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EDITOR'S CHOICE

“Never let a crisis go to waste”: How science has responded to COVID-19 pandemic

This month marks a year since Covid-19 lockdowns were instituted in many countries. JCE put out a call for articles that address methodological challenges to studying the COVID-19 pandemic crisis [1]. We have received 322 submissions to-date and have published the 20 shown in Table 1. The articles demonstrate that in in the midst of a global crisis the clinical epidemiologic community has responded with energy and considerable inspiration. This is exemplified by a number of major clinical COVID-19 programmatic initiatives that are meaningfully influencing practice and policy across the world. As Djulbegovic and Guyatt describe in their editorial, ‘the application of EBM and GRADE is never more important than in times of health crisis affecting millions of people’ [2].

Systematic review organisations and their processes have frequently been criticised, with good reason, as being too slow to respond. However, it is now clear that not

only can traditional reviews be produced rapidly as shown by Clark and colleagues [3], but indeed ‘living evidence’ can be operationalised for a rapidly changing field such as the COVID-19 pandemic. It is not just evidence synthesis that can be greatly accelerated. This is exemplified by the work presented by the Tendal et al paper in this issue on the Australian living guidelines for care of people with COVID-19 [4]. The authors report on the production and maintenance of over 90 treatment recommendations by a large inter-disciplinary network. Although the guidelines have been published and updated at speed, it is noteworthy that those from vulnerable communities have been heavily involved in the process. Such diversity of representation is critical to drive credibility and successful implementation.

There have been many other laudable initiatives and programmes launched that perform complementary tasks at all stages of the evidence eco-system: from

Table 1. Publications in the JCE addressing the challenges in studying the COVID-19 pandemic crisis

1. Methodological challenges in studying the COVID-19 pandemic crisis
2. Lessons from COVID-19 to future evidence synthesis efforts: first living search strategy and out of date scientific publishing and indexing industry
3. COVID-19 coronavirus research has overall low methodological quality thus far: case in point for chloroquine/hydroxychloroquine
4. What evidence-based medicine researchers can do to help clinicians fighting COVID-19?
5. Using GRADE in situations of emergencies and urgencies: certainty in evidence and recommendations matters during the COVID-19 pandemic, now more than ever and no matter what
6. A large number of COVID-19 interventional clinical trials were registered soon after the pandemic onset: a descriptive analysis
7. Open synthesis and the coronavirus pandemic in 2020
8. “One more time”: why replicating some syntheses of evidence relevant to COVID-19 makes sense
9. A framework for identifying and mitigating the equity harms of COVID-19 policy interventions
10. Achieving effective informed oversight by DMCs in COVID clinical trials
11. Pandemics and methodological developments in epidemiology history
12. Social media can have an impact on how we manage and investigate the COVID-19 pandemic
13. Evidence-based medicine in times of crisis
14. Testing COVID-19 tests faces methodological challenges
15. The importance of publishing non-COVID-19 research during COVID-19
16. Evidence, values & masks for control of COVID-19
17. Weekly updates of national living evidence-based guidelines: methods for the Australian living guidelines for care of people with COVID-19
18. The COVID-19 pandemic and a reflection on the conduction of clinical trials in times of war
19. Modeling the COVID-19 Pandemic: A Comprehensive Guide of Infectious Disease and Decision-Analytic Models
20. The movement for adopting or adapting clinical guidelines and recommendations

prioritisation, study mapping, to evidence synthesis, to guidelines through to decision support. Many of these are 'living' programmes, updated as the evidence changes and new data emerge. Other organisations act as aggregators of content so that decision makers may have rapid access to the high quality, up to date information they need.

The COVID-19 pandemic has highlighted some known challenges and has also brought new ones to light, but it has also led to the identification and implementation of novel solutions. As the study by Alexander et al demonstrates, despite the laudable, often heroic work by researchers and academics in the eye of the storm to conduct trials and evidence syntheses, many of the published studies lacked quality and indeed exemplified distorted prioritisation processes [5]. This has led to unwarranted duplication of effort and avoidable gaps in the evidence, but as Page et al demonstrate in their paper, it is also true that there are many scenarios where replicating syntheses is warranted [6].

The COVID-19 pandemic has exposed the catastrophic health consequences of inequity. Within and between countries there has been marked and shameful disparity in outcomes between rich and poor, between protected and vulnerable communities. It is therefore important that researchers study equity, and in this issue of JCE Glover and colleagues describe a framework for identifying and mitigating the equity harms of policy interventions during the pandemic [7].

This COVID-19 pandemic is far from being over. However, as the maxim of 'never letting a crisis go to waste' implies, it is crucial that lessons are learned. These can have a positive impact on other spheres of health and illness, and also for building individual and societal resilience ahead of a future outbreak. The Journal of Clinical Epidemiology has an important role in supporting the 'advancement and application of innovative methods' aimed at improving the evidence eco-system and thus, the care and well being of communities.

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