JOHNS HOPKINS
BLOOMBERG
SCHOOL of PUBLIC HEALTH

Department of Epidemiology
Johns Hopkins Bloomberg School of Public Health
415 N. Washington Street, 2nd Floor
Baltimore, Maryland 21231

14 March 2022

Memorandum

To: Trialists

Fr: Curtis Meinert

Re: The impact of the SARS-COVID pandemic on trials

Trials registered on CT.gov by year started

Year started	SARS-COVID	All other trials	All trials
2017	4	20,879	20,883
2018	5	22,235	22,240
2019	15	22,713	22,728
2020	2,413	19,606	22,019
2021	1,558	23,772	25,330

There were only 24 SARS-COVID trials registered on CT.gov in the three years preceding the pandemic versus 3,971 in years 2020 and 2021. That uptake represents a dramatic shift of activities in the clinical trials enterprise. A reassuring shift like the National Guard standing at the ready.

We are only a little over two years into the COVID pandemic so it is early for the question posed in the subject line of this memo, but two changes stand out; one may be fleeting and the other may be a harbinger of what is coming.

First on what is likely to be a temporal change.

It is evident that IRB approvals have been streamlined to facilitate initiation of studies during the pandemic. The streamlining is a welcome by product of the pandemic.

IRB processes need streamlining. Procedures have become increasingly cumbersome and burdensome over time, without evidence of benefit to study participants. One can only hope the bureaucracy involved in reviews and approvals in the future will be less cumbersome and bureaucratic, but that remains to be seen.

Some years ago my wife and I went on a cruise.

I hated it. Cruise liners are just floating hotels with fancy food and I have had my fill of hotels.

I am a multicenter trialist. I am a firm believer in the importance of group face-to-face meetings during the trial. Those meetings provide the synergy that binds groups together. The “model” is two day meetings with a group dinner in the evening of the first day.

I have done my time in center seats in sardine going to investigator meeting in "Who Cares Hotel" arriving just in time for the meeting and high tailing it back to the airport home the moment the gavel falls. It did not take long to learn that people who love to travel are those who haven't.

My fear is that the pandemic will be the death of face-to-face investigator meetings. The pandemic, and the hassle of flying, has meant that group meetings are virtual. Better than nothing to be sure, but by no means substitutes for face-to-face meetings.

There are things that happen with spontaneous dialogue unlikely to happen in virtual meetings.

It is unlikely we would have discovered the mix up in glucose determinations in the UGDP without the give and take of face-to-face dialouge as detailed below in "The trials and tribulations of the University Group Diabetes Program: Lessons and reflections" (https://www.jameslindlibrary.org/articles/the-trials-and-tribulations-of-the-university-group-diabetes-program-lessons-and-reflections/)

Patients had to have a summary blood glucose tolerance test of ≥500 mg/100 ml to be eligible for enrollment. The test consisted of a fasting value, and values at one, two, and three-hour post-glucose challenge. Glucose determinations were done at the clinic level. There had been discussions about sending specimens to a central laboratory, but that approach was rejected because of logistics and cost. The issue to be settled was whether determinations should be done using blood or serum. After a fair amount of discussion, the issue was decided in favor of blood.

Things proceeded uneventfully until, about three years after the start of enrollment, an investigator made an offhand remark during an investigators' meeting about the method used to determine glucose levels. Since the method cited was one requiring use of serum, another investigator questioned how the method could be used on whole blood.

"Whole blood? We use serum."

"You do? The protocol specifies whole blood."

"It does?"

And so unfolded the "glucose story", with discovery that four of the twelve clinics were using serum instead of blood. The mistake required conversion of serum values to whole blood equivalents. Since serum glucose values are higher than whole blood values, the conversion resulted in 57 of the 280 patients having sum GTTs below the diagnostic cut point of 500 mg/100 ml for enrollment.