LIFE
(SCIENCES)
AFTER
COVID-19

Patient Care, at the Speed (and Scale) of Science

Authored by
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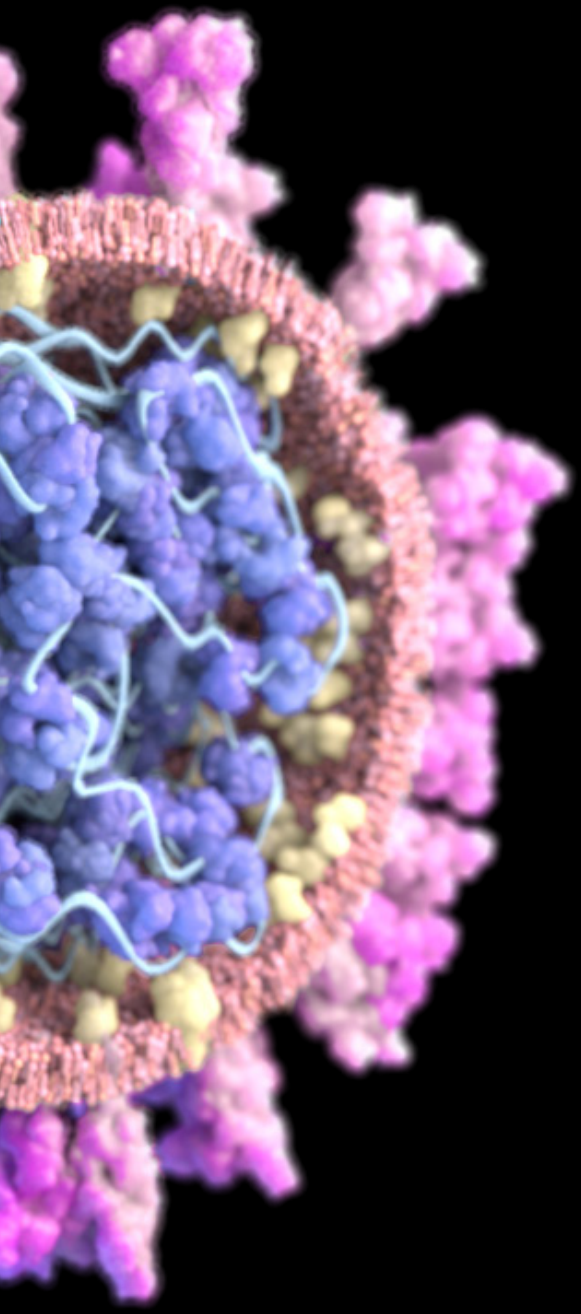
klick HEALTH



The piece you're about to read is from Klick Health's Life (Sciences) After COVID-19 series, a collection of expert perspectives designed to inform and inspire the life sciences community for the coming changes and opportunities we anticipate as a result of this global health crisis.

We invite you to engage with a multitude of these viewpoints by seeking out other pieces from this series, including *Changing Contexts Changes Habits* and *Can COVID-19 Design a Better World for People Living with Chronic Conditions?* at **covid19.klick.com**.

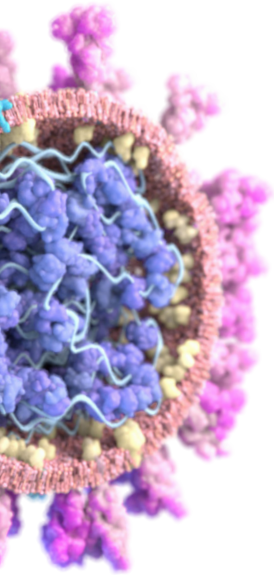
THE INSIGHT

The urgency of a worldwide pandemic and the fluidity of modern communications platforms has led clinicians to new, crowdsourced research models that deliver radical increases in speed to care.

After the pandemic, how can we leverage the current change in mindsets toward these new research models and leverage the resultant behaviors?

- **Can physicians make evidence-based decisions in real time and still do no harm or do we need traditional long-term analysis in every case?**
- **Can real-time tools accelerate and amplify the current clinical guideline development process?**
- **Can we accelerate and assist central committees for Food and Drug Administration (FDA) approvals in an expedited way?**
- **Can we collect real-time contextual and demographic-specific inputs to inform all of our medical and marketing activities to have a greater impact on patient outcomes?**

If there's one thing we've learned from this pandemic, it's that science does not wait for anyone.



Given the urgency of containment and timely intervention measures for the SARS-CoV-2 virus, many providers are not letting good enough stand in the way of perfect. They are teaching and learning from each other in real time, and making critical clinical decisions based on credentialed and verified peer recommendations. This new decision-making approach has put into question the requirement for universal consensus on triage protocol and treatment guidelines that can delay the right action in a moment of need.

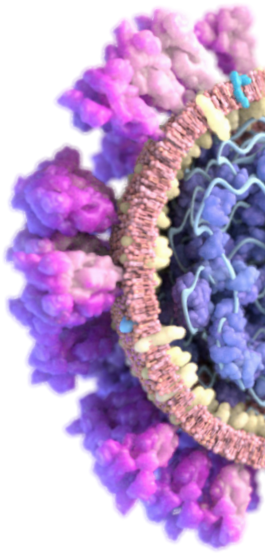
And with the advent and ubiquity of real-time communication and collaboration tools like Slack, WhatsApp, Reddit, and Zoom, many providers are collaborating around the world, learning from each other in real time, and developing contextual and demographic-specific treatment guidelines and protocols based on peer-to-peer learnings from the unfolding pandemic.

THE EVIDENCE

During this time, real-time peer review is still happening in droves. It's happening in private backdoor conversations encrypted on Slack, WhatsApp, and the like. Doctors from China and Italy are sharing rapid investigator studies and commentary on prevention protocols, treatment guidelines, and even therapeutic interventions that can then be applied to local cases here in North America. It's a glimpse of what to expect and what we can leverage in the future.

Now anyone can view, comment, and edit shared files, which function most like wiki pages with real-time collaboration for doctors.

Real-time collaboration has been made possible today through cloud computing. Now anyone can view, comment, and edit shared files, which function most like wiki pages with real-time collaboration for doctors. Peers are now able to support, reject, question, challenge, or confirm peer recommendations. They are invited by referral to help ensure medical credibility and to validate expertise. Each peer is incentivized to then offer their expertise for the greater good of the community. Once a consensus is rapidly achieved, such guidelines are then "spun out" and shared with the medical community at large.



I've seen real-time protocols developed and released by health professionals on the front lines at Stanford, Brigham Women's Hospital, and several others. I've seen physicians challenge the use of unproven, media-hyped drug combinations such as hydroxychloroquine and azithromycin. I've seen sub-protocols being developed for specific use cases, such as for patients who are immunocompromised, for patients who experience a cytokine storm, or for a better understanding of the trajectory of multi-organ involvement as the disease takes its course. I've even seen the sharing of how-to-hack protocols for converting single patient ventilators into dual-use devices, and instructions on how to 3D-print personal protective equipment and respiratory devices.

We've observed that the recent loosening of restrictions by the FDA of Emergency Use Authorizations for select medications[1] and diagnostics[2] has forced some health providers to take matters into their own hands. Knowing an existing medication may have possible benefits in select patients for compassionate use situations, physicians do not want to rob their very sick patients of a potential lifeline.

THE POSSIBLE FUTURES

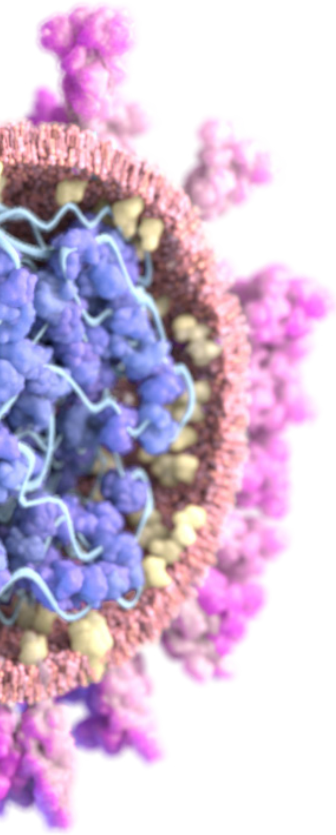
When the pandemic eventually subsides, we will be left with a choice: will we embrace these changes and incorporate rapid, real-time peer reviews, or will we let them fizzle out and revert back to the status quo?

The prediction of what choice we will make is not binary because each choice will be riddled with lots of grey areas.

Making the case against...

The health industry notoriously dislikes gambling with hasty and unverified change. After all, for an industry often guided by defensive malpractice strategies, its first order of rule is "do no harm."

What can possibly go wrong with small sample sizes, hasty decision making, and non-standardized verification? A ton. And while real-time collaboration may work for the immediate pandemic crisis during which incumbents are centrally incentivized to prioritize collaboration over competition, we may very well regress back to old traditional ways managed by traditional gatekeepers who choose the "best-quality standards" over "good-enough practices."



Making the case for...

We believe, however, that science cannot and will not wait. And now with the rapid adoption and utilization of cloud-based collaboration tools by the world's top scientists and physicians, we can expect some select use cases where there is no going back.

Familiarity and comfort level with such technologies today may establish a new normal with the accelerated adoption by providers and scientists. Moreover, now that we recognize that we can accomplish more at a faster rate, our level of impatience will be elevated should we revert back to the old ways of doing things.

While such practices may not be suited for those decisions that can afford the luxury of time, having such tools available at hand can prove to be lifesaving in cases where urgent and underdeveloped recommendations are desperately needed.

Perhaps we will explore the immediate applicability for select use cases to accelerate areas of science and research that can either (a) benefit from accelerated peer reviews (e.g., clinical studies, trials, and medical education guidelines) and/or b) benefit from time-sensitive conditions where immediate lives are on the line.

THE ACTION PLAN FOR LIFE SCIENCES LEADERS

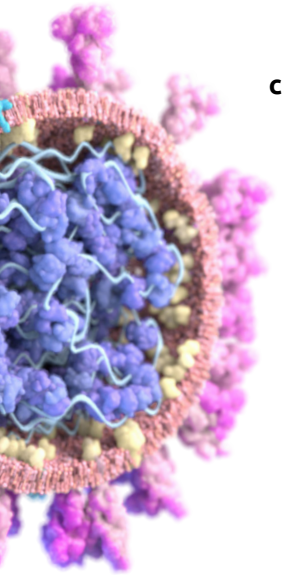
Let's consider the possible future that leverages real-time collaboration tools for peer reviews and collaborations. Here are some ways to take advantage of these new ways of working going forward.

1. **Determine which conditions and medications could be better suited for rapid peer review to speed up their development and approvals:**

    a. Consider how this approach could speed up development of orphan or precision-based medications.

    b. Consider how rapid peer review could help assist central committees for FDA approvals and the like.

    c. Create a collaborative model with advocacy groups and the Centers for Disease Control and Prevention/National Institutes of Health/ FDA to establish a data-driven approach, like the NICE-style metrics, that can be used to guide specific recommendations by condition. In this collaborative model, past requirements can be loosened in the pursuit of getting therapeutics and diagnostics in market faster.



2. **Real-time physician input:**

   a. Using real-time messaging platforms, create closed self-run/regulated physician virtual committees that answer key questions you have/they have and spin out approaches, guidelines, etc.

      - The outputs from the committee, which are based in real-world experiences, can be used to speed up medical and/or marcom activities.
      - Create a trusted place for real-world discussions about real-world cases and issues without censorship.
      - Physicians would be incentivized to offer their expertise for the greater good of the treatment of the disease and to help educate each other.
      - Leverage cloud-based collaborative tools.
      - Create innovative ways to still be compliant with internal med/reg committees.

3. **Real-world, real-time patient segment inputs:**

   a. Gain real-world, real-time understanding of physicians' experiences at any time, not just once a year when a segmentation may be created.

      - Gain a deeper and quicker understanding of how to optimize treatment across various patient segments and understand patient segments that you may not have known existed.
      - Create more focused and effective marcom activities.

4. **Incorporate agile methodologies:**

   a. In an era of accelerated digital transformation, parse out areas of digital development for applying agile methodologies to patient and healthcare provider solutions with rapid turn-around (days to weeks) instead of applying traditional waterfall methodologies (months to years).

   b. Reconfigure and incentivize internal product teams to work in agile environments for quicker turnarounds and rapid feedback loops.

References:

1. https://www.pharmacytimes.com/news/fda-announces-two-drugs-approved-for-compassionate-use-in-treating-covid-19
2. https://www.fda.gov/regulatory-information/search-fda-guidance-documents/policy-diagnostic-tests-coronavirus-disease-2019-during-public-health-emergency

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We hope you've found this piece from our Life (Sciences) After COVID-19 series valuable and engaging. For more content like this, download our other published perspectives at **covid19.klick.com** and sign-up to receive future insights as soon as they become available.

Dr. Gautam Gulati

Innovator-in-Residence; Curator of Klick Author Series

Gautam (Dr. G) Gulati is a polymath doctor who speaks, writes, teaches, advises, invests, and builds cool things.

As an innovation-focused executive for the past 20+ years, Dr. G has studied, interviewed, worked for, and advised forward-thinking leaders from the world's most recognized companies. Companies such as Marriott, Roche, Google, American Express, LG, Genentech, Disney, Digitas Health, Merck, Astellas, Medstar, Johns Hopkins, HealthLoop, and many more have sought the perspectives and ideas from Dr. G to help them both think and do differently.

In addition to serving as the founder of WellPlayed.health, Dr. G is currently an Innovator-in-Residence at Klick Health where he helps leaders of life sciences companies to see around corners and better understand how to innovate during uncertain times. He also serves as the head curator for the Klick's world-renowned Ideas Exchange Author Series.

Dr. G is an acclaimed speaker on innovation who has delivered over 250 inspirational keynotes—including at TEDxMidAtlantic, Exponential Medicine, SxSW, and Health 2.0.

In addition to his executive roles, Dr. G serves as an Adjunct Professor of Medical Innovation and Entrepreneurship at Johns Hopkins University Carey Business School, Duke Corporate Education, and Singularity University.

While change can create challenges, it also opens the door to new opportunities. Join us as we explore the many imaginable paths to post-pandemic growth. We welcome you to start a dialogue with the author of this piece:

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