Evaluate Vantage

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Covid-19 forces Lilly to hit the brakes

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As Lilly pauses much of its research owing to the coronavirus pandemic, Vantage takes a look at an estimate of the cash committed to ongoing clinical studies. Clue: it's a lot.

The coronavirus pandemic could set back huge swathes of clinical research, and this week Lilly became the first pharma major to outline its strategy in these difficult times. The company will delay most new study starts and, with a few exceptions, pause enrolment into ongoing studies.

Lilly is listed as the lead sponsor of 188 clinical studies, trials that will cost the company around $13bn to run, according to estimates from *Evaluate Omnium.* Looking more widely across the sector reveals similar huge sums committed by other big pharma groups. These massive investments are far from being written off, but the longer it takes to bring the pandemic under control the bigger the risks become.

The potential loss of research into valuable new medicines is the biggest concern here, of course, and could delay the arrival of new treatments for people in need. But investors must also be cognisant of the financial impact; while larger developers have more capacity to weather the storm, smaller firms could find it harder if delays mean escalating costs, and a longer wait for sales.

What level of investment are we talking? Drug developers with a stock market listing are named as the primary sponsor on 6,461 clinical study entries, according to clinicaltrials.gov, a *Vantage* analysis reveals. These studies will cost around $291bn to run (methodology below).

Sunk costs? Estimating the bill for clinical programmes		
	No. of clinical trials (phase 1-3)	**Estimated total cost of running these studies ($bn)**
Bristol-Myers Squibb	307	22.32
Roche	276	21.18
Novartis	319	16.98
Lilly	188	13.24
Merck & Co	227	15.26
Astrazeneca	247	12.94
Johnson & Johnson	232	11.11
Abbvie	159	10.47
Novo Nordisk	60	7.91
Sanofi	128	5.98
Total incl others	**6,461**	**291.37**
Note: Includes only public companies, trials where company is lead sponsor, and only trials due to report from 2020. Source: EvaluatePharma Vision.*		

This analysis only includes trials that are yet to report, and excludes phase IV trials.

It seems inevitable that other companies will follow Lilly with similar announcements; over the weekend Galapagos said it had paused enrolment across much of its filgotinib programme.

Notably, Lilly featured dominantly in a previous *Vantage* analysis that specifically looked pivotal programmes that might be under threat: the company has two huge phase III projects in the novel diabetes agent tirzepatide and anti-IL 23 MAb mirikizumab *(Clinical trial delays become reality as Covid-19 risk spreads, March 20, 2020*).

Pausing enrolment where necessary is probably the best hope many companies have to preserve what they can from clinical work already completed.

After speaking with academic medical centre hospitals in the US, analysts at Bernstein wrote today that it would take a really strong argument for these institutions to take on new trials, although for now all are continuing treatment of already enrolled patients. Some have stopped taking in new patients to existing studies, with oncology the exception where patients have no other alternatives.

This is the view from the US, of course; for medical centres located in Europe, where many regions have seen weeks of shutdown, this relatively upbeat assessment is likely to sound unimaginable. The true cost of this pandemic a long way from being calculated, in money terms and beyond. But it is clear that there is a huge amount of investment at risk across the entire biopharma sector.

**Evaluate Omnium's R&D cost model estimates the cost of individual clinical programmes using real-world data. Company disclosed product-level spend and clinical trial patient numbers are combined to create cost per patient benchmarks by technology and therapy type. Utilising a matching algorithm these benchmarks are applied to all commercially relevant clinical trials to estimate their cost, which can then be aggregated by product to estimate the cost of development of all products.*

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