

# Rusfertide 2025

## Post-Congress Reactive Deck

VV-MEDMAT-122737 | June 2025

Global/US Medical



ONCOLOGY

- Diese Folien wurden zur reaktiven Nutzung durch das Medical-Team im wissenschaftlichen Austausch mit HCPs erstellt, als Antwort auf nicht angeforderte Informationsanfragen zu den hierin enthaltenen Themen.
- Antworten müssen gezielt auf die nicht angeforderte Anfrage zugeschnitten sein und den entsprechenden Kontext vollständig enthalten.
- Das Medical-Team sollte seine professionelle Einschätzung nutzen, um passende Folien in einer Reihenfolge zu präsentieren, die am besten dazu geeignet ist, die nicht angeforderte Anfrage gezielt zu beantworten.
- Die Verwendung dieser Folien muss im Einklang mit allen geltenden lokalen Gesetzen und Vorschriften erfolgen; alle LOCs müssen dieses Deck lokal für den reaktiven Gebrauch genehmigt haben, um es extern verwenden zu können.
- Dieses Deck darf nicht vom Vertrieb oder für Vertriebs-Training verwendet werden.
- Rusfertide (TAK-121) ist für die hier beschriebenen Anwendungen nicht zugelassen und eine Zulassung dafür ist derzeit ungewiss.

## Company-Sponsored Research

Results From VERIFY, a Phase 3, Double-Blind, Placebo-Controlled Study of Rusfertide for Treatment of Polycythemia Vera (PV)

**ASCO 2025**  
Kuykendall *et al.*

# Company-Sponsored Research



# Results From VERIFY, a Phase 3, Double-Blind, Placebo-Controlled Study of Rusfertide for Treatment of Polycythemia Vera (PV)

**Andrew T. Kuykendall<sup>1</sup>**, Naveen Pemmaraju<sup>2</sup>, Kristen Pettit<sup>3</sup>, Joseph Shatzel<sup>4</sup>, Alessandro Lucchesi<sup>5</sup>, Valentín García-Guitérrez<sup>6</sup>, Jiri Mayer<sup>7</sup>, Abdulraheem Yacoub<sup>8</sup>, Harinder Gill<sup>9</sup>, Antonin Hlusi<sup>10</sup>, Daniel Sasca<sup>11</sup>, Joseph M. Scandura<sup>12</sup>, Marina Kremyanskaya<sup>13</sup>, Phil Dinh<sup>14</sup>, Sarita Khanna<sup>14</sup>, Suneel Gupta<sup>14</sup>, Arturo Molina<sup>14</sup>, Aniket Bankar<sup>15</sup> on behalf of the VERIFY Investigators

<sup>1</sup>Moffitt Cancer Center, Tampa, FL, USA; <sup>2</sup>MD Anderson Cancer Center, Houston, TX, USA; <sup>3</sup>University of Michigan, Ann Arbor, MI, USA; <sup>4</sup>Oregon Health & Science University, Portland, Oregon, USA; <sup>5</sup>IRCCS Istituto Romagnolo per lo Studio dei Tumori (IRST) “Dino Amadori”, Meldola, Italy; <sup>6</sup>Hospital Universitario Instituto Ramón y Cajal de Investigación Sanitaria, Universidad de Alcalá, Madrid, Spain; <sup>7</sup>University Hospital and Masaryk University, Brno, Czech Republic; <sup>8</sup>University of Kansas Cancer Center, Westwood, Kansas, USA; <sup>9</sup>Department of Medicine, School of Clinical Medicine, LKS Faculty of Medicine, the University of Hong Kong, Hong Kong; <sup>10</sup>Palacky University and University Hospital Olomouc, Olomouc, Czech Republic; <sup>11</sup>Universitätsmedizin der Johannes Gutenberg - Universität Mainz, Mainz, Germany; <sup>12</sup>New York Presbyterian Hospital/Weill Cornell Medical Center, New York, NY, USA; <sup>13</sup>Mount Sinai Medical Center, New York, NY, USA; <sup>14</sup>Protagonist Therapeutics, Inc., Newark, California, USA; <sup>15</sup>Princess Margaret Cancer Centre, Toronto, ON, Canada.

**1**

**Phase 3 VERIFY study compared the hepcidin mimetic rusfertide to placebo (each added to current standard-of-care) in patients with polycythemia vera**

**2**

**Rusfertide met its primary endpoint, all key secondary endpoints, and had a manageable safety profile consistent with prior studies**

**3**

**Rusfertide led to statistically significant improvements in several patient reported outcome measures**

- Polycythemia vera (PV) is a myeloproliferative neoplasm driven by acquired JAK2 mutations<sup>1-3</sup>
- PV is characterized by excessive production of blood cells which contributes to an increased risk of cardiovascular and thrombotic events<sup>2</sup>
- Primary goal of PV treatment aims to reduce thrombotic risk by achieving and maintaining Hct <45%<sup>2,3</sup>
- Current standard-of-care for PV: phlebotomy ± cytoreductive therapy<sup>3</sup>
- Frequent phlebotomy is burdensome and often insufficient for durable Hct control <45%<sup>4-6</sup>

**HCT**, hematocrit; **PHL**, phlebotomy; **PV**, polycythemia vera.

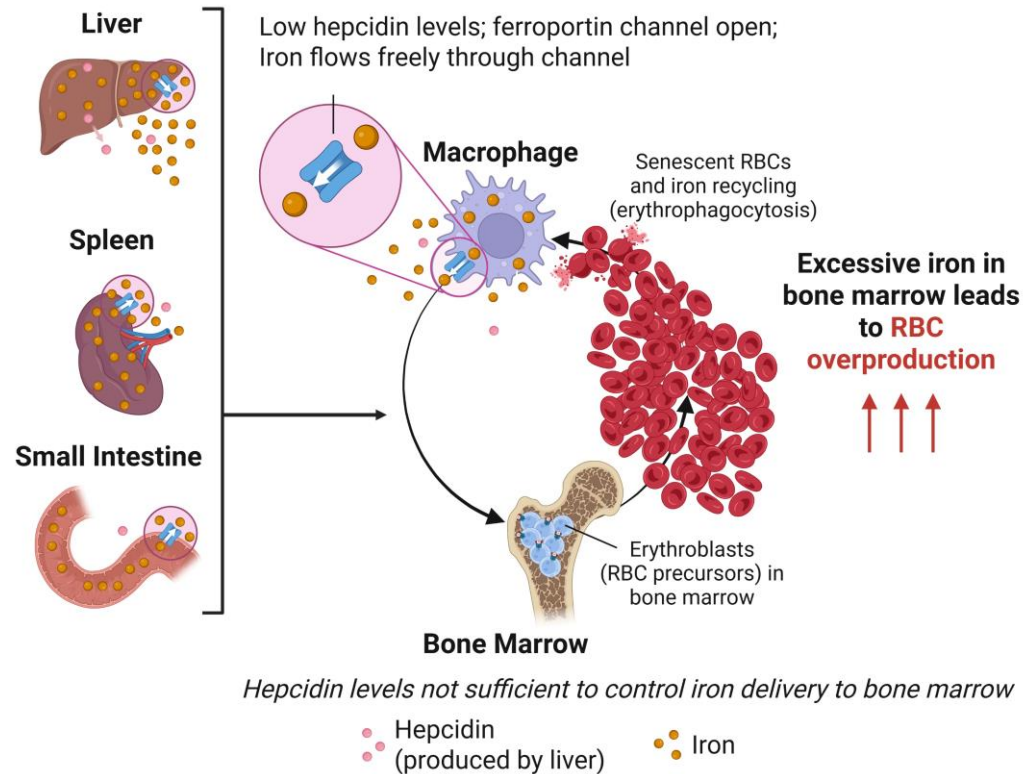
1. Mora B, Passamonti F. Clin Lymphoma Myeloma Leuk. 2023;23(2):79-85; 2. Marchioli R, et al. N Engl J Med. 2013;368(1):22-33; 3. Tremblay D, et al. JAMA. 2025;333(2):153-60; 4. Alvarez-Larrán A, et al. Haematologica. 2016;102(1):103-9  
5. Verstovsek S, et al. Ann Hematol. 2023;102(3):571-81. 6. Ginzburg YZ, Leukemia. 2018;32(10):2105-16.



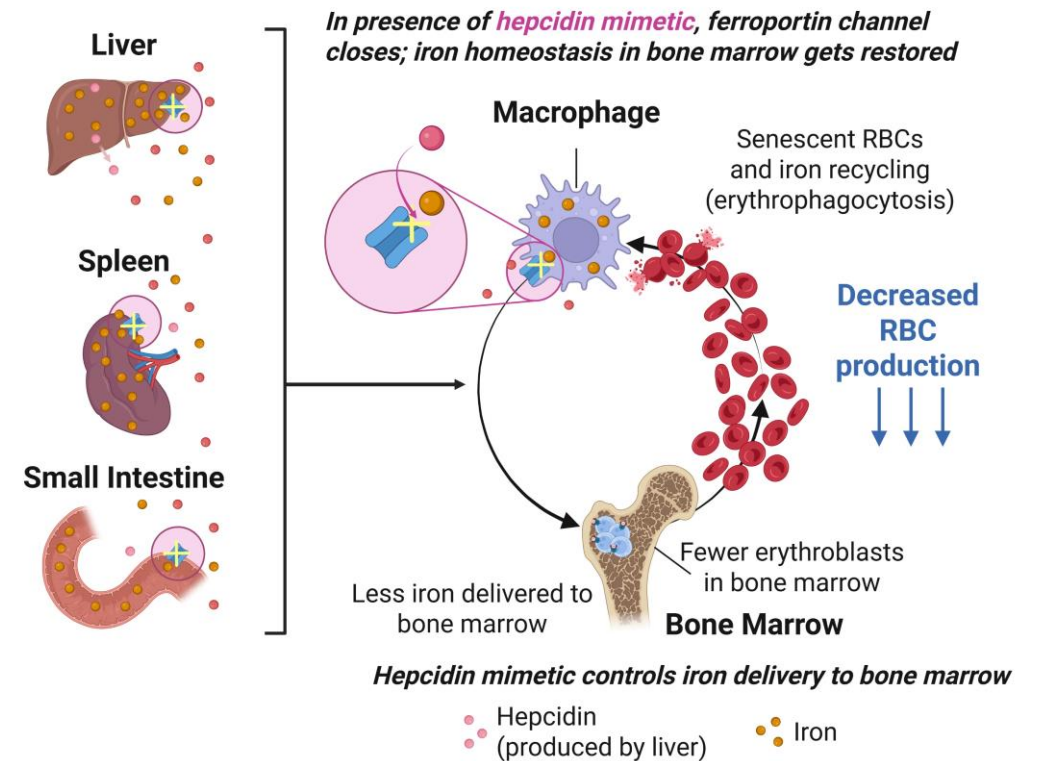
# Polycythemia Vera and the Role of Iron and Hepcidin in Red Blood Cell Production



## Patient With PV and Poorly Controlled Hct: Role of Iron in RBC Production - *Simplified Schema*



## Patient With PV and Well Controlled Hct: Hepcidin Mimetic Helps to Restore Iron Homeostasis





# Rusfertide in Polycythemia Vera (PV)



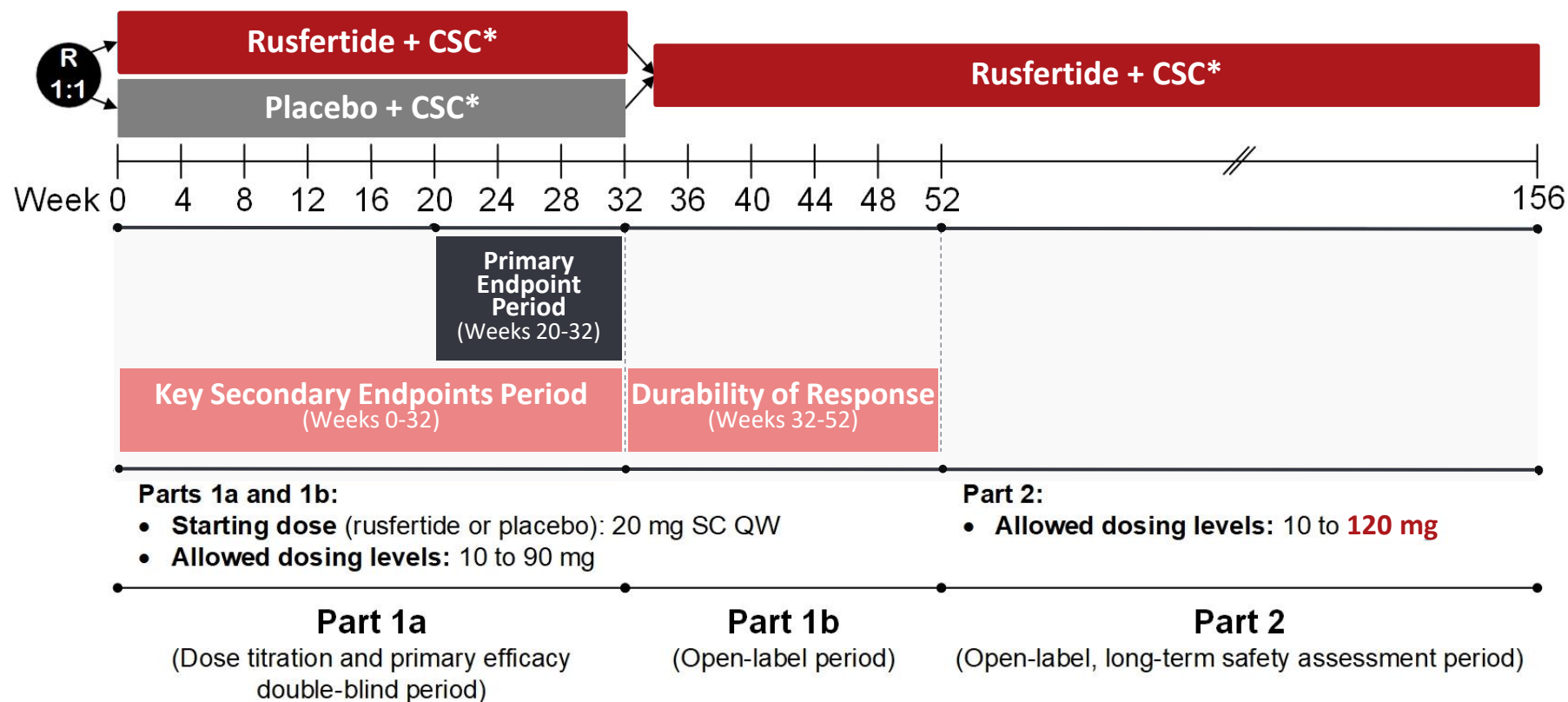
- Rusfertide is a first-in-class subcutaneous peptide mimetic of the endogenous hormone hepcidin, the principal regulator of iron homeostasis<sup>1</sup>
- In the phase 2 REVIVE study (NCT04057040), rusfertide met the primary endpoint for response (i.e., HCT control and absence of PHL eligibility) in patients with PV<sup>1</sup>
- VERIFY (NCT05210790) is a global, ongoing phase 3 study designed to confirm the benefit of adding rusfertide to current standard-of-care (CSC) therapy vs placebo with CSC in patients with PV who require frequent phlebotomies<sup>2</sup>

CSC, current standard of care; PV, polycythemia vera

1. Kremyanskaya M, et al. N Engl J Med. 2024;390(8):723-35. 2. A Phase 3 Study of the Hepcidin Mimetic Rusfertide (PTG-300) in Patients With Polycythemia Vera. National Library of Medicine (US). <https://clinicaltrials.gov/study/NCT05210790>  
Last accessed May 2025



# Phase 3 VERIFY Study (NCT05210790) Design in PV<sup>1</sup>



## Key Inclusion Criteria:

- $\geq 3$  phlebotomies (28 wks prior), OR
- $\geq 5$  phlebotomies (1 year prior)

**Stratified by CSC\* at randomization (1:1)**

\*Phlebotomy  $\pm$  cytoreductive therapy

CSC, current standard of care; PV, polycythemia vera

1. A Phase 3 Study of the Hepcidin Mimetic Rusfertide (PTG-300) in Patients with Polycythemia Vera. Protocol Number: PTG-300-11. Protocol Amendment 5.1 dated 09 January 2025



# Phase 3 VERIFY Study (NCT05210790) in PV<sup>1</sup>: Prespecified Primary and Key Secondary Endpoints



## Rusfertide with CSC vs. placebo with CSC:

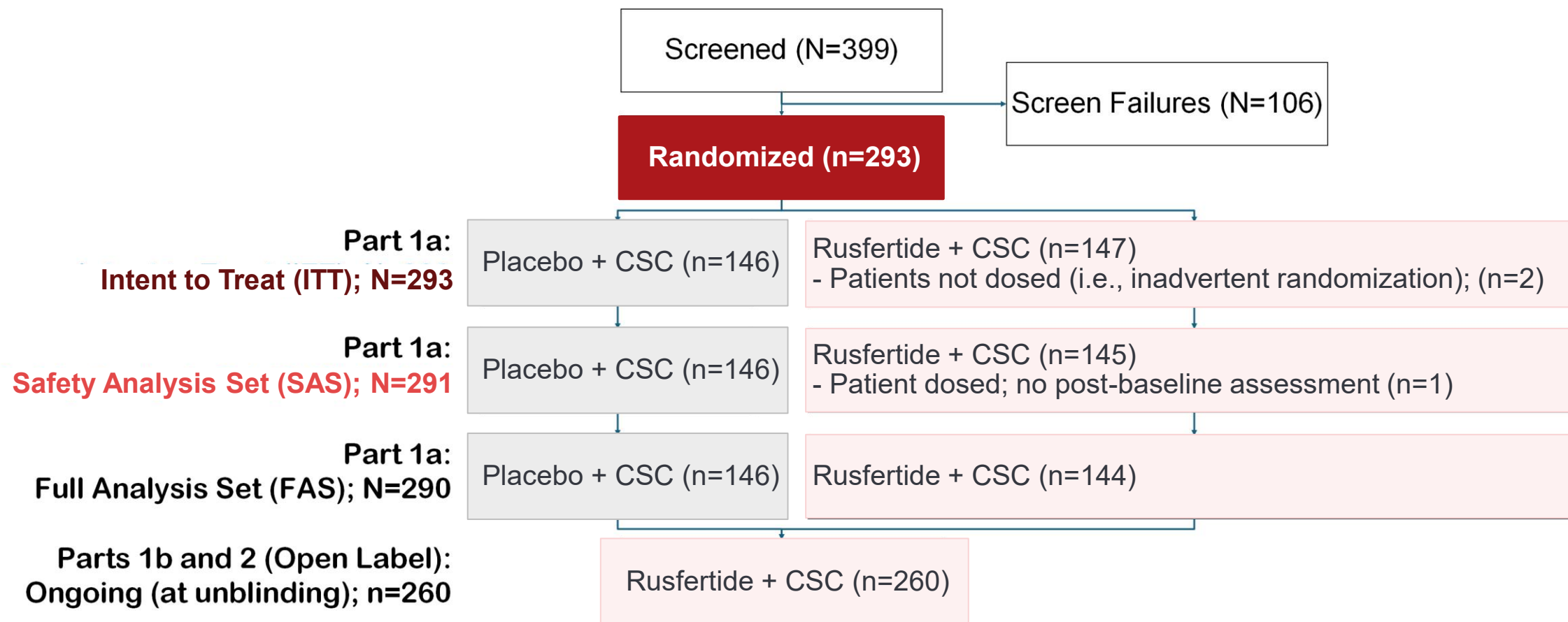
- **Primary Endpoint (US FDA):** Weeks 20-32
  - Clinical response (absence of phlebotomy eligibility, i.e., confirmed HCT  $\geq 45\%$  and  $\geq 3\%$  higher than baseline HCT OR HCT  $\geq 48\%$ )
- **Key Secondary Endpoints:** Weeks 0-32
  - Mean number of phlebotomies (**EU EMA**)
  - Proportion of patients with HCT  $< 45\%$
  - Mean change from baseline in PROMIS Fatigue SF-8a Total T-Score
  - Mean change from baseline in MFSAF TSS7

**CSC**, current standard of care; **EMA**, European Medicines Agency; **EU**, European Union; **FDA**, Food and Drug Administration; Hct, hematocrit; **MFSAF TSS**, Myelofibrosis Symptom Assessment Form version 4.0 Total Symptom Score; **PROMIS**, Patient-Reported Outcomes Measurement Information System; **SF**, short form.

1. A Phase 3 Study of the Hepcidin Mimetic Rusfertide (PTG-300) in Patients with Polycythemia Vera. Protocol Number: PTG-300-11. Protocol Amendment 5.1 dated 09 January 2025



# VERIFY Patient Disposition and Analysis Sets: Part 1a<sup>1</sup>



Data cutoff: 7 January 2025

FAS, all randomized patients according to the treatment assigned at randomization (ITT principle) who received at least one dose of study drug and had a baseline and at least one postbaseline assessment in Part 1a.

CSC, current standard of care

1. A Phase 3 Study of the Hepcidin Mimetic Rusfertide (PTG-300) in Patients with Polycythemia Vera. Protocol Number: PTG-300-11. Protocol Amendment 5.1 dated 09 January 2025



# Baseline Demographics and Disease Characteristics



	Placebo + CSC (n=146)	Rusfertide + CSC (n=147)	Total (N=293)
<b>Age, years, median (range)</b>	57 (27-82)	58 (28-86)	57 (27-86)
<b>Gender, n (%)</b>			
Male	108 (74.0)	106 (72.1)	214 (73.0)
Female	38 (26.0)	41 (27.9)	79 (27.0)
<b>Risk Category, n (%)</b>			
High risk (age ≥60 years old and/or prior TE)	70 (47.9)	66 (44.9)	136 (46.4)
<b>Disease Characteristics</b>			
Age at PV diagnosis (years), median (range)	51 (22-81)	53 (17-84)	52 (17-84)
PV duration (years), median (range)	3 (0.2-29.2)	2.8 (0.2-26.4)	2.9 (0.2-29.2)
<b>Phlebotomy History – 28 Weeks Prior to Study Treatment</b>			
Number of TPs, mean ± SD	4.1 ± 1.4	4.2 ± 1.6	4.2 ± 1.5
Patients requiring ≥7 TPs, n (%)	7 (4.8)	<b>16 (10.9)</b>	23 (7.8)

Data cutoff: 7 January 2025

**CSC**, current standard of care; **PV**, polycythemia vera; **SD**, standard deviation; **TE**, thromboembolic event; **TP**, therapeutic phlebotomy.

Kuykendall AT, et al. ASCO 2025 [Abstract LBA3]; [see the abstract](#)



# Concurrent Cytoreductive Therapy During Part 1a



n (%)	Placebo + CSC (n=146)	Rusfertide + CSC (n=147)	Total (N=293)
<b>Patients With Concurrent Cytoreductive Medication</b>	81 (55.5)	83 (56.5)	164 (56.0)
<b>Hydroxyurea</b>	57 (39.0)	58 (39.5)	115 (39.2)
<b>Interferons</b>			
Interferon, peginterferon alpha-2a, or ropeginterferon alfa-2b	20 (13.7)	19 (12.9)	39 (13.3)
<b>JAK Inhibitors</b>			
Ruxolitinib	3 (2.1)	5 (3.4)	8 (2.7)

Data cutoff: 7 January 2025

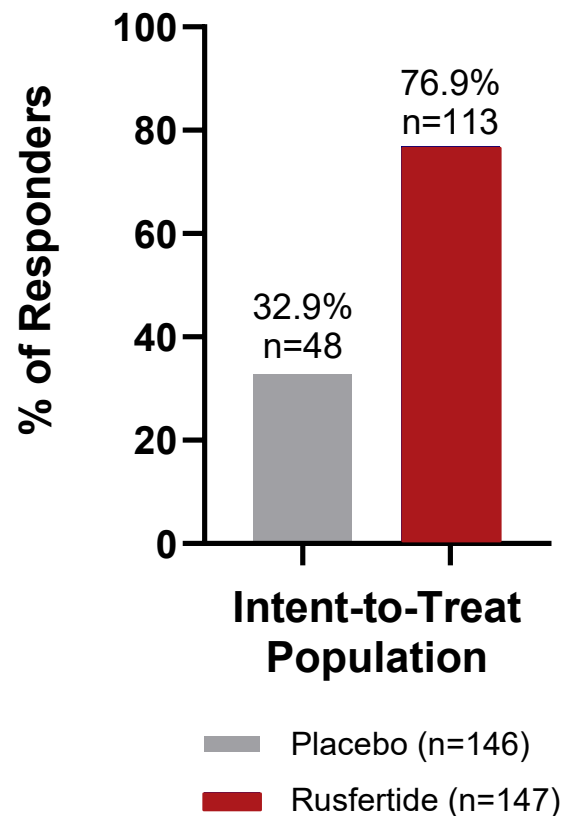
CSC, current standard of care; JAK, Janus Kinase

Kuykendall AT, et al. ASCO 2025 [Abstract LBA3]; [see the abstract](#)





# VERIFY Study Met Its Primary Endpoint During Weeks 20-32 (Part 1a)



	Placebo + CSC (n=146)	Rusfertide + CSC (n=147)
Responders, n (%) <sup>a</sup>	48 (32.9)	113 (76.9)
p-value*	<0.0001	
Non-responders, n (%)	98 (67.1)	34 (23.1)

Data cutoff: 7 January 2025

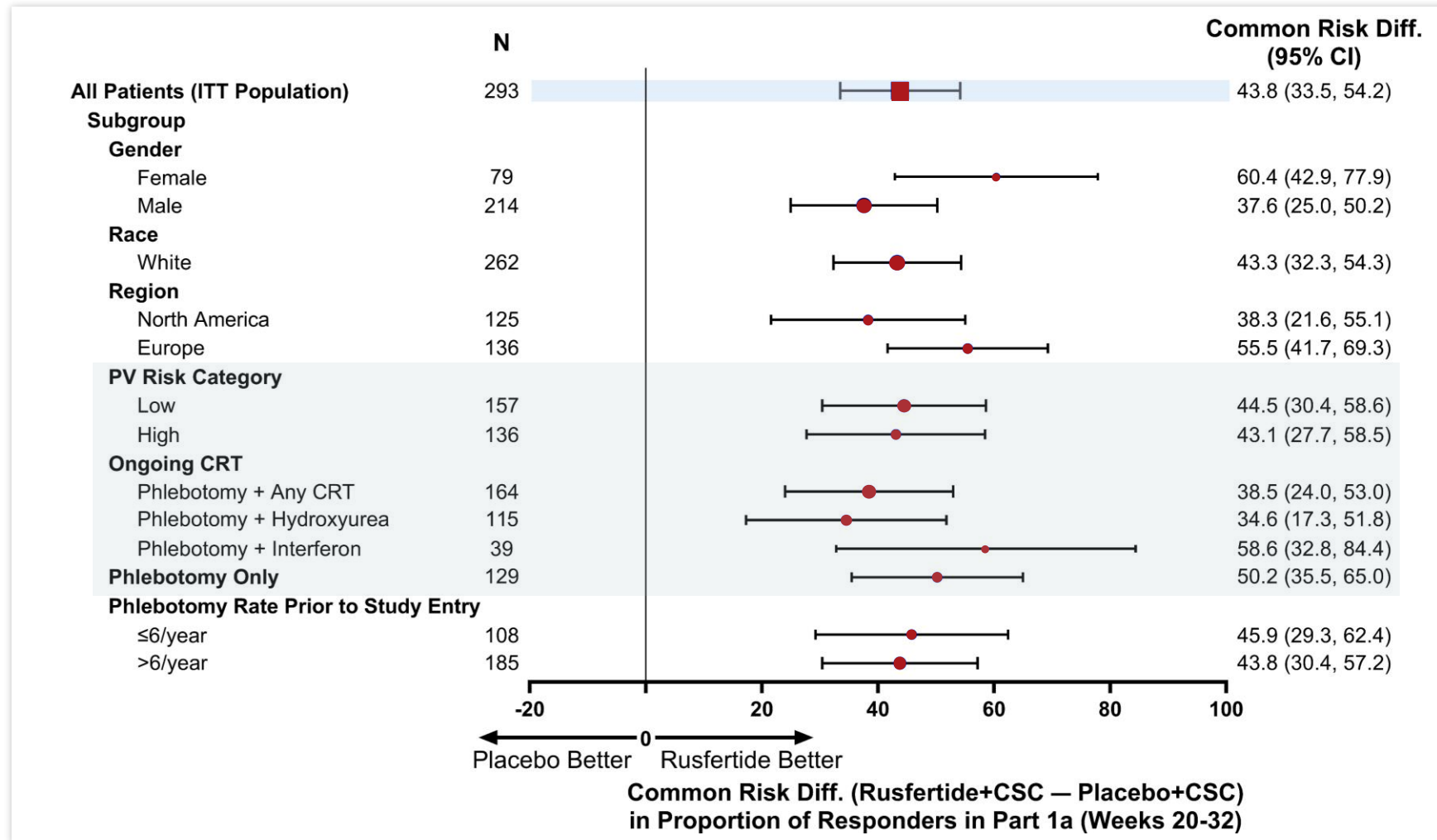
<sup>a</sup>Responder = absence of phlebotomy eligibility (confirmed HCT  $\geq 45\%$  and  $\geq 3\%$  higher than baseline HCT OR HCT  $\geq 48\%$ ), no phlebotomies, and completion of Part 1a; \*p-value based on Cochran-Mantel-Haenszel test.

CSC, current standard of care; HCT, hematocrit.

Kuykendall AT, et al. ASCO 2025 [Abstract LBA3]; [see the abstract](#)



# Rusfertide + CSC Benefit Maintained vs. Placebo + CSC for Response\* Across Subgroups, Including Risk Status and Concurrent Therapy



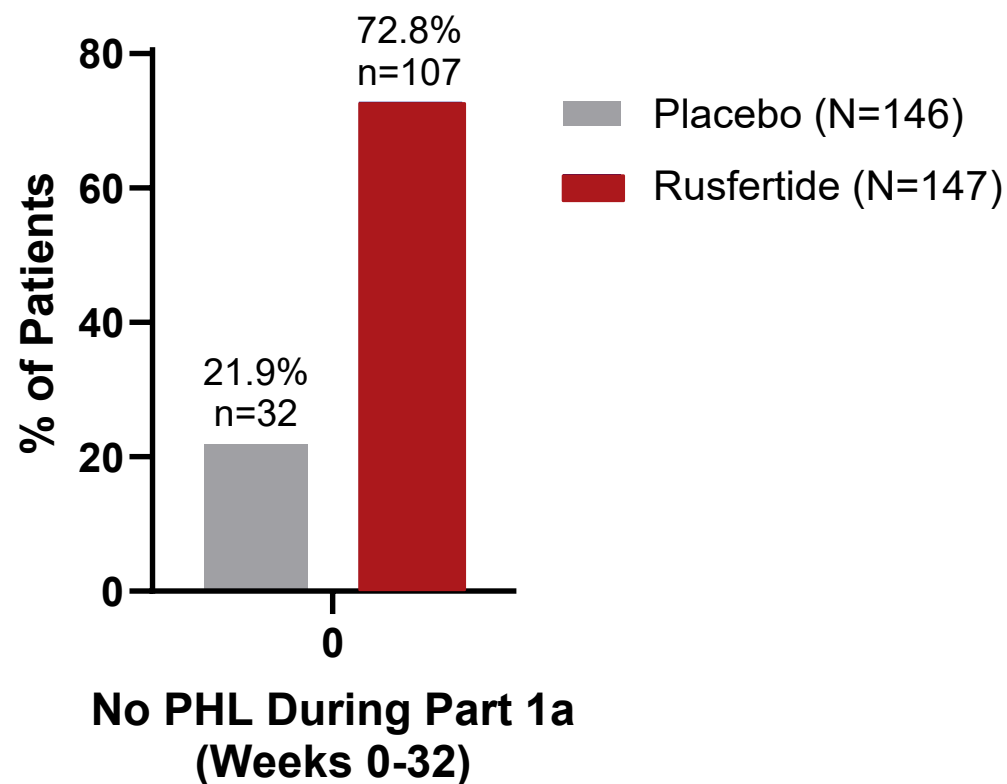
Data cutoff: 7 January 2025 | \*Common risk difference for primary endpoint of response.

CRT, cytoreductive therapy; CSC, current standard of care; ITT, intent to treat

Kuykendall AT, et al. ASCO 2025 [Abstract LBA3]; [see the abstract](#)



# Rusfertide + CSC Reduced the Mean Number of Phlebotomies (PHL) From Weeks 0-32 vs Placebo + CSC (p<0.0001): Key Secondary Endpoint #1

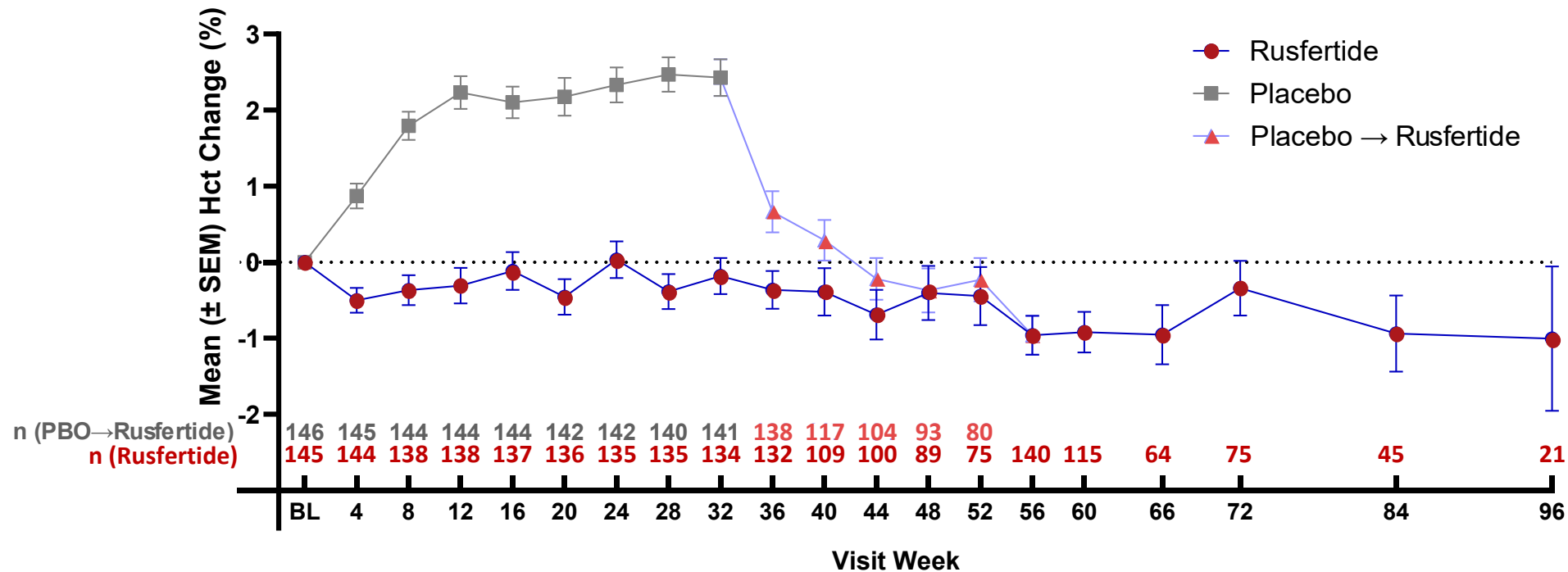


Number of Phlebotomies	Placebo (n=146)	Rusfertide (n=147)
Mean (SD)	1.8 (1.5)	0.5 (1.2)
p-value*	<0.0001	

Rusfertide reduced the mean number of PHL (Weeks 0-32) vs. placebo by a statistically significant margin across subgroups, including PV risk category, geographic region, and use of concurrent CRT

Data cutoff: 7 January 2025 | \*p-value associated with the LS mean difference.  
CRT, cytoreductive therapy; CSC, current standard of care; LS, least-squares; PHL, phlebotomy; SD, standard deviation.  
Kuykendall AT, et al. ASCO 2025 [Abstract LBA3]; [see the abstract](#)

# Rusfertide + CSC More Likely to Maintain HCT <45% From Weeks 0-32 vs Placebo + CSC: Key Secondary Endpoint #2



	Placebo + CSC (n=146)	Rusfertide + CSC (n=147)
HCT <45% (Baseline through Week 32), n (%) <sup>a</sup>	21 (14.4)	92 (62.6)
p-value*	<0.0001	

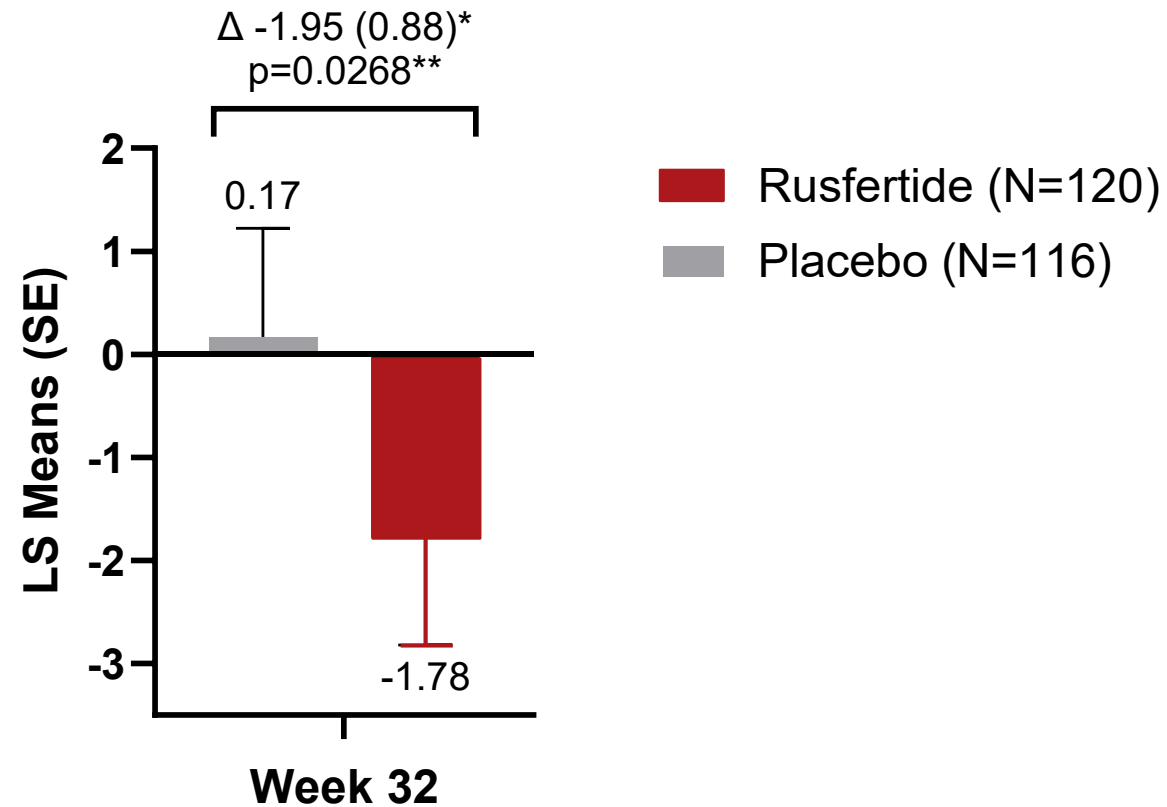
Data cutoff: 7 January 2025 | <sup>a</sup>HCT <45% from baseline through Week 32 (a single HCT ≥45% was allowed, excluding intercurrent events classified as non-responders); <sup>\*</sup>Cochran-Mantel-Haenszel test.  
**CSC**, current standard of care; **HCT**, hematocrit  
 Kuykendall AT, et al. ASCO 2025 [Abstract LBA3]; [see the abstract](#)



# Rusfertide Demonstrated an Improvement in the PROMIS Fatigue SF-8a Total T-Score at Week 32 vs. Placebo: Key Secondary Endpoint #3



## LS Means Difference at Week 32:



Data cutoff: 7 January 2025

\*LS mean (SE) difference (rusfertide – placebo); \*\*p-value associated with the LS mean difference

LS, least-squares; **PROMIS**, Patient-Reported Outcomes Measurement Information System; SF, short form

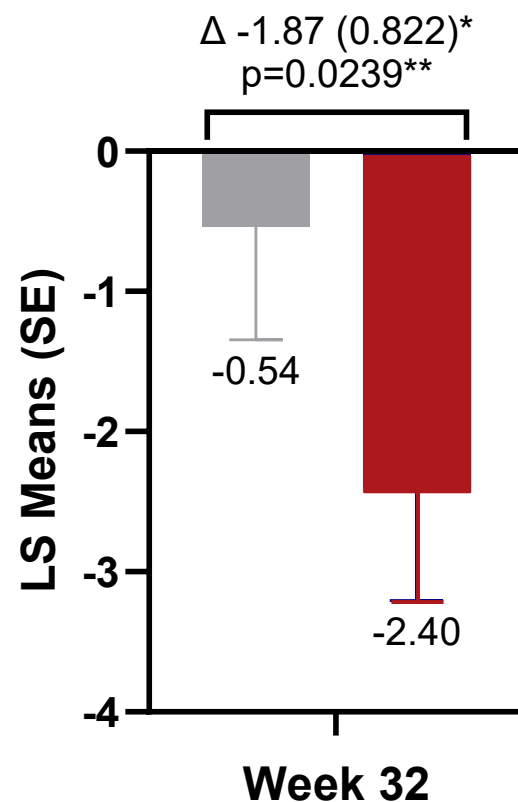
Kuykendall AT, et al. ASCO 2025 [Abstract LBA3]; [see the abstract](#)



# Rusfertide Demonstrated an Improvement in the MFSAF TSS7 at Week 32 vs. Placebo: Key Secondary Endpoint #4



## LS Means Difference at Week 32:



Rusfertide (N=126)

Placebo (N=125)

MFSAF TSS7 includes fatigue, night sweats, itching, abdominal discomfort, pain under ribs on left side, early satiety, and bone pain

Data cutoff: 7 January 2025

\*LS mean (SE) difference (rusfertide – placebo); \*\*p-value associated with the LS mean difference

LS, least-squares; **MFSAF TSS7**, Myelofibrosis Symptom Assessment Form version 4.0 Total Symptom Score-7 item

Kuykendall AT, et al. ASCO 2025 [Abstract LBA3]; [see the abstract](#)





# Exposure and Treatment-Emergent Adverse Events (Part 1a)\*



- Median treatment exposure was 32 weeks in both groups
  - Median (min, max) dose was 30 (10, 90) mg in the rusfertide group
- The most common TEAEs in the rusfertide group included localized injection site reactions and anemia
- Discontinuation rates due to TEAEs were 2.7% (placebo) and 5.5% (rusfertide)

Most Frequent TEAEs (≥5% in either group) in Part 1a, n (%)	Placebo + CSC (n=146)	Rusfertide + CSC (n=145)
Patients with at least 1 TEAE	126 (86.3)	129 (89)
Injection site reactions <sup>a</sup>	48 (32.9)	81 (55.9)
Anemia	6 (4.1)	23 (15.9)
Fatigue	23 (15.8)	22 (15.2)
Headache	17 (11.6)	15 (10.3)
COVID-19	16 (11.0)	14 (9.7)
Pruritus	14 (9.6)	14 (9.7)
Diarrhea	8 (5.5)	12 (8.3)
Dizziness	9 (6.2)	12 (8.3)
Arthralgia	12 (8.2)	11 (7.6)
Constipation	11 (7.5)	11 (7.6)
Abdominal distension	8 (5.5)	10 (6.9)
Thrombocytosis	0 (0)	10 (6.9)

<sup>a</sup>Injection site reactions (grouped term); all other TEAEs are preferred terms.

\*Safety analysis set

AE, adverse event; CSC, current standard of care; TEAE, treatment-emergent adverse event  
Kuykendall AT, et al. ASCO 2025 [Abstract LBA3]; [see the abstract](#)



# Cancer Events and Serious TEAEs (Part 1a)\*



- 10 skin malignancies (including 1 melanoma) detected prior to randomization
- During Part 1a, non-PV cancer events were reported in 8 patients
- Serious AEs occurred in 3.4% (rusfertide) and 4.8% (placebo) of patients (none related to rusfertide)
- There was 1 TE (acute MI; occurred ~2 weeks after treatment initiation) reported in the rusfertide group and 0 in the placebo group

Cancer Events	Placebo + CSC (n=146)	Rusfertide + CSC (n=145)
Patients with ≥1 Cancer Event, n (%)	7 (4.8)	1 (0.7)
Basal cell carcinoma	3 (2.1)	0
Squamous cell carcinoma	1 (0.7)	1 (0.7)
Malignant melanoma	1 (0.7)	0
Colorectal cancer	1 (0.7)	0
Prostate cancer	1 (0.7)	0

\*Safety analysis set

AE, adverse event; CSC, current standard of care; MI, myocardial infarction; PV, polycythemia vera; TE, thromboembolic event; TEAE, treatment-emergent adverse event

Kuykendall AT, et al. ASCO 2025 [Abstract LBA3]; [see the abstract](#)



- Heterogeneous patient population that may make interpretability of some of the secondary endpoints (e.g., PROs) challenging
- The placebo-controlled portion of VERIFY (Part 1a) was only 32 weeks long<sup>1</sup>
  - Long-term assessment of safety, thrombotic events, and disease transformation or progression is therefore limited and will continue for up to three years (Parts 1b and 2)

**PRO**, patient-reported outcome

1. A Phase 3 Study of the Hepcidin Mimetic Rusfertide (PTG-300) in Patients with Polycythemia Vera. Protocol Number: PTG-300-11. Protocol Amendment 5.1 dated 09 January 2025

Kuykendall AT, et al. ASCO 2025 [Abstract LBA3]; [see the abstract](#)

- Rusfertide is an investigational weekly subcutaneous injection for PV
- In the phase 3 VERIFY study that included patients with PV who were receiving CSC, rusfertide met its primary endpoint and all four key secondary endpoints vs. placebo
  - In VERIFY Part 1a, rusfertide:
    - Significantly reduced the PHL eligibility and improved HCT vs. placebo
    - Demonstrated a statistically significant improvement in symptoms (assessed using two PRO instruments)
- Rusfertide demonstrated a manageable safety profile consistent with prior studies
- **Rusfertide represents a potential new treatment option for PV**
  - These data will be used to file marketing authorizations throughout the world



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