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Memorandum

To: Trialists

Fr: Curtis Meinert

Re: Impact of COVID pandemic on trials

The world went to warp speed in 2020 doing COVID trials. Prior to 2020 there were virtually no COVID trials (aka interventional studies) registered on CT.gov. In 2020 there were 2,389. (The search category, COVID-19, on CT.gov includes several other conditions including SARS.)

A question is whether COVID-19 trials were in addition to or in place of trials normally done. The answer is the latter as evidenced by registrations on CT.gov. The number of trials registered increased over the last five years, except for year 2020 (**Table 1**).

COVID-19 trials accounted for 11% of trials registered in 2020. If they replaced trials done in previous years than what are the deficits in 2020? Hard to say without detailed counting and analyses. There is no evidence they came from heart disease or cancer trials (**Table 2**).

No dramatic difference in funding by agency in 2020 versus previous years (**Table 3**).

The last two tables relate to time to completion and median sample size of all trials versus COVID-19 trials registered in 2020.

About twice as many COVID-19 were completed in the year started versus all trials (**Table 4**).

The findings in **Table 5** are surprising. They suggest larger sample sizes for COVID-19 trials than for all trials registered. I expected the reverse.

Table 1: Trials registered on CT.gov by year started

Year	No started	COVID-19 trials	% COVID-19
2016	20,075	2	0.01%
2017	20,720	4	0.02%
2018	21,981	5	0.02%
2019	22,325	13	0.06%
2020	21,571	2,389	11.08%
1 st half 2020	9,576	1,240	12.95%
2 nd half 2020	11,995	1,149	9.58%
1 st half 2021	13,109	885	6.75%

Table 2: Trials registered on CT.gov by disease category

Year	No.	Infectious disease	Heart disease	Cancer	% ID	% HD	% Ca
2018	21,981	1,409	858	4,611	6.41%	3.90%	3.90%
2019	22,325	1,453	819	4,647	6.51%	3.67%	3.67%
2020	21,571	2,195	897	4,682	10.18%	4.16%	4.16%

Table 3: Trials registered on CT.gov by funding source

Year	No.	NIH & Other Fed	Industry	Other	% NIH & Oth Fed	% Ind	% Other
2018	22,143	1,641	6,233	14,269	7.41%	28.15%	64.44%
2019	22,460	1,699	6,124	14,637	7.56%	27.27%	65.17%
2020	21,727	1,505	6,166	14,056	6.93%	28.38%	64.69%

Table 4: Completion rate within the year of registration on CT.gov

	All trials registered	Completed by end 2020	% completed	Covid-19 trials	Covid-19 trials completed	% completed
2020	21,571	4,050	18.78%	2,389	981	41.06%

Table 5: Planned median sample sizes and interquartile ranges for trials started in 2020 as registered on CT.gov

	All trials	Mdn SS	IQ	Covid-19 trials	Mdn SS	IQ
2020	21,484	68	32-160	1,836	106	40-341