Sponsor

Novartis Pharmaceuticals

Generic Drug Name

Ruxolitinib

Trial Indication(s)

Polycythaemia vera

Protocol Number

CINC424BDE12

Protocol Title

A prospective, non-interventional study of JAKAVI® (ruxolitinib) treatment in patients with polycythemia vera (PAVE)

Clinical Trial Phase

Phase IV

Phase of Drug Development

Approval

Study Start/End Dates

Study Start Date: August 17, 2015 (Actual)
Primary Completion Date: May 03, 2023 (Actual)
Study Completion Date: May 03, 2023 (Actual)

Reason for Termination (If applicable)

NA

Study Design/Methodology

Data on efficacy and safety of ruxolitinib for patients with PV are largely from clinical trials. Thus, the prospective recording of daily practice reality was the main aim of this project and could only be done by the study design of a NIS. This NIS was planned to be conducted in a multicenter setting at approximately 125 hematology/ oncology practices and hospitals in Germany, thus ensuring the representativeness of the population of the involved study centers to the greatest extent possible.
A maximum of 500 male and female patients with PV treated with ruxolitinib according to routine medical practice and according to the manufacturer's instructions were prospectively observed in this NIS. The frequency of visits per patient was not fixed but should be in line with current practice.

Patients were divided into two groups:
- Patients without prior treatment with ruxolitinib or other JAK-inhibitor (about 250).
- Patients pretreated with a JAK inhibitor (ruxolitinib or other JAK-inhibitor, about 250).

Centers

Germany(103)

Objectives:

The following specific objectives were of interest:
- Investigation of the effectiveness of ruxolitinib in daily practice based on the hematocrit value, phlebotomy need, spleen size and constitutional symptoms.
- Investigation of the use of ruxolitinib in daily practice: initial dosage, dose adjustments and their reasons, therapy pauses and discontinuations (and their reasons), side effect management, concomitant medication.
- Extended investigation of the tolerability and safety of ruxolitinib in daily practice based on the total number of adverse events (AEs) and serious adverse events (SAEs, with and without causal relationship to ruxolitinib).
- Assessment of QoL before and during ruxolitinib therapy.

- Comparison of the effectiveness, tolerability and safety of ruxolitinib in Janus Kinase- (JAK-) inhibitor naive and JAK-inhibitor pretreated patients.
- Stratification of patients according to the presence of risk factors:
  - Age > 60 years,
  - prior thromboembolic event; and
  - comparison of the efficacy of ruxolitinib between the different risk groups.
- Documentation of patient care and patient satisfaction.
- Assessment of symptom burden and QoL (MPN10 and SF-36 questionnaires).

Test Product (s), Dose(s), and Mode(s) of Administration

Ruxolitinib or other JAK-inhibitor

Statistical Methods

Parameters which were at least interval scaled were tabulated by the following sample statistics:
Number of non-missing data, mean, standard deviation, minimum, median and maximum.
Parameters which were nominally or ordinally scaled were tabulated by absolute and relative frequencies. In general, missing values were not considered for calculation of percentages (i.e., adjusted percentages were calculated) if not otherwise specified.
The analysis set (AS) comprised all patients who fulfilled all inclusion criteria (diagnosis of PV, treatment with ruxolitinib indicated, written informed consent), received at least one dose of ruxolitinib during the study and performed the BL-visit. Patients that were locked in the eCRF are not regarded as "enrolled" and therefore excluded from the AS.
All variables collected in this NIS were analyzed and reported using adequate statistical methods. The NIS was primarily analyzed using descriptive methods. Where confidence intervals (CI) or p-values are given, these are also purely descriptive. Due to the exploratory nature of the analysis, no alpha adjustment was made for multiple comparisons. Variables at least at the interval level were tabulated with their sample characteristics (number of valid and missing values, minimum, maximum, 5%-percentile, 1st quartile, 3rd quartile, 95%-percentile, median, mean, standard deviation). For variables at nominal and ordinal levels, distributions of absolute and relative frequencies were output.

For AEs, incidences based on the included patient population and incidence densities (number of events/sum of person-times in years) were reported according to Medical Dictionary for Regulatory Activities (MedDRA) System Organ Class

(SOC) and Preferred Term (PT) for AEs, serious adverse events (SAEs), adverse drug reactions (ADRs), and serious adverse drug reactions (SADRs).

All patients who had received at least one dose of ruxolitinib and for whom at least one followup documentation was available were included in the analysis.

Study Population: Key Inclusion/Exclusion Criteria

Inclusion Criteria:

- Adult male and female patients with PV for whom Jakavi® therapy is indicated according to the European summary of product

characteristics

- Patients who have been informed about this NIS and gave written consent

Participant Flow Table

Table 10-3: Patient disposition

AS Event	JAK-inhibitor naive (N=165) n (%)	JAK-inhibitor pretreated (N=268) n (%)	Total (N=433) n (%)
Study completed			
Yes (completer)	109 (66.1)	175 (65.3)	284 (65.6)
No (drop-out)	56 (33.9)	93 (34.7)	149 (34.4)
Reason for premature discontinuation[a]			
Death	8 (4.8)	27 (10.1)	35 (8.1)
Adverse event	14 (8.5)	20 (7.5)	34 (7.9)
Lost-to-follow-up	11 (6.7)	22 (8.2)	33 (7.6)
Other	13 (7.9)	16 (6.0)	29 (6.7)
Deterioration of general health	6 (3.6)	6 (2.2)	12 (2.8)
Poor compliance	6 (3.6)	4 (1.5)	10 (2.3)
Progression of primary disease	1 (0.6)	9 (3.4)	10 (2.3)
No therapy response	6 (3.6)	1 (0.4)	7 (1.6)
Infections	-	1 (0.4)	1 (0.2)

Abbreviations: AS = Analysis Set, JAK = Janus Kinase
[a] Multiple answers possible
Deaths after end of treatment (last documented visit after end of treatment) were not considered.
In case of missing study completion status:
If documentation in Month 36 is present then study completion status was set to "Yes (completer)"
If completion status is "on treatment" and an adverse event with outcome "death" was documented study completion status was set to "No (drop out)" and reason was set to death.
If last visit was not Month 36 then study completion status is set to "No (drop out)" and reason was set to "Lost-to-follow-up"

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Baseline Characteristics

Presence of risk factors at Baseline

AS	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Variable	n (%)	n (%)	n (%)
Age			
Age < 60 year	27 (16.4)	47 (17.5)	74 (17.1)
Age ≥ 60 years	138 (83.6)	221 (82.5)	359 (82.9)
Thromboembolic event			
Absence at BL	114 (69.1)	180 (67.2)	294 (67.9)
Presence at BL	51 (30.9)	88 (32.8)	139 (32.1)
Patients at high risk			
No high risk	20 (12.1)	29 (10.8)	49 (11.3)
With high risk	145 (87.9)	239 (89.2)	384 (88.7)

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase
High risk was defined by older or equal than 60 years and/or history of thromboembolic events.

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Demography and smoking status at Baseline

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Age (years)			
n	165	268	433
Mean ± SD	70.6 ± 11.2	69.7 ± 10.4	70.1 ± 10.7
Median (range)	74.0 (26.0 to 91.0)	71.0 (33.0 to 90.0)	72.0 (26.0 to 91.0)
Sex			
Male	89 (53.9)	147 (54.9)	236 (54.5)
Female	76 (46.1)	121 (45.1)	197 (45.5)
Weight (kg)			
n	146	203	349
Mean ± SD	79.1 ± 17.7	79.0 ± 15.2	79.0 ± 16.3
Median (range)	76.0 (44.0 to 140.0)	78.0 (42.5 to 130.0)	78.0 (42.5 to 140.0)
Height (cm)			
n	153	224	377
Mean ± SD	171.6 ± 9.9	172.1 ± 9.2	171.9 ± 9.5
Median (range)	172.0 (143.0 to 198.0)	172.0 (153.0 to 198.0)	172.0 (143.0 to 198.0)
BMI (kg/m^2)			
n	145	196	341
Mean ± SD	26.7 ± 4.8	26.6 ± 4.3	26.7 ± 4.5
Median (range)	25.8 (18.7 to 44.2)	26.0 (17.3 to 43.5)	25.9 (17.3 to 44.2)
Smoking status, n (%)			
Non-smoker	70 (42.4)	98 (36.6)	168 (38.8)
Smoker	13 (7.9)	14 (5.2)	27 (6.2)
Ex-smoker	12 (7.3)	29 (10.8)	41 (9.5)
unknown/not determined	70 (42.4)	127 (47.4)	197 (45.5)

Abbreviations: AS = Analysis Set, BL = Baseline, BMI = Body Mass Index, JAK = Janus Kinase, SD = Standard Deviation
High risk was defined by older or equal than 60 years and/or history of thromboembolic events.

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Blood values at Baseline

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Hematocrit (%)			
n	160	253	413
Mean ± SD	43.1 ± 6.4	38.9 ± 6.0	40.5 ± 6.5
Median (range)	44.3 (24.0 to 62.7)	39.0 (23.9 to 57.2)	40.7 (23.9 to 62.7)
Erythrocytes (10^6/µl)			
n	157	237	394
Mean ± SD	5.1 ± 1.2	4.5 ± 1.0	4.7 ± 1.1
Median (range)	5.1 (2.1 to 7.8)	4.4 (2.5 to 8.2)	4.6 (2.1 to 8.2)
Thrombocytes (10^3/µl)			
n	139	251	390
Mean ± SD	428.3 ± 213.6	388.4 ± 202.3	402.6 ± 207.0
Median (range)	409.0 (58.0 to 978.0)	342.0 (56.0 to 991.0)	364.0 (56.0 to 991.0)
Leukocytes (10^3/µl)			
n	162	257	419
Mean ± SD	16.2 ± 11.8	11.7 ± 9.7	13.4 ± 10.8
Median (range)	13.2 (0.0 to 58.8)	8.8 (0.0 to 86.8)	9.9 (0.0 to 86.8)

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase, SD = Standard Deviation

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Phlebotomies prior to Baseline

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Number of phlebotomies since diagnosis			
n	155	232	387
Mean ± SD	16.5 ± 16.0	16.6 ± 24.9	16.5 ± 21.8
Median (range)	13.0 (0.0 to 103.0)	10.0 (0.0 to 250.0)	10.0 (0.0 to 250.0)
Time since last phlebotomy (months)			
n	134	209	343
Mean ± SD	20.0 ± 39.3	29.5 ± 42.0	25.8 ± 41.2
Median (range)	4.1 (0.0 to 290.6)	13.5 (0.0 to 266.8)	9.6 (0.0 to 290.6)
Number of phlebotomies in the last month (30 days)			
n	162	259	421
Mean ± SD	0.3 ± 0.6	0.1 ± 0.4	0.2 ± 0.5
Median (range)	0.0 (0.0 to 3.0)	0.0 (0.0 to 3.0)	0.0 (0.0 to 3.0)
Number of phlebotomies in the last month (30 days), n (%)			
0	120 (74.1)	237 (91.5)	357 (84.8)
1	34 (21.0)	19 (7.3)	53 (12.6)
2	7 (4.3)	2 (0.8)	9 (2.1)
3	1 (0.6)	1 (0.4)	2 (0.5)
Missing values	3	9	12

Abbreviations: AS = Analysis Set, JAK = Janus Kinase, SD = Standard Deviation

Spleen examinations at Baseline

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Spleen palpation, n (%)			
No	93 (56.4)	183 (68.3)	276 (63.7)
Yes	72 (43.6)	85 (31.7)	157 (36.3)
Sonography, n (%)			
No	87 (52.7)	178 (66.4)	265 (61.2)
Yes	78 (47.3)	90 (33.6)	168 (38.8)
CT/MRI, n (%)			
No	163 (98.8)	266 (99.3)	429 (99.1)
Yes	2 (1.2)	2 (0.7)	4 (0.9)

Abbreviations: AS = Analysis Set, CT = Computerized Tomography, JAK = Janus Kinase, MRI = Magnetic Resonance Imaging

MPN10 questionnaire at Baseline

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
TSS			
n	138	237	375
Mean ± SD	30.0 ± 14.7	26.5 ± 12.7	27.8 ± 13.5
Median (range)	28.0 (8.0 to 83.0)	24.0 (1.0 to 65.0)	25.0 (1.0 to 83.0)
Fatigue			
n	137	234	371
Mean ± SD	4.5 ± 2.3	4.3 ± 2.2	4.4 ± 2.3
Median (range)	5.0 (1.0 to 10.0)	4.0 (1.0 to 10.0)	4.0 (1.0 to 10.0)
Early satiety			
n	137	236	373
Mean ± SD	3.3 ± 2.6	3.0 ± 2.2	3.1 ± 2.4
Median (range)	2.0 (1.0 to 10.0)	2.0 (1.0 to 10.0)	2.0 (1.0 to 10.0)

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Abdominal discomfort			
n	138	235	373
Mean ± SD	2.7 ± 2.2	2.5 ± 2.0	2.6 ± 2.1
Median (range)	2.0 (1.0 to 9.0)	2.0 (1.0 to 9.0)	2.0 (1.0 to 9.0)
Inactivity			
n	133	224	357
Mean ± SD	3.2 ± 2.4	3.1 ± 2.3	3.1 ± 2.3
Median (range)	2.0 (1.0 to 10.0)	3.0 (1.0 to 10.0)	2.0 (1.0 to 10.0)
Concentration problems			
n	140	228	368
Mean ± SD	3.3 ± 2.5	3.3 ± 2.3	3.3 ± 2.4
Median (range)	2.0 (1.0 to 10.0)	3.0 (1.0 to 10.0)	3.0 (1.0 to 10.0)
Night sweats			
n	137	234	371
Mean ± SD	3.2 ± 2.7	3.0 ± 2.3	3.1 ± 2.5
Median (range)	2.0 (1.0 to 10.0)	2.0 (1.0 to 10.0)	2.0 (1.0 to 10.0)
Pruritus			
n	138	233	371
Mean ± SD	3.8 ± 3.1	2.6 ± 2.2	3.0 ± 2.6
Median (range)	2.5 (1.0 to 10.0)	2.0 (1.0 to 10.0)	2.0 (1.0 to 10.0)
Bone pain			
n	136	233	369
Mean ± SD	3.0 ± 2.6	2.7 ± 2.3	2.8 ± 2.4
Median (range)	2.0 (1.0 to 10.0)	2.0 (1.0 to 10.0)	2.0 (1.0 to 10.0)
Unintended weight loss			
n	137	234	371
Mean ± SD	2.4 ± 2.5	1.8 ± 1.7	2.0 ± 2.0
Median (range)	1.0 (1.0 to 10.0)	1.0 (1.0 to 10.0)	1.0 (1.0 to 10.0)
Fever (> 38°C)			
n	135	228	363
Mean ± SD	1.1 ± 0.4	1.1 ± 0.5	1.1 ± 0.5
Median (range)	1.0 (1.0 to 3.0)	1.0 (1.0 to 7.0)	1.0 (1.0 to 7.0)

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase, MPN = Myeloproliferative Neoplasm, SD = Standard Deviation, TSS = Total Symptom Score

Patients scored symptoms on a scale from 0 to 10, with 10 being the "worst imaginable" symptom severity. TSS was computed as the average of the observed items multiplied by 10.

Molecular results at Baseline

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Assessment of JAK2V617F mutation done? n (%)			
No	23 (13.9)	34 (12.7)	57 (13.2)
Yes	142 (86.1)	234 (87.3)	376 (86.8)
Result, n (%)			
Negative	3 (2.1)	6 (2.6)	9 (2.4)
Positive	139 (97.9)	225 (96.2)	364 (96.8)
Unknown/not determined	-	3 (1.3)	3 (0.8)

Abbreviations: AS = Analysis Set, JAK = Janus Kinase

Constitutional symptoms at Baseline

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Symptoms overall	83 (50.3)	114 (42.5)	197 (45.5)
Fatigue	49 (29.7)	55 (20.5)	104 (24.0)
Pruritus	41 (24.8)	63 (23.5)	104 (24.0)
Night sweat	23 (13.9)	27 (10.1)	50 (11.5)
Weight loss	11 (6.7)	10 (3.7)	21 (4.8)
Headache	7 (4.2)	8 (3.0)	15 (3.5)
Insomnia	6 (3.6)	7 (2.6)	13 (3.0)
Fever	1 (0.6)	-	1 (0.2)
Other	21 (12.7)	34 (12.7)	55 (12.7)

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase

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ECOG performance status at Baseline

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
ECOG performance status, n (%)			
0	60 (45.5)	108 (56.0)	168 (51.7)
1	65 (49.2)	71 (36.8)	136 (41.8)
2	7 (5.3)	11 (5.7)	18 (5.5)
3	-	3 (1.6)	3 (0.9)
4	-	-	-
5	-	-	-
Not done	33	75	108

Abbreviations: AS = Analysis Set, BL = Baseline, ECOG = Eastern Cooperative Oncology Group, JAK = Janus Kinase
The ECOG performance status ranges from 0 to 5 where 0 = fully active, able to carry on all pre-disease performance witho
restriction, 1= restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary
nature, e.g., light house work, office work, 2 = ambulatory and capable of all selfcare but unable to carry out any work
activities; up and about more than 50% of waking hours, 3 = capable of only limited selfcare; confined to bed or chair more
than 50% of waking hours, 4 = completely disabled; cannot carry on any selfcare; totally confined to bed or chair, 5 = dead.

Bone marrow aspiration

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Examination performed, n (%)			
No	55 (33.3)	84 (31.3)	139 (32.1)
Yes	110 (66.7)	184 (68.7)	294 (67.9)
Time since biopsy (months)			
n	108	180	288
Mean ± SD	73.4 ± 63.2	75.5 ± 62.9	74.7 ± 62.9
Median (range)	60.4 (0.3 to 268.9)	62.0 (0.3 to 274.8)	61.3 (0.3 to 274.8)
Blasts (%)			
n	72	98	170
Mean ± SD	1.8 ± 2.6	1.3 ± 2.5	1.5 ± 2.6
Median (range)	0.0 (0.0 to 15.0)	0.0 (0.0 to 15.0)	0.0 (0.0 to 15.0)
Blasts, n (%)			
0	38 (52.8)	61 (62.2)	99 (58.2)
> 0	34 (47.2)	37 (37.8)	71 (41.8)
Missing value	38	86	124
Proliferation of all three blood cell lines[a] present, n (%)			
No	13 (11.8)	23 (12.5)	36 (12.2)
Yes	49 (44.5)	95 (51.6)	144 (49.0)
Not evaluable	-	3 (1.6)	3 (1.0)
Unknown/not determined	48 (43.6)	63 (34.2)	111 (37.8)
Reticulin- and/or collagen fibrosis, n (%)			
No	33 (30.0)	51 (27.7)	84 (28.6)
Yes	13 (11.8)	33 (17.9)	46 (15.6)
Not evaluable	-	3 (1.6)	3 (1.0)
Unknown/not determined	64 (58.2)	97 (52.7)	161 (54.8)
Grade of fibrosis, n (%)			
Grade 0	2 (15.4)	1 (3.0)	3 (6.5)
Grade 1	7 (53.8)	22 (66.7)	29 (63.0)

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Grade 2	1 (7.7)	2 (6.1)	3 (6.5)
Grade 3	-	1 (3.0)	1 (2.2)
Not evaluable	3 (23.1)	7 (21.2)	10 (21.7)

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase, SD = Standard Deviation
[a] Erythrocytes, thrombocytes, leukocytes

Primary Outcome Result(s)

Dosing

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Initial and last daily dose of ruxolitinib

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Initial daily dose (mg)			
n	165	267	432
Mean ± SD	21.4 ± 7.2	23.1 ± 9.8	22.4 ± 8.9
Median (range)	20.0 (10.0 to 40.0)	20.0 (0.0 to 50.0)	20.0 (0.0 to 50.0)
Initial daily dose, n (%)			
20 mg	112 (67.9)	117 (43.8)	229 (53.0)
30 mg	20 (12.1)	51 (19.1)	71 (16.4)
10 mg	20 (12.1)	37 (13.9)	57 (13.2)
40 mg	12 (7.3)	39 (14.6)	51 (11.8)
15 mg	1 (0.6)	11 (4.1)	12 (2.8)
5 mg	-	5 (1.9)	5 (1.2)
36 mg	-	2 (0.7)	2 (0.5)
0 mg	-	1 (0.4)	1 (0.2)
3 mg	-	1 (0.4)	1 (0.2)
16 mg	-	1 (0.4)	1 (0.2)
26 mg	-	1 (0.4)	1 (0.2)
50 mg	-	1 (0.4)	1 (0.2)
Missing values	-	1	1
Last daily dose (mg)			
n	165	268	433
Mean ± SD	22.8 ± 10.3	21.6 ± 10.2	22.1 ± 10.2
Median (range)	20.0 (5.0 to 50.0)	20.0 (3.0 to 50.0)	20.0 (3.0 to 50.0)
Last daily dose, n (%)			
20 mg	71 (43.0)	98 (36.6)	169 (39.0)
10 mg	29 (17.6)	51 (19.0)	80 (18.5)
30 mg	25 (15.2)	54 (20.1)	79 (18.2)
40 mg	28 (17.0)	28 (10.4)	56 (12.9)

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
5 mg	4 (2.4)	11 (4.1)	15 (3.5)
15 mg	4 (2.4)	16 (6.0)	20 (4.6)
50 mg	1 (0.6)	3 (1.1)	4 (0.9)
14 mg	2 (1.2)	-	2 (0.5)
25 mg	1 (0.6)	1 (0.4)	2 (0.5)
3 mg	-	1 (0.4)	1 (0.2)
6 mg	-	1 (0.4)	1 (0.2)
7 mg	-	1 (0.4)	1 (0.2)
24 mg	-	1 (0.4)	1 (0.2)
35 mg	-	1 (0.4)	1 (0.2)
36 mg	-	1 (0.4)	1 (0.2)
0 mg	-	-	-

Abbreviations: AS = Analysis Set, JAK = Janus Kinase, SD = Standard Deviation

Average ruxolitinib dose per day and treatment duration

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Treatment duration (months)			
n	165	268	433
Mean ± SD	27.5 ± 11.9	28.5 ± 10.9	28.1 ± 11.3
Median (range)	34.0 (0.2 to 45.6)	34.5 (0.0 to 40.0)	34.5 (0.0 to 45.6)
Average dose/day (mg)			
n	165	268	433
Mean ± SD	22.8 ± 8.3	22.0 ± 9.6	22.3 ± 9.1
Median (range)	20.0 (5.6 to 45.7)	20.0 (3.9 to 47.9)	20.0 (3.9 to 47.9)

Abbreviations: AS = Analysis Set, JAK = Janus Kinase, SD = Standard Deviation

Adjustment of the dose of ruxolitinib

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Number of dose adjustments per patient, n (%)			
0	46 (27.9)	78 (29.1)	124 (28.6)
1	31 (18.8)	59 (22.0)	90 (20.8)
2	30 (18.2)	48 (17.9)	78 (18.0)
3	12 (7.3)	31 (11.6)	43 (9.9)
4	16 (9.7)	22 (8.2)	38 (8.8)
5	10 (6.1)	7 (2.6)	17 (3.9)
6	6 (3.6)	5 (1.9)	11 (2.5)
7	4 (2.4)	6 (2.2)	10 (2.3)
8	2 (1.2)	4 (1.5)	6 (1.4)
9	2 (1.2)	3 (1.1)	5 (1.2)
10	3 (1.8)	1 (0.4)	4 (0.9)
11	1 (0.6)	-	1 (0.2)
12	-	2 (0.7)	2 (0.5)
13	-	2 (0.7)	2 (0.5)
14	1 (0.6)	-	1 (0.2)
19	1 (0.6)	-	1 (0.2)
Reason for dose adjustment[a], n (%)			
Adverse event	128 (31.1)	146 (26.3)	274 (28.4)
Thrombocytopenia	10 (2.4)	21 (3.8)	31 (3.2)
Kidney dysfunction	-	1 (0.2)	1 (0.1)
Liver dysfunction	-	2 (0.4)	2 (0.2)
Concomitant medication	-	-	-
Lack of efficacy	21 (5.1)	20 (3.6)	41 (4.2)
Other	252 (61.3)	365 (65.8)	617 (63.9)

Abbreviations: AS = Analysis Set, JAK = Janus Kinase, SD = Standard Deviation
[a] Percentages were calculated on the basis of total number of adjustments.

Overall survival

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Table 10-4: Overall survival

AS	JAK-inhibitor naive (N=165) n (%)	JAK-inhibitor pretreated (N=268) n (%)	Total (N=433) n (%)
Status			
Death	11 (6.7)	28 (10.4)	39 (9.0)
Survival	154 (93.3)	240 (89.6)	394 (91.0)
Kaplan-Meier estimates for survival and 95% CI			
Month 6	0.99 [0.95; 1.00]	0.98 [0.95; 0.99]	0.99 [0.97; 0.99]
Month 12	0.97 [0.93; 0.99]	0.96 [0.92; 0.98]	0.96 [0.94; 0.98]
Month 18	0.97 [0.92; 0.99]	0.94 [0.91; 0.97]	0.95 [0.92; 0.97]
Month 24	0.96 [0.91; 0.98]	0.93 [0.89; 0.96]	0.94 [0.91; 0.96]
Month 30	0.95 [0.90; 0.98]	0.91 [0.86; 0.94]	0.92 [0.89; 0.95]
Month 36	0.91 [0.84; 0.95]	0.87 [0.82; 0.91]	0.89 [0.85; 0.92]

Abbreviations: AS = Analysis Set, CI = Confidence Interval, JAK = Janus Kinase
All cases documented on AE-page and end of treatment page were considered.
In case of missing death date, the death date was replaced by last visit.
Note: There are some cases of deaths included which occurred after end of treatment.

Interruption of ruxolitinib therapy

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Number of interruptions per patient, n (%)			
0	138 (83.6)	219 (81.7)	357 (82.4)
1	15 (9.1)	40 (14.9)	55 (12.7)
2	8 (4.8)	5 (1.9)	13 (3.0)
3	1 (0.6)	3 (1.1)	4 (0.9)
4	2 (1.2)	-	2 (0.5)
5	-	1 (0.4)	1 (0.2)
6	1 (0.6)	-	1 (0.2)
Reason for interruptions[a], n (%)			
Adverse event	29 (60.4)	39 (60.9)	68 (60.7)
Thrombocytopenia	2 (4.2)	4 (6.3)	6 (5.4)
Kidney dysfunction	-	1 (1.6)	1 (0.9)
Liver dysfunction	-	-	-
Concomitant medication	-	-	-
Lack of efficacy	-	-	-
Other	17 (35.4)	20 (31.3)	37 (33.0)
Total duration of interruptions (days)			
n	27	49	76
Mean ± SD	42.6 ± 54.7	45.5 ± 45.6	44.5 ± 48.7
Median (range)	23.0 (2.0 to 206.0)	26.0 (1.0 to 169.0)	24.0 (1.0 to 206.0)

Abbreviations: AS = Analysis Set, JAK = Janus Kinase, SD = Standard Deviation
[a] Percentages were calculated on the basis of total number of interruptions.

Hematology

Course of hematocrit levels (%) and difference to BL for JAK-inhibitor naïve and JAK-inhibitor pretreated patients (adjusted by 1st visit in the study)

AS	JAK-inhibitor naïve (N=165)						JAK-inhibitor pretreated (N=268)						Total (N=433)					
	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max
Course																		
BL	160	43.1	6.4	24.0	44.3	62.7	253	38.9	6.0	23.9	39.0	57.2	413	40.5	6.5	23.9	40.7	62.7
Month 1	138	41.3	5.6	25.1	41.3	56.7	154	38.1	6.0	25.2	38.1	54.0	292	39.6	6.0	25.1	40.0	56.7
Month 2	107	38.0	6.0	23.5	38.7	51.0	145	37.9	5.9	24.4	38.2	50.3	252	38.0	5.9	23.5	38.3	51.0
Month 3	133	36.6	6.1	22.6	35.9	52.9	208	37.5	5.6	22.9	37.5	50.6	341	37.2	5.8	22.6	37.0	52.9
Month 6	139	37.1	6.1	24.9	36.8	55.0	224	37.5	5.3	23.0	37.5	54.0	363	37.4	5.6	23.0	37.1	55.0
Month 9	128	37.0	5.9	24.3	36.8	58.0	208	38.2	5.4	20.4	38.0	57.0	336	37.7	5.6	20.4	37.6	58.0
Month 12	136	37.1	5.6	24.0	36.8	50.3	212	38.3	5.1	23.2	38.0	52.6	348	37.8	5.3	23.2	37.5	52.6
Month 18	127	37.1	5.8	22.9	37.5	54.6	198	38.6	5.4	19.5	38.3	55.3	325	38.0	5.6	19.5	38.0	55.3
Month 24	116	37.4	5.6	25.0	37.6	53.3	190	38.3	5.0	22.4	38.0	52.8	306	37.9	5.3	22.4	38.0	53.3
Month 30	101	37.7	5.2	25.1	38.2	50.4	155	38.3	5.1	25.1	38.0	50.3	256	38.1	5.1	25.1	38.0	50.4
Month 36	89	36.6	4.8	26.0	36.6	47.1	148	38.3	5.1	23.8	38.7	52.0	237	37.7	5.1	23.8	37.7	52.0
Last pBL	161	36.9	5.7	24.1	36.8	58.0	263	37.4	5.8	22.7	37.9	52.0	424	37.2	5.7	22.7	37.2	58.0
Difference to BL																		
Month 1	135	-1.9	4.4	-15.9	-2.0	13.7	149	-1.2	4.0	-16.6	-0.7	14.0	284	-1.5	4.2	-16.6	-1.0	14.0
Month 2	105	-5.4	5.3	-21.7	-5.2	7.4	143	-1.5	5.7	-28.0	-0.1	14.0	248	-3.1	5.9	-28.0	-2.0	14.0
Month 3	129	-6.3	7.2	-25.7	-6.5	12.9	197	-1.3	5.0	-22.1	-0.8	15.4	326	-3.3	6.5	-25.7	-2.0	15.4
Month 6	136	-6.2	6.6	-25.6	-6.1	13.0	213	-1.7	5.6	-22.7	-1.0	12.6	349	-3.5	6.4	-25.6	-2.5	13.0
Month 9	125	-6.2	6.7	-28.7	-6.8	11.4	200	-1.2	5.6	-19.2	-0.8	15.6	325	-3.1	6.6	-28.7	-2.5	15.6
Month 12	133	-6.4	6.4	-24.4	-6.4	9.3	202	-1.2	5.6	-18.0	-1.4	12.7	335	-3.3	6.4	-24.4	-2.7	12.7
Month 18	124	-6.6	7.0	-26.3	-7.0	14.0	187	-0.8	5.4	-18.0	-0.4	15.5	311	-3.1	6.7	-26.3	-2.8	15.5
Month 24	114	-6.3	6.7	-24.4	-6.7	8.1	180	-1.3	5.4	-17.0	-1.2	12.0	294	-3.2	6.4	-24.4	-2.5	12.0
Month 30	99	-5.6	6.5	-27.5	-6.0	9.8	146	-1.7	6.0	-18.0	-2.1	16.0	245	-3.3	6.5	-27.5	-3.1	16.0
Month 36	87	-6.9	6.3	-24.6	-7.3	7.0	141	-1.6	5.8	-19.0	-1.8	17.0	228	-3.7	6.5	-24.6	-4.0	17.0
Last pBL	157	-6.2	6.7	-27.5	-6.1	12.9	251	-1.6	5.7	-19.0	-1.8	17.0	408	-3.4	6.5	-27.5	-3.0	17.0

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase, Med = Median, pBL = post Baseline, SD = Standard Deviation

Course of hematocrit levels (%) and difference to BL by risk classification (adjusted by 1st application of ruxolitinib)

AS		No high risk (N=49)						High risk (N=384)						Total (N=433)				
	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max
Course																		
BL	20	44.6	7.0	24.0	45.9	54.0	140	42.8	6.3	24.0	44.0	62.7	160	43.1	6.4	24.0	44.3	62.7
Month 1	24	43.5	4.7	33.6	43.3	57.2	181	41.0	5.7	23.9	41.0	56.7	205	41.3	5.7	23.9	41.2	57.2
Month 2	20	40.6	4.8	32.8	40.9	48.7	149	37.9	6.0	23.5	38.2	51.0	169	38.2	6.0	23.5	38.5	51.0
Month 3	31	39.3	5.9	25.6	40.4	52.9	215	36.5	5.7	22.6	36.0	51.0	246	36.9	5.8	22.6	36.5	52.9
Month 6	35	40.1	6.2	26.5	39.9	55.0	230	36.8	5.8	22.9	36.7	53.0	265	37.2	6.0	22.9	37.0	55.0
Month 9	33	40.0	6.0	30.8	39.6	58.0	228	37.0	5.7	23.1	36.8	54.0	261	37.4	5.8	23.1	37.0	58.0
Month 12	33	39.7	4.4	28.0	39.2	47.1	255	37.5	5.5	23.3	37.3	51.2	288	37.8	5.5	23.3	37.8	51.2
Month 18	33	39.2	4.8	24.4	38.9	49.0	257	37.9	5.6	19.5	38.0	54.6	290	38.0	5.6	19.5	38.0	54.6
Month 24	33	40.7	5.0	29.1	40.3	50.0	245	37.9	5.5	22.4	38.0	57.0	278	38.2	5.5	22.4	38.0	57.0
Month 30	32	40.9	3.9	35.2	40.7	51.5	223	37.9	5.3	22.7	38.2	52.6	255	38.3	5.2	22.7	38.5	52.6
Month 36	32	39.3	4.0	26.5	39.0	47.0	229	37.4	5.4	24.2	37.4	53.7	261	37.6	5.3	24.2	37.7	53.7
Month 48	7	38.7	2.9	33.7	38.5	42.0	71	37.4	4.9	25.3	37.1	48.7	78	37.5	4.8	25.3	37.3	48.7
Month 60	5	39.3	7.0	30.6	42.0	46.0	40	37.6	5.2	23.9	38.0	45.6	45	37.8	5.3	23.9	38.0	46.0
Month 72	3	37.4	5.4	31.2	40.0	41.0	20	37.3	6.1	22.6	37.3	52.0	23	37.3	5.9	22.6	38.0	52.0
Last pBL	48	39.2	5.8	24.4	39.4	58.0	378	37.0	5.7	22.6	37.0	53.3	426	37.3	5.8	22.6	37.3	58.0
Difference to BL																		
Month 1	18	-1.6	5.2	-10.5	-2.3	13.7	119	-2.0	4.2	-15.9	-1.7	8.0	137	-1.9	4.3	-15.9	-2.0	13.7
Month 2	13	-4.3	5.2	-10.8	-6.3	2.9	92	-5.6	5.6	-21.7	-5.3	7.4	105	-5.4	5.5	-21.7	-5.4	7.4
Month 3	18	-5.8	7.6	-17.7	-7.2	12.9	110	-6.4	7.1	-25.7	-6.3	10.9	128	-6.4	7.1	-25.7	-6.6	12.9
Month 6	19	-5.7	5.9	-22.5	-5.4	2.7	118	-6.2	6.7	-25.6	-6.4	13.0	137	-6.1	6.6	-25.6	-6.1	13.0
Month 9	15	-6.0	5.2	-12.9	-6.7	4.0	109	-6.3	6.9	-28.7	-6.9	11.4	124	-6.3	6.7	-28.7	-6.8	11.4
Month 12	14	-7.2	4.9	-19.5	-7.4	-0.9	118	-6.3	6.6	-24.4	-6.2	9.3	132	-6.4	6.4	-24.4	-6.3	9.3
Month 18	14	-7.4	4.7	-17.7	-7.5	1.8	110	-6.5	7.2	-26.3	-7.0	14.0	124	-6.6	7.0	-26.3	-7.0	14.0
Month 24	14	-5.6	5.2	-18.4	-5.4	3.0	100	-6.4	6.9	-24.4	-6.8	8.1	114	-6.3	6.7	-24.4	-6.7	8.1
Month 30	13	-5.6	3.2	-10.4	-5.7	-1.0	85	-5.6	6.8	-27.5	-6.0	9.8	98	-5.6	6.5	-27.5	-6.0	9.8
Month 36	13	-8.0	4.7	-21.0	-6.0	-4.1	74	-6.7	6.5	-24.6	-7.4	7.0	87	-6.9	6.3	-24.6	-7.3	7.0
Last pBL	20	-5.3	6.6	-21.0	-5.5	12.9	137	-6.3	6.7	-27.5	-6.6	8.1	157	-6.2	6.7	-27.5	-6.1	12.9

Abbreviations: AS = Analysis Set, BL = Baseline, Med = Median, pBL = post Baseline, SD = Standard Deviation

Course of erythrocyte counts (10_6/µl) and difference to BL for JAK-inhibitor naïve and JAK-inhibitor pretreated

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patients (adjusted by 1st visit in the study)

AS	JAK-inhibitor naïve (N=165)						JAK-inhibitor pretreated (N=268)						Total (N=433)					
	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max
Course																		
BL	157	5.1	1.2	2.1	5.1	7.8	237	4.5	1.0	2.5	4.4	8.2	394	4.7	1.1	2.1	4.6	8.2
Month 1	134	5.0	1.1	2.5	5.0	7.8	142	4.5	1.1	2.5	4.4	7.5	276	4.8	1.1	2.5	4.6	7.8
Month 2	106	4.6	1.1	2.5	4.5	7.6	140	4.4	0.9	2.6	4.3	7.7	246	4.5	1.0	2.5	4.4	7.7
Month 3	131	4.3	1.0	2.3	4.2	8.1	193	4.3	0.8	2.5	4.2	7.1	324	4.3	0.9	2.3	4.2	8.1
Month 6	137	4.3	0.9	2.6	4.1	8.2	211	4.3	0.8	2.5	4.3	7.6	348	4.3	0.9	2.5	4.2	8.2
Month 9	127	4.2	0.8	2.6	4.1	7.2	198	4.4	0.8	2.3	4.2	8.0	325	4.3	0.8	2.3	4.2	8.0
Month 12	135	4.2	0.8	2.4	4.2	6.7	202	4.4	0.8	2.5	4.3	8.0	337	4.3	0.8	2.4	4.3	8.0
Month 18	125	4.2	0.8	2.3	4.2	6.4	187	4.4	0.8	2.1	4.3	8.1	312	4.3	0.8	2.1	4.2	8.1
Month 24	117	4.2	0.8	2.6	4.1	7.4	179	4.3	0.7	2.5	4.2	7.5	296	4.3	0.7	2.5	4.2	7.5
Month 30	105	4.2	0.7	2.7	4.2	6.0	147	4.3	0.8	2.7	4.2	8.4	252	4.3	0.8	2.7	4.2	8.4
Month 36	87	4.0	0.6	2.5	4.0	5.8	142	4.3	0.8	2.6	4.3	8.2	229	4.2	0.7	2.5	4.2	8.2
Last pBL	160	4.1	0.8	2.5	4.0	7.4	249	4.2	0.8	2.5	4.2	8.2	409	4.2	0.8	2.5	4.1	8.2
Difference to BL																		
Month 1	131	-0.2	0.6	-2.2	-0.2	2.4	133	-0.2	0.5	-1.8	-0.1	0.8	264	-0.2	0.5	-2.2	-0.1	2.4
Month 2	103	-0.6	0.7	-2.4	-0.6	0.7	133	-0.2	0.7	-3.9	-0.0	1.1	236	-0.4	0.7	-3.9	-0.2	1.1
Month 3	126	-0.8	1.1	-3.2	-0.8	2.5	181	-0.2	0.7	-2.8	-0.1	1.5	307	-0.4	0.9	-3.2	-0.2	2.5
Month 6	133	-0.9	1.2	-4.8	-0.9	2.2	196	-0.3	0.9	-2.9	-0.1	1.5	329	-0.5	1.1	-4.8	-0.3	2.2
Month 9	122	-1.0	1.2	-4.4	-0.9	2.0	187	-0.2	0.9	-3.5	-0.1	2.5	309	-0.5	1.1	-4.4	-0.3	2.5
Month 12	131	-1.0	1.2	-4.5	-1.0	1.7	189	-0.2	0.9	-2.9	-0.1	2.6	320	-0.5	1.1	-4.5	-0.3	2.6
Month 18	121	-1.0	1.2	-4.4	-1.0	1.8	175	-0.2	0.9	-3.0	-0.1	2.2	296	-0.5	1.1	-4.4	-0.3	2.2
Month 24	112	-1.0	1.2	-4.1	-1.0	2.0	168	-0.3	0.9	-3.0	-0.2	1.9	280	-0.6	1.1	-4.1	-0.4	2.0
Month 30	101	-1.0	1.2	-5.1	-1.0	1.6	138	-0.3	1.0	-3.2	-0.2	2.4	239	-0.6	1.1	-5.1	-0.5	2.4
Month 36	84	-1.2	1.1	-3.7	-1.2	1.3	132	-0.4	1.0	-3.5	-0.2	2.6	216	-0.7	1.1	-3.7	-0.5	2.6
Last pBL	154	-1.0	1.2	-5.1	-0.9	2.5	232	-0.3	1.0	-3.5	-0.2	2.6	386	-0.6	1.1	-5.1	-0.5	2.6

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase, Med = Median, pBL = post Baseline, SD = Standard Deviation

Course of erythrocyte counts (10^6/µl) and difference to BL by risk classification (adjusted by 1st application of

ruxolitinib)

AS	No high risk (N=49)						High risk (N=384)						Total (N=433)					
	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max
Course																		
BL	20	5.3	1.2	2.2	5.6	7.4	137	5.0	1.2	2.1	5.1	7.8	157	5.1	1.2	2.1	5.1	7.8
Month 1	22	5.2	1.1	3.3	5.4	7.2	178	4.9	1.1	2.5	5.0	7.8	200	4.9	1.1	2.5	5.0	7.8
Month 2	19	4.9	1.0	3.4	4.9	7.6	146	4.6	1.0	2.5	4.5	7.0	165	4.6	1.0	2.5	4.5	7.6
Month 3	29	4.7	1.1	2.8	4.5	8.1	209	4.3	0.9	2.3	4.2	6.8	238	4.3	0.9	2.3	4.2	8.1
Month 6	33	4.6	1.0	3.0	4.5	8.2	222	4.2	0.9	2.5	4.1	7.1	255	4.3	0.9	2.5	4.2	8.2
Month 9	32	4.5	0.8	3.4	4.3	7.2	220	4.2	0.8	2.6	4.1	6.9	252	4.3	0.8	2.6	4.1	7.2
Month 12	30	4.5	0.7	3.1	4.4	6.2	248	4.3	0.8	2.4	4.2	7.6	278	4.3	0.8	2.4	4.2	7.6
Month 18	31	4.5	0.9	2.8	4.3	8.0	247	4.3	0.8	2.1	4.3	8.2	278	4.3	0.8	2.1	4.3	8.2
Month 24	31	4.7	1.0	3.3	4.5	8.1	238	4.3	0.8	2.5	4.2	7.9	269	4.3	0.8	2.5	4.2	8.1
Month 30	32	4.7	0.9	3.3	4.3	7.5	216	4.3	0.7	2.7	4.2	7.4	248	4.3	0.8	2.7	4.2	7.5
Month 36	30	4.4	0.8	2.9	4.2	7.3	221	4.2	0.8	2.3	4.2	8.4	251	4.2	0.8	2.3	4.2	8.4
Month 48	6	4.2	0.3	3.6	4.3	4.4	69	4.2	0.8	2.8	4.1	6.7	75	4.2	0.7	2.8	4.2	6.7
Month 60	5	4.4	0.9	3.3	4.8	5.4	39	4.2	0.7	2.6	4.3	5.6	44	4.2	0.8	2.6	4.3	5.6
Month 72	3	4.2	0.4	3.8	4.3	4.5	19	4.3	0.8	2.8	4.2	5.7	22	4.2	0.8	2.8	4.2	5.7
Last pBL	46	4.5	1.0	2.8	4.3	7.3	365	4.2	0.8	2.5	4.1	8.4	411	4.2	0.8	2.5	4.2	8.4
Difference to BL																		
Month 1	17	-0.1	0.6	-1.1	-0.2	1.5	116	-0.2	0.6	-2.2	-0.1	2.4	133	-0.2	0.6	-2.2	-0.2	2.4
Month 2	13	-0.4	0.7	-1.5	-0.6	0.6	90	-0.6	0.7	-2.4	-0.6	0.8	103	-0.6	0.7	-2.4	-0.6	0.8
Month 3	18	-0.6	1.1	-2.3	-0.7	2.5	107	-0.8	1.1	-3.2	-0.8	1.5	125	-0.8	1.1	-3.2	-0.8	2.5
Month 6	19	-0.8	1.0	-2.6	-0.5	0.8	115	-0.9	1.2	-4.8	-0.9	2.2	134	-0.9	1.2	-4.8	-0.9	2.2
Month 9	15	-1.0	0.9	-2.9	-1.1	0.6	106	-1.0	1.3	-4.4	-0.9	2.0	121	-1.0	1.2	-4.4	-0.9	2.0
Month 12	14	-1.2	0.8	-2.8	-1.2	-0.0	116	-1.0	1.2	-4.5	-1.0	1.7	130	-1.0	1.2	-4.5	-1.0	1.7
Month 18	14	-1.2	0.9	-2.7	-1.1	0.5	107	-1.0	1.3	-4.4	-1.0	1.8	121	-1.0	1.2	-4.4	-1.0	1.8
Month 24	14	-1.1	0.8	-2.5	-0.9	0.2	98	-1.0	1.2	-4.1	-1.1	2.0	112	-1.0	1.2	-4.1	-1.0	2.0
Month 30	14	-1.1	0.8	-2.7	-1.1	0.2	86	-0.9	1.3	-5.1	-0.9	1.6	100	-1.0	1.2	-5.1	-1.0	1.6
Month 36	13	-1.4	0.8	-2.9	-1.5	-0.2	71	-1.2	1.2	-3.7	-1.2	1.3	84	-1.2	1.1	-3.7	-1.2	1.3
Last pBL	20	-0.9	1.2	-2.9	-0.9	2.5	134	-1.0	1.2	-5.1	-0.9	1.6	154	-1.0	1.2	-5.1	-0.9	2.5

Abbreviations: AS = Analysis Set, BL = Baseline, Med = Median, pBL = post Baseline, SD = Standard Deviation

Course of thrombocyte counts (10_3/µl) and difference to BL for JAK-inhibitor naïve and JAK-inhibitor pretreated

patients (adjusted by 1st visit in the study)

AS	JAK-inhibitor naïve (N=165)						JAK-inhibitor pretreated (N=268)						Total (N=433)					
	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max
Course																		
BL	139	428.3	213.6	58.0	409.0	978.0	251	388.4	202.3	56.0	342.0	991.0	390	402.6	207.0	56.0	364.0	991.0
Month 1	128	442.8	232.7	85.0	401.5	964.0	153	381.2	197.8	50.0	374.0	997.0	281	409.3	216.2	50.0	388.0	997.0
Month 2	104	394.9	197.9	53.0	369.0	977.0	148	386.4	190.8	88.0	352.0	954.0	252	389.9	193.4	53.0	355.5	977.0
Month 3	128	407.2	188.4	89.0	392.5	971.0	203	377.8	183.4	86.0	342.0	997.0	331	389.2	185.6	86.0	354.0	997.0
Month 6	137	380.8	155.9	63.0	389.0	739.0	224	357.2	165.4	65.0	335.5	894.0	361	366.2	162.1	63.0	364.0	894.0
Month 9	126	371.5	160.1	50.0	380.5	820.0	211	365.1	171.5	63.0	345.0	907.0	337	367.5	167.1	50.0	356.0	907.0
Month 12	135	352.5	158.9	52.0	340.0	780.0	214	360.8	169.1	66.0	330.0	944.0	349	357.6	165.0	52.0	333.0	944.0
Month 18	125	346.1	155.6	56.0	343.0	808.0	199	349.3	139.5	91.0	342.0	718.0	324	348.1	145.7	56.0	342.0	808.0
Month 24	116	348.1	161.2	51.0	331.0	854.0	190	351.8	162.6	53.0	329.5	994.0	306	350.4	161.8	51.0	330.0	994.0
Month 30	106	363.5	160.1	60.0	348.0	750.0	162	375.3	156.2	99.0	354.0	982.0	268	370.7	157.6	60.0	353.5	982.0
Month 36	91	355.1	167.2	76.0	348.0	958.0	155	366.2	160.6	61.0	351.0	899.0	246	362.1	162.8	61.0	348.5	958.0
Last pBL	161	368.3	175.0	66.0	348.0	958.0	264	350.1	173.0	53.0	332.0	962.0	425	357.0	173.8	53.0	335.0	962.0
Difference to BL																		
Month 1	112	-7.7	239.1	-640	-9.0	711.0	143	-11.3	143.3	-454	-2.0	565.0	255	-9.7	190.9	-640	-4.0	711.0
Month 2	88	-47.6	230.3	-635	-13.5	528.0	144	4.7	137.5	-485	8.5	465.0	232	-15.1	179.8	-635	2.5	528.0
Month 3	111	-37.6	209.6	-715	1.0	434.0	189	-16.6	158.9	-672	-4.0	561.0	300	-24.4	179.3	-715	-3.0	561.0
Month 6	120	-60.9	207.6	-734	-28.5	295.0	210	-35.2	138.0	-743	-13.0	312.0	330	-44.5	166.8	-743	-19.0	312.0
Month 9	108	-78.2	205.9	-602	-46.5	364.0	200	-32.1	156.6	-567	-18.5	556.0	308	-48.3	176.5	-602	-28.0	556.0
Month 12	117	-91.4	199.2	-688	-83.0	441.0	201	-26.9	167.5	-464	-10.0	651.0	318	-50.6	182.2	-688	-41.0	651.0
Month 18	109	-88.0	203.8	-698	-73.0	408.0	185	-35.1	158.6	-601	-11.0	400.0	294	-54.7	178.2	-698	-35.0	408.0
Month 24	101	-106	208.6	-733	-69.0	348.0	178	-37.7	157.5	-610	-13.0	494.0	279	-62.4	180.3	-733	-32.0	494.0
Month 30	93	-92.8	219.4	-717	-81.0	446.0	149	-38.5	164.9	-498	-9.0	607.0	242	-59.4	189.1	-717	-32.5	607.0
Month 36	77	-98.8	205.3	-705	-78.0	335.0	143	-32.0	177.7	-567	-29.0	516.0	220	-55.4	190.1	-705	-38.5	516.0
Last pBL	136	-80.5	204.2	-705	-69.5	446.0	249	-42.6	179.8	-743	-27.0	516.0	385	-56.0	189.4	-743	-39.0	516.0

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase, Med = Median, pBL = post Baseline, SD = Standard Deviation

Course of leukocyte counts (10_3/µl) and difference to BL for JAK-inhibitor naïve and JAK-inhibitor pretreated

patients (adjusted by 1st visit in the study)

AS	JAK-inhibitor naïve (N=165)						JAK-inhibitor pretreated (N=268)						Total (N=433)					
	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max
Course																		
BL	160	16.4	11.8	3.3	13.6	58.8	253	11.9	9.7	2.6	8.9	86.8	413	13.6	10.7	2.6	10.1	86.8
Month 1	137	13.0	10.7	1.6	9.9	81.0	154	11.7	8.5	3.1	9.0	52.9	291	12.3	9.6	1.6	9.5	81.0
Month 2	106	9.8	6.9	3.3	8.4	57.1	149	11.7	8.3	3.9	9.0	56.3	255	11.0	7.8	3.3	8.6	57.1
Month 3	130	10.7	6.7	3.4	8.8	46.8	205	12.1	8.5	3.6	9.7	51.1	335	11.6	7.9	3.4	9.1	51.1
Month 6	138	12.6	12.1	3.3	9.4	98.8	225	11.3	8.0	2.9	8.7	67.5	363	11.8	9.7	2.9	9.0	98.8
Month 9	125	11.4	6.2	3.9	9.7	38.2	211	11.0	7.8	2.6	8.5	45.9	336	11.2	7.2	2.6	9.0	45.9
Month 12	132	10.8	7.2	3.7	8.9	59.7	214	10.9	8.2	2.7	8.4	67.3	346	10.9	7.9	2.7	8.6	67.3
Month 18	125	10.4	6.7	3.4	8.7	48.9	203	10.1	8.0	1.9	7.9	77.6	328	10.2	7.5	1.9	8.2	77.6
Month 24	116	10.1	5.9	2.9	8.2	35.2	192	9.9	8.8	3.0	7.8	76.6	308	10.0	7.9	2.9	7.9	76.6
Month 30	105	10.4	7.4	3.8	8.3	52.6	162	9.1	5.5	3.2	7.6	32.1	267	9.6	6.3	3.2	7.7	52.6
Month 36	91	10.6	9.1	2.9	7.5	68.9	154	8.8	5.1	2.2	7.7	35.5	245	9.5	6.9	2.2	7.6	68.9
Last pBL	161	12.1	12.2	2.9	8.7	98.8	261	10.6	8.8	1.9	8.3	76.6	422	11.2	10.2	1.9	8.5	98.8
Difference to BL																		
Month 1	133	-3.9	9.3	-34.0	-1.8	22.4	148	-0.6	5.3	-33.9	-0.3	12.0	281	-2.2	7.6	-34.0	-0.5	22.4
Month 2	104	-5.6	8.3	-36.0	-2.9	3.8	147	-0.4	5.5	-39.3	0.1	14.5	251	-2.6	7.2	-39.3	-0.7	14.5
Month 3	126	-5.0	8.4	-35.7	-2.9	14.2	196	-0.2	6.7	-37.2	0.0	35.0	322	-2.1	7.7	-37.2	-0.5	35.0
Month 6	135	-4.0	10.1	-34.5	-2.4	40.0	215	-0.8	7.0	-46.5	-0.4	23.5	350	-2.0	8.4	-46.5	-0.8	40.0
Month 9	122	-4.5	9.3	-35.5	-2.9	13.3	204	-0.4	6.8	-51.9	-0.3	18.8	326	-2.0	8.1	-51.9	-0.6	18.8
Month 12	129	-5.2	9.3	-37.1	-3.6	26.9	207	-0.8	7.2	-53.8	-0.1	24.3	336	-2.5	8.4	-53.8	-1.0	26.9
Month 18	122	-5.6	10.1	-39.8	-3.3	30.3	195	-1.7	7.0	-53.4	-0.4	18.7	317	-3.2	8.5	-53.4	-1.4	30.3
Month 24	113	-6.1	10.5	-43.1	-3.5	20.4	185	-1.8	8.1	-54.4	-0.8	28.0	298	-3.4	9.3	-54.4	-1.3	28.0
Month 30	102	-6.0	11.0	-41.6	-3.5	37.8	154	-1.6	7.6	-53.6	-0.6	23.2	256	-3.4	9.4	-53.6	-1.4	37.8
Month 36	88	-6.3	11.3	-43.1	-3.4	27.0	147	-2.1	7.2	-53.5	-1.0	23.9	235	-3.7	9.2	-53.5	-1.6	27.0
Last pBL	157	-4.5	11.0	-43.1	-3.0	40.0	251	-1.4	7.1	-53.5	-0.9	28.0	408	-2.6	8.9	-53.5	-1.6	40.0

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase, Med = Median, pBL = post Baseline, SD = Standard Deviation

Course of leukocyte counts (10³/µl) and difference to BL by risk classification (adjusted by 1st application of ruxolitinib)

AS	No high risk (N=49)						High risk (N=384)						Total (N=433)					
	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max	n	Mean	SD	Min	Med	Max
Course																		
BL	20	13.7	11.6	5.4	10.5	46.9	140	16.8	11.8	3.3	14.2	58.8	160	16.4	11.8	3.3	13.6	58.8
Month 1	24	10.9	9.4	1.6	8.6	50.2	182	13.3	11.4	2.9	10.1	86.8	206	13.0	11.2	1.6	10.0	86.8
Month 2	20	11.0	13.4	3.3	7.8	65.3	149	10.2	7.8	2.6	8.4	57.1	169	10.3	8.6	2.6	8.4	65.3
Month 3	31	8.9	4.5	3.8	8.0	28.0	212	11.1	7.1	3.1	8.9	49.6	243	10.8	6.9	3.1	8.7	49.6
Month 6	36	11.1	12.8	4.5	7.8	82.4	228	12.5	9.8	3.3	9.9	98.8	264	12.3	10.3	3.3	9.4	98.8
Month 9	34	8.6	3.9	4.3	7.3	21.3	227	11.9	6.5	3.6	10.3	38.2	261	11.5	6.3	3.6	9.6	38.2
Month 12	33	7.7	2.9	4.3	6.8	15.6	253	11.6	8.1	3.2	9.2	67.3	286	11.2	7.8	3.2	8.9	67.3
Month 18	34	8.1	3.7	3.4	7.3	18.4	257	11.1	8.5	2.8	8.9	77.6	291	10.8	8.2	2.8	8.6	77.6
Month 24	34	8.4	4.2	4.5	7.2	20.1	245	10.6	8.3	2.9	8.2	71.7	279	10.4	7.9	2.9	8.1	71.7
Month 30	35	8.4	4.2	4.5	7.4	20.6	226	10.2	7.7	2.3	8.4	76.6	261	10.0	7.4	2.3	8.2	76.6
Month 36	33	7.9	4.1	4.3	6.7	24.8	233	10.0	7.6	2.2	7.5	68.9	266	9.8	7.3	2.2	7.4	68.9
Month 48	7	8.1	2.6	4.0	9.0	10.6	73	9.1	6.3	3.0	7.1	29.9	80	9.0	6.1	3.0	7.1	29.9
Month 60	5	15.0	17.5	3.9	8.4	46.1	42	9.7	5.5	3.1	8.9	24.7	47	10.3	7.5	3.1	8.7	46.1
Month 72	2	8.1	0.4	7.8	8.1	8.4	21	11.8	10.8	4.0	8.6	50.1	23	11.4	10.3	4.0	8.4	50.1
Last pBL	49	10.4	12.4	3.9	7.2	82.4	375	11.2	9.9	2.2	8.6	98.8	424	11.1	10.2	2.2	8.5	98.8
Difference to BL																		
Month 1	18	-3.1	8.5	-34.0	-0.3	4.4	117	-4.0	9.4	-33.1	-1.9	22.4	135	-3.9	9.2	-34.0	-1.8	22.4
Month 2	13	-0.4	6.8	-7.9	-0.1	19.5	91	-6.0	8.3	-36.0	-3.3	3.8	104	-5.3	8.3	-36.0	-3.0	19.5
Month 3	18	-3.3	4.9	-18.9	-2.6	1.1	107	-5.3	8.9	-35.7	-3.4	14.2	125	-5.0	8.4	-35.7	-2.8	14.2
Month 6	19	-1.1	11.3	-28.1	-0.6	36.6	117	-4.4	9.8	-34.5	-2.7	40.0	136	-4.0	10.0	-34.5	-2.4	40.0
Month 9	15	-4.5	7.5	-28.7	-2.9	1.1	106	-4.5	9.6	-35.5	-2.6	13.3	121	-4.5	9.4	-35.5	-2.8	13.3
Month 12	14	-3.0	3.2	-11.7	-2.0	0.1	114	-5.4	9.8	-37.1	-3.9	26.9	128	-5.2	9.4	-37.1	-3.6	26.9
Month 18	14	-5.5	8.4	-32.1	-3.8	1.3	108	-5.6	10.3	-39.8	-3.3	30.3	122	-5.6	10.1	-39.8	-3.3	30.3
Month 24	14	-5.1	7.5	-27.3	-3.6	1.9	99	-6.2	10.8	-43.1	-3.5	20.4	113	-6.1	10.5	-43.1	-3.5	20.4
Month 30	14	-5.0	7.2	-26.5	-3.1	2.6	87	-6.2	11.6	-41.6	-3.6	37.8	101	-6.0	11.1	-41.6	-3.5	37.8
Month 36	13	-6.3	8.7	-32.1	-3.8	1.0	75	-6.4	11.8	-43.1	-3.1	27.0	88	-6.3	11.3	-43.1	-3.4	27.0
Last pBL	20	-2.6	11.8	-32.1	-2.4	36.6	137	-4.8	10.9	-43.1	-3.1	40.0	157	-4.5	11.0	-43.1	-3.0	40.0

Abbreviations: AS = Analysis Set, BL = Baseline, Med = Median, pBL = post Baseline, SD = Standard Deviation

Number of phlebotomies

Total number of phlebotomies per year stratified by JAK-inhibitor naïve and JAK-inhibitor pretreated patients

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Phlebotomies			
0	134 (81.2)	229 (85.4)	363 (83.8)
>0 to ≤0.5	13 (7.9)	18 (6.7)	31 (7.2)
>0.5 to ≤1.0	6 (3.6)	5 (1.9)	11 (2.5)
>1.0 to ≤2.0	5 (3.0)	3 (1.1)	8 (1.8)
More than 2	7 (4.2)	13 (4.9)	20 (4.6)
Total number of **phlebotomies per year**			
n	162	265	427
Mean ± SD	0.3 ± 1.0	0.2 ± 1.1	0.2 ± 1.0
Median (range)	0.0 (0.0 to 11.0)	0.0 (0.0 to 13.4)	0.0 (0.0 to 13.4)

Abbreviations: AS = Analysis Set, JAK = Janus Kinase, SD = Standard Deviation

Total number of phlebotomies per year stratified by risk classification

AS Variable	No high risk (N=49)	High risk (N=384)	Total (N=433)
Phlebotomies			
0	40 (81.6)	323 (84.1)	363 (83.8)
>0 to ≤0.5	3 (6.1)	28 (7.3)	31 (7.2)
>0.5 to ≤1.0	-	11 (2.9)	11 (2.5)
>1.0 to ≤2.0	2 (4.1)	6 (1.6)	8 (1.8)
More than 2	4 (8.2)	16 (4.2)	20 (4.6)
Total number of **phlebotomies per year**			
n	49	378	427
Mean ± SD	0.5 ± 1.7	0.2 ± 0.9	0.2 ± 1.0
Median (range)	0.0 (0.0 to 11.0)	0.0 (0.0 to 13.4)	0.0 (0.0 to 13.4)

Abbreviations: AS = Analysis Set, SD = Standard Deviation

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Number of phlebotomies within the last 30 days for JAK-inhibitor naïve and JAK-inhibitor pretreated patients (adjusted by 1st visit in the study)

AS	JAK-inhibitor naïve (N=165) n (%) [a]				JAK-inhibitor pretreated (N=268) n (%) [a]				Total (N=433) n (%) [a]			
	0	1	2	>2	0	1	2	>2	0	1	2	>2
Course												
BL	120 (74.1)	34 (21.0)	7 (4.3)	1 (0.6)	237 (91.5)	19 (7.3)	2 (0.8)	1 (0.4)	357 (84.8)	53 (12.6)	9 (2.1)	2 (0.5)
Month 1	121 (87.1)	17 (12.2)	-	1 (0.7)	155 (93.9)	9 (5.5)	1 (0.6)	-	276 (90.8)	26 (8.6)	1 (0.3)	1 (0.3)
Month 2	102 (92.7)	6 (5.5)	1 (0.9)	1 (0.9)	146 (95.4)	5 (3.3)	2 (1.3)	-	248 (94.3)	11 (4.2)	3 (1.1)	1 (0.4)
Month 3	132 (97.1)	4 (2.9)	-	-	208 (97.2)	6 (2.8)	-	-	340 (97.1)	10 (2.9)	-	-
Month 6	138 (95.8)	5 (3.5)	1 (0.7)	-	224 (97.8)	5 (2.2)	-	-	362 (97.1)	10 (2.7)	1 (0.3)	-
Month 9	125 (96.9)	4 (3.1)	-	-	207 (96.7)	7 (3.3)	-	-	332 (96.8)	11 (3.2)	-	-
Month 12	133 (97.8)	2 (1.5)	1 (0.7)	-	213 (98.2)	3 (1.4)	1 (0.5)	-	346 (98.0)	5 (1.4)	2 (0.6)	-
Month 18	124 (99.2)	1 (0.8)	-	-	201 (98.0)	3 (1.5)	-	1 (0.5)	325 (98.5)	4 (1.2)	-	1 (0.3)
Month 24	116 (97.5)	3 (2.5)	-	-	193 (99.5)	1 (0.5)	-	-	309 (98.7)	4 (1.3)	-	-
Month 30	105 (99.1)	1 (0.9)	-	-	163 (98.2)	3 (1.8)	-	-	268 (98.5)	4 (1.5)	-	-
Month 36	92 (100.0)	-	-	-	149 (96.8)	5 (3.3)	-	-	241 (98.0)	5 (2.0)	-	-

Abbreviations: AS = Analysis Set, JAK = Janus Kinase
[a] Values in parenthesis are percentages per visit.

Number of phlebotomies within the last 30 days stratified by risk classification (adjusted by 1st application of ruxolitinib)

AS	No high risk (N=49) n (%)[a]				High risk (N=384) n (%)[a]				Total (N=433) n (%)[a]			
	0	1	2	>2	0	1	2	>2	0	1	2	>2
Course												
BL	13 (65.0)	7 (35.0)	-	-	107 (75.4)	27 (19.0)	7 (4.9)	1 (0.7)	120 (74.1)	34 (21.0)	7 (4.3)	1 (0.62)
Month 1	22 (91.7)	1 (4.2)	-	1 (4.2)	162 (87.1)	22 (11.8)	2 (1.1)	-	184 (87.6)	23 (11.0)	2 (1.0)	1 (0.48)
Month 2	19 (95.0)	-	-	1 (5.0)	142 (91.0)	13 (8.3)	1 (0.6)	-	161 (91.5)	13 (7.4)	1 (0.6)	1 (0.57)
Month 3	30 (96.8)	1 (3.2)	-	-	211 (95.9)	6 (2.7)	2 (0.9)	1 (0.5)	241 (96.0)	7 (2.8)	2 (0.8)	1 (0.40)
Month 6	31 (93.9)	2 (6.1)	-	-	236 (96.7)	7 (2.9)	1 (0.4)	-	267 (96.4)	9 (3.3)	1 (0.4)	-
Month 9	34 (100.0)	-	-	-	225 (96.6)	8 (3.4)	-	-	259 (97.0)	8 (3.0)	-	-
Month 12	30 (93.8)	2 (6.3)	-	-	254 (98.1)	4 (1.5)	1 (0.4)	-	284 (97.6)	6 (2.1)	1 (0.3)	-
Month 18	32 (97.0)	1 (3.0)	-	-	254 (97.3)	6 (2.3)	1 (0.4)	-	286 (97.3)	7 (2.4)	1 (0.3)	-
Month 24	33 (94.3)	2 (5.7)	-	-	246 (98.0)	4 (1.6)	-	1 (0.4)	279 (97.6)	6 (2.1)	-	1 (0.35)
Month 30	34 (97.1)	1 (2.9)	-	-	229 (99.1)	2 (0.9)	-	-	263 (98.9)	3 (1.1)	-	-
Month 36	32 (97.0)	1 (3.0)	-	-	232 (98.7)	3 (1.3)	-	-	264 (98.5)	4 (1.5)	-	-
Month 48	7 (100.0)	-	-	-	70 (98.6)	1 (1.4)	-	-	77 (98.7)	1 (1.3)	-	-
Month 60	5 (100.0)	-	-	-	40 (95.2)	2 (4.8)	-	-	45 (95.7)	2 (4.3)	-	-
Month 72	3 (100.0)	-	-	-	21 (100.0)	-	-	-	24 (100.0)	-	-	-
Month 84	-	-	-	-	-	-	-	-	-	-	-	-

Abbreviations: AS = Analysis Set, JAK = Janus Kinase
[a] Values in parenthesis are percentages per visit.

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Spleen palpation

Change in palpable spleen in JAK-inhibitor naïve patients (adjusted by 1st visit in the study)

AS Variable	Palpation performed/enlarged spleen palpable n/n	Median spleen length in cm (range), n (patients with assessment)	Median difference to BL in cm (range) n (patients with assessment
JAK-inhibitor naïve (N=165)			
BL	72/36	11.9 (1.0 to 30.0), n=27	
Month 1	27/12	10.0 (1.0 to 16.0), n=11	-2.0 (-6.0 to 11.0), n=8
Month 2	18/2	5.0 (3.0 to 10.0), n=4	-4.0 (-4.0 to -4.0), n=2
Month 3	41/13	12.0 (4.0 to 20.0), n=14	-2.0 (-10.0 to 0.0), n=8
Month 6	52/20	9.0 (3.0 to 19.0), n=14	-3.5 (-15.0 to 11.5), n=10
Month 9	47/7	5.0 (3.0 to 10.0), n=8	-4.0 (-7.0 to -1.0), n=5
Month 12	47/9	8.0 (2.0 to 13.0), n=10	-2.0 (-17.0 to -1.0), n=7
Month 18	41/12	8.0 (4.0 to 13.0), n=8	-2.0 (-7.0 to -1.0), n=7
Month 24	43/10	7.0 (4.0 to 13.0), n=11	-1.0 (-12.0 to 2.0), n=9
Month 30	26/7	5.0 (4.0 to 7.0), n=5	-3.0 (-14.0 to -2.0), n=5
Month 36	22/5	5.0 (3.0 to 7.0), n=4	-2.5 (-16.0 to -2.0), n=4
Last post BL visit	47/23	10.0 (1.0 to 18.0), n=30	-2.0 (-16.0 to 11.5), n=15

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase

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Change in palpable spleen in JAK-inhibitor pretreated patients (adjusted by 1st visit in the study)

AS Variable	Palpation performed/enlarged spleen palpable n/n	Median spleen length in cm (range), n (patients with assessment)	Median difference to BL in cm (range) n (patients with assessment)
JAK-inhibitor **pretreated (N=268)**			
BL	85/26	12.0 (0.5 to 20.4), n=23	
Month 1	26/6	14.8 (1.0 to 19.5), n=6	0.0 (0.0 to 2.4), n=3
Month 2	21/7	5.0 (1.0 to 20.0), n=7	0.0 (-3.0 to 8.3), n=3
Month 3	50/8	10.0 (3.0 to 20.0), n=9	4.4 (0.0 to 10.0), n=4
Month 6	58/14	13.4 (3.0 to 22.6), n=8	-1.8 (-3.0 to 9.0), n=3
Month 9	58/12	6.2 (1.0 to 11.0), n=4	-3.0 (-5.0 to -1.0), n=2
Month 12	63/13	9.8 (1.0 to 16.5), n=10	-1.0 (-15.4 to 0.0), n=5
Month 18	52/7	9.7 (2.0 to 15.0), n=4	8.3 (8.3 to 8.3), n=1
Month 24	47/6	12.0 (2.0 to 15.6), n=7	-1.5 (-4.0 to 0.0), n=3
Month 30	44/4	12.0 (3.0 to 15.0), n=5	-3.0 (-13.9 to 0.0), n=3
Month 36	48/6	-	-
Last post BL visit	70/26	11.0 (1.0 to 22.6), n=33	0.0 (-13.9 to 9.0), n=12

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase

Sonography

Change in spleen length (by sonography) in JAK-inhibitor naïve patients (adjusted by 1st visit in the study)

AS

Variable	Sonography performed n	Median spleen length in cm (range), n (patients with assessment)	Median difference to BL in cm (range) n (patients with assessment
JAK-inhibitor naïve (N=165)			
BL	78	15.9 (9.0 to 30.0), n=73	
Month 1	22	16.3 (11.0 to 22.0), n=20	-2.3 (-12.0 to 0.0), n=12
Month 2	16	13.4 (9.9 to 19.0), n=16	-2.3 (-6.0 to -0.3), n=11
Month 3	47	14.0 (8.8 to 23.0), n=40	-1.5 (-8.0 to 1.0), n=23
Month 6	47	15.1 (7.0 to 23.0), n=41	-2.0 (-7.5 to 0.6), n=31
Month 9	57	13.1 (8.0 to 29.0), n=48	-2.5 (-12.0 to 4.0), n=28
Month 12	48	13.0 (7.4 to 21.9), n=42	-2.5 (-8.5 to 2.9), n=27
Month 18	52	13.6 (7.7 to 22.8), n=45	-2.5 (-8.5 to 2.0), n=33
Month 24	53	13.5 (8.0 to 21.0), n=47	-2.8 (-9.0 to 1.8), n=36
Month 30	36	14.0 (9.4 to 20.0), n=32	-2.3 (-9.4 to 1.1), n=26
Month 36	32	12.7 (7.6 to 19.0), n=26	-2.5 (-10.8 to 0.3), n=18
Last post BL visit	56	12.9 (7.0 to 29.0), n=96	-2.4 (-10.8 to 4.0), n=54

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase

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Change in spleen length (by sonography) in JAK-inhibitor pretreated patients (adjusted by 1st visit in the study)

AS

Variable	Sonography performed n	Median spleen length in cm (range), n (patients with assessment)	Median difference to BL in cm (range) n (patients with assessment
JAK-inhibitor pretreated (N=268)			
BL	90	14.3 (6.7 to 30.0), n=77	
Month 1	21	12.8 (9.0 to 25.0), n=21	-0.6 (-3.2 to 0.1), n=9
Month 2	13	14.7 (9.5 to 26.0), n=11	-3.1 (-4.4 to 1.6), n=7
Month 3	45	13.0 (7.7 to 21.0), n=37	-0.4 (-6.5 to 1.0), n=21
Month 6	59	14.0 (8.5 to 30.0), n=49	-0.8 (-5.7 to 2.7), n=29
Month 9	65	13.3 (8.0 to 27.0), n=56	0.0 (-8.0 to 8.2), n=23
Month 12	64	13.4 (8.2 to 26.0), n=57	-0.9 (-10.0 to 3.4), n=30
Month 18	55	13.0 (7.0 to 22.0), n=47	-1.5 (-7.0 to 7.0), n=23
Month 24	49	12.4 (8.7 to 19.4), n=42	-1.8 (-8.0 to 4.9), n=14
Month 30	54	12.8 (8.0 to 20.5), n=42	-1.7 (-6.0 to 1.5), n=22
Month 36	44	11.6 (9.7 to 21.5), n=38	-1.3 (-7.0 to 7.2), n=18
Last post BL visit	65	13.0 (8.0 to 30.0), n=132	-1.0 (-10.0 to 7.2), n=56

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase

MPN10 questionnaire

Course of MPN10 TSS and difference to BL for JAK-inhibitor naïve and JAK-inhibitor pretreated patients (adjusted by 1st visit in the study)

AS	JAK-inhibitor naïve (N=165)							JAK-inhibitor pretreated (N=268)							
	n	Mean	SD	Min	Med	Max	p-value[a]	n	Mean	SD	Min	Med	Max	p-value[a]	p-value[b]
Course															
BL	138	30.0	14.7	8.0	28.0	83.0		237	26.5	12.7	1.0	24.0	65.0		0.0153
Month 1	118	23.9	11.4	7.0	22.0	57.0		135	27.3	14.0	5.0	24.0	73.0		0.0411
Month 3	79	25.2	12.7	4.0	23.0	56.0		114	26.3	12.6	2.0	24.5	68.0		0.5609
Month 6	106	24.5	12.7	10.0	20.0	61.0		158	25.6	12.8	0.0	23.0	69.0		0.4638
Month 12	81	24.4	10.9	6.0	20.0	51.1		130	26.0	13.1	10.0	22.5	70.0		0.3437
Month 24	73	24.6	13.0	1.0	20.0	63.0		122	27.4	13.1	10.0	25.0	66.0		0.1564
Month 36	48	23.9	11.5	10.0	22.0	58.0		90	27.0	12.8	10.0	26.0	70.0		0.1646
Last pBL	138	25.4	12.6	10.0	21.5	63.0		232	27.2	13.0	10.0	26.0	73.0		0.1829
Difference to BL															
Month 1	111	-5.9	11.6	-41.0	-3.0	24.0	<.0001	129	-0.2	11.2	-32.0	0.0	58.7	0.8160	0.0002
Month 3	71	-5.9	13.0	-37.0	-5.0	24.0	0.0003	114	-0.3	9.5	-29.0	0.0	22.0	0.6987	0.0010
Month 6	97	-6.0	13.9	-45.0	-5.0	23.0	<.0001	154	-1.4	9.9	-30.0	-1.0	31.0	0.0836	0.0023
Month 12	72	-5.9	12.9	-42.0	-4.5	26.7	0.0003	126	0.0	11.3	-33.0	-1.0	42.0	0.9621	0.0009
Month 24	66	-5.7	14.6	-48.0	-4.0	24.0	0.0023	114	1.1	12.4	-27.0	0.2	41.1	0.3395	0.0011
Month 36	43	-7.1	12.5	-49.0	-4.0	18.0	0.0006	84	1.9	11.9	-27.0	2.0	38.0	0.1388	0.0001
Last pBL	126	-4.8	13.3	-49.0	-4.0	26.7	<.0001	220	0.9	12.0	-30.0	0.0	58.7	0.2609	<.0001

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase, Med = Median, MPN = Myeloproliferative Neoplasm, pBL = post Baseline, SD = Standard Deviation, TSS = Total Symptom Score
[a] The within-group differences were analysed with a one-sample t-test.
[b] The between-group differences were analysed with a two-sample t-test.
MPN-SAF TSS has a possible range of 0 to 100, with 100 representing the highest level of symptom severity.

Course of MPN10 TSS and difference to BL by high risk classification (adjusted by 1st application of ruxolitinib)

AS	Without high risk (N=49)							High risk (N=384)							
	n	Mean	SD	Min	Med	Max	p-value[a]	n	Mean	SD	Min	Med	Max	p-value[a]	p-value[b]
Course															
BL	16	33.7	16.1	8.0	30.0	63.0		122	29.5	14.6	10.0	27.0	83.0		0.2927
Month 1	22	28.0	12.2	13.0	24.0	57.0		169	24.7	12.7	1.0	22.0	65.0		0.2483
Month 3	14	27.3	15.5	10.0	23.5	56.0		139	25.0	11.8	4.0	23.0	68.0		0.4992
Month 6	26	28.1	12.5	10.0	27.0	61.0		172	24.7	12.9	9.0	21.0	67.0		0.2145
Month 12	19	25.0	9.8	11.0	20.0	45.0		149	25.6	11.4	6.0	24.0	58.0		0.8312
Month 24	18	27.1	14.5	13.0	22.2	70.0		140	25.6	12.8	1.0	21.0	63.0		0.6362
Month 36	14	29.7	13.1	12.0	28.5	65.0		108	25.5	11.9	10.0	23.0	58.0		0.2207
Month 48	6	34.7	24.9	10.0	29.0	70.0		34	28.2	13.5	10.0	27.7	66.0		0.3481
Month 60	4	29.4	12.4	11.0	34.8	37.0		20	26.1	16.4	10.0	19.5	58.0		0.7123
Month 72	1	43.0		43.0	43.0	43.0		8	21.9	12.6	10.0	20.0	46.0		0.1589
Last pBL	42	28.1	12.6	10.0	27.0	70.0		329	26.0	12.8	10.0	23.0	67.0		0.3253
Difference to BL															
Month 1	14	-5.8	10.3	-27.0	-3.5	5.0	0.0547	97	-5.9	11.9	-41.0	-2.0	24.0	<.0001	0.9860
Month 3	5	-6.7	15.6	-31.4	-7.0	8.9	0.3901	66	-5.8	13.0	-37.0	-4.5	24.0	0.0005	0.8841
Month 6	14	-7.8	16.0	-34.4	-10.5	14.0	0.0906	83	-5.7	13.6	-45.0	-4.0	23.0	0.0002	0.6065
Month 12	9	-10.3	17.0	-33.4	-10.0	11.0	0.1071	63	-5.2	12.3	-42.0	-4.0	26.7	0.0012	0.2759
Month 24	7	-10.3	17.4	-31.4	-9.0	21.0	0.1668	59	-5.1	14.3	-48.0	-4.0	24.0	0.0077	0.3780
Month 36	7	-9.6	14.6	-32.4	-10.0	10.0	0.1313	36	-6.6	12.2	-49.0	-4.0	18.0	0.0026	0.5587
Last pBL	15	-6.2	12.5	-32.4	-9.0	14.0	0.0745	111	-4.6	13.4	-49.0	-4.0	26.7	0.0005	0.6491

Abbreviations: AS = Analysis Set, BL = Baseline, Med = Median, MPN = Myeloproliferative Neoplasm, pBL = post Baseline, SD = Standard Deviation, TSS = Total Symptom Score
[a] The within-group differences were analysed with a one-sample t-test.
[b] The between-group differences were analysed with a two-sample t-test.
MPN-SAF TSS has a possible range of 0 to 100, with 100 representing the highest level of symptom severity.

Thromboembolic events

Number of thromboembolic events

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Total number of thromboembolic events per year			
n	162	265	427
Mean ± SD	0.025 ± 0.187	0.019 ± 0.116	0.021 ± 0.147
Median (range)	0.0 (0.0 to 2.1)	0.0 (0.0 to 1.5)	0.0 (0.0 to 2.1)
Total number of thromboembolic events, n (%)			
0	157 (96.9)	255 (96.2)	412 (96.5)
≥1	5 (3.1)	10 (3.8)	15 (3.5)
Missing values	3	3	6

Abbreviations: AS = Analysis Set, JAK = Janus Kinase, SD = Standard Deviation

Secondary Outcome Result(s)

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ECOG performance status

ECOG performance status per visit

AS Variable	Adjusted by 1st visit in the study n (%)			Adjusted by 1st application of ruxolitinib n (%)		
	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)	Without high risk (N=49)	High risk (N=384)	Total (N=433)
ECOG						
BL						
0	60 (45.5)	108 (56.0)	168 (51.7)	7 (46.7)	53 (45.3)	60 (45.5)
1	65 (49.2)	71 (36.8)	136 (41.8)	7 (46.7)	58 (49.6)	65 (49.2)
2	7 (5.3)	11 (5.7)	18 (5.5)	1 (6.7)	6 (5.1)	7 (5.3)
3	-	3 (1.6)	3 (0.9)	-	-	-
Not done	33	75	108	5	28	33
Month 1						
0	57 (52.3)	57 (52.3)	114 (52.3)	12 (63.2)	78 (54.5)	90 (55.6)
1	46 (42.2)	46 (42.2)	92 (42.2)	7 (36.8)	57 (39.9)	64 (39.5)
2	6 (5.5)	5 (4.6)	11 (5.0)	-	8 (5.6)	8 (4.9)
3	-	1 (0.9)	1 (0.5)	-	-	-
Not done	30	62	92	5	43	48

AS Variable	Adjusted by 1st visit in the study n (%)			Adjusted by 1st application of ruxolitinib n (%)		
	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)	Without high risk (N=49)	High risk (N=384)	Total (N=433)
Month 2						
0	44 (55.0)	57 (61.3)	101 (58.4)	13 (86.7)	53 (51.0)	66 (55.5)
1	34 (42.5)	31 (33.3)	65 (37.6)	1 (6.7)	49 (47.1)	50 (42.0)
2	2 (2.5)	3 (3.2)	5 (2.9)	1 (6.7)	2 (1.9)	3 (2.5)
3	-	2 (2.2)	2 (1.2)	-	-	-
Not done	30	65	95	5	52	57
Month 3						
0	68 (61.3)	80 (56.7)	148 (58.7)	19 (70.4)	87 (56.1)	106 (58.2)
1	39 (35.1)	55 (39.0)	94 (37.3)	7 (25.9)	59 (38.1)	66 (36.3)
2	4 (3.6)	6 (4.3)	10 (4.0)	1 (3.7)	9 (5.8)	10 (5.5)
Not done	25	76	101	5	65	70
Month 6						
0	65 (58.0)	83 (56.8)	148 (57.4)	21 (72.4)	85 (51.2)	106 (54.4)
1	44 (39.3)	55 (37.7)	99 (38.4)	8 (27.6)	70 (42.2)	78 (40.0)
2	3 (2.7)	6 (4.1)	9 (3.5)	-	10 (6.0)	10 (5.1)
3	-	2 (1.4)	2 (0.8)	-	1 (0.6)	1 (0.5)
Not done	32	87	119	7	78	85
Month 9						
0	57 (57.0)	89 (65.0)	146 (61.6)	19 (65.5)	100 (61.3)	119 (62.0)
1	38 (38.0)	43 (31.4)	81 (34.2)	10 (34.5)	54 (33.1)	64 (33.3)
2	5 (5.0)	5 (3.6)	10 (4.2)	-	9 (5.5)	9 (4.7)
Not done	29	79	108	6	71	77
Month 12						
0	59 (53.2)	86 (59.3)	145 (56.6)	19 (76.0)	109 (58.6)	128 (60.7)
1	45 (40.5)	54 (37.2)	99 (38.7)	6 (24.0)	68 (36.6)	74 (35.1)
2	7 (6.3)	5 (3.4)	12 (4.7)	-	9 (4.8)	9 (4.3)
Not done	25	77	102	9	75	84
Month 18						
0	53 (53.5)	76 (56.7)	129 (55.4)	23 (88.5)	96 (53.6)	119 (58.0)
1	39 (39.4)	54 (40.3)	93 (39.9)	3 (11.5)	69 (38.5)	72 (35.1)
2	7 (7.1)	4 (3.0)	11 (4.7)	-	13 (7.3)	13 (6.3)
3	-	-	-	-	1 (0.6)	1 (0.5)
Not done	28	75	103	8	87	95

AS	Adjusted by 1st visit in the study n (%)			Adjusted by 1st application of ruxolitinib n (%)		
Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)	Without high risk (N=49)	High risk (N=384)	Total (N=433)
Month 24						
0	49 (54.4)	68 (55.3)	117 (54.9)	21 (77.8)	84 (50.9)	105 (54.7)
1	35 (38.9)	50 (40.7)	85 (39.9)	6 (22.2)	70 (42.4)	76 (39.6)
2	5 (5.6)	5 (4.1)	10 (4.7)	-	9 (5.5)	9 (4.7)
3	1 (1.1)	-	1 (0.5)	-	2 (1.2)	2 (1.0)
Not done	29	74	103	8	89	97
Month 30						
0	44 (58.7)	55 (56.1)	99 (57.2)	20 (80.0)	82 (55.4)	102 (59.0)
1	25 (33.3)	38 (38.8)	63 (36.4)	5 (20.0)	56 (37.8)	61 (35.3)
2	6 (8.0)	5 (5.1)	11 (6.4)	-	9 (6.1)	9 (5.2)
3	-	-	-	-	1 (0.7)	1 (0.6)
Not done	31	70	101	10	86	96
Month 36						
0	39 (55.7)	56 (60.2)	95 (58.3)	19 (73.1)	84 (52.5)	103 (55.4)
1	25 (35.7)	34 (36.6)	59 (36.2)	7 (26.9)	63 (39.4)	70 (37.6)
2	5 (7.1)	3 (3.2)	8 (4.9)	-	12 (7.5)	12 (6.5)
3	1 (1.4)	-	1 (0.6)	-	1 (0.6)	1 (0.5)
Not done	23	66	89	8	80	88

Abbreviations: AS = Analysis Set, BL = Baseline, ECOG = Eastern Cooperative Oncology Group, JAK = Janus Kinase ECOG performance status: 0= Fully active, able to carry on all pre-disease performance without restriction, 1= Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work, 2= Ambulatory and capable of all selfcare but unable to carry out any work activities; up and about more than 50% of waking hours, 3= Capable of only limited selfcare; confined to bed or chair more than 50% of waking hours, 4 = Completely disabled; cannot carry on any selfcare; totally confined to bed or chair, 5 = Dead

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Constitutional symptoms

Course of constitutional symptoms

AS	Adjusted by 1st visit in the study			Adjusted by 1st application of ruxolitinib		
	JAK-inhibitor naive	JAK-inhibitor pretreated	Total	Without high risk	High risk	Total
Variable	(N=165)	(N=268)	(N=433)	(N=49)	(N=384)	(N=433)
	Symptoms overall, n/N (%)					
BL	83/165 (50.3)	114/268 (42.5)	197/433 (45.5)	11/20 (55.0)	72/145 (49.7)	83/165 (50.3)
Month 1	35/139 (25.2)	41/171 (24.0)	76/310 (24.5)	8/24 (33.3)	59/186 (31.7)	67/210 (31.9)
Month 2	21/110 (19.1)	36/158 (22.8)	57/268 (21.3)	6/20 (30.0)	33/156 (21.2)	39/176 (22.2)
Month 3	32/136 (23.5)	59/217 (27.2)	91/353 (25.8)	11/32 (34.4)	58/220 (26.4)	69/252 (27.4)
Month 6	28/144 (19.4)	51/233 (21.9)	79/377 (21.0)	9/36 (25.0)	53/244 (21.7)	62/280 (22.1)
Month 9	21/129 (16.3)	47/216 (21.8)	68/345 (19.7)	6/35 (17.1)	45/234 (19.2)	51/269 (19.0)
Month 12	19/136 (14.0)	51/222 (23.0)	70/358 (19.6)	8/34 (23.5)	49/261 (18.8)	57/295 (19.3)
Month 18	16/127 (12.6)	40/209 (19.1)	56/336 (16.7)	7/34 (20.6)	45/266 (16.9)	52/300 (17.3)
Month 24	15/119 (12.6)	43/197 (21.8)	58/316 (18.4)	7/35 (20.0)	39/254 (15.4)	46/289 (15.9)
Month 30	11/106 (10.4)	35/168 (20.8)	46/274 (16.8)	8/35 (22.9)	38/234 (16.2)	46/269 (17.1)
Month 36	13/93 (14.0)	25/159 (15.7)	38/252 (15.1)	9/34 (26.5)	37/240 (15.4)	46/274 (16.8)
Month 48	-	-	-	2/7 (28.6)	15/74 (20.3)	17/81 (21.0)
Month 60	-	-	-	2/5 (40.0)	11/42 (26.2)	13/47 (27.7)
Month 72	-	-	-	1/3 (33.3)	8/21 (38.1)	9/24 (37.5)
Last pBL	25/165 (15.2)	49/268 (18.3)	74/433 (17.1)	12/49 (24.5)	68/384 (17.7)	80/433 (18.5)

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase, pBL = post Baseline
n/N: Number of patients with symptom at visit and number of patients at visit.

SF-36 questionnaire

Difference to BL for SF-36 physical and mental component summary for JAK-inhibitor naïve and JAK-inhibitor pretreated patients (adjusted by 1st visit in the study)

AS Visit	n	Mean ± SD	Min	Med	Max	p-value
JAK-inhibitor naïve (N=165), Physical component summary						
BL	135	39.6 ± 11.0	15.4	38.91	59.2	
Month 1: Δ to BL	104	1.5 ± 7.7	-24.0	0.47	25.2	0.050
Month 3: Δ to BL	77	2.2 ± 7.2	-17.0	1.95	18.7	0.009
Month 6: Δ to BL	91	2.9 ± 8.3	-21.0	1.53	33.8	0.001
Month 12: Δ to BL	70	3.1 ± 9.3	-19.0	1.28	26.7	0.007
Month 24: Δ to BL	61	2.4 ± 11.3	-28.0	2.32	26.6	0.104
Month 36: Δ to BL	40	5.3 ± 9.0	-14.0	3.94	26.0	<.001
Last pBL: Δ to BL	115	1.8 ± 9.5	-28.0	0.79	26.6	0.047
JAK inhibitor pretreated (N=268), Physical component summary						
BL	217	42.5 ± 10.6	17.4	44.51	63.4	
Month 1: Δ to BL	110	0.7 ± 6.1	-15.0	0.00	21.6	0.245
Month 3: Δ to BL	102	-0.9 ± 7.3	-25.0	-0.64	23.3	0.202
Month 6: Δ to BL	132	0.2 ± 8.6	-23.0	-0.24	34.9	0.761
Month 12: Δ to BL	110	-1.6 ± 9.6	-41.0	-1.02	35.2	0.081
Month 24: Δ to BL	95	-2.1 ± 9.6	-28.0	-1.86	23.2	0.033
Month 36: Δ to BL	72	-0.6 ± 8.3	-23.0	-0.97	22.5	0.564
Last pBL: Δ to BL	183	-1.0 ± 9.3	-41.0	-0.91	35.2	0.148
JAK-inhibitor naïve (N=165), Mental component summary						
BL	135	43.8 ± 13.7	9.8	46.23	69.7	
Month 1: Δ to BL	104	3.8 ± 12.8	-25.0	1.03	43.9	0.003
Month 3: Δ to BL	77	3.0 ± 12.8	-33.0	1.02	34.8	0.041
Month 6: Δ to BL	91	3.2 ± 12.0	-24.0	0.02	43.1	0.012
Month 12: Δ to BL	70	1.8 ± 12.6	-35.0	1.05	39.2	0.247
Month 24: Δ to BL	61	1.7 ± 14.9	-38.0	0.25	43.3	0.364
Month 36: Δ to BL	40	3.2 ± 15.7	-37.0	1.90	42.1	0.208
Last pBL: Δ to BL	115	2.2 ± 13.9	-38.0	1.34	43.1	0.087
JAK inhibitor pretreated (N=268), Mental component summary						
BL	217	45.2 ± 12.5	10.1	47.68	65.7	
Month 1: Δ to BL	110	0.2 ± 9.3	-25.0	0.00	32.2	0.829
Month 3: Δ to BL	102	1.2 ± 11.1	-41.0	0.40	34.5	0.294
Month 6: Δ to BL	132	1.9 ± 10.2	-27.0	1.89	38.7	0.032
Month 12: Δ to BL	110	1.2 ± 12.6	-39.0	1.71	36.7	0.330
Month 24: Δ to BL	95	-0.8 ± 13.1	-47.0	-0.90	37.0	0.541
Month 36: Δ to BL	72	-1.0 ± 13.6	-35.0	-0.49	37.4	0.547
Last pBL: Δ to BL	183	0.2 ± 11.6	-35.0	0.00	37.4	0.773

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase, Med = Median, pBL = post Baseline, SD = Standard Deviation, SF-36 = Short Form-36 Health Survey, Δ = Absolute Difference
SF-36 scores can range from 0 to 100. Higher scores indicate better health status.

Difference to BL for SF-36 physical and mental component summary for patients younger and equal/older than 60 years (adjusted by 1st visit in the study)

AS Visit	n	Age < 60 years (N=74), Physical component summary				
		Mean ± SD	Min	Med	Max	p-value
BL	65	41.5 ± 10.6	21.3	42.08	59.5	
Month 1: Δ to BL	38	2.4 ± 6.4	-14.0	1.00	19.6	0.028
Month 3: Δ to BL	34	2.0 ± 8.2	-14.0	0.00	18.0	0.172
Month 6: Δ to BL	50	1.2 ± 9.0	-23.0	0.83	19.5	0.366
Month 12: Δ to BL	38	1.9 ± 10.8	-41.0	2.26	22.5	0.274
Month 24: Δ to BL	36	3.6 ± 8.0	-12.0	2.72	21.1	0.010
Month 36: Δ to BL	30	2.9 ± 7.8	-7.8	1.27	23.8	0.050
Last pBL: Δ to BL	59	2.0 ± 9.1	-41.0	0.47	23.8	0.089
	n	Age ≥ 60 years (N=359), Physical component summary				
		Mean ± SD	Min	Med	Max	p-value
BL	287	41.4 ± 10.9	15.4	42.81	63.4	
Month 1: Δ to BL	176	0.8 ± 7.0	-24.0	0.03	25.2	0.131
Month 3: Δ to BL	145	0.1 ± 7.2	-25.0	-0.05	23.3	0.917
Month 6: Δ to BL	173	1.4 ± 8.4	-23.0	0.38	34.9	0.033
Month 12: Δ to BL	142	-0.3 ± 9.5	-27.0	-0.12	35.2	0.744
Month 24: Δ to BL	120	-1.6 ± 10.8	-28.0	-1.80	26.6	0.116
Month 36: Δ to BL	82	1.0 ± 9.4	-23.0	0.88	26.0	0.334
Last pBL: Δ to BL	239	-0.4 ± 9.6	-28.0	-0.33	35.2	0.509
	n	Age < 60 years (N=74), Mental component summary				
		Mean ± SD	Min	Med	Max	p-value
BL	65	40.4 ± 11.8	14.7	40.77	63.3	
Month 1: Δ to BL	38	3.5 ± 12.7	-25.0	0.99	33.8	0.095
Month 3: Δ to BL	34	5.9 ± 13.7	-19.0	3.51	32.6	0.017
Month 6: Δ to BL	50	4.4 ± 10.7	-20.0	4.08	32.2	0.005
Month 12: Δ to BL	38	5.2 ± 12.1	-17.0	4.52	35.2	0.011
Month 24: Δ to BL	36	4.3 ± 13.0	-17.0	3.35	32.9	0.058
Month 36: Δ to BL	30	3.1 ± 15.6	-37.0	2.12	35.6	0.286
Last pBL: Δ to BL	59	2.3 ± 13.7	-37.0	1.19	35.6	0.202
	n	Age ≥ 60 years (N=359), Mental component summary				
		Mean ± SD	Min	Med	Max	p-value
BL	287	45.7 ± 13.1	9.8	49.40	69.7	
Month 1: Δ to BL	176	1.6 ± 10.9	-25.0	0.24	43.9	0.052
Month 3: Δ to BL	145	1.0 ± 11.3	-41.0	0.40	34.8	0.265
Month 6: Δ to BL	173	1.9 ± 11.0	-27.0	1.01	43.1	0.026
Month 12: Δ to BL	142	0.4 ± 12.5	-39.0	0.40	39.2	0.718
Month 24: Δ to BL	120	-1.0 ± 13.9	-47.0	-0.65	43.3	0.410
Month 36: Δ to BL	82	-0.4 ± 14.0	-35.0	-0.16	42.1	0.782
Last pBL: Δ to BL	239	0.7 ± 12.3	-38.0	0.34	43.1	0.381

Abbreviations: AS = Analysis Set, BL = Baseline, Med = Median, pBL = post Baseline, SD = Standard Deviation, SF-36 = Short Form-36 Health Survey, Δ = Absolute Difference
SF-36 scores can range from 0 to 100. Higher scores indicate better health status.

Difference to BL for SF-36 physical and mental component summary for patients with/without spleen enlargement (adjusted by 1st visit in the study)

AS Visit	n	Spleen not enlarged (N=328), Physical component summary				
		Mean ± SD	Min	Med	Max	p-value
BL	265	40.8 ± 10.6	15.4	41.55	63.4	
Month 1: Δ to BL	162	1.0 ± 6.7	-24.0	0.19	21.6	0.050
Month 3: Δ to BL	129	0.7 ± 7.3	-25.0	0.00	23.3	0.257
Month 6: Δ to BL	168	1.3 ± 7.5	-19.0	0.31	34.9	0.022
Month 12: Δ to BL	139	0.1 ± 9.5	-41.0	0.01	35.2	0.864
Month 24: Δ to BL	112	-0.6 ± 10.5	-28.0	-1.38	26.6	0.577
Month 36: Δ to BL	77	1.1 ± 9.0	-23.0	0.96	24.8	0.298
Last pBL: Δ to BL	223	-0.1 ± 9.7	-41.0	-0.34	35.2	0.848

	n	Spleen enlarged (N=105), Physical component summary				
		Mean ± SD	Min	Med	Max	p-value
BL	87	43.4 ± 11.2	15.8	47.48	61.2	
Month 1: Δ to BL	52	1.2 ± 7.8	-15.0	0.00	25.2	0.262
Month 3: Δ to BL	50	-0.4 ± 7.7	-16.0	-0.66	15.4	0.726
Month 6: Δ to BL	55	1.3 ± 11.1	-23.0	0.96	33.8	0.394
Month 12: Δ to BL	41	0.4 ± 10.6	-24.0	0.47	26.7	0.798
Month 24: Δ to BL	44	0.1 ± 10.6	-28.0	0.75	23.2	0.942
Month 36: Δ to BL	35	2.5 ± 8.9	-14.0	0.99	26.0	0.110
Last pBL: Δ to BL	75	0.7 ± 8.7	-20.0	0.49	26.0	0.504

	n	Spleen not enlarged (N=328), Mental component summary				
		Mean ± SD	Min	Med	Max	p-value
BL	265	44.3 ± 13.1	9.8	46.88	69.7	
Month 1: Δ to BL	162	2.0 ± 11.0	-25.0	0.29	43.9	0.023
Month 3: Δ to BL	129	2.4 ± 10.6	-33.0	0.80	34.8	0.012
Month 6: Δ to BL	168	2.7 ± 10.9	-27.0	1.74	43.1	0.002
Month 12: Δ to BL	139	2.4 ± 11.8	-35.0	1.96	39.2	0.019
Month 24: Δ to BL	112	1.1 ± 13.1	-38.0	1.24	43.3	0.381
Month 36: Δ to BL	77	1.1 ± 13.7	-37.0	2.09	42.1	0.479
Last pBL: Δ to BL	223	1.5 ± 12.5	-38.0	1.34	43.1	0.076

	n	Spleen enlarged (N=105), Mental component summary				
		Mean ± SD	Min	Med	Max	p-value
BL	87	45.8 ± 12.5	12.6	48.25	65.5	
Month 1: Δ to BL	52	1.9 ± 12.1	-25.0	0.53	37.2	0.273
Month 3: Δ to BL	50	0.9 ± 14.6	-41.0	0.23	32.6	0.673
Month 6: Δ to BL	55	1.6 ± 11.1	-24.0	1.02	32.2	0.287
Month 12: Δ to BL	41	-1.9 ± 14.4	-39.0	-1.44	35.2	0.401
Month 24: Δ to BL	44	-2.1 ± 15.3	-47.0	-2.39	32.4	0.359
Month 36: Δ to BL	35	-0.8 ± 16.0	-35.0	-0.64	37.4	0.768
Last pBL: Δ to BL	75	-0.4 ± 12.8	-35.0	-0.46	37.4	0.791

Abbreviations: AS = Analysis Set, BL = Baseline, Med = Median, pBL = post Baseline, SD = Standard Deviation, SF-36 = Short Form-36 Health Survey, Δ = Absolute Difference
SF-36 scores can range from 0 to 100. Higher scores indicate better health status.

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Bone marrow aspiration and biopsies

Number of biopsies by visit and overall (adjusted by 1st visit in the study)

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Biopsies performed, n (%)			
BL			
0	55 (33.3)	84 (31.3)	139 (32.1)
1	110 (66.7)	184 (68.7)	294 (67.9)
Month 1			
0	139 (100.0)	170 (99.4)	309 (99.7)
1	-	1 (0.6)	1 (0.3)
Missing	26	97	123
Month 2			
0	109 (99.1)	156 (98.7)	265 (98.9)
1	1 (0.9)	2 (1.3)	3 (1.1)
Missing	55	110	165
Month 3			
0	136 (100.0)	217 (100.0)	353 (100.0)
1	-	-	-
Missing	29	51	80
Month 6			
0	141 (97.9)	230 (98.7)	371 (98.4)
1	3 (2.1)	3 (1.3)	6 (1.6)
Missing	21	35	56
Month 9			
0	126 (97.7)	214 (99.1)	340 (98.6)
1	3 (2.3)	2 (0.9)	5 (1.4)
Missing	36	52	88
Month 12			
0	135 (99.3)	222 (100.0)	357 (99.7)
1	1 (0.7)	-	1 (0.3)
Missing	29	46	75
Month 18			
0	127 (100.0)	203 (97.1)	330 (98.2)
1	-	6 (2.9)	6 (1.8)

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Missing	38	59	97
Month 24			
0	118 (99.2)	194 (98.5)	312 (98.7)
1	1 (0.8)	3 (1.5)	4 (1.3)
Missing	46	71	117
Month 30			
0	106 (100.0)	166 (98.8)	272 (99.3)
1	-	2 (1.2)	2 (0.7)
Missing	59	100	159
Month 36			
0	93 (100.0)	157 (98.7)	250 (99.2)
1	-	2 (1.3)	2 (0.8)
Missing	72	109	181
Biopsies per patient (incl. BL)			
n	165	268	433
Mean ± SD	0.7 ± 0.5	0.8 ± 0.6	0.7 ± 0.6
Median (range)	1.0 (0.0 to 2.0)	1.0 (0.0 to 4.0)	1.0 (0.0 to 4.0)
Biopsies per month (incl. BL)			
n	165	268	433
Mean ± SD	0.1 ± 0.1	0.1 ± 0.1	0.1 ± 0.1
Median (range)	0.0 (0.0 to 1.0)	0.0 (0.0 to 1.0)	0.0 (0.0 to 1.0)

Abbreviations: AS = Analysis Set, BL = Baseline, JAK = Janus Kinase, SD = Standard Deviation

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Molecular results

Number of performed assessments of JAK2V617F mutation by visit and overall Visits adjusted by 1st visit in the Study

| | Analysis set | | |
	JAK-inhibitor naive (N=165)	Pretreated with JAK-inhibitor (N=268)	Total (N=433)
Variable			
Biopsies performed			
Baseline, n (%)			
0	23 (13.9)	34 (12.7)	57 (13.2)
1	142 (86.1)	234 (87.3)	376 (86.8)
Month 1, n (%)			
0	137 (98.6)	168 (98.2)	305 (98.4)
1	2 (1.4)	3 (1.8)	5 (1.6)
missing	26	97	123
Month 2, n (%)			
0	109 (99.1)	154 (97.5)	263 (98.1)
1	1 (0.9)	4 (2.5)	5 (1.9)
missing	55	110	165
Month 3, n (%)			
0	136 (100.0)	217 (100.0)	353 (100.0)
1	-	-	-
missing	29	51	80

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| | Analysis set | | |
Variable	JAK-inhibitor naive (N=165)	Pretreated with JAK-inhibitor (N=268)	Total (N=433)
Month 6, n (%)			
0	142 (98.6)	226 (97.0)	368 (97.6)
1	2 (1.4)	7 (3.0)	9 (2.4)
missing	21	35	56
Month 9, n (%)			
0	127 (98.4)	214 (99.1)	341 (98.8)
1	2 (1.6)	2 (0.9)	4 (1.2)
missing	36	52	88
Month 12, n (%)			
0	133 (97.8)	220 (99.1)	353 (98.6)
1	3 (2.2)	2 (0.9)	5 (1.4)
missing	29	46	75
Month 18, n (%)			
0	125 (98.4)	203 (97.1)	328 (97.6)
1	2 (1.6)	6 (2.9)	8 (2.4)
missing	38	59	97
Month 24, n (%)			
0	117 (98.3)	192 (97.5)	309 (97.8)
1	2 (1.7)	5 (2.5)	7 (2.2)
missing	46	71	117

	Analysis set		
Variable	JAK-inhibitor naive (N=165)	Pretreated with JAK-inhibitor (N=268)	Total (N=433)
Month 30, n (%)			
0	105 (99.1)	160 (95.2)	265 (96.7)
1	1 (0.9)	8 (4.8)	9 (3.3)
missing	59	100	159
Month 36, n (%)			
0	93 (100.0)	158 (99.4)	251 (99.6)
1	-	1 (0.6)	1 (0.4)
missing	72	109	181
Assessments per patient (incl. Baseline)			
n	165	268	433
Mean	1.0	1.0	1.0
Standard deviation	0.6	0.7	0.6
Minimum	0.0	0.0	0.0
25%-Quantile	1.0	1.0	1.0
Median	1.0	1.0	1.0
75%-Quantile	1.0	1.0	1.0
Maximum	5.0	6.0	6.0

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	Analysis set		
Variable	**JAK-inhibitor naive (N=165)**	**Pretreated with JAK-inhibitor (N=268)**	**Total (N=433)**
Assessments per patient, n (%)			
0	22 (13.3)	32 (11.9)	54 (12.5)
1	134 (81.2)	215 (80.2)	349 (80.6)
2	6 (3.6)	13 (4.9)	19 (4.4)
3	2 (1.2)	3 (1.1)	5 (1.2)
4	-	4 (1.5)	4 (0.9)
5	1 (0.6)	-	1 (0.2)
6	-	1 (0.4)	1 (0.2)
Assessments per months (incl. Baseline)			
n	165	268	433
Mean	0.08	0.06	0.07
Standard deviation	0.17	0.10	0.13
Minimum	0.00	0.00	0.00
25%-Quantile	0.03	0.03	0.03
Median	0.03	0.03	0.03
75%-Quantile	0.06	0.06	0.06
Maximum	1.00	1.00	1.00

Other Pre-Specified Outcome Result(s)

No data identified.

Post-Hoc Outcome Result(s)

No data identified.

Safety Results

Summary of adverse events by JAK-inhibitor pretreatment

AS Variable	JAK-inhibitor naive (N=165)	JAK-inhibitor pretreated (N=268)	Total (N=433)
Number of patients with, n (%)			
AE	147 (89.1)	229 (85.4)	376 (86.8)
nsAE	140 (84.8)	212 (79.1)	352 (81.3)
nsADR	88 (53.3)	133 (49.6)	221 (51.0)
nsAEnr	119 (72.1)	186 (69.4)	305 (70.4)
SAE	59 (35.8)	101 (37.7)	160 (37.0)
SADR	12 (7.3)	25 (9.3)	37 (8.5)
SAEnr	54 (32.7)	95 (35.4)	149 (34.4)
Number of events			
AE	798	1172	1970
nsAE	691	934	1625
nsADR	209	264	473
nsAEnr	482	670	1152
SAE	107	238	345
SADR	15	38	53
SAEnr	92	200	292

Abbreviations: ADR = Adverse Drug Reaction, AE = Adverse Event, AS = Analysis Set, JAK = Janus Kinase, nr = not related, ns = non-serious, SADR = Serious Adverse Drug Reaction, SAE = Serious Adverse Event
AEs without information on relation to study drug or seriousness were considered as related or serious, respectively.
Seriousness assessed with "yes" by physicians.
Relationship to ruxolitinib assessed with "yes" by physicians.

All-Cause Mortality

4 SADRs with fatal outcome (experienced by 4 patients) were reported: in all of them the causality regarding treatment with ruxolitinib was not reported. The 4 PTs were: "death" (thrice) and "chronic lymphocytic leukaemia"

Serious Adverse Events

Overall 8.5% of the patients (n=37) suffered from at least 1 SADR. The incidence of all SADRs (if present in 0.5% or more of the patients) by MedDRA SOC and MedDRA PT is presented below

On SOC level, the most frequent SADRs ($\geq$ 0.5%) were:
- o "Investigations" (2.8%, n=12)
- o "Infections and infestations" (2.1%, n=9)
- o "Neoplasms benign, malignant and unspecified" (1.2%, n=5)
- o "Blood and lymphatic system disorders" (0.7%, n=3)
- o "Cardiac disorders" (0.7%, n=3)
- o "Gastrointestinal disorders" (0.7%, n=3)
- o "General disorders and administration site conditions" (0.7%, n=3)
- o "Nervous system disorders" (0.7%, n=3)
- o "Renal and urinary disorders" (0.5%, n=2)
- o "Respiratory, thoracic and mediastinal disorders" (0.5%, n=2)

On PT level, the most frequent SADRs ($\geq$ 0.5%) were:
- o "Hemoglobin decreased" (0.9%, n=4)
- o "Death" (0.7%, n=3)
- o "Weight increased" (0.7%, n=3)
- o "Pneumonia" (0.5%, n=2)
- o "Weight decreased" (0.5%, n=2)

All Adverse Events by primary SOC and most common PTs (≥ 1.0% in any AE, by patient, AS)

	nsAEnr	nsADR	nsAE	SAEnr	SADR	SAE	Any AE
Primary SOC (MedDRA v24.1)							
PT							
Number of patients with at least one AE, n (%)	305 (70.4)	221 (51.0)	352 (81.3)	149 (34.4)	37 (8.5)	160 (37.0)	376 (86.8)
Blood and lymphatic system disorders	88 (20.3)	95 (21.9)	164 (37.9)	12 (2.8)	3 (0.7)	14 (3.2)	170 (39.3)
Anaemia	43 (9.9)	72 (16.6)	107 (24.7)	5 (1.2)	1 (0.2)	6 (1.4)	109 (25.2)
Thrombocytosis	27 (6.2)	7 (1.6)	34 (7.9)	1 (0.2)	-	1 (0.2)	35 (8.1)
Thrombocytopenia	9 (2.1)	16 (3.7)	24 (5.5)	-	1 (0.2)	1 (0.2)	25 (5.8)
Leukocytosis	17 (3.9)	2 (0.5)	19 (4.4)	2 (0.5)	-	2 (0.5)	21 (4.8)
Splenomegaly	9 (2.1)	2 (0.5)	11 (2.5)	2 (0.5)	-	2 (0.5)	13 (3.0)
General disorders and administration site conditions	81 (18.7)	53 (12.2)	120 (27.7)	31 (7.2)	3 (0.7)	34 (7.9)	141 (32.6)
Fatigue	30 (6.9)	20 (4.6)	49 (11.3)	-	-	-	49 (11.3)
Death	-	-	-	18 (4.2)	3 (0.7)	21 (4.8)	21 (4.8)
Drug ineffective	3 (0.7)	17 (3.9)	20 (4.6)	-	-	-	20 (4.6)
Oedema peripheral	13 (3.0)	5 (1.2)	18 (4.2)	-	-	-	18 (4.2)
General physical health deterioration	9 (2.1)	2 (0.5)	11 (2.5)	5 (1.2)	-	5 (1.2)	16 (3.7)
Pyrexia	11 (2.5)	2 (0.5)	13 (3.0)	4 (0.9)	-	4 (0.9)	16 (3.7)
Peripheral swelling	6 (1.4)	1 (0.2)	7 (1.6)	1 (0.2)	-	1 (0.2)	8 (1.8)
Pain	7 (1.6)	-	7 (1.6)	-	-	-	7 (1.6)
Oedema	3 (0.7)	2 (0.5)	5 (1.2)	1 (0.2)	-	1 (0.2)	6 (1.4)
Infections and infestations	95 (21.9)	20 (4.6)	111 (25.6)	40 (9.2)	9 (2.1)	46 (10.6)	140 (32.3)
Nasopharyngitis	27 (6.2)	1 (0.2)	28 (6.5)	-	-	-	28 (6.5)
Herpes zoster	13 (3.0)	10 (2.3)	23 (5.3)	1 (0.2)	1 (0.2)	2 (0.5)	25 (5.8)
Urinary tract infection	10 (2.3)	3 (0.7)	13 (3.0)	4 (0.9)	1 (0.2)	5 (1.2)	18 (4.2)
Pneumonia	2 (0.5)	1 (0.2)	3 (0.7)	11 (2.5)	2 (0.5)	12 (2.8)	15 (3.5)
Bronchitis	9 (2.1)	1 (0.2)	10 (2.3)	2 (0.5)	-	2 (0.5)	11 (2.5)
Cystitis	6 (1.4)	3 (0.7)	9 (2.1)	-	-	-	9 (2.1)
Infection	6 (1.4)	2 (0.5)	8 (1.8)	1 (0.2)	-	1 (0.2)	9 (2.1)
Covid-19	5 (1.2)	-	5 (1.2)	2 (0.5)	-	2 (0.5)	7 (1.6)
Erysipelas	2 (0.5)	-	2 (0.5)	3 (0.7)	1 (0.2)	4 (0.9)	6 (1.4)
Respiratory tract infection	4 (0.9)	2 (0.5)	5 (1.2)	-	-	-	5 (1.2)

	nsAEnr	nsADR	nsAE	SAEnr	SADR	SAE	Any AE
Primary SOC (MedDRA v24.1)							
PT							
Investigations	56 (12.9)	53 (12.2)	101 (23.3)	3 (0.7)	12 (2.8)	15 (3.5)	111 (25.6)
Weight increased	12 (2.8)	25 (5.8)	37 (8.5)	-	3 (0.7)	3 (0.7)	40 (9.2)
Haemoglobin decreased	15 (3.5)	16 (3.7)	29 (6.7)	-	4 (0.9)	4 (0.9)	32 (7.4)
Platelet count increased	7 (1.6)	4 (0.9)	11 (2.5)	-	1 (0.2)	1 (0.2)	12 (2.8)
Weight decreased	7 (1.6)	-	7 (1.6)	-	2 (0.5)	2 (0.5)	9 (2.1)
Blood creatinine increased	4 (0.9)	1 (0.2)	5 (1.2)	-	-	-	5 (1.2)
White blood cell count increased	1 (0.2)	3 (0.7)	4 (0.9)	-	1 (0.2)	1 (0.2)	5 (1.2)
Nervous system disorders	70 (16.2)	40 (9.2)	98 (22.6)	19 (4.4)	3 (0.7)	20 (4.6)	111 (25.6)
Dizziness	22 (5.1)	23 (5.3)	43 (9.9)	1 (0.2)	1 (0.2)	2 (0.5)	44 (10.2)
Headache	11 (2.5)	9 (2.1)	20 (4.6)	-	-	-	20 (4.6)
Paraesthesia	8 (1.8)	3 (0.7)	11 (2.5)	-	-	-	11 (2.5)
Disturbance in attention	3 (0.7)	2 (0.5)	5 (1.2)	1 (0.2)	-	1 (0.2)	6 (1.4)
Sciatica	5 (1.2)	-	5 (1.2)	-	-	-	5 (1.2)
Gastrointestinal disorders	71 (16.4)	34 (7.9)	94 (21.7)	18 (4.2)	3 (0.7)	20 (4.6)	107 (24.7)
Abdominal pain upper	16 (3.7)	1 (0.2)	17 (3.9)	3 (0.7)	-	3 (0.7)	19 (4.4)
Diarrhoea	12 (2.8)	7 (1.6)	18 (4.2)	1 (0.2)	-	1 (0.2)	19 (4.4)
Constipation	6 (1.4)	12 (2.8)	18 (4.2)	-	-	-	18 (4.2)
Abdominal pain	7 (1.6)	2 (0.5)	8 (1.8)	3 (0.7)	-	3 (0.7)	11 (2.5)
Nausea	8 (1.8)	2 (0.5)	10 (2.3)	-	-	-	10 (2.3)
Abdominal discomfort	7 (1.6)	1 (0.2)	8 (1.8)	-	-	-	8 (1.8)
Abdominal distension	3 (0.7)	5 (1.2)	8 (1.8)	-	-	-	8 (1.8)
Musculoskeletal and connective tissue disorders	72 (16.6)	13 (3.0)	79 (18.2)	12 (2.8)	1 (0.2)	13 (3.0)	86 (19.9)
Arthralgia	21 (4.8)	2 (0.5)	23 (5.3)	1 (0.2)	-	1 (0.2)	24 (5.5)
Bone pain	12 (2.8)	2 (0.5)	14 (3.2)	-	-	-	14 (3.2)
Muscle spasms	11 (2.5)	3 (0.7)	14 (3.2)	-	-	-	14 (3.2)
Pain in extremity	12 (2.8)	1 (0.2)	13 (3.0)	-	-	-	13 (3.0)
Back pain	8 (1.8)	-	8 (1.8)	3 (0.7)	-	3 (0.7)	11 (2.5)
Myalgia	4 (0.9)	3 (0.7)	7 (1.6)	-	-	-	7 (1.6)
Intervertebral disc protrusion	3 (0.7)	-	3 (0.7)	3 (0.7)	-	3 (0.7)	6 (1.4)
Osteoarthritis	5 (1.2)	-	5 (1.2)	1 (0.2)	-	1 (0.2)	6 (1.4)

	nsAEnr	nsADR	nsAE	SAEnr	SADR	SAE	Any AE
Primary SOC (MedDRA v24.1)							
PT							
Skin and subcutaneous tissue disorders	65 (15.0)	20 (4.6)	81 (18.7)	2 (0.5)	-	2 (0.5)	82 (18.9)
Pruritus	22 (5.1)	5 (1.2)	27 (6.2)	-	-	-	27 (6.2)
Rash	10 (2.3)	4 (0.9)	14 (3.2)	-	-	-	14 (3.2)
Night sweats	8 (1.8)	1 (0.2)	9 (2.1)	-	-	-	9 (2.1)
Hyperhidrosis	5 (1.2)	3 (0.7)	8 (1.8)	-	-	-	8 (1.8)
Skin ulcer	6 (1.4)	1 (0.2)	7 (1.6)	-	-	-	7 (1.6)
Skin lesion	3 (0.7)	1 (0.2)	4 (0.9)	1 (0.2)	-	1 (0.2)	5 (1.2)
Respiratory, thoracic and mediastinal disorders	50 (11.5)	13 (3.0)	60 (13.9)	14 (3.2)	2 (0.5)	16 (3.7)	74 (17.1)
Epistaxis	15 (3.5)	5 (1.2)	20 (4.6)	4 (0.9)	-	4 (0.9)	24 (5.5)
Dyspnoea exertional	10 (2.3)	5 (1.2)	15 (3.5)	2 (0.5)	-	2 (0.5)	17 (3.9)
Dyspnoea	13 (3.0)	3 (0.7)	15 (3.5)	1 (0.2)	-	1 (0.2)	16 (3.7)
Cough	9 (2.1)	-	9 (2.1)	-	-	-	9 (2.1)
Pulmonary embolism	-	-	-	5 (1.2)	-	5 (1.2)	5 (1.2)
Neoplasms benign, malignant and unspecified (incl cysts and polyps)	35 (8.1)	7 (1.6)	41 (9.5)	34 (7.9)	5 (1.2)	37 (8.5)	71 (16.4)
Basal cell carcinoma	8 (1.8)	2 (0.5)	10 (2.3)	4 (0.9)	1 (0.2)	5 (1.2)	15 (3.5)
Squamous cell carcinoma of skin	7 (1.6)	1 (0.2)	8 (1.8)	4 (0.9)	-	4 (0.9)	12 (2.8)
Squamous cell carcinoma	3 (0.7)	-	3 (0.7)	4 (0.9)	1 (0.2)	5 (1.2)	8 (1.8)
Bowen's disease	2 (0.5)	1 (0.2)	3 (0.7)	2 (0.5)	-	2 (0.5)	5 (1.2)
Vascular disorders	45 (10.4)	8 (1.8)	51 (11.8)	9 (2.1)	1 (0.2)	10 (2.3)	60 (13.9)
Hypertension	24 (5.5)	3 (0.7)	27 (6.2)	-	-	-	27 (6.2)
Haematoma	3 (0.7)	2 (0.5)	5 (1.2)	1 (0.2)	-	1 (0.2)	6 (1.4)
Injury, poisoning and procedural complications	36 (8.3)	-	36 (8.3)	16 (3.7)	1 (0.2)	17 (3.9)	50 (11.5)
Fall	13 (3.0)	-	13 (3.0)	11 (2.5)	-	11 (2.5)	22 (5.1)
Traumatic haematoma	5 (1.2)	-	5 (1.2)	-	-	-	5 (1.2)
Metabolism and nutrition disorders	44 (10.2)	4 (0.9)	48 (11.1)	4 (0.9)	-	4 (0.9)	50 (11.5)
Hyperuricaemia	10 (2.3)	-	10 (2.3)	-	-	-	10 (2.3)
Folate deficiency	8 (1.8)	-	8 (1.8)	-	-	-	8 (1.8)
Gout	6 (1.4)	-	6 (1.4)	-	-	-	6 (1.4)
Iron deficiency	5 (1.2)	1 (0.2)	6 (1.4)	-	-	-	6 (1.4)

	nsAEnr	nsADR	nsAE	SAEnr	SADR	SAE	Any AE
Primary SOC (MedDRA v24.1)							
PT							
Cardiac disorders	20 (4.6)	5 (1.2)	25 (5.8)	28 (6.5)	3 (0.7)	30 (6.9)	49 (11.3)
Atrial fibrillation	6 (1.4)	-	6 (1.4)	8 (1.8)	-	8 (1.8)	13 (3.0)
Cardiac failure	3 (0.7)	-	3 (0.7)	7 (1.6)	1 (0.2)	8 (1.8)	11 (2.5)
Palpitations	4 (0.9)	2 (0.5)	6 (1.4)	-	-	-	6 (1.4)
Renal and urinary disorders	20 (4.6)	1 (0.2)	21 (4.8)	8 (1.8)	2 (0.5)	10 (2.3)	27 (6.2)
Acute kidney injury	-	-	-	5 (1.2)	-	5 (1.2)	5 (1.2)
Psychiatric disorders	20 (4.6)	4 (0.9)	24 (5.5)	3 (0.7)	-	3 (0.7)	25 (5.8)
Sleep disorder	6 (1.4)	2 (0.5)	8 (1.8)	-	-	-	8 (1.8)
Depression	6 (1.4)	-	6 (1.4)	-	-	-	6 (1.4)
Ear and labyrinth disorders	11 (2.5)	3 (0.7)	13 (3.0)	-	-	-	13 (3.0)
Tinnitus	5 (1.2)	1 (0.2)	6 (1.4)	-	-	-	6 (1.4)
Eye disorders	10 (2.3)	3 (0.7)	13 (3.0)	-	-	-	13 (3.0)
Reproductive system and breast disorders	9 (2.1)	1 (0.2)	10 (2.3)	3 (0.7)	-	3 (0.7)	13 (3.0)
Benign prostatic hyperplasia	3 (0.7)	-	3 (0.7)	2 (0.5)	-	2 (0.5)	5 (1.2)
Surgical and medical procedures	1 (0.2)	1 (0.2)	2 (0.5)	8 (1.8)	-	8 (1.8)	10 (2.3)
Hepatobiliary disorders	5 (1.2)	1 (0.2)	6 (1.4)	3 (0.7)	-	3 (0.7)	8 (1.8)
Endocrine disorders	6 (1.4)	-	6 (1.4)	-	-	-	6 (1.4)

Abbreviations: AS = Analysis Set, ADR = Adverse Drug Reaction, AE = Adverse Event, MedDRA = Medical Dictionary for Regulatory Activities, nr = not related, ns = non-serious, PT = Preferred Term, SADR = Serious Adverse Drug Reaction, SAE = Serious Adverse Event, SOC = System Organ Class
AEs without information on relation to study drug or seriousness were considered as related or serious, respectively.
Seriousness assessed with "yes" by physicians.
Relationship to ruxolitinib assessed with "yes" by physicians.

No data identified.

Other Relevant Findings

Not applicable

Conclusion:

This large NIS demonstrated effectiveness and safety of ruxolitinib in patients with PV regardless of prior JAK-inhibitor treatment or BL risk status in a representative real-world cohort.

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Date of Clinical Trial Report

9 April 2024