

**SUPPLEMENTAL APPENDIX**

<b>Table of Contents</b>	1
<b>Baseline Characteristics: Table S1</b>	2-3
<b>Causes of death: Table S2</b>	4
<b>CONSORT Diagram: Figure S1</b>	5
<b>PFS to first salvage following ibrutinib progression: Figure S2</b>	6
<b>PFS based on individual salvage therapy: Figure S3</b>	7
<b>PFS based on best response to therapy prior to progression: Figure S4</b>	8
<b>PR-OS based on ibrutinib line of therapy prior to progression: Figure S5</b>	9

**Table S1. Baseline Characteristics**

	<b>All patients N=47 (%)</b>	<b>IB PP N=15 (%)</b>	<b>IB SP N=32</b>	<b>p-value</b>
Median age at IB therapy in years (range)	66 (27-91)	65 (41-91)	67 (27-81)	0.62
Gender				0.76
Male	20 (43)	7 (47)	13 (41)	
Female	27 (57)	8 (53)	19 (59)	
BMI ≥30	9 (24)	3 (27)	6 (22)	0.99
MZL subtype				0.56
NMZL	21 (45)	5 (33)	16 (50)	
SMZL	10 (21)	4 (27)	6 (19)	
EMZL	16 (34)	6 (40)	10 (31)	
Stage at diagnosis				0.99
1-2	8 (17)	2 (14)	6 (19)	
3-4	38 (83)	12 (86)	26 (81)	
B symptoms at diagnosis	11 (23)	3 (20)	8 (25)	0.99
LDH >ULN	10 (26)	4 (36)	6 (21)	0.42
Monoclonal protein at diagnosis	15 (47)	6 (75)	9 (37)	0.11
BM involvement at diagnosis				0.45
No	10 (26)	5 (39)	5 (20)	
Yes	28 (74)	8 (61)	20 (80)	
Not done	11	3	8	
TP53 mut/17p del				0.50
No	26 (93)	7 (88)	19 (95)	
Yes	2 (7)	1 (12)	1 (5)	
Not tested	19	7	12	
Complex cytogenetics				
No	24 (86)	7 (70)	17 (94)	0.09
Yes	4 (14)	3 (30)	1 (6)	
Not tested	19	5	14	
Primary refractory disease	14 (30)	7 (47)	7 (22)	0.08
Frontline therapy				0.08
R monotherapy	21 (45)	4 (27)	17 (53)	

Immunochemotherapy	20 (42)	10 (66)	10 (31)	
Others	6 (13)	1 (7)	5 (16)	
Receipt of maintenance R				0.99
No	36 (77)	12 (80)	24 (75)	
Yes	11 (23)	3 (20)	8 (25)	

Abbreviations: IB=ibrutinib; PP=primary progressors, SP=secondary progressors, BMI=body mass index, NMZL= nodal MZL, SMZL=splenic MZL, EMZL=extranodal MZL, ULN=upper limit of normal, BM=bone marrow, R=rituximab

**Table S2: Causes of death**

	<b>All patients N=18 (%)</b>	<b>IB PP N=8 (%)</b>	<b>IB SP N=10 (%)</b>
Lymphoma progression	11 (61)	8 (100)	3 (30)
Infection	2* (11)	0	2 (20)
Chemotherapy toxicity	1** (6)	0	1 (10)
Organ failure	2^ (11)	0	2 (20)
Missing/unknown	2 (11)	0	2 (20)

Abbreviations: IB=ibrutinib; PP=primary progressors, SP=secondary progressors

\*Infectious complications due to other lymphoma directed therapy

\*\*Chemotherapy toxicity due to other lymphoma directed therapy

^Organ failure was not related to lymphoma directed therapies

Figure S1. CONSORT diagram

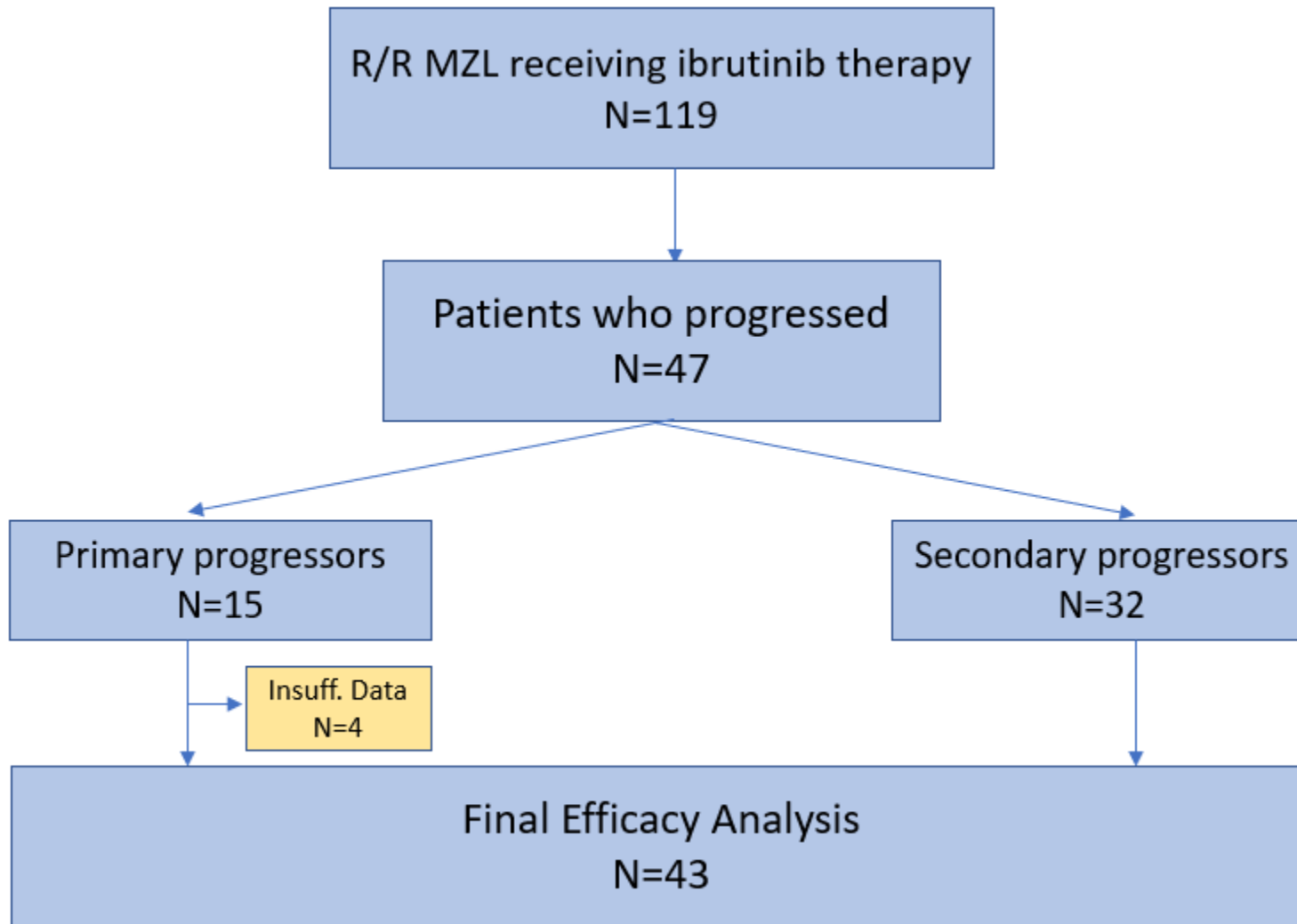


Figure S2. PFS following ibrutinib progression/relapse among patients who received salvage therapy

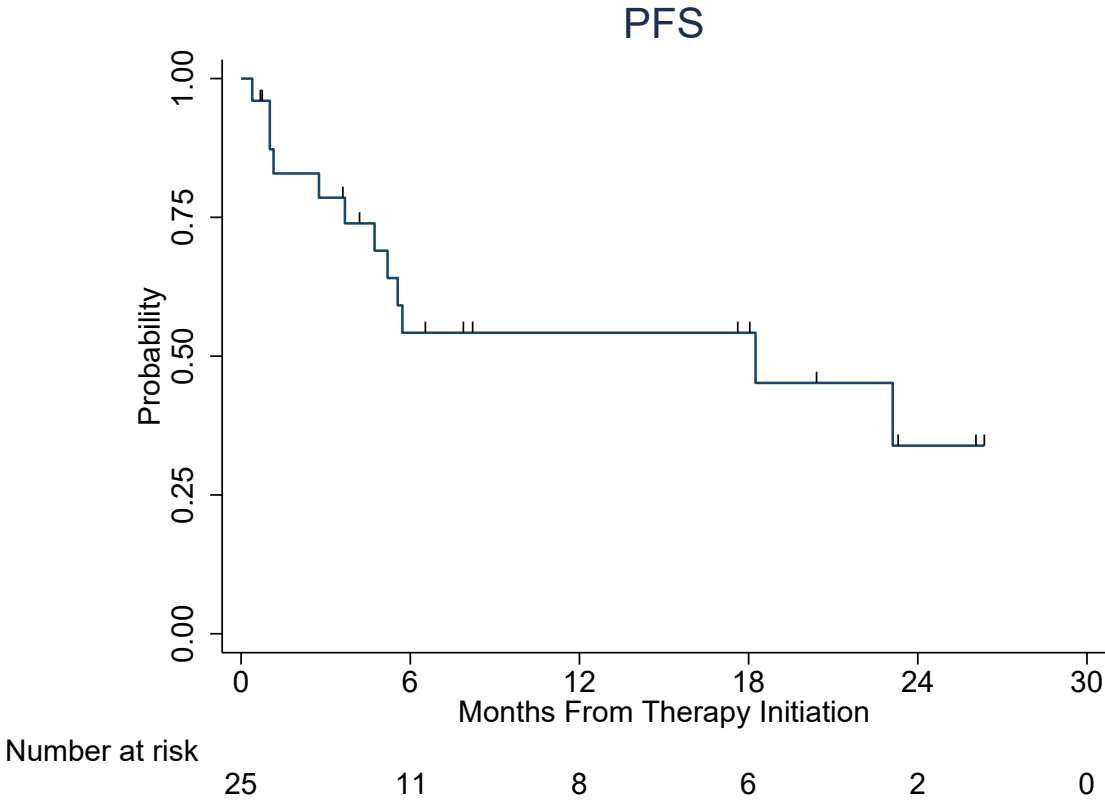


Figure S3. PFS following ibrutinib progression/relapse based on individual salvage therapy

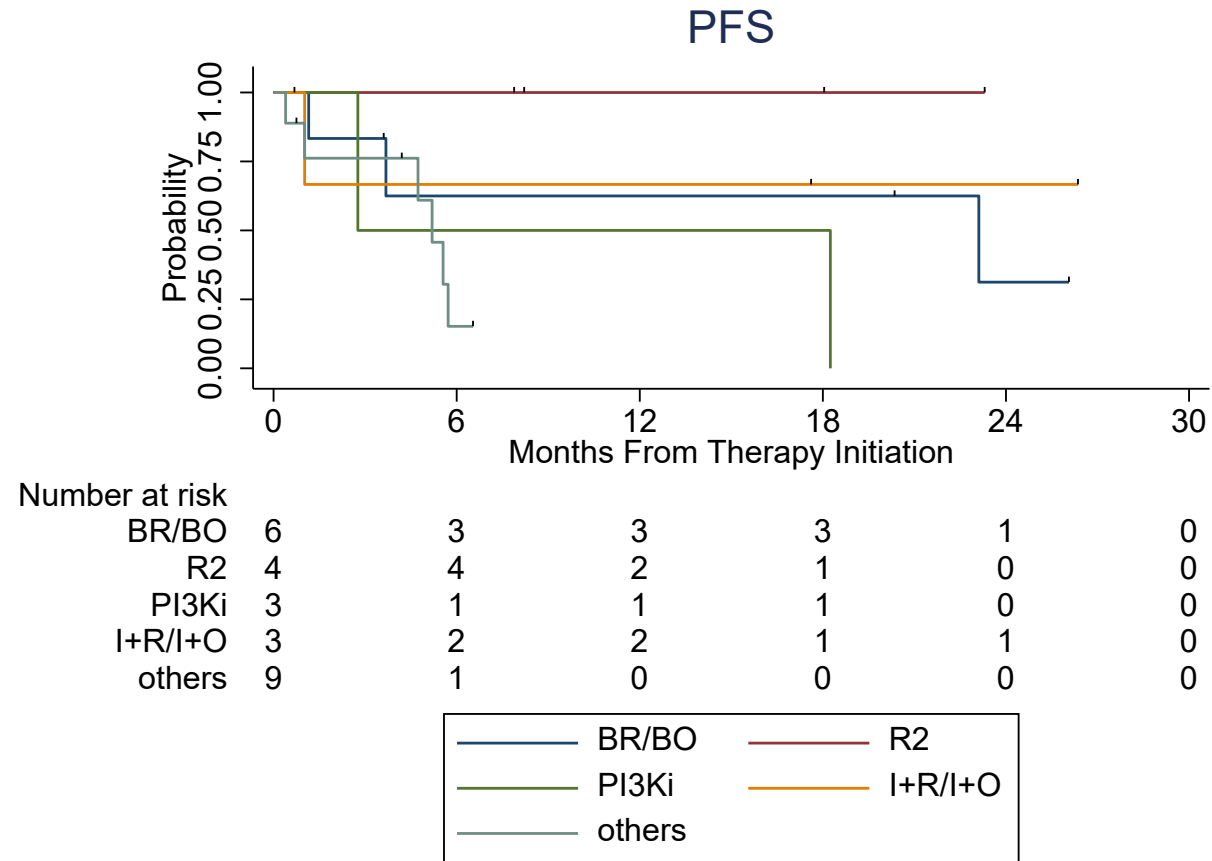


Figure S4. PFS following ibrutinib progression/relapse based on best response to ibrutinib prior to progression

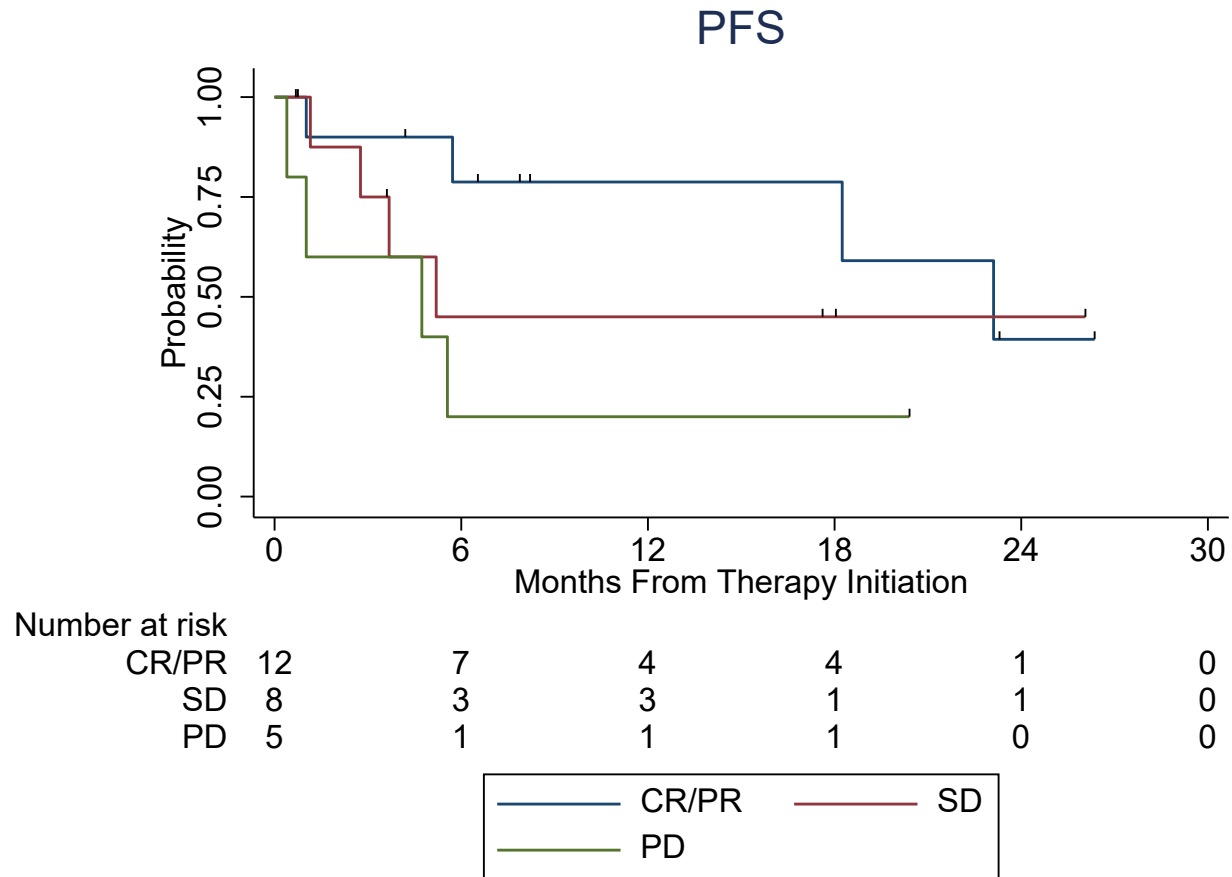




Figure S5. PR-OS based on the ibrutinib line of therapy prior to progression

