

Preparation of Marketing Plan (Prelaunching strategy) of Hydroxychloroquine Tablet

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ABSTRACT:

This survey was designed to analyze the current available **Hydroxychloroquine drug** prescribed for **antimalarial** as well as **COVID-19** patients within Kota region on the basis of different competitors available in this market. The present survey has been conducted involving number of medical stores in Kota region. Randomly evaluating questionnaire were prepared based on Physician data and pharmacist data. Brand name is selected on the basis of general survey with both online and offline mode.

Data from physician during survey suggested as Hydroxychloroquine as mostly prescribed drug to patients having Malaria as well as COVID-19. An exhaustive survey over medical shops revealed that many brands of Hydroxychloroquine are available in the market, but **HCQ & HYDROCAD** is mostly prescribed by Physicians & sold by the pharmacist though their cheapest alternatives are available in market. Cost analysis indicates that, wide variation in price of several brands for Hydroxychloroquine drug. Dominance of these companies **IPCA & CADILA** over others in Kota region. By the analysis results of this survey, we prepare Pre-launching strategies /Market plan of the new product of antimalarial as well as a new category drug in the indication of COVID-19.

Keywords: Hydroxychloroquine drug; antimalarial drug; COVID-19 drug; HCQ & HYDROCAD; IPCA & CADILA.

INTRODUCTION

Hydroxychloroquine is an aminoquinoline like chloroquine. It is a medication used to prevent and treat malaria in areas where malaria remains sensitive to chloroquine. Other uses include treatment of rheumatoid arthritis, lupus, and porphyries. It is taken by mouth, often in the form of hydroxychloroquine sulfate. Hydroxychloroquine was approved for medical use in the United States in 1955. It is on the World Health Organization's List of Essential Medicines. In 2020, it was the 126th most commonly prescribed medication in the United States, with more than 4 million prescriptions. Hydroxychloroquine has been studied for an ability to prevent and treat coronavirus

disease 2019 (COVID-19). The FDA emergency use authorization for Hydroxychloroquine and Chloroquine in the treatment of COVID-19 was revoked on 15 June 2020. Hydroxychloroquine was granted FDA approval on 18 April 1955. A recent study reported a fatality in the group being treated with hydroxychloroquine for COVID-19.^[1]

USES OF HYDROXYCHLOROQUINE:

- Hydroxychloroquine is used to prevent or treat malaria caused by mosquito bites.
- The United States Centre for Disease Control provides updated guidelines and travel recommendations for the prevention and treatment of malaria in different parts of the world.
- Discuss the most recent information with your doctor before traveling to areas where malaria occurs.
- This medication is also used to treat certain auto-immune diseases (lupus, rheumatoid arthritis). It belongs to a class of medications known as disease-modifying antirheumatic drugs (DMARDs). It can reduce skin problems in lupus and prevent swelling/pain in arthritis.
- Hydroxychloroquine is not recommended for coronavirus infection, also known as COVID-19, unless you are enrolled in a study.^[2,3]

HYDROXYCHLOROQUINE AS ANTI-MALARIAL DRUG

Mechanism of action: Hydroxychloroquine increases lysosomal pH in antigen-presenting cells by two mechanisms: As a weak base, it is a proton acceptor and via this chemical interaction, its accumulation in lysosomes raises the intralysosomal pH, but this mechanism does not fully account for the effect of hydroxychloroquine on pH. Additionally, in parasites that are susceptible to hydroxychloroquine, it interferes with the endocytosis and proteolysis of hemoglobin and inhibits the activity of lysosomal enzymes, thereby raising the lysosomal pH by more than 2 orders of magnitude over the weak base effect alone. In 2003, a novel mechanism was described wherein hydroxychloroquine inhibits stimulation of the toll-like receptor (TLR)9 family receptors. TLRs are cellular receptors for microbial products that induce inflammatory responses through activation of the innate immune system.^[2,3]

Role of Hydroxychloroquine in the Treatment of Malaria

Malaria is a disease caused by a parasite. The parasite is spread to humans through the bites of infected mosquitoes. People who have malaria usually feel very sick with a high fever and shaking chills. While

the disease is uncommon in temperate climates, malaria is still common in tropical and subtropical countries.

Malaria is a life-threatening disease primarily found in tropical countries. It is both preventable and curable. However, without prompt diagnosis and effective treatment, a case of uncomplicated malaria can progress to a severe form of the disease, which is often fatal without treatment .^[5,6]

Antimalarial drugs include:

- Artemisinin drugs (artemether and artesunate). The best treatment for *Plasmodium falciparum* malaria, if available, is artemisinin combination therapy
- Atovaquone
- Chloroquine. There are parasites that are resistant to this medication
- Doxycycline
- Mefloquine
- Quinine
- Primaquine

Medications can cure you of malaria^[7]

HYDROXYCHLOROQUINE AS COVID-19 DRUG

Hydroxychloroquine has been widely promoted as a potential therapy for COVID-19 due to its anti-inflammatory effects and in vitro studies suggesting antiviral activity. Hydroxychloroquine was adopted into routine care for hospitalized adults with COVID-19 at many hospitals. However, lack of evidence on efficacy and safety led multiple groups, including the National Institutes of Health (NIH) and Infectious Diseases Society of America, to recommend clinical trials to evaluate hydroxychloroquine as a potential treatment for patients with COVID-19.

The virus can spread from an infected person's mouth or nose in small liquid particles when they cough, sneeze, speak, sing or breathe. These particles range from larger respiratory droplets to smaller aerosols. It is important to practice respiratory etiquette, for example by coughing into a flexed elbow, and to stay home and self-isolate until you recover if you feel unwell.

COVID-19 affects different people in different ways. Most infected people will develop mild to moderate illness and recover without hospitalization^[4]

A. Most common symptoms of COVID-19:

- fever
- cough
- tiredness
- loss of taste or smell

B. Less common symptoms:

- sore throat
- headache
- aches and pains
- diarrhoea
- a rash on skin, or discolouration of fingers or toes
- red or irritated eyes.

C. Serious symptoms:

- difficulty breathing or shortness of breath
- loss of speech or mobility, or confusion
- chest pain.

Seek immediate medical attention if you have serious symptoms. Always call before visiting your doctor or health facility.

People with mild symptoms who are otherwise healthy should manage their symptoms at home. On average it takes 5–6 days from when someone is infected with the virus for symptoms to show, however it can take up to 14 days. ^[4,5]

MARKET ANALYSIS ON THE BASIS OF SURVEY

For the launching of the new product Hydroxychloroquine tablet of our “X” company in Kota region we did market survey in that particular area. We did survey with the help of various physicians & pharmacists.

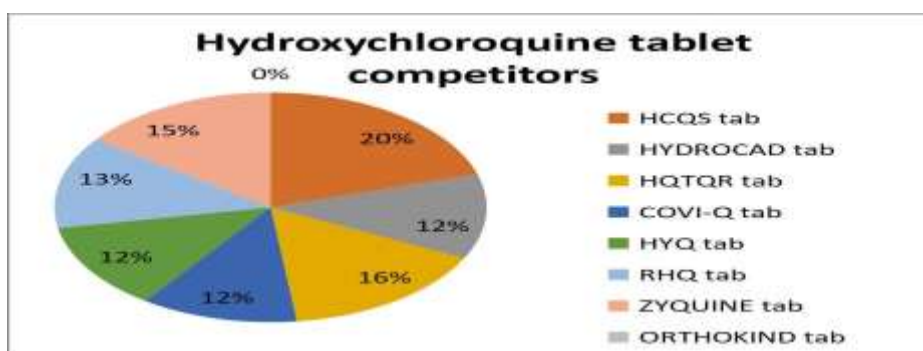
Survey reports helps us in market analysis.

I. QUESTIONNAIRES FOR PHARMACISTS

Q.1 How many competitors of Hydroxychloroquine tablet available in the market?

TABLE NO.1 COMPETITORS OF HYDROXYCHLOROQUINE

Sr.No.	HCQ Tablet competitors	No. of users
1.	HCQS tab (IPCA)	13
2.	HYDROCAD tab (CADILA)	7
3.	HQTQR tab (TORRENT)	10
4.	COVI-Q tab (ZYDUS HEALTHCARE)	5
5.	HYQ tab (IPCA)	11
6.	RHQ tab (ZYDUS HEALTHCARE)	9
7.	ZYQUINE tab (ZYDUS HEALTHCARE)	4
8.	ORTHOKIND tab (MANKIND)	8



GRAPH NO.1 GRAPH OF DIFFERENT BRANDS NAME COMPETITORS

Result-This pie chat shows the percentage of many competitors available in the market.HCQS tab & HYDROCAD tab are the main competitors in the market.

Q.2 At what prices of different competitors brands of Hydroxychloroquine tablet available in the market?

TABLE NO.2 HCQ TABLETS WITH ITS PRICE

Sr. No.	HCQ Tablets Brands	Prices (in rupees)
1.	HCQS tab	92.25
2.	HYDROCAD tab	56.00
3.	HQTQR tab	73.59
4.	COVI-Q tab	55.13
5.	HYQ tab	57.50
6.	RHQ tab	60.48
7.	ZYQUINE tab	70.00
8.	ORTHOKIND tab	69.90



GRAPH NO.2 GRAPH OF HCQ TABLETS WITH ITS PRICE

Result-The graph above shows that the highest price is HCQS tab and the lowest price is COVI-Q tab available in the market.

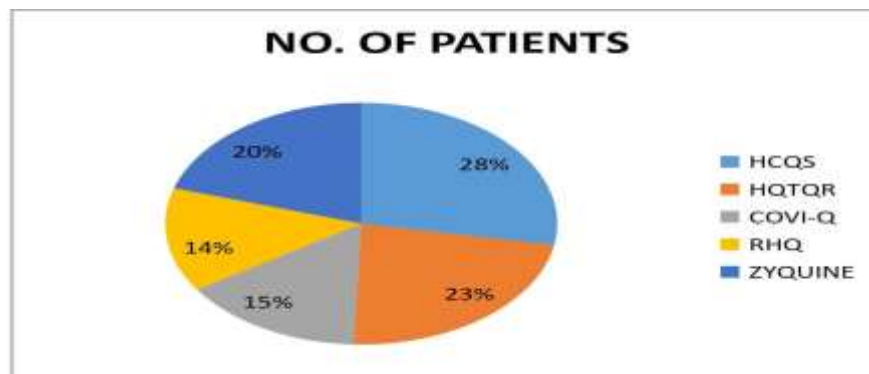
II. QUESTIONNAIRES FOR PHYSICIAN

Q.1 WHICH BRAND OF HYDROXYCHLOROQUINE TABLET IS MOSTLY PRESCRIBED IN COVID-19 SCENARIO?

TABLE NO.3 PRESCRIBED HCQ TABLET BRANDS IN COVID-19

Sr.No.	Brands of HCQ tablet	No. of patients
1.	HCQS tab	22
2.	HQTQR tab	18
3.	COVI-Q tab	12
4.	RHQ tab	11
5.	ZYQUINE tab	16

GRAPH NO.3 MOSTLY PRESCRIBED BRANDS OF HCQ TABLET IN COVID-19



Result-This pie chart shows the percentage of mostly prescribed HCQ tab brand names in COVID-19 scenario.

MARKETING STRATEGIES

1.Brand promotion through articles-

Promotional articles like Apron, Paper weight, Thermometer, Physician Diary /Notepads, Coffee Mugs, Pens etc. with

brand name are gifted to doctors so that they can see again and again the brand names and remember the brand

name of the drug while prescribing to patients.



Fig.no.-1 Physician Apron for promotion of brand name

Fig.no.-2 Paper Weight used for promotion of brand name



Fig.no.-3 Thermometer used for promotion of brand name

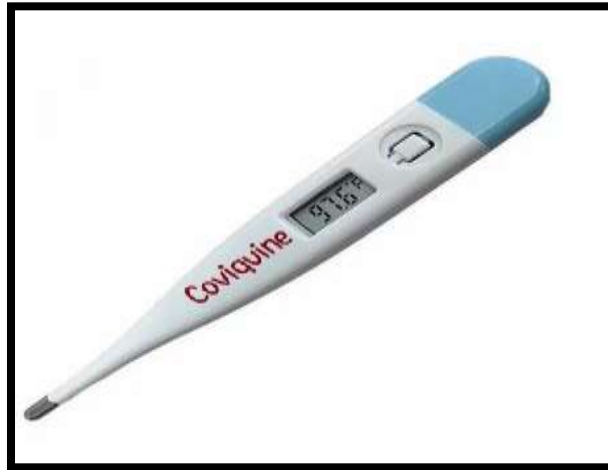


Fig. no.-4 Diary used for promotion of brand name

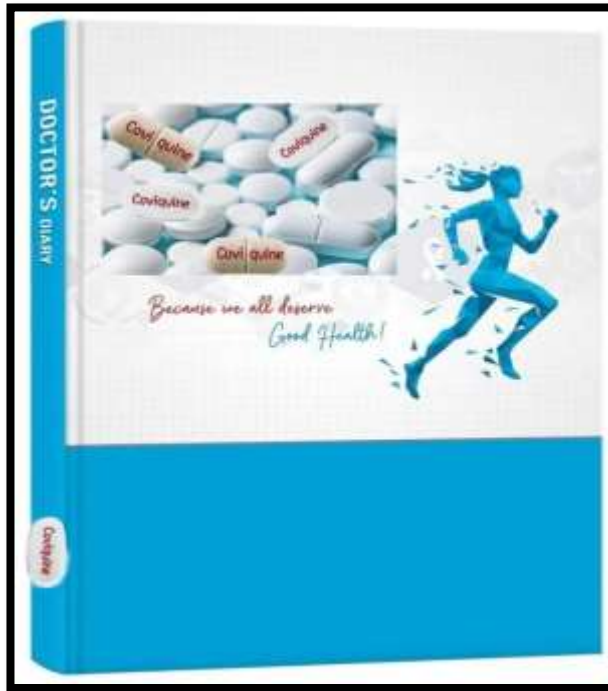


Fig.no.-5 Coffee Mug used for promotion of brand name



Fig.no.-6 Pen used for promotion of brand name



2.Brand promotion in physician conferences: Physician conferences help in distributing the



knowledge about the latest medical research findings and case studies.

2.Brand promotion with the help of posters: A poster presentation provides a visual and informative representation of brand name of drug and interacts viewers to read about the drug .



CONCLUSION:

Hydroxychloroquine has been studied for the treatment and prevention of coronavirus disease (COVID-19). Hydroxychloroquine is also used to treat malaria. It is also used to prevent malaria infection in areas or regions where it is known that other medicines (eg, chloroquine) may not work. Hydroxychloroquine belongs to a group of medicines known as antimalarials. It works by preventing or treating malaria, a red blood cell infection transmitted by the bite of a mosquito. This medicine is available only with your doctor's prescription. This product is available in the tablet dosage forms.

Our company “X” chooses this drug for the launching purpose in the new Kota Region. For this purpose survey was designed to analyze the current available **Hydroxychloroquine drug** prescribed for antimalarial as well as **COVID-19** patients within Kota region on the basis of different competitors available in this market. Different steps follows for the preparation of marketing plan are:

Market Survey: - According to this designed the questionnaires of physician and pharmacists. Then analyzed the availability of different brands of Hydroxychloroquine tablet in the market.

Market Analysis: - According to these surveys we did analysis and find the available competitors and with their prices of Hydroxychloroquine tablet in the market.

Market strategies: - A promotion strategies is key for positioning our brand in the market, our focus is to making medical persons aware of the brand name of drug we will soon to be offer. In these

strategies we selected the various product promotion techniques by using different items & mode of advertisement which we can use for promotion.

By the above marketing research and by using different strategies we want to establish our brand “COVIQUINE” of in the Kota region.

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