

Table S1 Literature search strategy

ID	Search	Hits
PubMed		
#1	"Small Cell Lung Carcinoma"[Mesh]	6,165
#2	((((Small Cell Lung Cancer[Title/Abstract]) OR (Oat Cell Lung Cancer[Title/Abstract])) OR (Small Cell Cancer Of The Lung[Title/Abstract])) OR (Carcinoma, Small Cell Lung[Title/Abstract])) OR (Oat Cell Carcinoma of Lung[Title/Abstract])	93,693
#3	#1 OR #2	95,208
#4	((((((((((("Randomized Controlled Trials as Topic"[Mesh]) OR (Randomized Controlled Trial[Publication Type])) OR (Controlled Clinical Trials, Randomized[Publication Type])) OR (Trials, Randomized Clinical[Publication Type])) OR (Clinical Trials, Randomized[Publication Type])) OR (Randomized[Title/Abstract])) OR (Randomised[Title/Abstract])) OR (RCT[Title/Abstract])) OR (RCTs[Title/Abstract])) OR (control group[Title/Abstract])) OR (control groups[Title/Abstract])) OR (double-blind method[MeSH])) OR (double blind[Title/Abstract])) OR (placebo*[Title/Abstract])	1,664,187
#5	((((((((((((((CTLA-4[Title/Abstract]) OR (cytotoxic T-lymphocyte-associated protein 4[Title/Abstract])) OR (Ipilimumab[Title/Abstract]) OR (PD-1[Title/Abstract])) OR (programmed death receptor 1[Title/Abstract])) OR (PD-L1[Title/Abstract])) OR (programmed death-ligand 1[Title/Abstract])) OR (immune checkpoint inhibitor[Title/Abstract])) OR (Tremelimumab[Title/Abstract]) OR (Nivolumab[Title/Abstract])) OR (Pembrolizumab[Title/Abstract])) OR (Atezolizumab[Title/Abstract])) OR (Durvalumab[Title/Abstract])) OR (Sintilimab[Title/Abstract])) OR (Camrelizumab[Title/Abstract])) OR (Serplulimab[Title/Abstract])) OR (Adebrelimab[Title/Abstract])) OR (Benmelstobart[Title/Abstract])) OR (Toripalimab[Title/Abstract])) OR (Tislelizumab[Title/Abstract])) OR (Tiragolumab[Title/Abstract])	68570
#6	#3 AND #4 AND #5 Filters: Publication date from 0001/01/01-2023/12/28	1,039
Cochrane library		
#1	MeSH descriptor: [Small Cell Lung Carcinoma] explode all trees	620
#2	(Small Cell Lung Cancer):ti,ab,kw OR (Oat Cell Lung Cancer):ti,ab,kw OR (Small Cell Cancer Of The Lung):ti,ab,kw OR (Carcinoma, Small Cell Lung):ti,ab,kw OR (Oat Cell Carcinoma of Lung):ti,ab,kw	19,336
#3	#1 OR #2	19,336
#4	MeSH descriptor: [Randomized Controlled Trials as Topic] explode all trees	54,787
#5	(Randomized OR Randomised OR RCT OR RCTs OR control group OR control groups OR double blind OR placebo*):ti,ab,kw	1,467,416
#6	#4 OR #5	1,467,563
#7	(CTLA-4 OR cytotoxic T-lymphocyte-associated protein 4 OR Ipilimumab OR PD-1 OR programmed death receptor 1 OR PD-L1 OR programmed death-ligand 1 OR immune checkpoint inhibitor OR Tremelimumab OR Nivolumab OR Pembrolizumab OR Atezolizumab OR Durvalumab OR Sintilimab OR Camrelizumab OR Serplulimab OR Adebrelimab OR Benmelstobart OR Toripalimab OR Tislelizumab OR Tiragolumab):ti,ab,kw	11,562
#8	#3 AND #6 AND #7	2,496
Embase		
#1	small cell lung cancer'/exp	35,817
#2	Small Cell Lung Cancer':ti,ab,kw OR 'Oat Cell Lung Cancer':ti,ab,kw OR 'Small Cell Cancer Of The Lung':ti,ab,kw OR 'Carcinoma, Small Cell Lung':ti,ab,kw OR 'Oat Cell Carcinoma of Lung':ti,ab,kw	147,428
#3	#1 OR #2	162,658
#4	randomized controlled trial'/exp OR 'controlled trial, randomized':ti,ab,kw OR randomised:ti,ab,kw OR 'randomised controlled study':ti,ab,kw OR 'randomised controlled trial':ti,ab,kw OR 'randomized controlled study':ti,ab,kw OR 'trial, randomized controlled':ti,ab,kw OR rct:ti,ab,kw OR rcts:ti,ab,kw OR 'control group':ti,ab,kw OR 'control groups':ti,ab,kw OR 'controlled clinical trial':ti,ab,kw OR 'crossover procedure':ti,ab,kw OR 'cross over study':ti,ab,kw OR 'cross over studies':ti,ab,kw OR 'double blind procedure':ti,ab,kw OR 'double blind':ti,ab,kw OR placebo:ti,ab,kw OR placebo*:ti,ab,kw OR volunteer*:ti,ab,kw OR single*:ti,ab,kw OR double*:ti,ab,kw	5,200,164
#5	CTLA-4':ti,ab,kw OR 'cytotoxic T-lymphocyte-associated protein 4':ti,ab,kw OR 'Ipilimumab':ti,ab,kw OR 'PD-1':ti,ab,kw OR 'programmed death receptor 1':ti,ab,kw OR 'PD-L1':ti,ab,kw OR 'programmed death-ligand 1':ti,ab,kw OR 'immune checkpoint inhibitor':ti,ab,kw OR 'Tremelimumab':ti,ab,kw OR 'Nivolumab':ti,ab,kw OR 'Pembrolizumab':ti,ab,kw OR 'Atezolizumab':ti,ab,kw OR 'Durvalumab':ti,ab,kw OR 'Sintilimab':ti,ab,kw OR 'Camrelizumab':ti,ab,kw OR 'Serplulimab':ti,ab,kw OR 'Adebrelimab':ti,ab,kw OR 'Benmelstobart':ti,ab,kw OR 'Toripalimab':ti,ab,kw OR 'Tislelizumab':ti,ab,kw OR 'Tiragolumab':ti,ab,kw	128,534
#6	#4 AND #5 AND #6	5,045

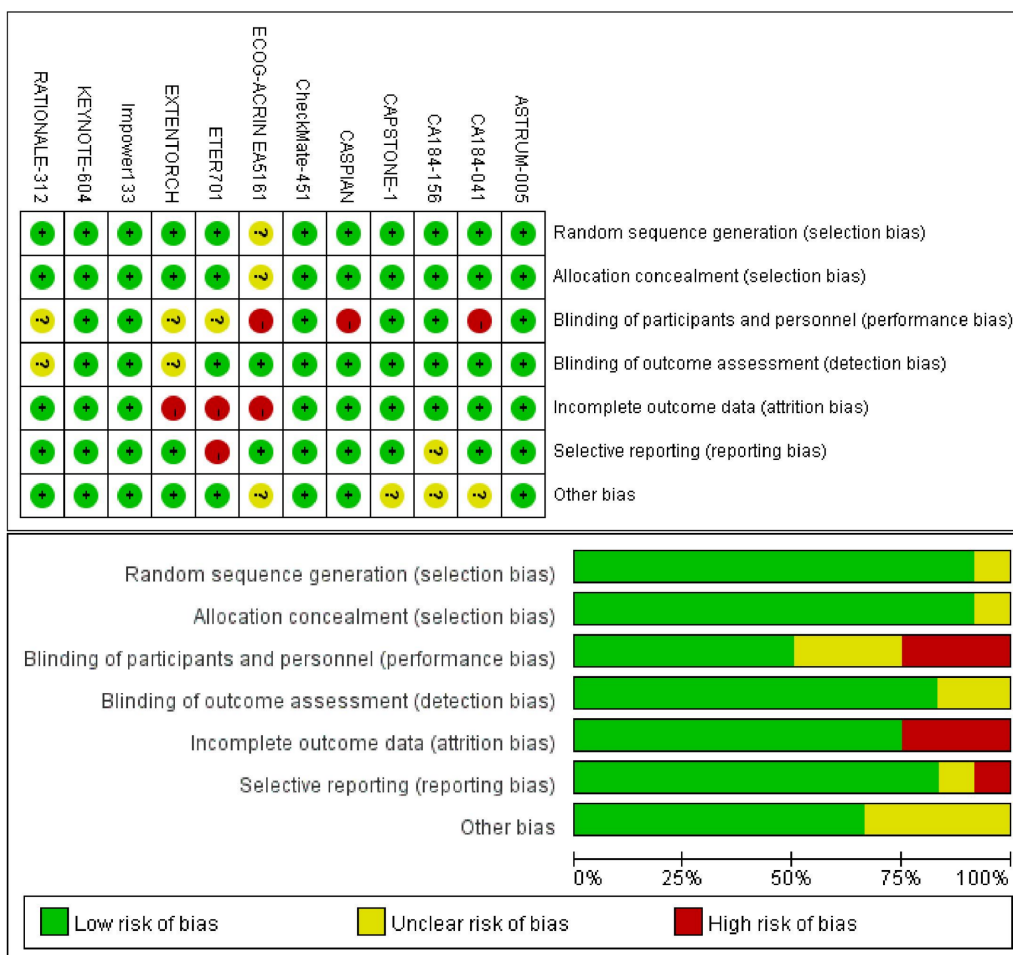


Figure S1 Summary of Results from Bias Risk Assessment of Studies Using the Cochrane Risk of Bias Tool.

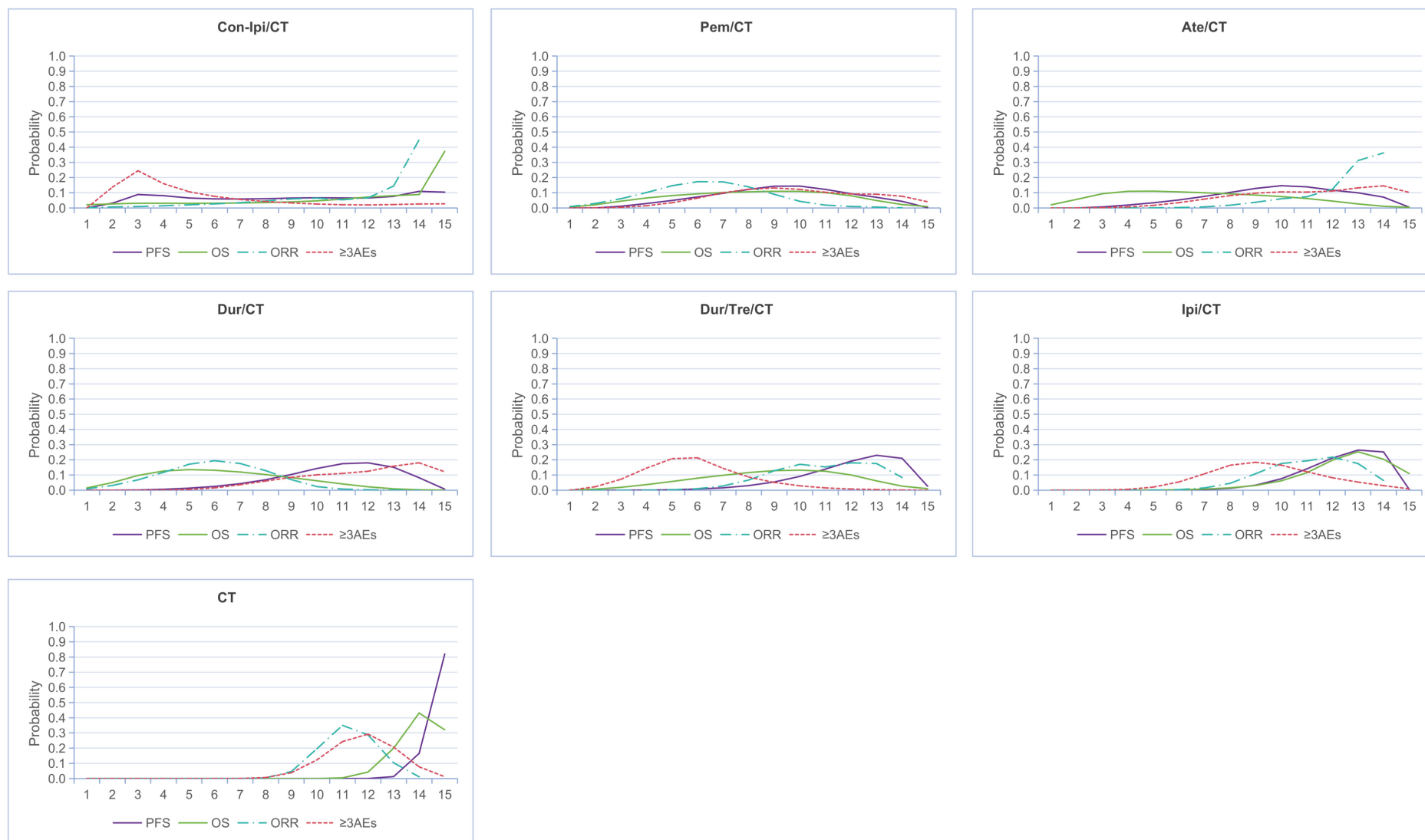
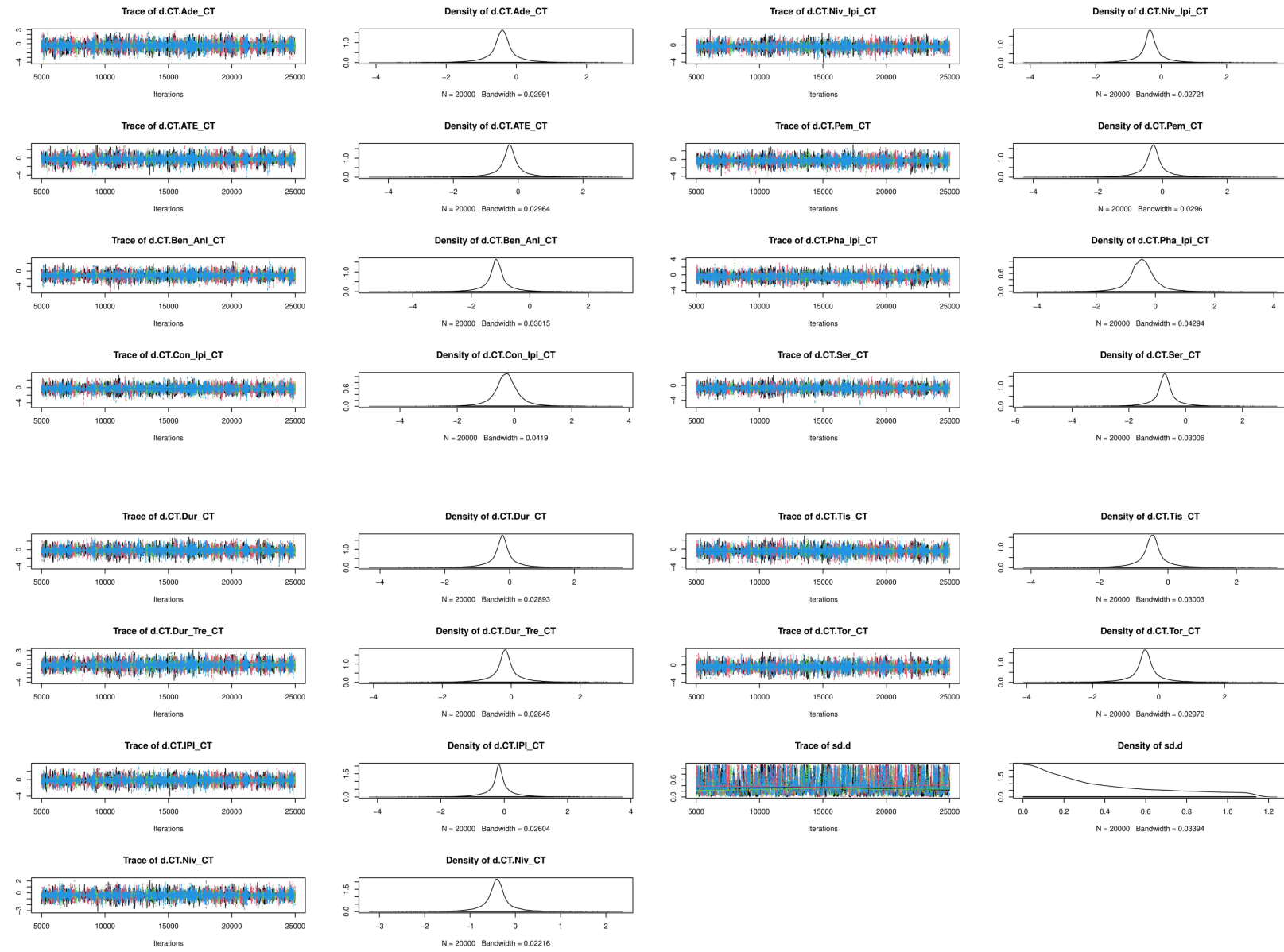


Figure S2 Bayesian ranking profiles of comparable treatments on PFS, OS, ORR, and ≥ 3 AEs (The X-axis represents different rankings, and the Y-axis corresponds to the probability of each ranking). (PFS, progression-free survival; OS, overall survival; ORR, objective response rate; ≥ 3 AEs, grade 3 or higher adverse events).

A

PFS



B

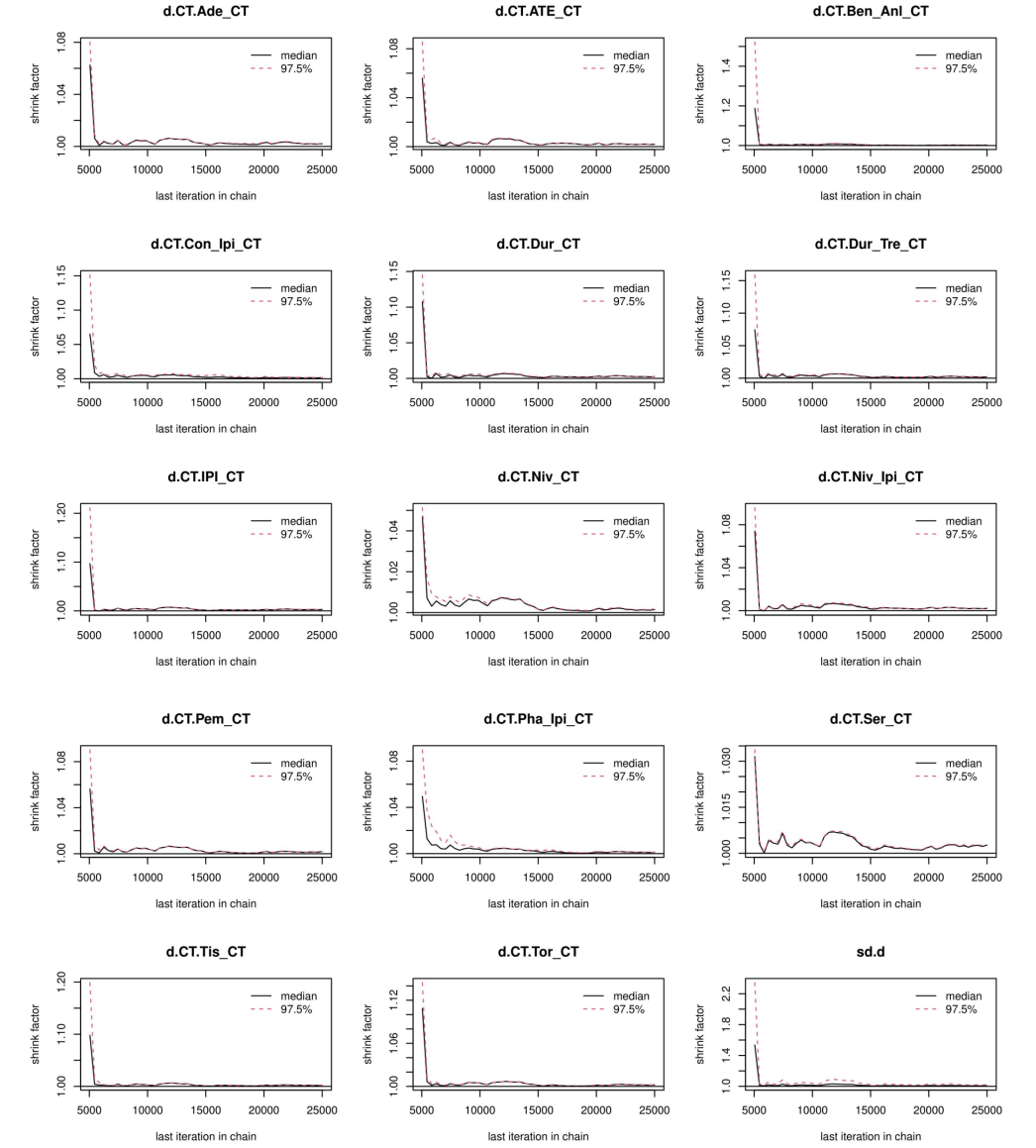


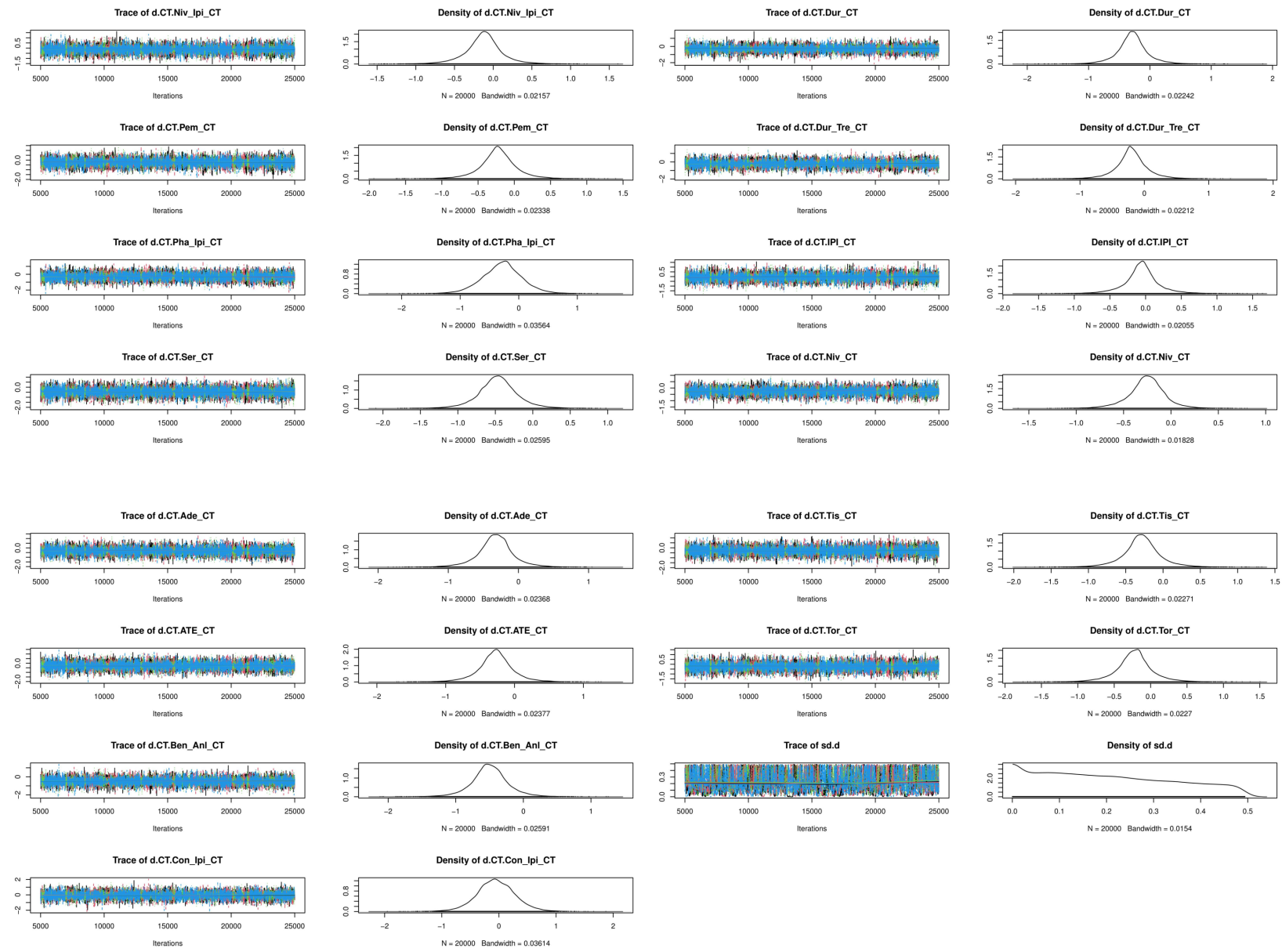
Figure S3 Convergence of the four chains established by inspection of the trace plot and the Brooks-Gelman-Rubin diagnostic for progression-free survival (PFS).

Table S2 Comparisons of the fit of consistency and inconsistency models using deviance information criteria (DIC)

Outcomes	Model		
	Consistency Fixed	Consistency Random	Inconsistency
Progression-free survival	27.98383	29.41772	29.45698
Overall survival	29.09592	29.4863	29.6917
Objective response rate	50.42334	49.79033	49.813
Grade ≥ 3 adverse events	49.69143	49.79828	49.83532

A

OS



B

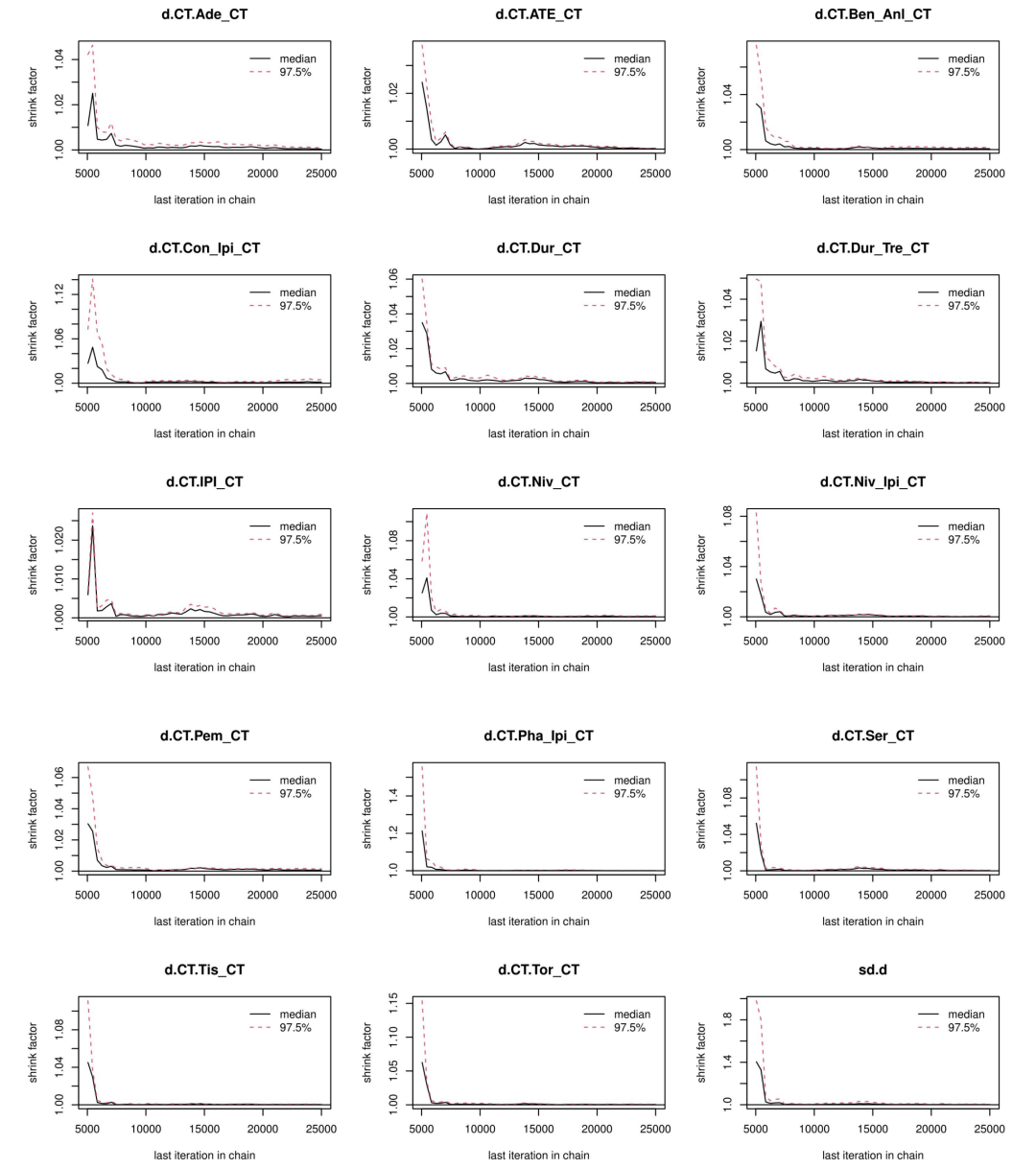
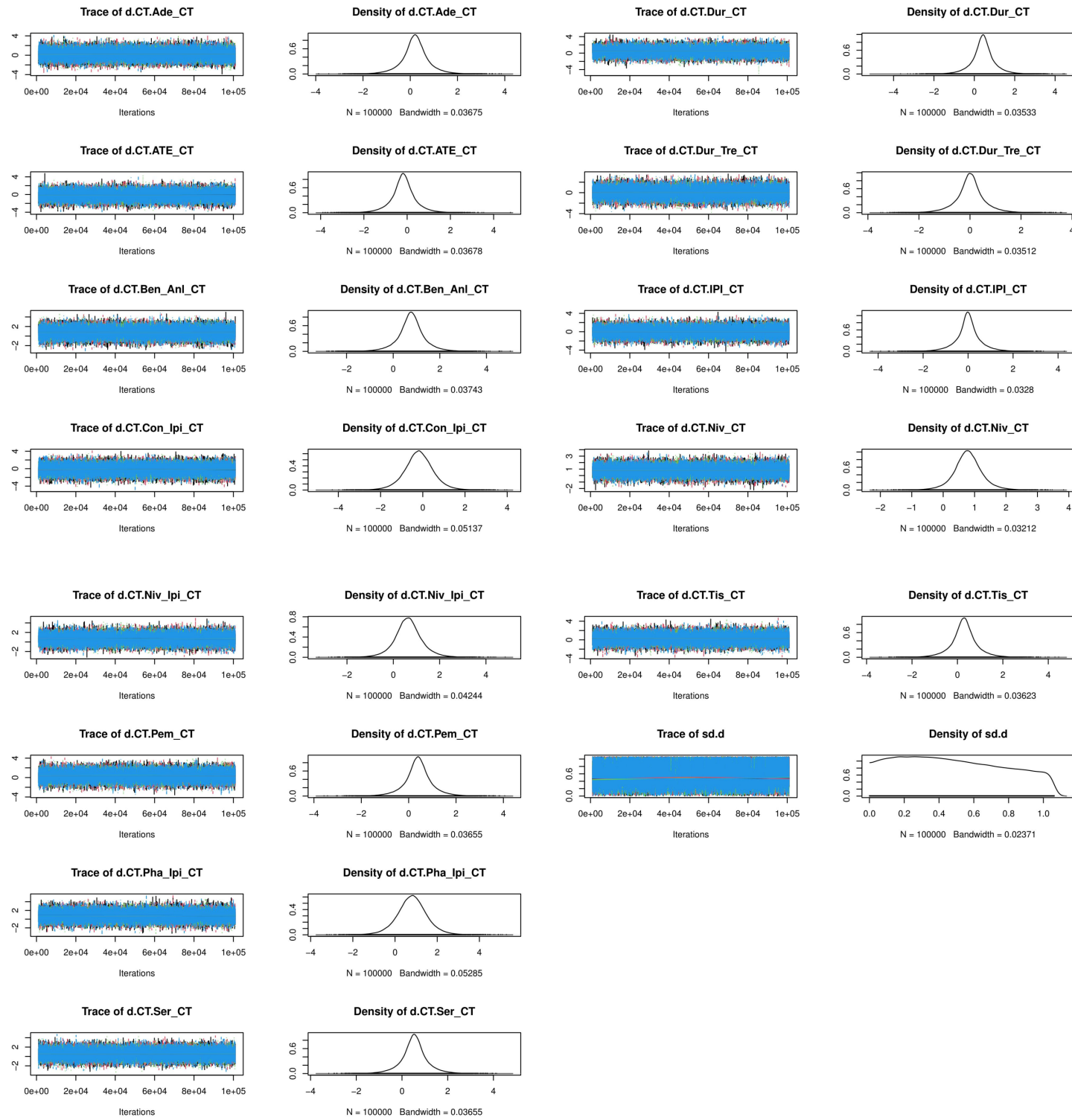


Figure S4 Convergence of the four chains established by inspection of the trace plot and the Brooks-Gelman-Rubin diagnostic for overall survival (OS).

A

ORR



B

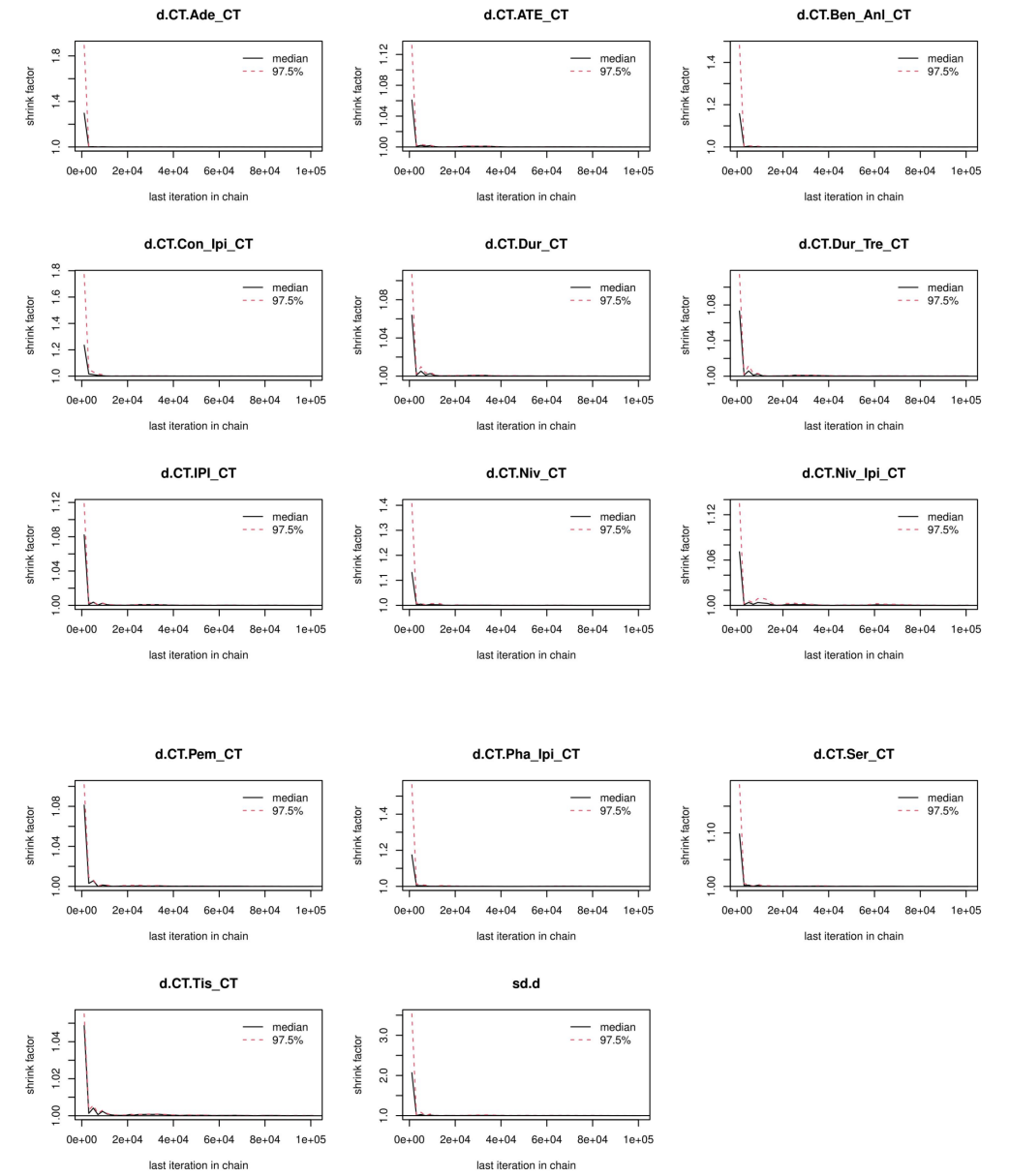
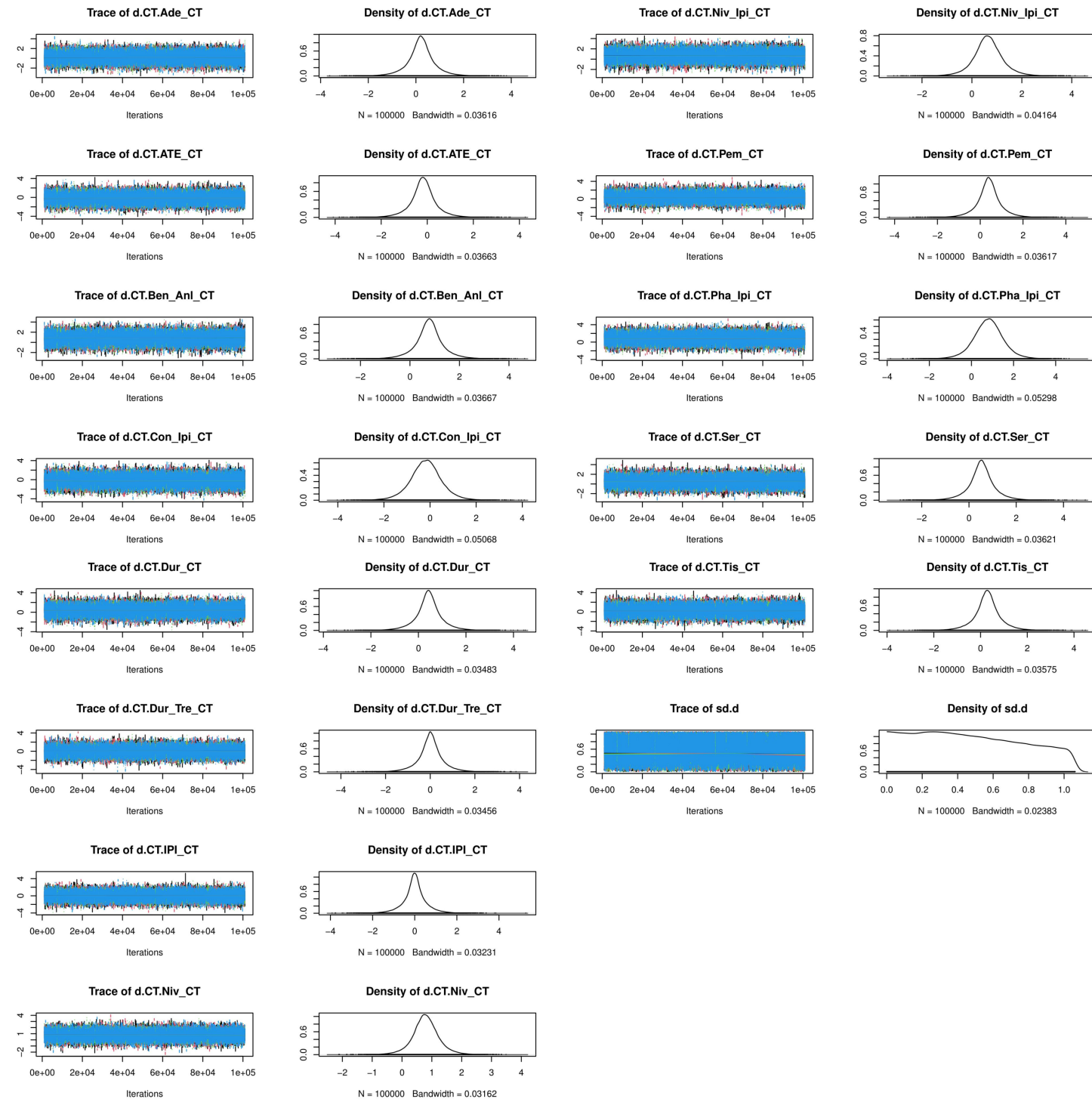


Figure S5 Convergence of the four chains established by inspection of the trace plot and the Brooks-Gelman-Rubin Diagnostic for objective response rate (ORR).

A

≥ 3 AEs



B

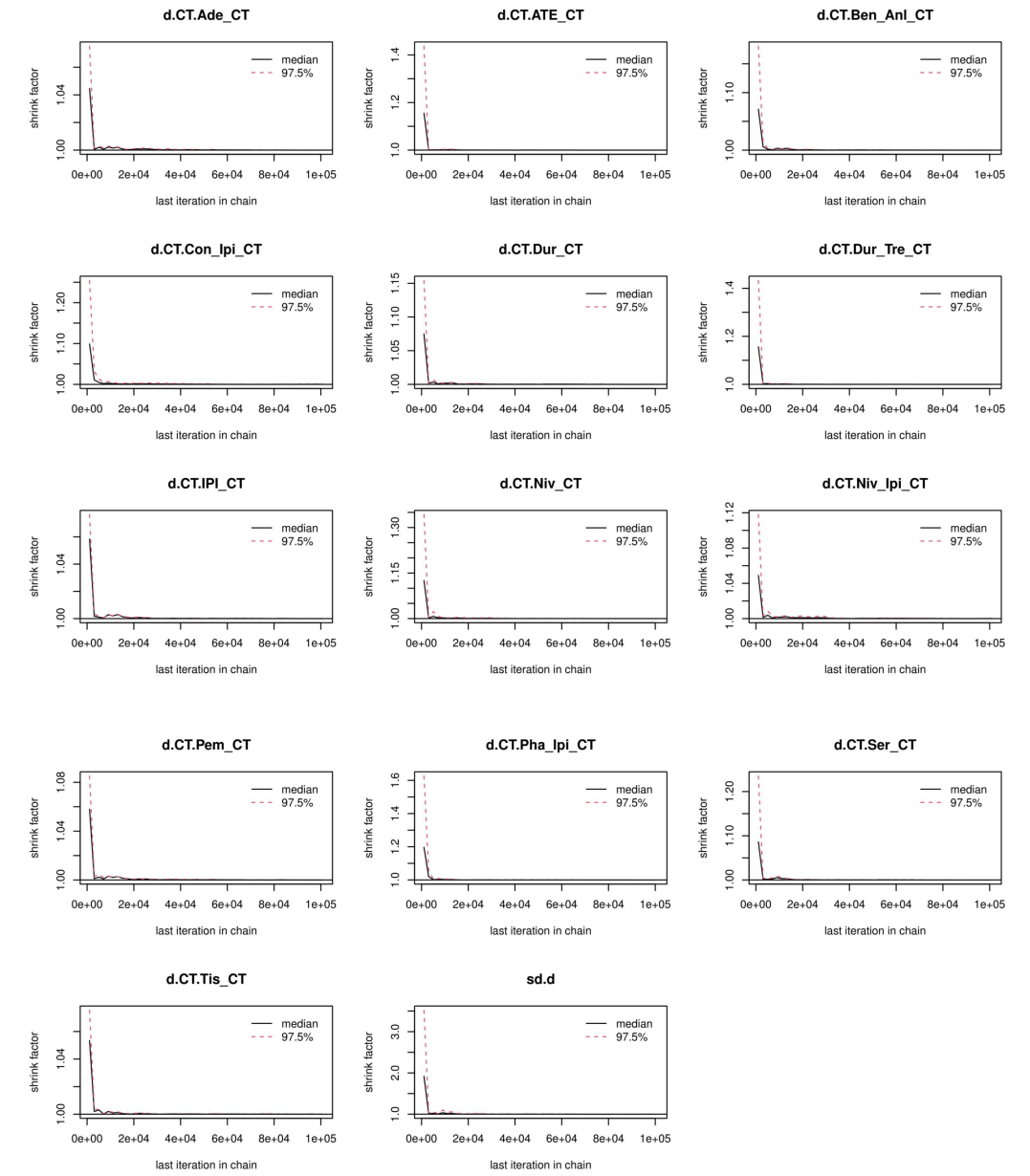


Figure S6 Convergence of the four chains established by inspection of the trace plot and the Brooks-Gelman-Rubin Diagnostic for grade 3 or higher adverse events (≥ 3 AEs).