

OUR RESPONSE TO COVID-19**AGHAM AT KAALAMAN PARA SA BAYAN!****OFFICERS**

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Addressed to: DOH Key Decision-Makers, Senators, Congressmen, Executive and Legislative Branches of the Philippine Government

USE OF HYDROXYCHLOROQUINE AND CHLOROQUINE FOR COVID19 TREATMENT

PAASE supports the judicious use of hydroxychloroquine (HCQ) or chloroquine (CQ) in combination with other drugs for the development of treatment protocols for covid19.

This position is based on the following facts:

- (1) Numerous anecdotal and limited investigator-initiated clinical trials have been conducted worldwide including the Philippines showing the promise of using the anti-malaria drugs – HCQ or CQ – in treating patients. The pioneering small clinical trial from France showed promising efficacy of a combination of HCQ and an antibiotic azithromycin (1). Caution however is recommended, given that a separate study did not find clinical benefit from a combination of HCQ and azithromycin in patients with severe covid19 infection (8).
- (2) HCQ and CQ have been used as drugs against malaria as well as a treatment for lupus and rheumatoid arthritis (RA). It is generally safe but because of some serious side-effects, it would be better administered under the supervision of a physician. A protocol of treatment has been developed by the Johns Hopkins Hospital (2).
- (3) Mechanism of Action and Rationale behind HCQ/CQ Treatment
 - a. The HCQ/CQ combination works because of synergy among its properties -- anti-inflammatory, inhibition of viral replication and prevention of secondary infection.
 - b. HCQ and CQ are used for treating lupus and RA patients because they are anti-inflammatory and modify the immune system without compromising susceptibility to infection. How HCQ and CQ exactly accomplish this however is not well understood.
 - c. HCQ/CQ also act as a zinc ionophore, which means that HCQ/CQ facilitate the entry of the zinc ions into cells more efficiently (3). This is important because zinc can stop the coronaviruses from multiplying, thereby preventing the spread of the infection (4). Zinc also has immune enhancing properties against viruses (5).
 - d. Zinc is included in some COVID19 treatment protocols since zinc deficiency is prevalent and supplementing zinc intake can increase therapeutic efficacy (5).
 - e. HCQ is less toxic than CQ (6).
 - f. Antibiotics such as azithromycin are included in the treatment to prevent secondary bacterial infections such as pneumonia that may arise because fluids accumulate in the patients' lungs due to inflammation-induced complications from viral infection. Addition of azithromycin enhances the ability of HCQ to eliminate the virus (1).
- (4) Based on the mechanism of action of the HCQ/CQ treatment, a healthy balanced diet should be promoted with emphasis on reducing inflammation (6) and enrichment with zinc amongst the population as a preventive strategy to reduce complications that may arise from COVID19 infection.
- (5) Efforts are currently underway to acquire HCQ from Teva Pharmaceuticals of Israel.

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