

EDITORIAL

A Policy to Do Better Next Time: Lessons Learned From the COVID-19 Pandemic

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We write at the end of the second week in April, a necessary introduction because anything we say about the COVID-19 pandemic may be relevant only for the next few days. That is approximately the half-life of perceived wisdom in preventing exposure that may give rise to new cases and in providing medical care to existing patients.

At the risk of trying to find lessons for the next pandemic during the current one, there is much that we have already learned from this one. Weeks ago, in the early stages of the pandemic, several states and localities were at the same point in the pandemic, but they have taken dramatically different paths since then. Why? It is the power of exponentiation, in which a couple of days can make a huge difference, a geometric difference in prevalence and outcomes. Nothing brings that concept home better than seeing the difference between geographic areas that have ordered shelter in place a few days earlier and those areas that waited, let alone those places that have still not required shelter in place. Policymakers who put those orders in place early probably saved tens of thousands of lives. At the very least, the policies increased the odds that the health care system could keep up with the rapidly increasing numbers of individuals with COVID-19 who will inevitably require care.

In the weeks to come, policymakers will have to decide when to relax shelter-in-place orders, assessing the critical trade-off between saving lives and saving businesses. In this, we hope they emulate the enlightened initiative of many European countries to continue paying the wages of those at risk for layoff, although we have seen scant indication that there is the will to pursue such a strategy. Rather, there may be a strong incentive to push workers to return to their jobs too early, which will, in the process, lengthen and worsen the severity of the pandemic as returning workers spread disease among themselves, their clients, and those they encounter in transit.

As we begin to segue from the acute to chronic phase of the pandemic in the weeks or months to come, we can use

the experience of living through this pandemic to rethink how we handle the next one. For the last several decades, public health policy has been dominated by a business ethos of just-in-time inventory. We have seen the effects: inadequate supply of the most basic health care supplies, such as personal protective gear, and life-sustaining equipment, such as ventilators. We have also seen the cost in lives of not having a sufficient first-response infrastructure and of having no capacity for a surge in the demand for emergency department services, hospital beds, and ICUs. Prior to the dominance of the business ethos in health care, the prevailing wisdom had been that there should be planned redundancy in supplies and infrastructure, the exact opposite of just-in-time inventory. Planned redundancy acknowledges that in extraordinary times, Murphy's law applies, and we need that redundancy to ensure adequate workarounds to meet the substantial challenges of catastrophic events. In COVID-19, we needed much more than we had at the ready: a storehouse of protective gear, a much greater capacity in ventilators, and a larger reserve army of health care personnel. All this is not to say that business principles cannot be useful. In fact, principles such as volume buying and the use of cost-effectiveness analysis to choose among competing treatment strategies should play a prominent role in how we go about deploying resources in normal or catastrophic circumstances. However, to have a set of policies in place to do better the next time a pandemic arises, we must acknowledge that the public health response to a pandemic has unpredictable and unknowable demands for personnel and equipment, thus calling into question the wisdom of just-in-time inventory. A pandemic like COVID-19 certainly signals that "more" will be needed, although "when" may be determined by factors out of our control. This argues that reserves should be put into place because they clearly will be needed and that plans for the transfer of those reserves should be rehearsed ahead of need to shorten the delay in transfer as much as

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possible. The best practices in public health may sometimes adhere to the best practices in business (we gave two examples above) but, by and large, public health would do better to follow the dictates of planned redundancy in the amount of supply and in the ways that the supply can be redeployed as circumstances warrant.

At this juncture in the COVID-19 pandemic, rheumatology has played an important role in responding to the situation at hand. Rheumatologists have lent their expertise in how to deal with the cytokine cascade that occurs frequently in severe cases and are providing essential services to many hospitals to relieve physicians redeployed to care for COVID-19 or providing that care themselves. Many are doing so despite facing substantial stresses in their practices due to limits on normal ambulatory care being part of shelter-in-place orders. The rheumatology community has also built a robust database to track the effects of COVID-19 on persons with severe autoimmune disease throughout the world, a great example of preparing for the next pandemic by having the wherewithal to learn the lessons of the current one.

However, the rheumatology community—and more importantly persons with rheumatoid arthritis (RA) and systemic lupus erythematosus (SLE)—have seen how anecdotes, perhaps poorly described ones at that, have shaken the bedrock of care that hydroxychloroquine represents, creating shortages that threaten the well-being of these persons. The community now must witness how unenlightened policy in Chile to deny COVID-19 care based on a flawed understanding of outcomes in

severe rheumatic disease may undo the progress we have made in reducing morbidity and mortality for those conditions. These policies, if implemented, would condemn persons with RA and SLE to an undeserved fate.

While we ponder how to prepare for the next pandemic, we must acknowledge the bravery of public officials who, in dealing with COVID-19, were the first to take the unpopular position that shelter in place was necessary, and lament the many who resisted the appropriate policies. In rheumatology, we can acknowledge the important role that many in our community have played in areas with enlightened leaders, and in areas without, in providing needed care and in obtaining the data in this pandemic that might help us attain better outcomes in the next.

We can be confident that our community will draw proper inferences from what has transpired in the COVID-19 pandemic so far and be part of the process of helping to assure that we will learn from this experience in setting things aright next time. However, it is frustrating that we know of no policy to increase the probability that those in positions of power will do the right thing next time, even when we already know that enlightened policies have made a difference in the number suffering from severe disease or dying of it in this pandemic.

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All authors drafted the article, revised it critically for important intellectual content, and approved the final version to be published.