

PP106

## Relevance of Hydroxychloroquine and Azithromycin in COVID-19

Sumit Saini\*, Pramil Tiwari

Department of Pharmacy Practice, National Institute of Pharmaceutical Education and Research (NIPER),  
Sector 67, S.A.S. Nagar, Punjab, India

\*Corresponding Author

### ABSTRACT

Outbreak of COVID-19 has created a unique problem for healthcare professionals in terms of selecting effective therapy. Hydroxychloroquine and azithromycin both have gained attention as potential treatments for COVID-19.

**Objective:** To analyse the outcomes of management with hydroxychloroquine and azithromycin in COVID-19 patients.

**Methods:** Published studies and data available in the open source were evaluated. HCQ alone, AZM alone and a combination of HCQ plus AZM in patients with COVID-19 infection and their adverse effects were analyzed. The emphasis was on clinically relevant endpoints.

**Results:** India was the largest exporter of HCQ during the 1st wave of COVID-19 and exported more than 4000 shipments of HCQ to 70+ countries including the US and France. HCQ alone and in a combination with AZM has been extensively used to treat COVID-19 on the basis of the findings of in-vitro studies. In-vitro studies have shown that HCQ can inhibit virus entry, transmission, and replication. Inhibition of viral entry is mediated by raising the pH of endosomes. The combination of HCQ plus AZM was found to be less effective to treat the patients with COVID-19 as compared to HCQ and AZM alone and also showed more safety concerns like QT prolongation and cardio toxicity.

**Conclusion:** These results pointed out the effectiveness of different therapies in patients with COVID-19 which might be helpful to physicians to treat the patients in upcoming waves of COVID-19. However, long follow-up studies are needed.

**Keywords:** Hydroxychloroquine, Cardio toxicity, Endosomes, Transmission.

