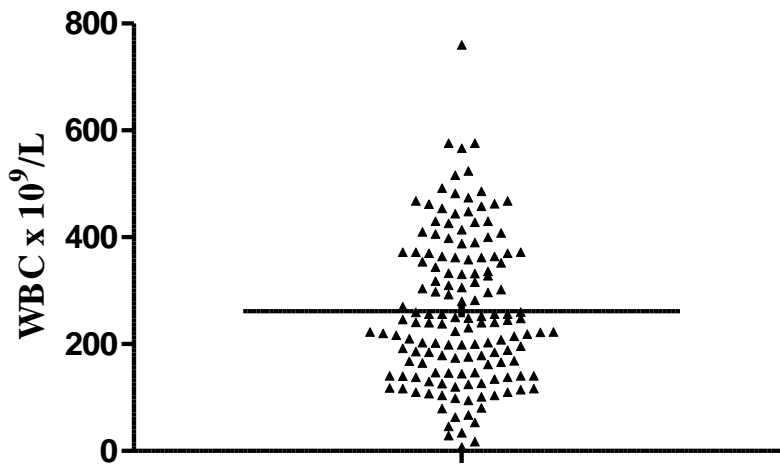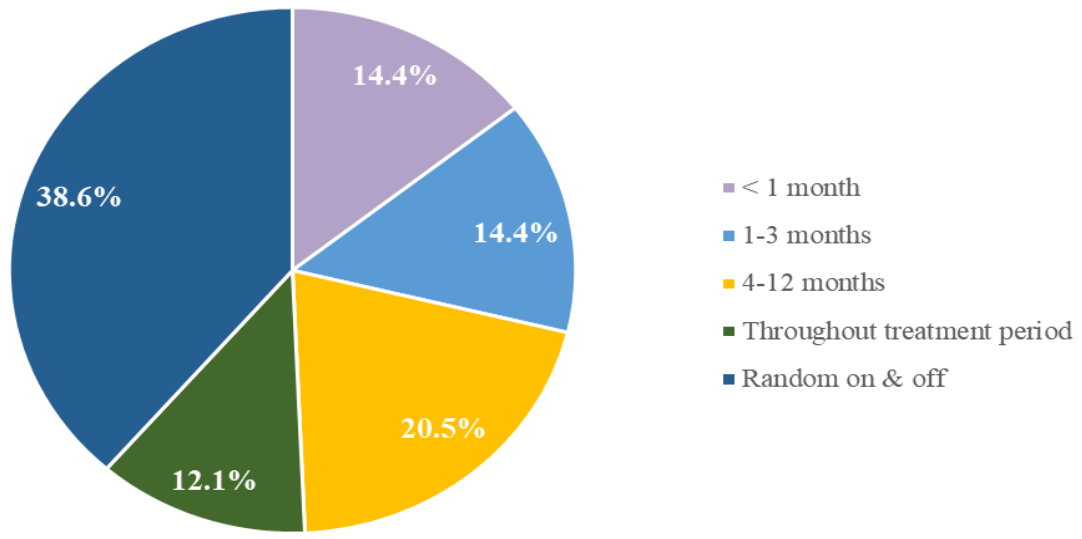**Supplementary figure 1: Low baseline hemoglobin level at diagnosis.** Anemia was a frequent finding at the time of diagnosis, with a median haemoglobin of 7.8g/dl, range 2.6 – 13.3g/dl.

Supplementary figure 2: High baseline white blood cell count at diagnosis. Median WBC 241.0 x10^9/L, range 8.0 – 760.0 x 10^9/L.

Supplementary figure 3: Imatinib side effects not limited to first months of treatment. A significant number of patients (38.6%) reported side effects at various times beyond 12 months of treatment.

Supplementary table 1. Univariate and multivariate logistic regression of clinical and treatment related factors associated with Sub-optimal molecular response

Variable	Molecular Response		COR, 95% CI	AOR, 95% CI
	Sub optimal n=119 (%)	Optimal n=39 (%)		
Abdominal Fullness				
Present	107 (78.7)	29 (21.3)	**3.08 (1.21,7.83)***	2.41 (0.91, 6.39)
Not present	12 (54.5)	10 (45.5)	1.00	1.00
Previous BT				
Yes	45 (86.5)	7 (13.5)	**2.78 (1.13, 6.82)***	**2.76 (1.10, 6.94)***
No	74 (69.8)	32 (30.2)	1.00	1.00
Sokal Risk Groups				
Low	6 (60.0)	4 (40.0)	1.00	-
Intermediate	40 (78.4)	11 (21.6)	2.43 (0.58, 10.15)	-
High	34 (79.1)	9 (20.9)	2.52 (0.58, 10.89)	-
Cytopenia from Imatinib				
Present	77 (81.9)	17 (18.1)	**2.37 (1.14, 4.95)***	**2.19 (1.02, 4.73)***
Not present	42 (65.6)	22 (34.4)	1.00	1.00
Adherence				
High	29 (72.5)	11 (27.5)	1.00	-
Medium	37 (74.0)	13 (26.0)	1.08 (0.42, 2.76)	
Low	53 (77.9)	15 (22.0)	1.34 (0.54, 3.30)	-

* variables with p value < 0.05; BT, Blood transfusion; COR Crude Odds Ratio; AOR, Adjusted Odds Ratio; CI, Confidence Interval

Supplementary table 2. Analysis of Hematologic data at diagnosis in relation to ELN response categories

Variable	Molecular Response		Difference in means (optimal – suboptimal)	P value
	Optimal Mean (SD)	Sub optimal Mean (SD)		
WBC Level $(x10^9/L)$	276.8 (141.0)	211.8 (114.7)	**65.03 (135.5)**	**<0.01**
Hemoglobin level (g/dL)	7.7 (2.1)	8.3 (2.36)	-0.60 (2.20)	0.19
Platelet count $(x10^9 /L)$	384 (266)	304 (186)	80.5 (249.6)	0.05

WBC, white blood cells; SD, standard deviation

Supplementary table 3. Molecular responses among patients with data available for sokal and disease phase, n=158

	Molecular Response			
	Optimal	Sub optimal	Total	P-value
Data for Sokal score				
Present	24 (23.1)	80 (76.9)	104 (100)	0.561
Absent	15 (27.8)	39 (72.2)	54 (100)	
Data for disease phase				
Present	31 (23.5)	101 (76.5)	132 (100)	0.459
Absent	8 (30.8)	18 (69.2)	26 (100)	

Supplementary table 4. Molecular data, Sokal score and time point assessed for each patient.

No.	Age (yrs)	Sex	Sokal Score Category	Duration on Imatinib (mo)	BCR-ABL/ABL ratio	ELN time point (mo)	ELN Response Category	Outcome at 22 mo
1	35	F	high	13	6.6	12	Failure	Alive
2	50	M	low	42	14	12	Failure	Alive
3	60	F	–	55	1.5	12	Failure	Alive
4	26	F	low	17	100	12	Failure	Died
5	49	M	high	18	0.006	12	Optimal	Alive
6	25	F	intermediate	5	19	3	Failure	Alive
7	51	M	high	9	21	6	Failure	Alive
8	43	M	intermediate	99	9.8	12	Failure	Alive
9	36	F	intermediate	6	0.48	6	Optimal	Alive
10	41	M	intermediate	7	20	6	Failure	Alive
11	38	F	low	15	0.1	12	Optimal	Alive
12	70	M	intermediate	37	91	12	Failure	Alive
13	47	F	intermediate	10	32	6	Failure	Alive
14	29	M	high	15	60	12	Failure	Alive
15	37	F	intermediate	84	21	12	Failure	Died
16	32	F	low	31	80	12	Failure	Alive
17	53	F	intermediate	130	54	12	Failure	Alive
18	37	F	high	20	49	12	Failure	Alive
19	68	M	–	14	0.098	12	Optimal	Alive
20	42	M	–	67	0.35	12	Warning	Alive
21	45	F	–	88	37	12	Failure	Alive
22	21	M	–	27	1.8	12	Failure	Alive
23	69	M	–	67	0.03	12	Optimal	Died*
24	35	M	intermediate	15	2.4	12	Failure	Alive
25	39	F	intermediate	32	7.8	12	Failure	Alive
26	28	M	–	32	13	12	Failure	Alive
27	42	F	intermediate	13	0.24	12	Warning	Alive
28	25	M	high	36	100	12	Failure	Alive
29	54	M	–	21	0.0032	12	Optimal	Alive
30	42	M	intermediate	7	15	6	Failure	Alive
31	19	M	–	17	100	12	Failure	Died
32	61	F	high	5	37	3	Failure	Alive
33	52	M	intermediate	97	4.8	12	Failure	Alive
34	45	M	–	63	80	12	Failure	Died
35	35	M	–	123	36	12	Failure	Alive
36	23	M	high	13	0.21	12	Warning	Alive
37	34	M	intermediate	12	0.098	12	Optimal	Alive

No.	Age (yrs)	Sex	Sokal Score Category	Duration on Imatinib (mo)	BCR-ABL/ABL ratio	ELN time point (mo)	ELN Response Category	Outcome at 22 mo
38	70	F	high	44	0.19	12	Warning	Died*
39	62	F	–	60	0.0028	12	Optimal	Alive
40	50	M	high	51	69	12	Failure	Died
41	41	M	intermediate	52	42	12	Failure	Alive
42	48	M	intermediate	25	33	12	Failure	Alive
43	40	F	–	59	36	12	Failure	Alive
44	68	F	high	18	110	12	Failure	Alive
45	27	F	–	110	45	12	Failure	Alive
46	31	M	–	41	50	12	Failure	Alive
47	33	M	high	32	20	12	Failure	Alive
48	49	M	intermediate	122	0.0015	12	Optimal	Alive
49	50	M	intermediate	36	0.028	12	Optimal	Alive
50	48	M	high	39	90	12	Failure	Alive
51	44	M	–	40	76	12	Failure	Died
52	47	F	–	15	29	12	Failure	Alive
53	26	M	intermediate	24	0.13	12	Optimal	Alive
54	52	M	intermediate	43	2.5	12	Failure	Alive
55	49	F	–	40	1.3	12	Warning	Alive
56	55	M	high	22	68	12	Failure	Alive
57	46	M	intermediate	16	33	12	Failure	Alive
58	29	M	low	18	0.025	12	Optimal	Alive
59	70	F	intermediate	59	0.011	12	Optimal	Alive
60	24	M	low	53	98	12	Failure	Died
61	57	F	high	13	43	12	Failure	Died
62	86	F	high	159	0.0003	12	Optimal	Died*
63	32	F	intermediate	23	100	12	Failure	Alive
64	40	F	–	49	0.022	12	Optimal	Alive
65	55	F	high	48	0.0005	12	Optimal	Died*
66	23	M	low	17	0.066	12	Optimal	Alive
67	45	M	–	32	1.4	12	Warning	Alive
68	64	F	intermediate	28	42	12	Failure	Alive
69	35	M	–	84	40	12	Failure	Alive
70	42	M	high	37	100	12	Failure	Alive
71	38	F	–	68	1.1	12	Warning	Alive
72	44	M	intermediate	16	25	12	Failure	Alive
73	54	M	–	123	5.1	12	Failure	Alive
74	46	M	intermediate	28	33	12	Failure	Died
75	62	M	intermediate	42	0.0007	12	Optimal	Died*
76	55	F	high	20	58	12	Failure	Died

No.	Age (yrs)	Sex	Sokal Score Category	Duration on Imatinib (mo)	BCR-ABL/ABL ratio	ELN time point (mo)	ELN Response Category	Outcome at 22 mo
77	51	F	high	24	5.2	12	Failure	Died
78	53	M	–	50	37	12	Failure	Alive
79	57	F	–	72	130	12	Failure	Alive
80	60	M	intermediate	29	45	12	Failure	Died
81	67	M	high	26	59	12	Failure	Died
82	31	F	intermediate	13	1.7	12	Failure	Alive
83	45	M	intermediate	107	91	12	Failure	Alive
84	55	F	high	60	67	12	Failure	Alive
85	57	F	high	12	0.038	12	Optimal	Alive
86	60	F	high	6	19	6	Failure	Alive
87	55	F	intermediate	96	19	12	Failure	Alive
88	21	M	low	62	100	12	Failure	Alive
89	44	M	intermediate	5	21	3	Failure	Alive
90	41	M	–	34	47	12	Failure	Alive
91	45	M	high	45	61	12	Failure	Alive
92	33	F	–	96	0.0001	12	Optimal	Alive
93	34	F	low	9	0.26	6	Optimal	Alive
94	39	F	–	5	11	3	Warning	Alive
95	24	F	intermediate	7	31	6	Failure	Alive
96	55	M	intermediate	40	0.16	12	Warning	Alive
97	18	F	high	19	100	12	Failure	Died
98	55	F	–	83	5.3	12	Failure	Alive
99	33	M	–	108	1.1	12	Warning	Alive
100	34	F	high	4	28	3	Failure	Alive
101	44	F	high	21	30	12	Failure	Alive
102	32	F	low	84	68	12	Failure	Alive
103	50	F	intermediate	19	35	12	Failure	Died
104	60	F	–	22	21	12	Failure	Alive
105	41	M	intermediate	18	55	12	Failure	Died
106	39	M	intermediate	4	2.4	3	Optimal	Alive
107	54	F	high	5	37	3	Failure	Alive
108	28	M	–	77	0.12	12	Optimal	Alive
109	57	M	high	100	0.0084	12	Optimal	Alive
110	65	M	intermediate	19	0.36	12	Warning	Alive
111	59	M	high	20	0.1	12	Optimal	Alive
112	45	F	intermediate	25	61	12	Failure	Died
113	58	M	–	72	0.071	12	Optimal	Alive
114	49	F	high	36	1.9	12	Failure	Alive
115	39	F	–	48	39	12	Failure	Alive

No.	Age (yrs)	Sex	Sokal Score Category	Duration on Imatinib (mo)	BCR-ABL/ABL ratio	ELN time point (mo)	ELN Response Category	Outcome at 22 mo
116	35	F	–	9	0.0069	6	Optimal	Alive
117	38	M	high	15	18	12	Failure	Alive
118	43	M	–	120	71	12	Failure	Alive
119	61	F	high	14	0.011	12	Optimal	Alive
120	54	M	high	38	47	12	Failure	Alive
121	30	M	high	5	20	3	Failure	Alive
122	61	F	–	89	52	12	Failure	Alive
123	44	M	intermediate	130	110	12	Failure	Alive
124	45	F	intermediate	13	0.34	12	Warning	Alive
125	84	M	–	146	47	12	Failure	Alive
126	37	M	intermediate	6	30	6	Failure	Alive
127	28	M	intermediate	6	5.9	6	Warning	Alive
128	53	F	intermediate	28	29	12	Failure	Alive
129	47	M	intermediate	18	33	12	Failure	Alive
130	71	F	–	134	1.5	12	Failure	Alive
131	49	F	–	105	0.066	12	Optimal	Alive
132	43	M	–	85	1.1	12	Warning	Alive
133	31	M	–	103	0.9	12	Warning	Alive
134	30	M	high	3	2	3	Optimal	Alive
135	54	F	high	6	33	6	Failure	Died
136	46	M	–	55	0.1	12	Optimal	Alive
137	48	M	–	6	0.025	6	Optimal	Alive
138	50	M	–	53	68	12	Failure	Died
139	32	F	–	70	54	12	Failure	Died
140	27	M	–	144	0.024	12	Optimal	Alive
141	52	F	high	4	18	3	Warning	Alive
142	43	M	intermediate	7	14	6	Failure	Died
143	18	F	intermediate	138	84	12	Failure	Alive
144	44	F	–	62	5	12	Failure	Died
145	59	M	–	10	35	6	Failure	Alive
146	68	F	intermediate	3	12	3	Warning	Died
147	31	M	high	12	100	12	Failure	Alive
148	49	F	–	98	0.0002	12	Optimal	Alive
149	54	F	intermediate	37	22	12	Failure	Alive
150	52	M	high	39	51	12	Failure	Alive
151	52	M	high	8	48	6	Failure	Alive
152	72	F	–	60	59	12	Failure	Alive
153	45	M	intermediate	8	0.23	6	Optimal	Alive
154	60	F	intermediate	54	0.016	12	Optimal	Alive

No.	Age (yrs)	Sex	Sokal Score Category	Duration on Imatinib (mo)	BCR-ABL/ABL ratio	ELN time point (mo)	ELN Response Category	Outcome at 22 mo
155	26	M	–	96	0.061	12	Optimal	Alive
156	18	M	–	120	9.4	12	Failure	Alive
157	36	M	–	96	36	12	Failure	Alive
158	30	M	high	31	100	12	Failure	Died

yrs= years, mo = months, M = Male, F = Female, (–) = Data unavailable, * cause of death unrelated to CML