axis are LS means (SEM) at Week 32. Values above the brackets show the LS means (SEM) difference (rusfertide – placebo) and nominal p-values for each risk group at Week 32.

Safety

- Safety data are presented for the safety analysis set (n=291)
- As of 10 December 2025, the incidence of TEAEs in rusfertide-treated patients was similar in the high-risk (96.1%) and low-risk (94.2%) PV groups (**Table 2**)
- In both risk groups, the majority of TEAEs were mild to moderate in severity
- Serious AEs were reported in 14.7% of patients with high-risk PV vs 6.4% of patients with low-risk PV (**Table 2**)
- There were no deaths on study in either risk group
- TEAEs led to rusfertide discontinuation in 10 (7.8%) high-risk and 10 (6.4%) low-risk patients

Table 2. TEAEs in Patients Treated with Rusfertide by Risk Group

| Patients with TEAEs, n (%)                     | High-Risk Group (n=129) | Low-Risk Group (n=156) |
|------------------------------------------------|-------------------------|------------------------|
| Any TEAE                                       | 124 (96.1)              | 147 (94.2)             |
| Grade 1 TEAEs                                  | 121 (93.8)              | 140 (89.7)             |
| Grade 2 TEAEs                                  | 104 (80.6)              | 113 (72.4)             |
| Grade 3 or 4 TEAEs                             | 35 (27.1)               | 27 (17.3)              |
| Grade 5 TEAEs                                  | 0                       | 0                      |
| Any SAE                                        | 19 (14.7)               | 10 (6.4)               |
| TEAEs leading to discontinuation of rusfertide | 10 (7.8)                | 10 (6.4)               |

- SAE, serious adverse event; TEAE, treatment-emergent adverse event.
- In the high-risk group, 41 patients (31.8%) had a history of TE(s) prior to study entry; 19 patients (14.7%) were <60 years old
  - In Part 1a (baseline to Week 32), the frequency of TEs was similar in the rusfertide and placebo arms irrespective of risk group (**Table 3**)
  - One TE (rusfertide arm) occurred in a patient with low-risk PV
  - There were no TEs in patients with high-risk PV in either arm
  - In patients treated with rusfertide during Parts 1b and 2 (ie, open-label periods), TEs were reported in 3 patients with low-risk PV and 3 patients with high-risk PV
  - Of these 6 patients, 5 (83.3%) remained on study at the cutoff date (1 patient discontinued due to disease progression [transformation to myelofibrosis])
  - Five of the 7 patients with on-study TEs had other risk factors that may have contributed to TE onset, including high-risk PV (n=3), history of hypertension (n=2), superficial vein thrombosis (n=1), and coronary heart disease (n=1)
  - All TEs were deemed to be not related or unlikely to be related to rusfertide by the investigator

Table 3. Thromboembolic Events By Risk Group

| Patients with Events, n (%)                         | Part 1a           | Part 1b        | Part 2             | Part 3             | Any Part               |
|-----------------------------------------------------|-------------------|----------------|--------------------|--------------------|------------------------|
| High-risk group                                     | Rusfertide (n=64) | Placebo (n=71) | Rusfertide (n=123) | Rusfertide (n=120) | Rusfertide (n=129)     |
| Patients with TEs prior to study entry <sup>a</sup> | 17 (25.8)         | 28 (39.4)      | 41 (33.3)          | 40 (33.3)          | 41 (31.8)              |
| Patients with TE(s) on study                        | 0                 | 0              | 3 (2.5)            | 0                  | 3 (2.3)                |
| Acute myocardial infarction                         | 0                 | 0              | 0                  | 1 (0.8)            | 0                      |
| Ischemic stroke                                     | 0                 | 0              | 0                  | 1 (0.8)            | 0                      |
| Splenic infarction                                  | 0                 | 0              | 0                  | 1 (0.8)            | 0                      |
| Low-risk group                                      | Rusfertide (n=81) | Placebo (n=75) | Rusfertide (n=151) | Rusfertide (n=146) | All Rusfertide (n=156) |
| Patients with TE(s) on study                        | 1 (1.2)           | 0              | 1 (0.7)            | 2 (1.4)            | 0                      |
| Acute myocardial infarction                         | 1 (1.2)           | 0              | 0                  | 1 (0.7)            | 0                      |
| Deep vein thrombosis                                | 0                 | 0              | 1 (0.7)            | 1 (0.7)            | 0                      |

TE, thromboembolic event. TEAEs identified as PV complications include thromboembolic events identified using the FMQ-narrow term for Thrombosis. Data are shown for the safety analysis set (n=291) except as noted. <sup>a</sup>Intention-to-treat population (N=293).

Conclusions

- Results from this post hoc analysis of the phase 3 VERIFY study in PV demonstrate that the benefit of rusfertide was maintained for the primary endpoint (clinical response) and all key secondary endpoints of reduction in phlebotomies and Hct control vs placebo irrespective of whether patients had low-risk or high-risk PV at baseline
- For these endpoints, the benefit of rusfertide was maintained in both risk groups regardless of whether patients were also receiving concurrent CRT at baseline
- Improvements in the PROMIS Fatigue SF-8a T-score and MFSAF TSS7 PROs at Week 32 were also observed for both risk groups with rusfertide vs placebo
- To date, the incidence of TEAEs in rusfertide-treated patients has been similar in the high-risk and low-risk PV groups
- The ongoing, open-label portions of the phase 3 VERIFY trial will provide additional information on the long-term safety and tolerability of rusfertide in patients with PV

PREVIOUS PRESENTATION AND PUBLICATION INFORMATION

García-Gutiérrez V, et al. Benefit of rusfertide maintained in patients (pts) with low-risk or high-risk polycythemia vera (PV): efficacy and safety subgroup analysis from the randomized controlled phase 3 VERIFY study. *HemaSphere*. 2026; Abstract PF692.