INTRODUCTION

Coronavirus disease 2019 (COVID-19) is the third viral infection after severe acute respiratory syndrome, (SARS) and Middle East respiratory syndrome originally reported from Asia [1,2]. The first case of COVID-19 was identified in Wuhan, China in December 2019 and now pandemic worldwide. It is caused by a virus known as SARS corona virus-2 and was initially named as novel coronavirus or 2019-N-COV [3]. India has currently the largest number of confirmed cases in Asia [4] and has the second highest number of confirmed cases in world after the United States of America. There have been 111,102,016 confirmed cases worldwide and 2,462,911 deaths all over world till February 22, 2021. India has also recorded 11,005,850 confirmed cases and 156,385 deaths in India up to 22 February 2021 [5]. However, the death rate in our country is far less than developed world [6].

Infection occurs when virus-containing particles exhaled by an infected person, either as respiratory droplets or aerosols, get entry into the mouth, nose, or eyes of other person who is in close contact [7].

Symptoms of coronavirus disease often vary, but mostly people have fever, cough, breathing difficulties, fatigue, and loss of smell and taste. In severe cases kidney failure, high fever, multi organ failure, dyspnea, hypoxia is observed [8].

Although specific treatment eludes, but preventing measures play pivotal role in combating disease including physical or social distancing, frequent hand washing, quarantine, and ventilation of indoor spaces, face masking, avoiding public gathering, touching of eyes, nose, face by hands, healthy diet and lifestyle, and surface cleaning. Several vaccines have been developed and various countries have initiated mass vaccination campaign [9].

Symptomatic treatment is given in COVID-19 patients as there is no definitive therapy. It includes treatment of symptoms, supportive care, isolation, and experimental measures.

Drug controller of India on January 1, 2021, has approved the emergency or conditional use of Astra Zeneca’s COVID-19 vaccine, AZD 1222 marketed as Covishield is developed by the University of Oxford in association with serum Institute Pune [10]. On January 2, 2021, vaccine BBV152 marketed as Covaxin developed by Bharat Biotech in association with Indian council of medical research and national institute of virology received approval from drug controller general of India for is emergency usage [11].

METHODS

A hospital-based observational study conducted in isolation ward and intensive care unit of Govt. Medical College Kathua in collaboration with the department of pharmacology.

Study population

A total of 56 patients were enrolled during span of 40 days of study, from ending of November 2020 to January 2021. Data were obtained by examining their case records sheets for treatment prescribed and demographic profile after obtaining consent.

Inclusion criteria

The following criteria were included in the study:

- PCR positive confirmed Covid-19 patients
- Patients More than 18 years of age
- Both genders.
Exclusion criteria
The following criteria were excluded from the study:

- Multi organ failure
- Age <18 years
- Mentally retarded person.

Study approval
Approval of this study was obtained from institutional ethics committee before the start of this study (IEC/GMCK/64/pharmadt-27/8/2020).

Consent
Informed consent was taken from patients who were included in study.

RESULTS
A total of 56 patients were enrolled in study. Socio-demographic profile, medical histories were recorded from case files.

Demographic profile of patients revealed that most of them were males (60.71%). Majority of the patients were in the age group of 18–60 years (69.6%) in which 18–40 year age group contributed 32.1% while 40–60 years age group contributed 37.5%. Most of the patient was under matric while 39.28% were undergraduate (Table 1).

Majority of the patients reported with sore throat (71.42%), dry cough (51%) and breathlessness (44.64%), and fever (28.57%) followed by generalized weakness, gastric upset, and malaise (Table 2).

Maximum number of the patients was having chronic obstructive lung disease (COPD) as comorbidity (28.5%), followed by severe anemia (21.42%), diabetes mellitus, and hypertension (19.64% each) (Table 3).

Pattern of antibiotics and antiviral revealed that azithromycin was frequently prescribed (87.5%), followed by hydroxychloroquine (44.64%), linezolid (21.42%), ceftriaxone (19.64%), and remdesivir (14.28%) (Table 4).

Steroids were frequently prescribed in these patients. Parenteral hydrocortisone was commonly prescribed (57.14%), followed by inhaler budicart 50% and dualin 46.2%. All patients were given multivitamin and Vitamin C. Majority of the patients also received pantoprazole (proton pump inhibitor 91.07%) antiemetic ondansetron was also given (Tables 5 and 6).

DISCUSSION
Since experience of mankind in management of COVID-19 disease is short, therefore the prescribing pattern in COVID-19 varied from country to country and many antiviral drugs and antimicrobials have been tried. In Indian setup also regimen varied. Therefore, it was thought of interest to evaluate the prescribing pattern in COVID-19 patients.

In the current study, demographic profile revealed that majority of patients were males (60.71%) and the most affected age group was between 18 and 60 years. The majority of patients were having education below matriculation (50%). Similar to our observations, other studies have also documented males to be predominantly of interest to evaluate the prescribing pattern in COVID-19 patients.

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Steroids were also given in most of the COVID-19 patients. The steroids reduce inflammation (swelling) and mucus production in the airway of lungs. Steroids have been shown to have beneficial effect in moderate to severe COVID-19 disease in indoor admitted patients [29,30].

In the present study, vitamins were prescribed in all patients. Number of studies has also shown similar pattern. Vitamins in addition to restore deficiency have antioxidant role. Most of studies have also demonstrated similar pattern [31,32].

Studies conducted in other countries have revealed that statins, angiotensin converting enzyme inhibitor, anticoagulant mostly formed the bulk of medication in contrast to our country. Statins are known for their pleiotropic anti-inflammatory, antithrombotic, and immunomodulatory effects. They may have a potential role as adjunctive therapy to mitigate endothelial dysfunction and deregulated the inflammation in patients with COVID-19 infection [33].

Two patients in our study group died due to bilateral COVID-19 pneumonia. Both patients had ground glass appearance in lungs. Bilateral lungs involvement is highly fatal in COVID-19 disease. Various studies have recorded similar pattern [11,34].

### CONCLUSIONS

Azithromycin and hydroxyquinine were more frequently given than remdesivir; steroids were almost given to all patients as inhaler, injection. Other drugs like multivitamins were prescribed in all patients. Most of patients of COVID-19 had co morbidities COPD, diabetes mellitus type 2 and severe anemia were common comorbidities.

### Limitations

Our study has some limitations. Less number of patients has been taken. COVID-19 positive patients who were admitted in other centers than GMC Kathua were not included in the study.

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### AUTHORS’ CONTRIBUTIONS

Dr. Suman Lata conducted the study at hospital site, collected, analyzed, interpreted the data, and wrote the manuscript. Dr. Vineeta Sawhney conceived the research idea of research work, while Dr. Vijay khajuria reviewed and edited the manuscript.

### CONFLICTS OF INTEREST

The authors declared no conflict of interest related to study.

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