

**Supplemental Table 1: Patient Characteristics**

<b>N = 16</b>	<b>N (range or %)</b>
Age at Study Entry	63 (36-85)
Sex - Male	11 (69)
Rai Stage 3-4	4 (25)
Median WBC at baseline, 10 <sup>3</sup> /μL	11 (2 - 94.9)
Median Hb at baseline, g/dL	10 (7.6 - 15)
Median platelets at baseline, 10 <sup>3</sup> /μL	113 (6 - 217)
Median β2m, mg/L	5 (3 - 16.5)
ECOG 0 / 1 / 2	3(19)/ 10(62)/ 2(13)
Time from diagnosis to Study Therapy	74 months (6-176)
Number of Prior Therapies	6 (1-16)
<i>IGHV</i> Unmutated	11 / 14 evaluable (79%)
ZAP-70 Positive (>20%)	8 / 9 evaluable (89%)
Interphase FISH (Dohner hierarchy)	
Del 17p	6 (38%)
Del 11q	3 (19%)
Trisomy 12	4 (25%)
Normal	2 (13%)
Del 13q	1 (6%)
Most common prior therapies	
Fludarabine rituximab +/- cyclophosphamide	15
High dose methylprednisolone +/- antibody	8
Rituximab	6
Bendamustine +/- R	6
Involved field radiation	6
Alemtuzumab	5
CHOP +/- R	5
CVP +/- R	4
Chlorambucil or cyclophosphamide	4
Ofatumumab	3
Lenalidomide	3
PI3K inhibitor	1
BTK inhibitor	0