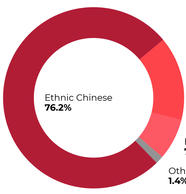
Clinical Trials in Singapore

January - June 2020 Research report

Location Data

Singapore can be considered as a primary R&D spearhead within the APAC region, with cutting-edge technology, highly skilled clinicians, a solid, advanced infrastructure rivalling the West, as well as drive, commitment, and investment by its forward-thinking government to become one of the preferred clinical research destinations worldwide.

Singapore Demographics Breakdown (2020)[1]



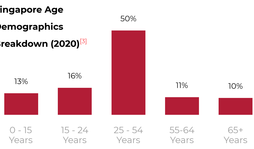
The Health Sciences Authority (HSA) is the Singaporean regulatory agency for health products. It is responsible for securing the national blood supply and providing scientific guidance on forensic science and medicine.

The regulatory framework that ensures drugs, medical devices, and other health products are up to standards is enforced by the Health Products Regulation Group within the HSA. The group is responsible for pre-market approvals and clinical trials, as well as post-market surveillance.[2]

Healthcare in Singapore is supervised by the Ministry of Health of the Singapore Government. It largely consists of a government-run universal healthcare system with a significant private healthcare sector.

In addition, financing of healthcare costs is managed through a mixture of direct government subsidies, compulsory savings, national healthcare insurance, and cost sharing.[2]

Singapore Age Demographics Breakdown (2020)[3]



Singapore's population is 5,85 million people.[3] English is the official language of Singapore.

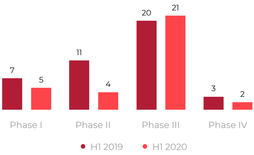
Clinical Trials Regulations may be found on the HSA website at www.hsa.gov.sg/clinical-trials/

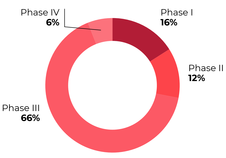
Trial Data

Based on data extracted from ClinicalTrials.gov, there were 59 clinical trials (including local and bioequivalence studies) initiated in Singapore during the first half of 2020. This translates to a 33% decline in the number of clinical trials initiated in comparison with the first half of the previous year when a total of 88 studies were initiated.

If one excludes bioequivalence studies and studies without a defined "Phase", there were only 32 clinical trials initiated during the first half of 2020 compared to 41 studies initiated in previous year, representing a 22% decline.

Breakdown of Clinical Trials in Singapore by Phase (January - June 2020)





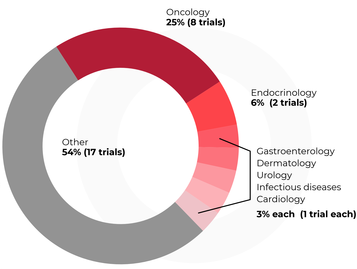
The majority of clinical trials conducted in Singapore were interventional studies with a 73% market share.

The most frequent phase of clinical trials conducted across the Singaporean sites by number of studies was Phase III.

Breakdown of Clinical Trials in Singapore by Therapeutic Area

The largest number of clinical trials initiated in Singapore during the first half of 2020 were related to Oncology (8 studies) and Endocrinology (2 studies). Other areas included Gastroenterology, Dermatology, Urology, Infectious diseases and Cardiology (with 1 trial each). The majority of clinical trials conducted in Singapore in the first half of 2020 were Interventional.

More than one therapeutic area could be assigned to a trial. Observational Clinical trials and Clinical trials without FDA-defined phases (from I to IV) were not included in this chart.



Sponsor Data

By country of origin, the U.S. accounted for the largest number of pharmaceutical sponsored clinical trials initiated in the first half of 2020 in Singapore. The headquarters of the sponsor companies which initiated clinical trials in the first half of 2020 in Singapore were split between the U.S. (6 companies), Europe (3 companies) and Japan (1 company).

At the same time two domestic innovative Singaporean companies – Tychan and CytoMed Therapeutics initiated their clinical studies in Singapore – each of these two companies initiated 1 study with enrollment of 32 (Tychan) and 100 (CytoMed Therapeutics) patients. However, because of a comparatively little amount of subjects enrolled into these clinical studies, these companies do not appear in the following TOP-10 ranking table.

At the same time 15,491 from these 22,947 subjects are enrolled (or planned to be enrolled) in just three studies: two of these studies are Interventional with Phase III (involving 9,891 subject) and one Observational study (involving 5,600 subjects). All three studies are aiming to find an appropriate treatment from COVID-19 coronavirus.

Top-10 Sponsors of Clinical trials in Singapore in H1 2020

№	Company Name	Studies	Subjects
1	Eli Lilly	3	503
2	Gilead Sciences	2	6 004
3	Novartis	2	890
4	Hoffmann-La Roche	2	800
5	Actelion	1	900
6	AstraZeneca	1	699
7	Abbvie	1	600
8	Takeda	1	318
9	Arcus Biosciences	1	150
10	Vir Biotechnology	1	120
	Combined share	**47%**	**48%**

Observational clinical trials and clinical trials without FDA-defined phases (from I to IV) were not counted in this ranking.

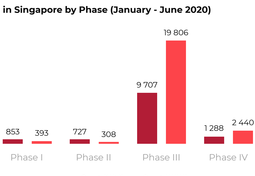
More than one Sponsor company may be involved in a clinical trial.

Subject Data

The overall number of subjects enrolled (or planned to be enrolled) in clinical trials initiated in Singapore during the first half of 2020 (including multi-center international studies) significantly increased from 12,575 subjects in the previous year to 22,947 subjects in the first half of 2020 with year on year growth rate of 82%. The most prevalent Phase of clinical trials by total number of participating subjects was Phase III.

* Studies indicated by sponsors as Phase I-II were counted as Phase II; Phase II-III – as Phase III, Phase III-IV – as Phase IV.

Breakdown of Number of Subjects Enrolled in Singapore by Phase (January - June 2020)



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Data Search and Analysis Approach

All of stats data used in this document were downloaded from the ClinicalTrials.gov website as a .CSV file with the download options listed in the table below.

.CSV file export was completed with the following options:
Number of studies [to download]: all studies.
Select table columns: All available columns.
Select file format: Comma-separated values.

№	Item Name	Fields in Pivot Table	Details
1	Breakdown of Clinical Trials Initiated in Singapore by Phase	NCT, Phases	Exclude “Not Applicable” and empty values in “Phase” field
2	Percentage Breakdown of Clinical Trials Initiated in Singapore by Phase	NCT, Phases	Exclude “Not Applicable” and empty values in “Phase” field
3	Breakdown of Clinical Trials Initiated in Singapore by Therapeutic Area	NCT, Conditions, Phases	See below *
4	Sponsors Ranked By Number of Studies and Number of Subjects	NCT, Enrollment, Phases, Sponsor	See below **
5	Breakdown of Number of Subjects Enrolled in Singapore by Phase	NCT, Phases, Enrollment	See below ***

* Use “Phases” filed as a filter. Exclude “Not Applicable” and empty values in “Phase” field. Use a simple Dictionary of Nosologies (see below) to count the number of studies for each nosology.

** Use “Phases” filed as a filter. Exclude “Not Applicable” and empty values in “Phase” field. Use “Number of values” by “NCT Number” field. Use “Sum” by “Enrollment” field. Use decreasing sorting of the table by “NCT Number” field.

*** Exclude “Not Applicable” and empty values in “Phase” field. Use “Number of values” by “NCT Number” field. Use “Sum” by “Enrollment” field.

If you want to use the same source .CSV file used in this report – just let us know via info@across.global and we’ll send it to you.

Dictionary of Nosologies used for Breakdown by Therapeutic Area

№	Therapeutic Area	Filter String
1	Gastroenterology	*gastr + colon + liver + cron + nash + pancrea*
2	Hematology	*hema + blood*
3	Dermatology	*derm + skin*
4	Urology	*urolog + nephr*
5	Immunology	*immun*
6	Infectious diseases	*infect + virus*
7	Cardiology	*cardi + heart + stroke*
8	Neurology	*neuro + cognitive*

№	Therapeutic Area	Filter String
9	Oncology	*cancer + phoma + noma + tumor + sarcoma*
10	Ophthalmology	*eye + ophtalm*
11	Rheumatology	*rheum + arthr*
12	Endocrinology	*endocrin + insulin + diabete*
13	Mental health	*mental + psych + depress + anxiety*
14	Surgery	*surger + transplant*
15	Geriatrics	*alzh + parkins*

About The White Paper

The White Paper is a free publication produced by ACROSS Global (CRO) Alliance for decision makers in the pharmaceutical industry. The document pulls together data from numerous public sources into a single brief document to aid decision makers planning to conduct clinical trials.

All of the data contained in this document are actual as of 11-AUG-2020.
For more information or if you would like to review a .CSV file of the data extracted from ClinicalTrials.gov (used in this White Paper) please write to: info@across.global.

About ACROSS Global

ACROSS Global is a global alliance of local contract research organizations successfully operating in 99 countries and covering more than 25 therapy areas.

High recruitment rates combined with innovative technology allows ACROSS partner companies to offer our clients conduct faster, more cost-effective studies without sacrificing quality for our clients.

All clinical studies conducted by ACROSS Partners conform to Good Clinical Practice (GCP) as well as local and international regulations ensuring the highest level of quality of the final study data.

We apply continuous improvement methodology to our working practices and IT infrastructure – and replace outdated R&D strategies by novel, more efficient approaches to clinical research.