

Annual Completed Clinical Trials: By the Numbers

Key insights and results from our annual review of trends in clinical trials completed in 2024, based on Trialtrove data

Key Findings

Completed clinical trials continued to climb in 2024 at an even faster pace. According to Trialtrove, 4,903 industry-sponsored clinical studies from Phase I through Phase III/IV either reached completed status or attained primary endpoints during 2024. This is a 14.2% jump from 2023 totals, higher than the 10.7% rise recorded from 2022 to 2023 and the greatest increase in the last eight years.

Trial counts and rankings for completed trials, 2021–24

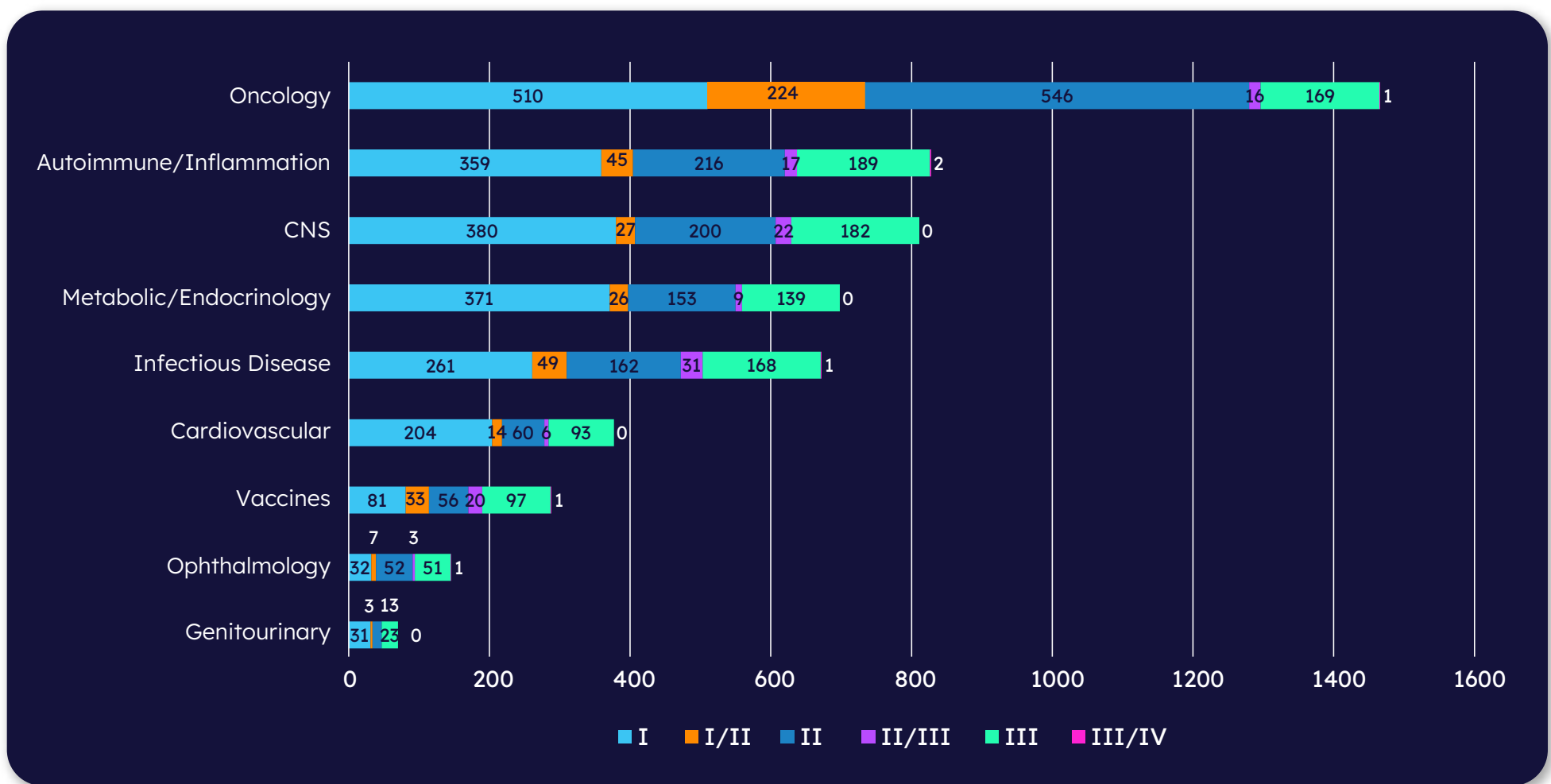
The 2024 ranking of top therapeutic areas (TAs) by completed trial activity was unchanged from 2023, with oncology remaining on top by a substantial margin. Metabolic/endocrinology widened its lead over infectious diseases, due mainly to the higher number of completed trials for obesity.

Therapeutic area	Ranking				Trial Count ^a			
	2024	2023	2022	2021	2024	2023	2022	2021
Oncology	1	1	1	1	1,466	1,197	1,096	1,222
Autoimmune/Inflammation	2	2	2	3	828	758	669	700
CNS	3	3	4	4	811	678	619	620
Metabolic/Endocrinology	4	4	5	5	698	649	570	545
Infectious Diseases ^b	5	5	3	2	672	648	643	726
Cardiovascular	6	6	6	6	377	358	293	303
Vaccines	7	7	7	7	288	286	255	231
Ophthalmology	8	8	8	8	146	136	121	97
Genitourinary	9	9	9	9	70	62	58	62

^aTrials may span multiple therapeutic areas
^bExcludes vaccines trials
Source: Trialtrove, February 2025

Distribution of industry-sponsored trials completed in 2024, by therapeutic area and phase

Compared with other TAs, oncology and vaccines continue to show above-average proportions in terms of Phase I/II trial completions. Phase I/II oncology accounted for 15.3% and Phase I/II vaccines for 11.5% of overall trial completions in their respective TAs.



Source: Trialtrove, February 2025

Top 5 diseases for trials completed, 2021–24

The top five diseases for trial completions shifted in 2024. Non-small cell lung cancer (NSCLC) gained the No. 1 spot after recording the highest number of trials in the history of our analyses. After holding the top spot for three years, novel coronavirus fell to fourth place in 2024 amid a 23.1% drop in completed trials.

Disease	2024 (rank)	2023 (rank)	2022 (rank)	2021 (rank)
Non-small cell lung cancer	242 (1)	202 (3)	160 (4)	207 (2)
Breast cancer	231 (2)	155 (5)	174 (3)	164 (4)
Type 2 diabetes	205 (3)	205 (2)	182 (2)	155 (5)
Novel coronavirus (2019-nCoV, COVID-19)	196 (4)	255 (1)	304 (1)	354 (1)
Colorectal cancer	149 (5)	101 (7)	102 (7)	132 (6)

Source: Trialtrove, February 2025

Top 5 sponsors completing trials in 2020–2024

Merck & Co. ousted Pfizer from first place in 2024, having gained nearly twice the number of completed trials as it recorded in 2020. Pfizer fell to second but was not far behind Merck in total completed trials. Roche returned to the top five after narrowly missing out in 2023.

Sponsor	2024 (rank)	2023 (rank)	2022 (rank)	2021 (rank)	2020 (rank)
Merck & Co.	228 (1)	152 (3)	116 (4)	140 (3)	127 (6)
Pfizer	218 (2)	174 (1)	165 (1)	134 (4)	152 (2)
AstraZeneca	192 (3)	170 (2)	159 (2)	175 (2)	142 (3)
Bristol Myers Squibb	184 (4)	147 (4)	142 (3)	177 (1)	139 (4)
Roche	152 (5)	118 (6)	116 (4)	115 (7)	138 (5)

Note: Trial counts include co-sponsored trials
Source: Trialtrove, February 2025

Trialtrove, your trustworthy source for trial data

Citeline’s Trialtrove is a comprehensive clinical trial data solution that helps you benchmark objectives, endpoints, and enrollment timelines so you can deliver successful trials that meet your goals.

Trialtrove’s experts curate data drawn from more than 70,000 sources to analyze current trends in trial designs and outcomes, giving you a clear, thorough picture of the competitive landscape and supporting the clinical trial lifecycle from strategy to execution.

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