

A JOINT MESSAGE TO ONTARIO'S DOCTORS, NURSE PRACTITIONERS AND PHARMACISTS

Statement on the Use of Hydroxychloroquine and Azithromycin for COVID-19 Prophylaxis

As front-line healthcare professionals, you may be aware that there has been significant mention in both social media and on the internet on the use of certain anti-malarial, antibiotic and antiviral therapies in the treatment of COVID-19 patients. Notwithstanding the widespread hope that a cure or treatment for COVID-19 symptoms is found quickly, Ontarians have an expectation and confidence that their health team members – physicians, nurse practitioners and pharmacists – are and will continue to work together to ensure that prescribing and dispensing of medications for the treatment of this deadly virus is evidence-based and with ultimate safety in mind.

In particular, the latest information circulating on social media and the internet involves a combination of two medications – [hydroxychloroquine sulfate](#) (brand name Plaquenil®) and [azithromycin](#) (brand name Zithromax®).

- **Hydroxychloroquine sulfate** is an aminoquinolone which is indicated for the treatment of rheumatoid arthritis (RA), treatment of discoid and systemic lupus erythematosus (SLE), and for the prevention and treatment of acute attacks of malaria caused by chloroquine-sensitive and erythrocytic forms of *P. vivax*, *P. malariae*, *P. ovale* and susceptible strains of *P. falciparum*.¹
- **Azithromycin** is a macrolide antibiotic used in the treatment of mild to moderate infections caused by susceptible strains of the designated microorganisms in the following diseases and specific conditions, including, but not limited to pharyngitis and tonsillitis, acute bacterial exacerbations of chronic obstructive pulmonary disease, community-acquired pneumonia, uncomplicated skin infections, genitourinary tract infections, acute otitis media, and certain lower respiratory tract infections. It can also be used for the prevention of disseminated Mycobacterium Avium Complex (MAC) disease in patients with advanced HIV infections.²

With the exponential growth in social media messaging regarding these anecdotal reports, pharmacists across Ontario and across the entire country have reported significant growth in the number of prescriptions being issued for one or a combination of these two products. While it is certainly not uncommon to see prescriptions for each product individually, it is otherwise uncommon to see them in combination. Additionally, these medications are being prescribed in odd doses and quantities, with an off-label and unsubstantiated indication of “COVID-19 prophylaxis or treatment”, and in some instances, with a notation that the products are intended “For Office Use”. It is not at all surprising that patient demand for these products has been and will continue to be high, especially if demand goes unchecked. But with our collective memberships of more than 110,000 strong, Ontario’s doctors, nurses and nurse practitioners and pharmacists, we have an obligation and duty to educate our patients that any treatment – particularly for COVID-19 – needs to be evidence-based. At this time, there is a serious lack of evidence that categorically supports the widespread use of hydroxychloroquine and azithromycin. Equally important are the significant potential contraindications, adverse effects, and drug interactions with the use of hydroxychloroquine and azithromycin individually or concurrently, particularly the cardiovascular effects that include cardiac arrhythmias and QTc prolongation.³ This is especially problematic in patients with chronic medical conditions such as hepatic disease or renal failure.³ Use of these medications for these patients should be very carefully monitored.

While research and testing are ongoing, we need to take stock of the impact of unrestricted prescribing and dispensing of these two products.

Long before the formal declaration by the World Health Organization of a pandemic due to COVID-19 on March 10, 2020, all Canadian provinces have been facing widespread shortages and/or complete outages of a significant number of medications for a wide variety of reasons. Due to the recent yet-to-be-proven claims of effectiveness of hydroxychloroquine sulfate against COVID-19 and the growth in prescribing for it, we are now faced with a very serious shortage (and some brands, outages) of the product. This presents very serious challenges for long-term continuity of care for patients suffering from rheumatoid arthritis and lupus. Furthermore, while there are currently no reported shortages as of yet for azithromycin, physicians, nurses and nurse practitioners and pharmacists are reminded of their roles as antibiotic stewards on guard against the very real threat of antimicrobial resistance developing as a result of azithromycin overuse.

Collectively, OMA, RNAO, and OPA would like to remind all physicians, nurses, nurse practitioners and pharmacists on their responsibilities to their professions, patients, and society. The College of Physicians and Surgeons of Ontario's [Practice Guide of Medical Professionalism and College Policies](#) states that **"physicians should provide medical care based on objective evidence whenever possible"** and **"have a collective responsibility to the public, which is demonstrated by collaborating with and supporting colleagues and other health professionals"**.⁴ Similarly, the College of Nurses of Ontario's [Professional Standards](#) requires nurses to ensure their practice is **"based in theory and evidence and meets all relevant standards/guidelines"** which includes accountability to the public and **"ensuring fairness in the use of resources"**.⁵ Finally, pharmacists are expected to practice according to the Ontario College of Pharmacists' [Code of Ethics](#) which states that members must **"apply therapeutic judgment in order to assess the appropriateness of current or proposed medication therapy given individual patient circumstances"** and **"ensure that information provided to patients is current and consistent with the standards of practice of the profession and best available evidence"** in order to **"actively and positively serve and benefit the patient and society"**.⁶

Physicians, nurses, nurse practitioners and pharmacists alike are all hopeful for an end to the deadly COVID-19 pandemic, and we are collectively confident that effective treatments will emerge soon. But, as evidence-based clinicians, we must be diligent in our efforts not to let blind hope drive our decisions. As more studies are conducted in this area and evidence emerges, it is also important that clinicians judiciously prescribe and dispense medications to ensure patients who require therapy continue to have access. Our patients expect us to protect them to the best of our abilities, and with all health professions rallying together, we will ensure that our patients are well cared for and that their confidence in us – and in the drug supply – is well founded.

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About this joint statement

The collective memberships of the Ontario Medical Association, Ontario Pharmacists Association and the Registered Nurses' Association of Ontario represents more than 110,000 healthcare providers strong. Ontario's doctors, nurses, nurse practitioners, pharmacists and pharmacy technicians stand together in the circle of care with their patients. Together, Ontario's healthcare professionals put patients at the centre of everything they do. Using evidence-based care, they are committed to improving the lives of their patients and communities.

About the Ontario Pharmacists Association

The Ontario Pharmacists Association represents pharmacists, pharmacy technicians and pharmacy students within Ontario communities, hospitals, primary care, long-term care, academia and industry, and collectively, these professionals number more than 20,000. Ontario patients trust their pharmacists without reservation and rely heavily on their support and guidance as their most accessible healthcare provider in the community.

About the Ontario Medical Association

The Ontario Medical Association represents Ontario's 43,000 plus physicians, medical students and retired physicians, advocating for and supporting doctors while strengthening the leadership role of doctors in caring for patients. Our vision is to be the trusted voice in transforming Ontario's health-care system.

About the RNAO

The Registered Nurses' Association of Ontario (RNAO) is the professional association representing registered nurses, nurse practitioners, and nursing students in Ontario. Since 1925, RNAO has advocated for healthy public policy, promoted excellence in nursing practice, increased nurses' contribution to shaping the health system, and influenced decisions that affect nurses and the public they serve. For more information about RNAO, visit our website at RNAO.ca or follow us on [Facebook](#).

References:

1. Compendium of Pharmaceuticals and Specialties (CPS) [Internet]. Ottawa (ON): Canadian Pharmacists Association; c2016 [updated 2019 August; cited 2020 March 23]. Hydroxychloroquine [product monograph]. Available from: <http://www.e-cps.ca> or <http://www.myrxtx.ca>. Also available in paper copy from the publisher.
2. Compendium of Pharmaceuticals and Specialties (CPS) [Internet]. Ottawa (ON): Canadian Pharmacists Association; c2016 [updated 2018 September 11; cited 2020 March 23]. Zithromax [product monograph]. Available from: <http://www.e-cps.ca> or <http://www.myrxtx.ca>. Also available in paper copy from the publisher.
3. Centers for Disease Control and Prevention (CDC). Information for Clinicians on Therapeutic Options for COVID-19 Patients. <https://www.cdc.gov/coronavirus/2019-ncov/hcp/therapeutic-options.html>. Accessed March 23, 2020.
4. College of Physicians and Surgeons of Ontario. The Practice Guide: Medical Professionalism and College Policies. <https://www.cpsso.on.ca/admin/CPSO/media/Documents/physician/policies-and-guidance/practice-guide/practice-guide.pdf>. Accessed March 23, 2020.
5. College of Nurses of Ontario. Professional Standards, Revised 2002. http://www.cno.org/globalassets/docs/prac/41006_profstds.pdf. Accessed March 23, 2020.
6. Ontario College of Pharmacists. Code of Ethics. <https://www.ocpinfo.com/library/council/download/CodeofEthics2015.pdf>. Accessed March 23, 2020.