

SUPPLEMENTAL MATERIAL

Supplemental Table 1. Overall survival of patients in chronic phase of MF (<10% blasts) stratified by bone marrow blast percentage

Blast % in bone marrow [BM]	N of patients / events	Median OS, months (range)
0	282 / 131	65 (54-76)
1	438 / 192	63 (4.2-55)
2	295 / 131	49 (3-43)
3	142 / 90	43 (6.7-27)
4	98 / 54	42 (13-22)
5	31 / 17	30 (4.8-25)
6	26 / 21	21 (8.4-30)
7	13 / 9	22 (5.3-11)
8	23 / 20	15 (3-8.7)
9	8 / 7	6 (3.5-15)

Supplemental Table 2. Abnormal Karyotype stratified by blast percentage (patients with available cytogenetics at presentation)

Groups / N of tested pts	CP, n=611	CP-1, n=467	CP2, n=78	AP, n=46	p-value**
Karyotype characteristics					
Abnormal (Abn), N (%)	210 (32)	209 (40)	54 (69)	34 (64)	<0.001
Single Abn, N (%)	132 (22)	140 (30)	35 (45)	16 (35)	0.01
Deletion 13q, N (%)	21 (3)	24 (5)	8 (10)	2 (4)	0.101
Deletion 20q, N (%)	56 (9)	44 (9)	9 (12)	3 (7)	0.908
Trisomy 8, N (%)	16 (3)	15 (3)	3 (4)	3 (7)	0.436
Trisomy 9, N (%)	5 (1)	3 (1)	0	0	NA
Deletion 5/5q, 7/7q, 12p-, 11q23, i17q N (%)	9 (1.5)	5 (1)	5 (6)	1 (2)	0.456
Other single*, N (%)	26 (4)	49 (11)	10 (13)	7 (15)	0.236
Two Abn, N (%)	51 (8)	38 (8)	10 (13)	9 (20)	0.93
Two Abn incl 5/5q, 7/7q, 12p-, 11q23, i17q, N (%)	8 (1)	5 (1)	1 (1)	1 (2)	0.78
Abn 2, Monosomal	0	3 (1)	0	1 (2)	0.48
CK, monosomal	7 (1)	17 (4)	6 (8)	5 (11)	<0.001
Complex (≥3 Abn), N (%)	27 (4)	31 (7)	9 (12)	9 (20)	<0.001

* other single: combinations of: INV, DER and TRANSL. of 1, 3, 6, 8, 9, 12, 13, 15, 18 and Y; trisomy of 1, 8, 9, 21, 13; ADD of 21, 2; DEL 6p, 8p, 1p, 13q, 20q, 12q, 11p

** p-value CP2 vs AP: 0.68 for abnormal CG, 0.34 for single Abn; 0.29 for CK (the difference remains between CP/CP1 vs CP-2/AP); **BOLD**, statistically significant results

Supplemental Table 3. Demographics and clinical characteristics of patients with 5-9% and 10% BM blasts

Characteristics	BM 5-9%, n=101	BM 10%, N=56	p-value
Males, N (%)	71 (70)	40	0.39
Median age, years (range)	66.8 (32-86)	66 (28-81)	0.179
Age > 65 years, N (%)	64 (63)	30	0.06
Median hemoglobin g/dL, (range)	10 (4.6-16)	9.2 (5.8-15)	0.06
Hemoglobin < 10 g/dL, n (%)	53 (52)	36	0.07
Median WBC x10 ⁹ /L, (range)	12.25 (2-361)	12.6 (1-76)	0.69
WBC > 25 x10 ⁹ /L, N (%)	34 (33)	11	0.14
Median platelets x 10 ⁹ /L, (range)	181 (6-886)	146.5 (3-764)	0.31
Platelets < 100 x10 ⁹ /L, N (%)	40 (40)	22	0.73
Transfusion dependency, N (%)	27 (27)	21	0.103
BM fibrosis, grade ≥2, N (%)	95 (95)	50	0.104
Splenomegaly, > 5 cm BCM, N (%)	68 (68)	30	0.38
Symptoms, N (%)	89 (88)	52	0.64
diploid karyotype, N (%)	46 (46)	19	0.72
JAK2 positive, N (%)	53 / 81	29/46	1.00
MPL and CALR	1 / 11	0/5	
HMR	16 / 43 (37)	9 / 31 (29)	
DIPSS risk, N (%) -- low	3	1	0.91
Int-1	44	19	
Int-2	35	18	
high	28	18	

Supplemental Table 4. Treatment distribution

Groups // treatment characteristics	CP, 720	CP1, 535	CP-2, 101	AP, 56
RUX, N (%)	255 (35)	232 (43)	40 (40)	13 (23)
Single RUX	183 (72)	172 (74)	6 (15)	1 (8)
RUX & HMA (AZA / DAC)*	27 (11)	15 (6)	12 (30)	7 (54)
RUX & IMiDs (LEN / THAL)*	33 (13)	29 (12.5)	18 (45)	5 (38)
RUX & others (HDAC / JAKi/ etc)	12 (5)	16 (7)	4 (10)	--
RUX treatment duration, median (range), months				
ALL regimens	15 (1-110)	14 (2-97)	19 (2-111)	6 (3-21)
Single RUX, clinical trials	37 (4-105)	24 (4-104)	31 (2-111)	--
RUX in combination, clinical trials	15.5 (3-67)	9.5 (5-71)	16 (2-32)	--

RUX = ruxolitinib

Supplemental Table 5. Overall survival in all patients based on BM blast percentage, stratified by the use of ruxolitinib (uncensored and censored for SCT)

	All pts (N / events)	Overall survival, uncensored for SCT	OS, censored for SCT
CP			
With RUX	455 / 229	72 (60-84)	78 (64-92)
Without RUX	255 / 94	58 (48-68)	59 (49-69)
CP-1			
With RUX	232 / 100	58 (45-71)	60 (46-74)
Without RUX	303 / 175	34 (25-43)	34 (23-45)
CP-2			
With RUX	61 / 53	47 (37-57)	47 (38-56)
Without RUX	40 / 21	16 (10-22)	17 (13-21)
AP			
With RUX	13 / 9	10 (1-33)	--
Without RUX	43 / 29	14 (6-21)	--

Survival for AP after SCT was not calculated due to small numbers and limited SCT use; RUX = ruxolitinib

Supplemental Table 6. Overall survival in patients referred after the year of 2000 stratified by bone marrow blast percentage and the use of ruxolitinib, uncensored and censored for SCT

1220> y 2000	MF, N (all / events)	OS, uncensored	MF, N (all / events)	OS, censored for SCT
CP				
With RUX	242 / 93	72 (59-85)	241/85	72 (59-85)
Without RUX	359 / 184	64 (53-75)	359/167	65 (53-77)
CP-1				
With RUX	259 / 158	54 (42-66)	213/91	34 (24-44)
Without RUX	213 / 99	34 (26-43)	259/143	58 (44-72)
CP-2				
With RUX	44 / 22	48 (38-58)	44/20	48 (37-59)
Without RUX	54 / 48	15 (9-21)	54/42	17 (11-23)
AP				
With RUX	12 / 7	10 (0.3-33)	12/7	10 (0.3-21)
Without RUX	37 / 28	14 (6.5-22)	27/25	19 (5.5-33)

RUX = ruxolitinib, SCT, stem cell transplantation, all alive patients had > 3 months follow-up since presentation; p-values comparing patients with and without RUX within groups (uncensored for SCT): CP, p = 0.03; CP-1, p < 0.001, CP-2, p < 0.001; AP, p = 0.17

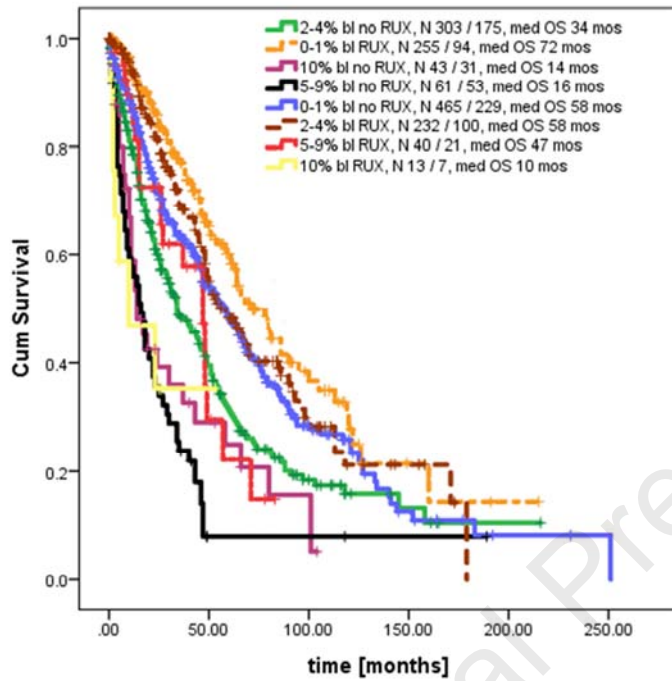
Supplemental Table 7. Overall survival in newly diagnosed patients based on blast percentage and the use of ruxolitinib, censored and uncensored for SCT

	NEW, N (all / events)	OS, uncensored	NEW, N (all / events)	OS, censored for SCT
CP				
With RUX	121/42	86 (46-126)	121/38	86 (56-116)
Without RUX	276/129	67 (56-78)	276/114	69 (59-79)
CP-1				
With RUX	112/46	85 (60-109)	112/42	86 (59-113)
Without RUX	169/88	46 (37-55)	169/77	49 (38-60)
CP-2				
With RUX	30/25	15 (9.7-20)	19/7	57 (47-67)
Without RUX	19/8	57 (39-75)	30/22	15 (8-22)
AP				
With RUX	5/1	NR	--	--
Without RUX	23/14	30 (1-60)	--	--

OS for AP censored for SCT was not calculated due to small numbers, RUX = ruxolitinib

CP-2 vs AP in new pts: $p = 0.7$;

Supplemental Figure 1. Kaplan Meier curve comparing overall survival of all groups stratified by ruxolitinib



Supplemental Figures 2 A-C. Kaplan Meier curves showing overall survival censored for stem cell transplantation: [2A] patients in CP with and without ruxolitinib; [2B] patients in CP-1 with and without ruxolitinib, [2C] patients in CP-2 with and without ruxolitinib

