Table S1. Multivariate analyses of time to initial infused therapy

Variable	Level	Hazard Ratio (95% CI)
Age	66-69	reference
	70-74	0.97 (0.85 - 1.11)
	75-79	0.90 (0.79 - 1.02)
	≥ 80	0.64 (0.56 - 0.73)
Gender	Female	reference
	Male	1.32 (1.21 - 1.44)
Race	White	reference
	Black	1.02 (0.83 - 1.26)
	Other	0.64 (0.49 - 0.84)
	Hispanic	1.20 (0.94 - 1.54)
Stage at Diagnosis	Non-advanced	reference
	Advanced	2.00 (1.82 - 2.20)
NCI Comorbidity Score	0	reference
	1	0.96 (0.86 - 1.07)
	2	0.86 (0.73 - 1.02)
	≥ 3	0.64 (0.51 - 0.81)
Year of Diagnosis	1999	reference
	2000-2002	0.97 (0.81 - 1.15)
	2003-2005	0.90 (0.75 - 1.08)
Percent age 25+ with Some College	0-24%	reference
	≥ 25%	0.97 (0.89 - 1.07)
Percent Living in Poverty	0-5%	reference
	6-11%	0.94 (0.84 - 1.05)
	≥12%	0.88 (0.78 - 1.00)
MSA Size	Big Metro	reference
	Metro	1.00 (0.90 - 1.12)
	Urban	1.03 (0.85 - 1.24)
	Less Urban	0.96 (0.82 - 1.12)
	Rural	0.97 (0.73 - 1.29)

Note: Hazard ratios less than 1.0 indicate a lower rate of treatment initiation.

Table S2. Stratified analyses of mortality by age (all treatment groups)

Variable	Level	Hazard Ratio (95% CI)		
		Overall N=2,040	Age < 70 N=264	Age ≥ 70 N=1,776
Initial Infused Therapy	Chemotherapy alone	reference		
	Rituximab alone	0.60 (0.49 - 0.73)	0.48 (0.17 - 1.33)	0.61 (0.50 - 0.75)
	Rituximab plus chemotherapy	0.75 (0.62 - 0.91)	0.87 (0.52 - 1.45)	0.71 (0.58 - 0.88)
Age	66-69	reference		
	70-74	1.33 (1.06 - 1.67)	n/a	n/a
	75-79	1.65 (1.32 - 2.06)	n/a	n/a
	≥ 80	2.41 (1.94 - 3.00)	n/a	n/a
Gender	Female	reference		
	Male	1.35 (1.19 - 1.53)	1.01 (0.67 - 1.52)	1.33 (1.17 - 1.52)
Race	White	reference		
	Black	1.36 (1.04 - 1.77)	0.73 (0.31 - 1.68)	1.46 (1.10 - 1.93)
	Other	0.87 (0.57 - 1.32)	0.45 (0.11 - 1.85)	0.97 (0.63 - 1.51)
	Hispanic	1.13 (0.80 - 1.58)	0.51 (0.18 - 1.46)	1.14 (0.80 - 1.62)
Stage	Non-advanced	reference		
	Advanced	1.41 (1.24 - 1.60)	1.47 (0.92 - 2.36)	1.53 (1.34 - 1.75)
NCI Comorbidity Score	0	reference		
	1	1.10 (0.94 - 1.28)	1.33 (0.79 - 2.25)	1.10 (0.94 - 1.30)
	2	1.22 (0.99 - 1.51)	0.64 (0.27 - 1.53)	1.31 (1.05 - 1.63)
	≥3	1.50 (1.13 - 1.98)	1.81 (0.52 - 6.26)	1.59 (1.19 - 2.13)

Note: Analyses stratified by age include rituximab alone because both treatment selection and outcomes are associated with age. Patients using rituximab monotherapy may be very different patients in ways that are not captured by these variables. Models are also adjusted for potential confounding from year of infusion, education, poverty, and MSA size.

Table S3. Multivariate analysis of hematological interventions

Variable	Level	Odds Ratio (95% CI)		
		Anemia	**Neutropenia**	**Thrombo-cytopenia**
Initial Infused Therapy	Chemotherapy alone	reference		
	Rituximab alone	0.36 (0.27 - 0.47)	0.17 (0.08 - 0.35)	0.49 (0.25 - 0.94)
	Rituximab plus chemotherapy	1.55 (1.17 - 2.04)	1.98 (1.42 - 2.75)	1.63 (1.02 - 2.59)
Status at Start of Therapy	Not pre-existing	reference		
	Pre-existing	2.80 (2.28 - 3.45)	4.15 (2.31 - 7.45)	3.80 (2.48 - 5.82)
Age	66-69	reference		
	70-74	1.16 (0.85 - 1.59)	0.71 (0.48 - 1.05)	0.99 (0.54 - 1.81)
	75-79	1.33 (0.97 - 1.81)	0.61 (0.41 - 0.91)	0.72 (0.39 - 1.34)
	$\geq$ 80	1.56 (1.14 - 2.13)	0.43 (0.28 - 0.65)	0.93 (0.51 - 1.68)
Gender	Female	reference		
	Male	0.87 (0.72 - 1.05)	1.24 (0.94 - 1.63)	1.18 (0.80 - 1.72)
Race	White	reference		
	Black	1.31 (0.84 - 2.06)	0.89 (0.46 - 1.74)	0.22 (0.05 - 0.93)
	Other	0.89 (0.51 - 1.55)	0.78 (0.32 - 1.91)	0.66 (0.16 - 2.81)
	Hispanic	0.72 (0.42 - 1.23)	1.41 (0.70 - 2.84)	1.35 (0.57 - 3.19)
NCI Comorbidity Score	0	reference		
	1	1.25 (0.99 - 1.58)	1.10 (0.79 - 1.53)	1.40 (0.91 - 2.15)
	2	1.15 (0.81 - 1.63)	0.63 (0.35 - 1.13)	0.94 (0.47 - 1.90)
	≥3	1.57 (0.94 - 2.62)	1.13 (0.57 - 2.25)	0.54 (0.16 - 1.77)
Year of Initial Infusion	2000-2001	reference		
	2002-2003	1.28 (0.98 - 1.67)	0.63 (0.44 - 0.91)	0.86 (0.51 - 1.45)
	2004-2007	1.14 (0.89 - 1.46)	0.60 (0.43 - 0.83)	0.80 (0.49 - 1.29)
Percent age 25+ with Some College	0-24%	reference		
	≥ 25%	1.00 (0.81 - 1.22)	1.46 (1.09 - 1.97)	0.89 (0.60 - 1.33)

Percent Living in Poverty	0-5%	reference		
	6-11%	0.99 (0.79 - 1.25)	0.79 (0.58 - 1.09)	1.09 (0.69 - 1.72)
	≥12%	0.95 (0.73 - 1.23)	0.70 (0.48 - 1.03)	1.28 (0.76 - 2.14)
MSA Size	Big Metro	reference		
	Metro	0.74 (0.59 - 0.92)	0.85 (0.62 - 1.17)	0.81 (0.52 - 1.28)
	Urban	0.91 (0.61 - 1.36)	0.73 (0.41 - 1.32)	0.87 (0.41 - 1.87)
	Less Urban	0.74 (0.53 - 1.02)	0.76 (0.47 - 1.25)	0.77 (0.40 - 1.50)
	Rural	0.41 (0.22 - 0.76)	0.41 (0.12 - 1.39)	0.75 (0.22 - 2.60)

Note: "Status" refers to whether each condition was present at the initiation of infused therapy (i.e., "pre-existing"). Patients using rituximab monotherapy may be very different patients in ways that are not captured by these variables. Direct comparison to other the other groups may not be appropriate.
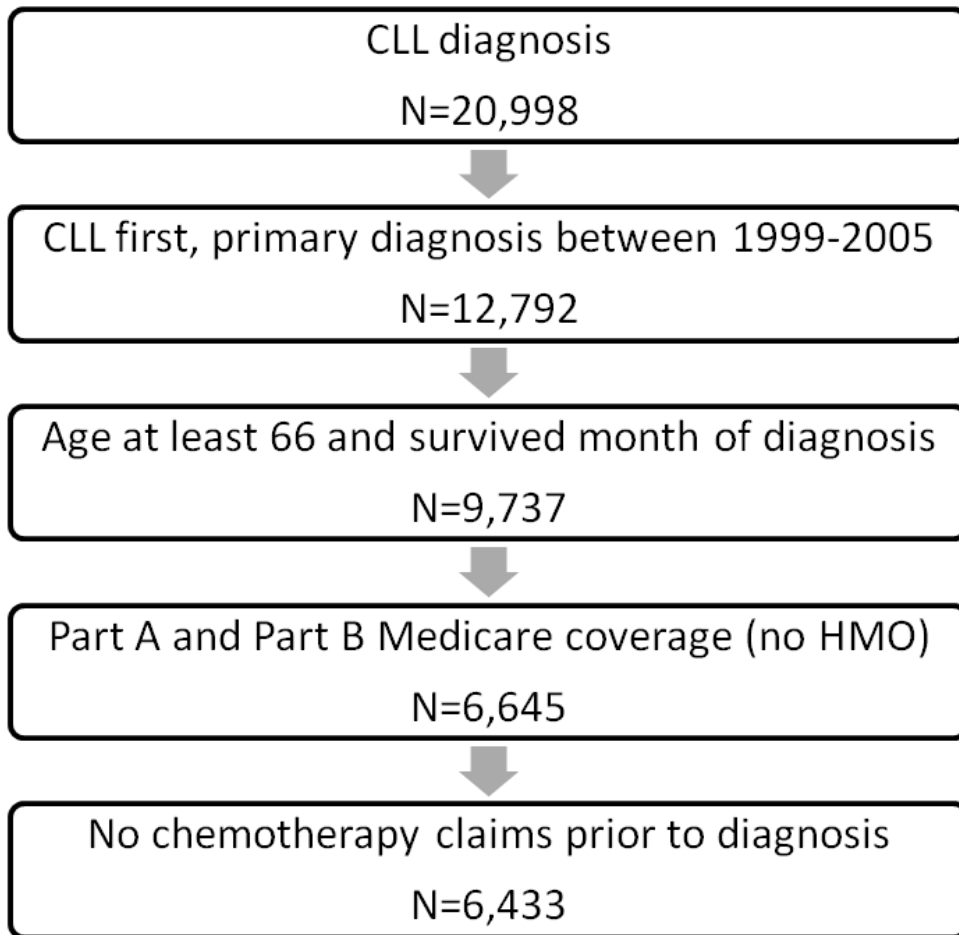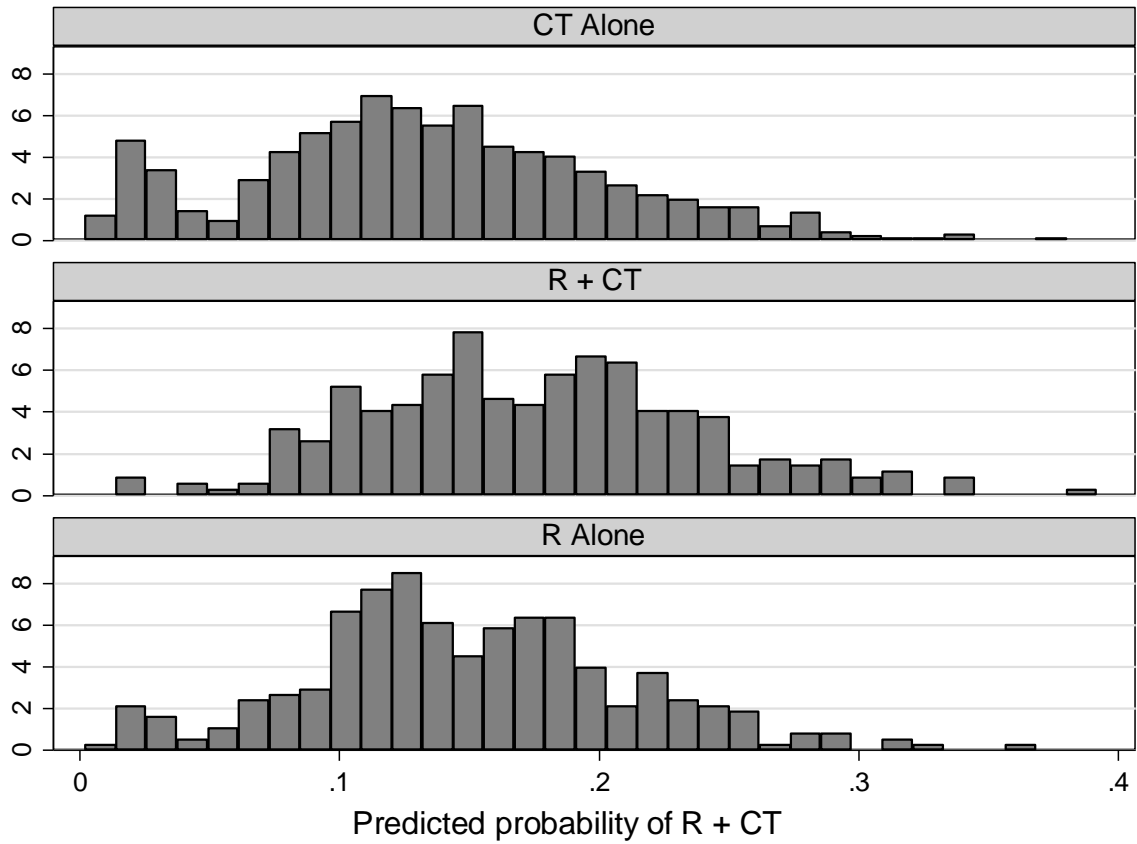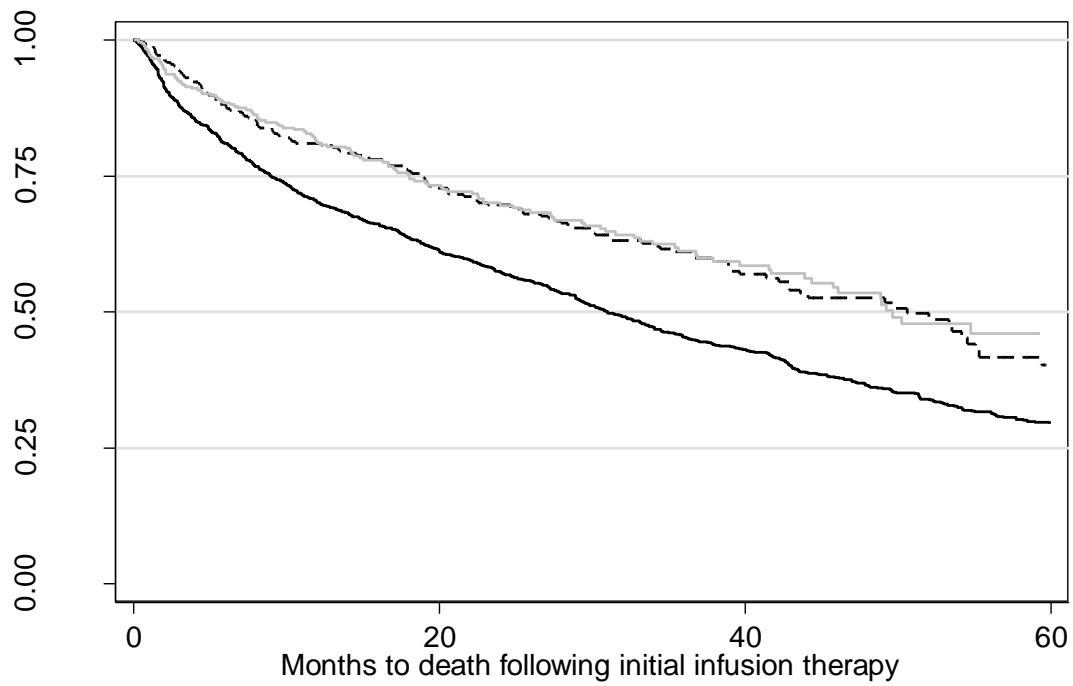
Figure S1. Selection of patients into the cohort

Figure S2. Distribution of propensity scores

Note: CT=chemotherapy; R=ritixumab. Approximate quintiles of the predicted probability of receiving R+CT are 0.08, 0.12, 0.16, and 0.22 (based on the entire population distribution).

Figure S2. Unadjusted survival (all treatments in one figure)

CT Alone	1429	765	392	153
R + CT	292	190	91	22
R Alone	319	185	82	22

Note: Solid black line is chemotherapy alone, solid dashed line is ritixumab plus chemotherapy, and solid gray line is rituximab monotherapy