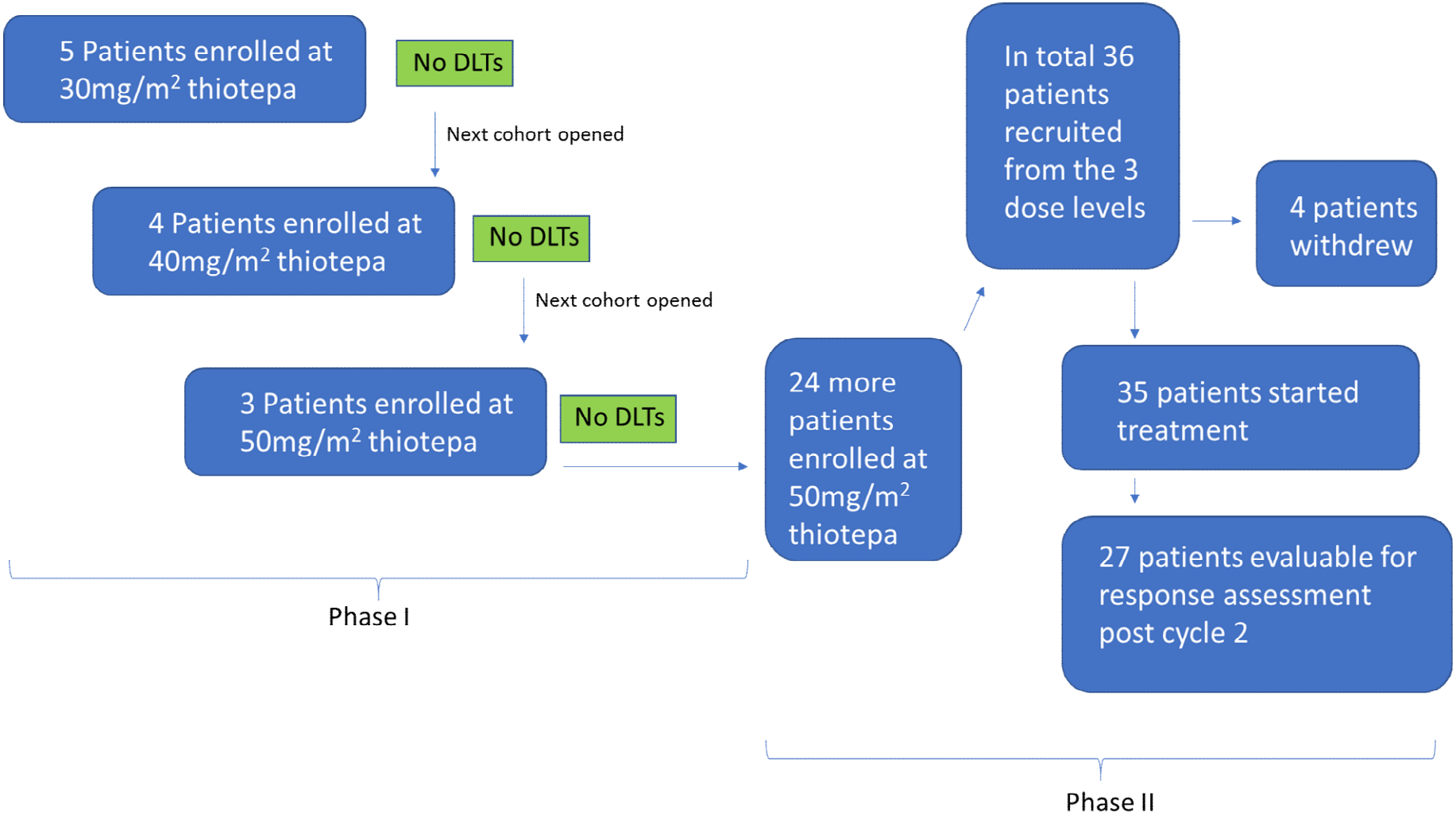
Participant Flow:



Baseline Characteristics:
NB: dose levels 2, 3 and 4 are 30, 40 and 50mg/m^2 thiotepa respectively.

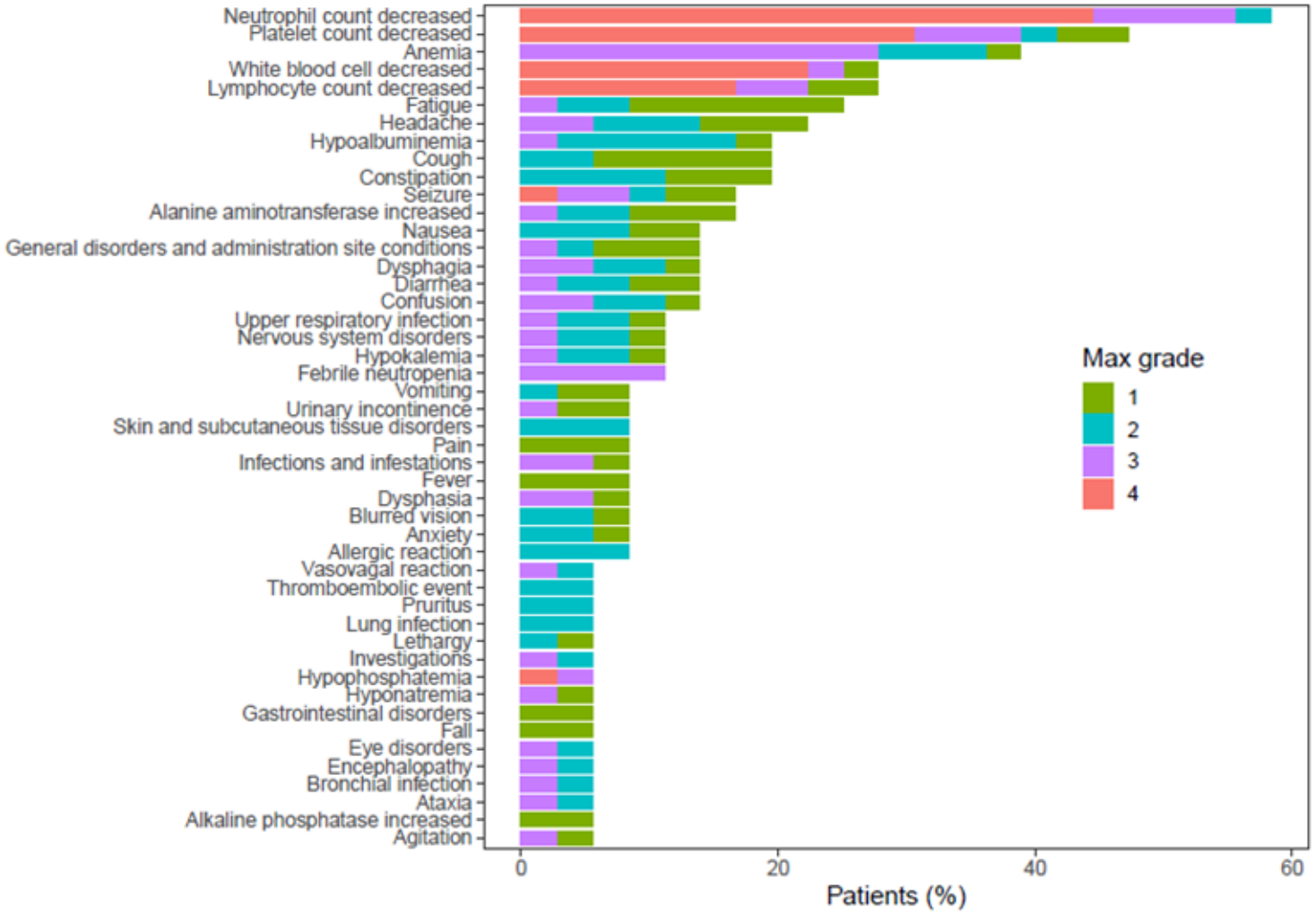
General characteristics	Overall N (%)	Dose 2 N (%)	Dose 3 N (%)	Dose 4 N (%)
Sex				
Female	14 (38.9)	1 (20)	2 (50)	11 (40.7)
Male	22 (61.1)	4 (80)	2 (50)	16 (59.3)
ECOG performance status				
0	9 (25)	1 (20)	1 (25)	7 (25.9)
1	10 (27.8)	0 (0)	2 (50)	8 (29.6)
2	11 (30.6)	1 (20)	1 (25)	9 (33.3)
3	6 (16.7)	3 (60)	0 (0)	3 (11.1)
Evidence of systemic lymphoma				
Yes	4 (11.1)	0 (0)	1 (25)	3 (11.1)
No	20 (55.6)	4 (80)	2 (50)	14 (51.9)
Not performed	12 (33.3)	1 (20)	1 (25)	10 (37)
IELSG risk group				
0-1, Low	10 (27.8)	2 (40)	0 (0)	8 (29.6)
2-3, Intermediate	15 (41.7)	1 (20)	2 (50)	12 (44.4)
4-5, High	11 (30.6)	2 (40)	2 (50)	7 (25.9)
Ophthalmological results				
Vitreoretinal involvement with PCNSL	2 (5.6)	1 (20)	1 (25)	0 (0)
No Abnormality Detected	25 (69.4)	1 (20)	3 (75)	21 (77.8)
Other	9 (25)	3 (60)	0 (0)	6 (22.2)

Outcome Measures:

Primary outcome measure:	
The Maximum Tolerated Dose of thiotepa in combination with ifosphamide, etoposide and rituximab	50mg/m^2
Secondary outcome measures:	
Overall response rate	51.9%
Complete response rate after two cycles of TIER	**33.3%**
Median overall survival time	5 months (95% CI of 2.5, 10.4)
Median Progression free survival time	2.5 months (95% CI of 1.6, 5.1)
Median Event free survival time	1.7 months (95% CI of 1.4, 3.3)
Successful stem cell transplant rate	10.5%

Adverse Events:

In total, 574 adverse events were reported across 33 patients. See below for the most common adverse events by maximum grade.



In total, there were 17 serious adverse events across 12 patients. 3 patients experienced a total of 4 haematological SAEs, which accounts for 23.5% of all SAEs. The table below lists all SAEs that occurred during the trial.

TNO	Dose level	Reason	Category	Admitting event	Other events	Other, specify	Grade	Outcome
	Dose 2	Hospitalisation	SAR	Seizure			2	Resolved - no sequelae
	Dose 2	Hospitalisation	SAR	Infections and infestations - Other, specify		Influenza	3	Resolved - no sequelae
	Dose 3	Hospitalisation	SAR	Bronchial infection			3	Resolved - no sequelae
	Dose 3	Hospitalisation	Unrelated SAE	Seizure			3	Resolved - no sequelae
	Dose 4	Hospitalisation	Unrelated SAE	Optic nerve disorder			4	Resolved - with sequelae
	Dose 4	Hospitalisation	SAR	Ataxia	Lethargy		3	Resolved - no sequelae
	Dose 4	Hospitalisation	SAR	Infections and infestations - Other, specify	Neutrophil count decreased	Lower respiratory tract infection	3	Resolved - no sequelae
	Dose 4	Hospitalisation	SAR	Anemia			3	Resolved - no sequelae
	Dose 4	Hospitalisation	SAR	Neutrophil count decreased	Seizure		4	Resolved - no sequelae
	Dose 4	Hospitalisation	SAR	Febrile neutropenia			3	Resolved - no sequelae
	Dose 4	Hospitalisation	Unrelated SAE	Back pain			3	Resolved - no sequelae
	Dose 4	Hospitalisation	SAR	Confusion			3	Resolved - no sequelae
	Dose 4	Hospitalisation	SAR	Upper respiratory infection	Cough, Headache, Vomiting, Fever		3	Resolved - no sequelae
	Dose 4	Life Threatening	Fatal/life-threatening SUSAR	Nervous system disorders - Other, specify		Serotonin syndrome	4	Resolved - with sequelae
	Dose 4	Hospitalisation	SAR	Sepsis	Neutrophil count decreased		4	Unresolved
	Dose 4	Hospitalisation	Unrelated SAE	Diarrhea			3	Resolved - no sequelae
	Dose 4	Hospitalisation	SAR	Platelet Count decreased	Anemia, Neutrophil count decreased		4	Resolved - no sequelae