

Table 3. Main Efficacy Outcomes of Included Randomized Clinical Trials

Study	Intervention	Comparator	OS	PFS/EFS	ORR	CR	Progression	Effect measure and CI
Vergote et al., 2025; INNOVATE-3	TTFields + paclitaxel	Paclitaxel	12.2 vs 11.9 months	NR	NR	NR	NR	OS: HR 1.01; 95% CI 0.83–1.24; p=0.89. PLD-naïve subgroup: OS 16.0 vs 11.7 months; HR 0.67; 95% CI 0.49–0.94
Assouline et al., 2023	Vismodegib + ribavirin + decitabine	Vismodegib + ribavirin	3.6 vs 6.6 months	NR	40% vs 0%	0%	PD: 2 vs 4 patients	Small phase II study; no comparative HR for OS/PFS
Bauer et al., 2022; INTRIGUE	Ripretinib	Sunitinib	NR	ITT: 8.0 vs 8.3 months; KIT exon 11: 8.3 vs 7.0 months	KIT exon 11: 23.9% vs 14.6%	NR	Progression included in PFS endpoint	ITT PFS: HR 1.05; 95% CI 0.82–1.33. KIT exon 11 PFS: HR 0.88; 95% CI 0.66–1.16
Brose et al., 2021; COSMIC-311	Cabozantinib	Placebo	NR	Not reached vs 1.9 months	15% vs 0%	0%	PFS events: 31 vs 43	PFS: HR 0.22; 96% CI 0.13–0.36; p<0.0001. ORR: 15%; 99% CI 5.8–29.3
Heudobler et al., 2021; ModuLung	Oral biomodulation	Nivolumab	9.4 vs 6.9 months	1.4 vs 1.6 months	5% vs 11.8%	NR	Inferior PFS in biomodulatory arm	PFS: HR 1.908; 95% CI 0.962–3.788; p=0.0483. OS: HR 0.733; 95% CI 0.334–1.610
Mukai et al., 2021; SELECT BC-CONFIRM	S-1	Anthracycline or taxane	30.1 vs 33.7 months; pooled analysis: 32.7 vs 36.3 months	15.2 vs 13.1 months	NR	NR	No significant difference in PFS	SELECT BC-CONFIRM OS: HR 1.09; 95% CI 0.80–1.48. Pooled OS: HR 1.06; 95% CI 0.90–1.25
Zhao et al., 2024; INO-VATE molecular	Inotuzumab ozogamicin	Standard chemotherapy	7.7 vs 6.2 months	Benefit in high-risk molecular subgroups	Remission: 80.7% vs 29.4%	CR/CRi in molecular subgroup: 74.4% vs 33.3%	Progression assessed in PFS	OS: HR 0.75; 97.5% CI 0.57–0.99. High-risk BCR::ABL1-: PFS HR 0.236; 97.5% CI 0.081–0.686

Locke et al., 2022; ZUMA-7	Axicabtagene ciloleucel	Standard second-line therapy	Not reached vs 35.1 months	EFS: 8.3 vs 2.0 months; PFS: 14.7 vs 3.7 months	83% vs 50%	65% vs 32%	EFS events: 108/180 vs 144/179	EFS: HR 0.40; 95% CI 0.31–0.51. PFS: HR 0.49; 95% CI 0.37–0.65. OS: HR 0.73; 95% CI 0.53–1.01
Ying et al., 2021; RELIANCE	Relma-cel	Low dose vs high dose; no classic control	Not reached	7.0 months	3-month ORR: 60.3%; best ORR: 75.9%	51.7%	Progression included in PFS	3-month ORR: 95% CI 46.6–73.0. Best ORR: 95% CI 62.8–86.1. CR: 95% CI 38.2–65.1
San-Miguel et al., 2023; CARTITUD E-4	Ciltacabtagene autoleucel	Physician's choice standard care	Deaths: 39 vs 46 patients	Not reached vs 11.8 months	84.6% vs 67.3%	CR or better: 73.1% vs 21.8%	Progression or death in first 8 weeks: 22 vs 8	PFS: HR 0.26; 95% CI 0.18–0.38; p<0.001. OS: HR 0.78; 95% CI 0.5–1.2
Lentz et al., 2024	Pembrolizumab + binimetinib + bevacizumab	Schedule cohorts; no classic control	Better signal in patients without liver metastases	5.9 months	12%	NR	DCR 70%; no difference between cohorts	ORR did not significantly exceed prespecified 5% historical control
Shoji et al., 2022; JGOG3023	Chemotherapy + bevacizumab	Chemotherapy	15.3 vs 11.3 months	4.0 vs 3.1 months	25.0% vs 13.7%	NR	Progression included in PFS	PFS: HR 0.54; 95% CI 0.32–0.90; p=0.0082. OS: HR 0.67; 95% CI 0.38–1.17
Andreadis et al., 2025	Ibrutinib + AutoHCT + maintenance	Placebo + AutoHCT + maintenance	2-year OS: 69.5% vs 68.3%	2-year PFS: 57.6% vs 40.8%	NR	NR	Recurrence/progression captured in PFS	PFS: HR 0.39; 95% CI 0.13–1.16. OS: HR 0.87; 95% CI 0.38–2.01
Metzger et al., 2026; PATINA	Palbociclib + anti-HER2 + endocrine therapy	Anti-HER2 + endocrine therapy	HR 0.86; 95% CI 0.61–1.23	44.3 vs 29.1 months	32.9% vs 24.8%	14.3% vs 11.3%	Discontinuation due to progression: 47.5% vs 52.9%	PFS: HR 0.75; 95% CI 0.59–0.96; p=0.02
Powles et al., 2021; EV-301	Enfortumab vedotin	Chemotherapy	12.88 vs 8.97 months	5.55 vs 3.71 months	40.6% vs 17.9%	4.9% vs 2.7%	Disease control: 71.9% vs 53.4%	OS: HR 0.70; 95% CI 0.56–0.89; p=0.001. PFS: HR 0.62; 95% CI 0.51–0.75
Voorthuis et al., 2026; POSEIDON	Taselisib + tamoxifen	Placebo + tamoxifen	NR	4.8 vs 3.2 months	NR	NR	Progression included in PFS; high ctDNA tumor fraction linked to worse PFS/OS	Stratified PFS: HR 0.69; 80% CI 0.49–0.98; p=0.17
Bardia et al., 2021; ASCENT	Sacituzumab govitecan	Physician's choice chemotherapy	12.1 vs 6.7 months	5.6 vs 1.7 months	35% vs 5%	NR	Progression included in PFS	OS: HR 0.48; 95% CI 0.38–0.59; p<0.001. PFS: HR

								0.41; 95% CI 0.32–0.52
Bishop et al., 2022; BELINDA	Tisagenlecleucel	Standard therapy with salvage and AutoHCT	NR	EFS: 3.0 vs 3.0 months	46.3% vs 42.5%	28.4% vs 27.5%	Progression at week 6: 25.9% vs 13.8%; post-week 12: 30.9% vs 28.8%	EFS: HR 1.07; 95% CI 0.82–1.40; p=0.61