Supplementary Table 1. Patient Disposition at final analysis

	N=19
Completed study treatment[a]	7 (36.8%)
Discontinued study treatment	12 (63.2%)
Reason for discontinuation	
Adverse Event	3 (15.8%)
Physician Decision	3 (15.8%)
Progressive Disease (cGVHD)	2 (10.5%)
Progressive Disease (Underlying Disease)	1 (5.3%)
Withdrawal by Patient	2 (10.5%)
Other[c]	1 (5.3%)
Completed study participation[b]	11 (57.9%)
Terminated study participation prematurely	8 (42.1%)
Reason for termination	
Death	7 (36.8%)
Withdrawal by Patient	1 (5.3%)

[a]Subjects continued ibrutinib treatment until the end of the study.

[b]Subjects continued study participation until the end of the study.

[c]Administration of ibrutinib from Day 294 to the study end date (Day 329, date of death) could not be confirmed due to the death and loss of subject diary. The date of last dose was considered as Day 293.

Supplementary Table 2. Response rate by organ

	Number of Patients Involved at Baseline N	Organ Response Rate (PR/CR) n (%)	Individual best response n (%)
Skin	14	8 (57.1%)	CR: 2 (14.3%) PR: 6 (42.9%) SD: 6 (42.9%)
Eye	9	2 (22.2%)	CR: 0 PR: 2 (22.2%) SD: 7 (77.8%)
Mouth	15	6 (40.0%)	CR: 5 (33.3%) PR: 1 (6.7%) SD: 9 (60.0%)
Esophagus	5	3 (60.0%)	CR: 2 (40.0%) PR: 1 (20.0%) SD: 2 (40.0%)
Upper GI	3	2 (66.7%)	CR: 2 (66.7%) PR: 0 SD: 1 (33.3%)
Lower GI	2	2 (100.0%)	CR: 2 (100.0%) PR: 0 SD: 0
Liver	2	2 (100.0%)	CR: 0 PR: 2 (100.0%) SD: 0

	Number of Patients Involved at Baseline N	**Organ Response Rate (PR/CR) n (%)**	**Individual best response n (%)**
Lung	7	1 (14.3%)	CR: 1 (14.3%) PR: 0 SD: 6 (85.7%)
Joint and Fascia	10	6 (60.0%)	CR: 1 (10.0%) PR: 5 (50.0%) SD: 4 (40.0%)

Supplementary Table 3. Treatment-emergent Adverse Events by System Organ Class, Preferred Term and Period

	Total	**< 6 Month**	**6 ≤12 Month**	**12 ≤18 Month**	**18 ≤24 Month**	**≥ 24 Month**
	N=19	N=19	N=16	N=15	N=13	N=12
Patients with TEAE	19 (100.0%)	19 (100.0%)	12 (75.0%)	7 (46.7%)	6 (46.2%)	7 (58.3%)
System organ class/Preferred term						
Infections and infestations	15 (78.9%)	14 (73.7%)	9 (56.3%)	6 (40.0%)	1 (7.7%)	5 (41.7%)
Pneumonia	9 (47.4%)	6 (31.6%)	3 (18.8%)	1 (6.7%)	0	1 (8.3%)
Cellulitis	6 (31.6%)	1 (5.3%)	4 (25.0%)	2 (13.3%)	0	1 (8.3%)
Investigations	9 (47.4%)	5 (26.3%)	6 (37.5%)	1 (6.7%)	1 (7.7%)	3 (25.0%)
Platelet count decreased	6 (31.6%)	2 (10.5%)	3 (18.8%)	1 (6.7%)	0	1 (8.3%)
Blood and lymphatic system disorders	7 (36.8%)	3 (15.8%)	2 (12.5%)	2 (13.3%)	2 (15.4%)	1 (8.3%)
Anaemia	3 (15.8%)	0	2 (12.5%)	1 (6.7%)	1 (7.7%)	1 (8.3%)
Cardiac disorders	2 (10.5%)	1 (5.3%)	0	0	0	1 (8.3%)
Atrial flutter	1 (5.3%)	0	0	0	0	1 (8.3%)
Cardiac failure	1 (5.3%)	0	0	0	0	1 (8.3%)
Musculoskeletal and connective tissue disorders	8 (42.1%)	4 (21.1%)	2 (12.5%)	2 (13.3%)	3 (23.1%)	3 (25.0%)
Arthralgia	3 (15.8%)	2 (10.5%)	0	0	1 (7.7%)	2 (16.7%)
Vascular disorders	4 (21.1%)	3 (15.8%)	2 (12.5%)	1 (6.7%)	0	0
Hypertension	3 (15.8%)	3 (15.8%)	1 (6.3%)	0	0	0

Key: TEAE = treatment-emergent adverse event

Note: The denominators are the number of patients who are in safety population at the beginning of each period.

Only one incidence of a type that occurs during each period is counted as the event. The numerators are the numbers of patients who experience a new episode of that event in that period.

Supplementary Table 4. Number of Subjects With Grade 3 or Higher Treatment-emergent Infections by Baseline Antimycotics usage

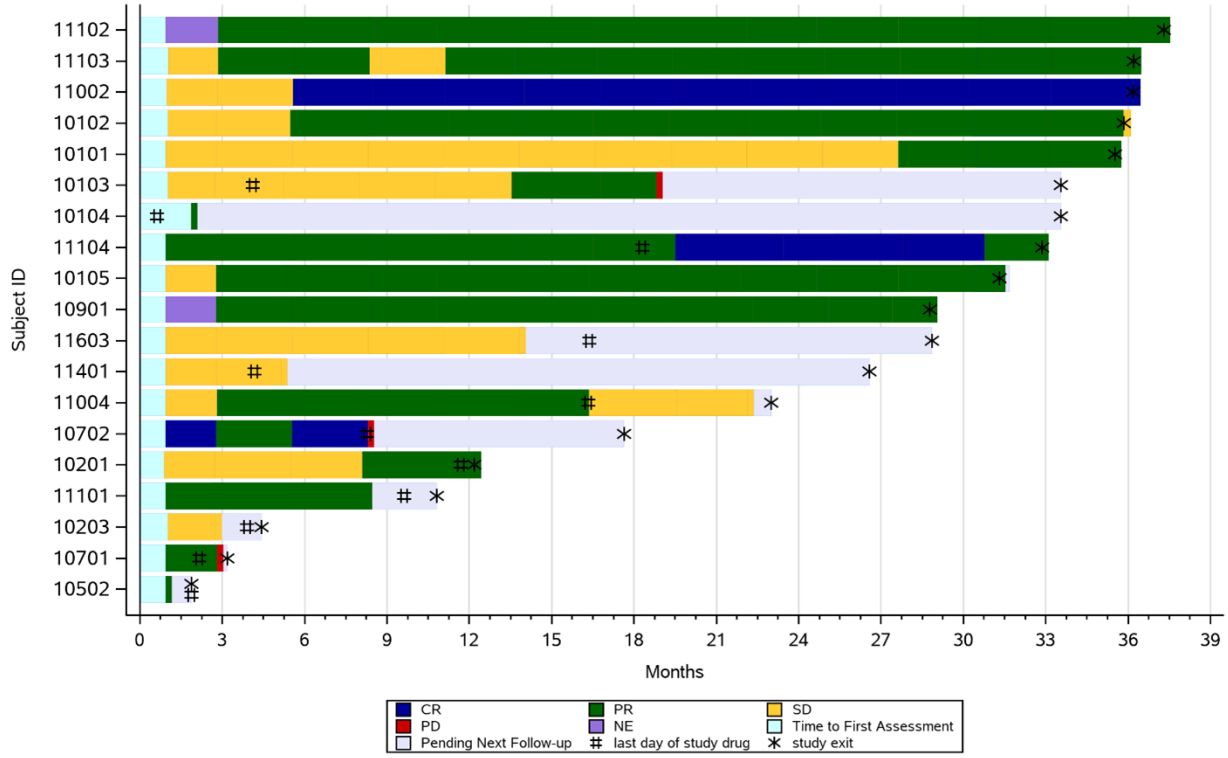
	Baseline Antimycotics for systemic use				No Antimycotics for systemic use
	Total	Voriconazole	Fluconazole	Micafungin Sodium	
Analysis set: Safety	13	4	8	1	6
System organ class/Preferred term					
Infections and infestations	6 (46.2%)	2 (50.0%)	3 (37.5%)	1 (100.0%)	4 (66.7%)
Pneumonia	3 (23.1%)	1 (25.0%)	2 (25.0%)	0	3 (50.0%)
Cellulitis	2 (15.4%)	1 (25.0%)	1 (12.5%)	0	1 (16.7%)
Appendiceal abscess	1 (7.7%)	1 (25.0%)	0	0	0
Bronchiolitis	0	0	0	0	1 (16.7%)
Pneumonia bacterial	1 (7.7%)	0	1 (12.5%)	0	0
Pneumonia fungal	1 (7.7%)	0	0	1 (100.0%)	0
Pyelonephritis	1 (7.7%)	0	1 (12.5%)	0	0
Sepsis	1 (7.7%)	0	1 (12.5%)	0	0
COVID-19	0	0	0	0	1 (16.7%)
Septic shock	0	0	0	0	1 (16.7%)

Key: TEAE = treatment-emergent adverse event

Note: Subjects are counted only once for any given event, regardless of the number of times they actually experienced the event. Subjects with multiple events with grade 3 or higher for a given preferred term, system organ class are counted once only with maximum severity for each category.

Adverse events are coded using MedDRA Version 24.1.

Supplementary Figure 1: Individual responses



Supplementary Figure 2: Kaplan-Meier Curve for Failure Free Survival