

29 May 2020

BRIEF19

A daily review of covid-19 research and policy.

RESEARCH BRIEFING

Consequences of the hydroxychloroquine craze.

A new research letter published in *JAMA* followed prescription trends in the United States between 19 February 2020, and 25 April 2020. The researchers compared the rates of the 10 most prescribed medications in the US as well as hydroxychloroquine/chloroquine against a historical comparison using a similar time period during 2019. Hydroxychloroquine and chloroquine prescriptions skyrocketed during this period. For the week starting 15 March 2020, the number of filled prescriptions for fewer than 28 tablets rose from 2208 (2019) to 45,858 (2020), representing a 1977.0 percent increase. Prescriptions for 28 to 60 tablets rose 179 percent, and 182 percent for fills of more than 60 tablets. The rise in interest in these medications is believed to be related to the World Health Organization having declared covid-19 pandemic (11 March), the United States declaring a national emergency (13 March), the publication of a low-quality (non-randomized study) describing the use of hydroxychloroquine (with azithromycin), and the President of the United States public support of the drugs (19 March). Meanwhile, estimates for weekly prescription fills decreased after 21 March for many drugs. The largest reductions were seen in Amoxicillin (−64.4 percent), Azithromycin (−62.7 percent), Hydrocodone-acetaminophen (commonly known by its trade name Vicodin) (−21.8 percent). In addition, reductions from normal rates were also seen in medications used in the treatment of high blood pressure and cholesterol, which can reduce the risk of heart attacks and strokes, if used over time. Specifically, lisinopril was down 15.3 percent, amlodipine 9.2 percent, and atorvastatin 9.1 percent. These patterns are concerning in both directions. In the first case, prescriptions for drugs that have not been shown to confer benefit for covid-19 has led to shortages for patients who truly need them (e.g. lupus and rheumatoid arthritis patients). In the second, patients who are not taking medications that may reduce strokes and heart attacks could eventually suffer related health consequences.

–Lauren Westafer, DO, MPH

Lancet study on hydroxychloroquine under scrutiny.

Editor's note: Yesterday a group of concerned scientists issued an [open letter](#) in which concerns regarding a recent study of hydroxychloroquine published last week in *The Lancet*, and covered here in *Brief19*. The letter, signed by 120 researchers all over the world, alleges that the study has irregularities that may suggest research misconduct. Problems identified include more patients from certain hospitals than are known to have been treated at such facilities and dosing problems. If the paper were to be retracted, it could be seen as a major setback for those seeking to stop hydroxychloroquine proponents from advancing the use of a medication not proven to benefit patients with covid-19. It was in part based upon this study (which described poorer outcomes amongst patients who received hydroxychloroquine). While the study was “observational,” and thus cannot be used to imply a cause-and-effect, the fact that there were 96,032 patients included in the analysis impressed many observers. Regardless of the outcome of any investigation that may stem from this open letter, to date, no high-quality study has demonstrated that hydroxychloroquine helps patients with SARS-CoV-2.

–Jeremy Samuel Faust, MD MS

POLICY BRIEFING

American laws influence racial and ethnic disparities in covid-19. [Gaps in the law](#) and other systemic sources of discrimination appear to be contributing to the disparities observed in covid-19 outcomes. In particular, many racial and ethnic communities are experiencing worse outcomes. There are several possible explanations for why this is occurring. First, exposure to conditions that may increase rates of viral transmission are more common in communities where persons of color live. Second, racial and ethnic minorities are more likely to be unable to stay at home (i.e. unable to practice recommended social distancing) from work, thereby exposing other members of their community in the workplace. Some disparities in exposure to covid-19 also appear to stem from gaps in employment laws which fail to provide paid sick leave and a living wage to low-wage essential workers. This includes home health care workers, farm workers, and meat plant workers. Many such workers do not have adequate (or any) health insurance, meaning they are more likely to have higher rates of existing medical conditions, some of which have repeatedly been noted to be associated with more severe covid-19 infections and worse outcomes. Additionally, as covered in [Brief19](#), lack of access to routine health care may be leading patients from minority communities to avoid seeking medical care early enough to stave off important and modifiable complications of infection, such as kidney and liver damage. Third, racial and ethnic minorities may be more susceptible to more serious SARS-CoV-2 infection because of a system of federal laws that has proven inadequate in ensuring sufficiently safe housing. For example, Title X of the Housing and Community Development Act of 1992 law gives federal aid to reduce lead based paint hazards in housing, but neglects all other health hazards such as lack of hot water, or the presence of environmental hazards like mold that contribute to higher rates of asthma, a potential risk factor in developing worse covid-19-related illness. Other laws may have a more direct effect on worse outcomes among certain racial and ethnic groups. For example, provisions in the Coronavirus Aid, Relief, and Economic Security Act (the CARES Act) fail to protect home care workers; often referred to as “home health aides,” these workers take care of the elderly and other chronically ill persons. Among other benefits, the CARES Act provides many workers with health coverage for covid-19-related care, increased unemployment benefits, and mandated paid sick leave. However, the law does not apply to home care workers, of whom two-thirds are women of color. Additionally, undocumented immigrants who are essential workers have lower access to covid-19 testing and hospital-based treatment because they are not covered by either the ACA or the CARES Act.

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Brief19 is a daily executive summary of covid-19-related medical research, news, and public policy. It was founded and created by frontline emergency medicine physicians with expertise in medical research critique, health policy, and public policy.