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Patients' approach to medicines in COVID-19

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Abstract

Several different guidelines and therapeutic recommendations have been reported for the treatment of COVID-19 since the announcement of the pandemic. In our study, the attitudes and approaches of patients with a medical indication for COVID-19 who were given drugs towards drug usage were evaluated. We aimed to present our data on the drug usage characteristics of patients to contribute to the literature. A total of 399 patients were included in the study. In the study, 51.1% of the patients were female, and 48.9% were male. The highest number of the patients were in the 18-30 age group (27.6%), the lowest number of the patients were 65 years old or older (9.8%). Twenty-five questions prepared by the researchers were asked to the patients to evaluate "their knowledge and attitudes on drug usage and disease prevention in COVID-19." Of the patients, 75.7% were not smokers. No history of chronic disease was present in 65.5% of the patients. It was determined that no drug was recommended for 9.8% of the patients, and hydroxychloroquine and favipiravir were recommended together in 49.9%. The rate of the use of chloroquine alone was 4.8%, and the rate of using only favipiravir was 32.8%. Eighty-two percent of the patients reported that they regularly used the drugs that were recommended. Among the patients, 11.5% either never used the recommended drugs or did not use them at the recommended dose and time. Of the 46 (11.5%) patients who did not use the prescribed drugs regularly, none died. In other words, improvement was observed in the patients who did not use the drugs that were recommended to them. Our aim in this study was to determine the rate and characteristics of the drugs prescribed by physicians in diagnosed patients. In this cross-sectional sample of Turkey, it was determined that the rate of recommended drug usage was sufficient with the data of the city where the study was carried out.

Keywords: COVID-19, drugs, patients, hydroxychloroquine, favipiravir

1. Introduction

Several different guidelines and therapeutic recommendations have been reported for the treatment of COVID-19 since the announcement of the pandemic. Accordingly, at the beginning of the current pandemic, in China, several agents were used first and successively. Furthermore, numerous clinical studies were initiated to investigate the potential efficacy of treatments for COVID-19, highlighting the need to obtain high-quality evidence as soon as possible (1-5).

Urgent responses and high-quality evidence were needed regarding the efficacy and safety of the therapeutic agents currently used at the beginning of the pandemic process. For this reason, several clinical studies with different approaches, different drug combinations and different durations were approved during the pandemic period. Therapeutic agents such as hydroxychloroquine, remdesivir, lopinavir/ritonavir, favipiravir, tocilizumab, immune plasma and immunoglobulins were recommended by Clinical Research Agencies. Most of these randomly designed trials with these drugs are still ongoing, and the effectiveness and efficacy of these drugs are not yet clear (3-8).

In Turkey, the Scientific Advisory Board was established by the Ministry of Health with the announcement of the pandemic. Epidemic management, monitoring and control were planned in line with the recommendations of this board. Moreover, each subject title was made available in the name of "Guidelines" on the Ministry of Health's webpage. Thus, the approach to the patient, treatment plan and follow-up were standardized throughout the country. The guidelines include how the COVID-19 pandemic started and spread, the characteristics of the SARS-CoV-2 virus that caused the pandemic, the form of the transmission of the disease, its epidemiology, diagnosis, treatment and follow-up, and individual and institutional measures to be taken to control the pandemic. These guidelines presented which cases would be treated and where and how they would be treated (outpatient, service or intensive care units), the doses of drugs used in treatment, side effects, at which stage of the disease these drugs should be initiated/discontinued, as well as supportive treatments. The guidelines handled in detail every issue related to the management of COVID-19 patients, from

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evaluation of the patient's response to the treatment, the isolation/quarantine periods/rules of the patient, to the burial procedures of the deceased patients, and they presented recommendations and algorithms for implementation (9-11). Since the pandemic's announcement, the guidelines have been and still are frequently updated considering new data and information. They have provided the opportunity to find the most accurate and up-to-date information that health professionals will need in the management of the disease. Drug indications and doses to be used have been clearly stated in the guidelines, and treatment protocols have been applied accordingly.

In our study, we evaluated the attitudes and approaches of patients with a medical indication for COVID-19 who were given drugs to drug usage. We aimed to present our data on the drug usage characteristics of patients to contribute to the literature.

2. Materials and Methods

The ethics committee approval of the study was obtained from the Ahi Evran University Clinical Research Ethics Committee with the decision no.: 2021-02/15. Consent was obtained from each patient participating in the study.

2.1. Study Population

The study was conducted with patients diagnosed with COVID-19 registered by the Provincial Health Directorate of our city. There were 17436 cases registered in the city at the end of January 2021. To select the sample of the study, 600 adult patients were called randomly from these cases. 153 patients could not be reached on the phone number they had provided, and 47 patients did not agree to participate in the study. Patients in the pediatric age group were excluded.

The sample of the study was formed of 400 randomly selected patients who were interviewed by phone and volunteered to participate. The required sample size of the study was calculated by power analysis. As a result of the power analysis performed by taking the effect size of w=0.25, power (1-β)=0.95, df=9, it was calculated that the total sample size should be at least 378. Power analysis was performed using the G*Power 3.1.9.6 software.

The data were collected from the 400 randomly selected patients comprising the initial sample by contacting the patients on the official phone line of the Provincial Health Directorate. Twenty-five questions prepared by the researchers were asked to the patients to evaluate "their knowledge and attitudes on drug usage and disease prevention in COVID-19" (Table I). The answers to the questions asked to the participants one by one through the official phone line were recorded. The questions were created under the guidance of the guidelines of the Ministry of Health to evaluate the demographic characteristics of the participants, as well as their data on COVID-19 diagnosis characteristics, drug usage and their compliance with the protection methods recommended in the Ministry of Health guidelines (9).

Information about the study was given to each patient who agreed to participate in the study, and consent and voice recording of the interview were obtained. Only 1 patient stated that they did not want to participate in the study by returning our call. The data of this patient were excluded from the study. A total of 399 patients were included in the study.

2.2. Statistical Analysis

The statistical analyses in the study were performed using the Statistical Package for the Social Sciences version 21.0 software for Windows (IBM SPSS Statistics for Windows, Version 21.0. Armonk, NY: IBM Corp., USA). The descriptive statistics of the variables are presented as n (%). Chi-squared and Fisher-Freeman-Halton tests were used for the univariate analysis of the variables. In all statistical analyses, results with a p-value below 0.05 were interpreted as statistically significant.

3. Results

A total of 399 patients were included in the study, where 51.1% of the patients were female, and 48.9% were male. The highest number of the patients was found in the 18-30 age group (27.6%), and the lowest number of the patients were 65 years old or older (9.8%). It was observed that the education levels of the patients were mostly on the primary education (35.8%) and bachelor's degree (32.3%) levels. No history of chronic disease (such as Diabetes Mellitus (DM), Essential Hypertension (HT), Coronary Artery Disease (CAD), Congestive Heart Failure (CHF), Malignancy) was detected in 65.5% of the patients. The most common chronic disease history was determined to be DM (9.32%) and HT (9.32%). Of the patients, 75.7% were not smokers (Table 2).

Most of the patients stated that they used masks (96.7%) when they went out of the house when necessary (e.g., grocery shopping). While 57.4% of the patients did not work in any job, 41.1% of them were working. When this group of employees was evaluated, 13.3% of them stated that they were eating and drinking together with their colleagues in their work environment. The ratio of those who stated that they paid attention to the recommendations of the Scientific Advisory Board (social distancing, limitation of the number of people in an indoor environment and ventilation of the environment) during eating and drinking was 92.2%. While 6.8% of the patients stated that they accepted guests to their houses and/or went to visit others, a significant portion (90.5%) stated that they did not accept guests during this period, and they did not go to visit others either (Table 2).

A significant proportion (86.2%) of the patients were diagnosed with COVID-19 in the 3-month period prior to the starting date of the study. In other words, the 3-month period (November, December, January) before February 2021, when the study was conducted, was determined as the period with the highest number of the patients included in this study during the pandemic (Table 2).

Table 1. Sample follow-up form to evaluate patients' drug usage, prevention from the disease, knowledge and attitudes in COVID-19

	Date: …/…/2021 City/District where you live:
1	Age? □18-30 □31-40 □41-50 □51-64 □+65
2	Sex? □Female □ Male
3	Education status? □Illiterate □Primary school □High school □Bachelor's degree □Postgraduate/Doctorate
4	Do you have any chronic disease? □Asthma/COPD □Diabetes □Hypertension □Heart Diseases □Other
5	Do you smoke? □Yes □No
6	Do you wear a mask when going out of the house (when you go shopping, etc.)? □Yes □No
7	Are you currently in a job? □Yes □No (If your answer is No, move to the question 9)
8	Do you get together with your colleagues at work, drink tea, coffee, etc., and eat something? □Yes □No
9	When drinking tea, coffee or eating, do you pay attention to the Scientific Advisory Board's recommendations (distance and number of people in a closed environment)? □Yes □No
10	Do guests come to your house, or do you go on house visits? □Yes □No
11	When did you get the diagnosis of COVID-19? □0-3 months ago □4-6 months ago □7-9 months ago □ 10-12 months ago
12	Which drugs were recommended to you by the pandemic outpatient clinic/contact tracing team? (you can check more than one option) □Plaquenil □Favipiravir □Plaquenil + Favipiravir
13	Did you regularly use the drugs recommended by the pandemic outpatient clinic/contact tracing team? □Yes □I started using them when my condition got worse □No
14	If your answer was I started using them when my condition worsened, or no, why did you not use them? □I do not think coronavirus drugs are beneficial. □I think coronavirus drugs are harmful. □I did not use them because I was afraid of their side effects. □I did not use them because I was feeling good. □I do not like taking drugs. □Other
15	Did you use the drugs recommended by the pandemic outpatient clinic/contact tracing team in the amount recommended by them? □Yes □No
16	Did you adjust the dosage of the drugs recommended by the pandemic outpatient clinic/contact tracing team by yourself? □Yes □No
17	Did you use the drugs recommended by the pandemic outpatient clinic/contact tracing team more than the amount recommended by them? □Yes □No
18	Where did you get information about drugs used against COVID-19? □The website of the Ministry of Health □The physicians working in the pandemic outpatient clinic □Physicians I know □The contact tracing team staff □The pharmacy (pharmacist/pharmacy employee) □Healthcare personnel (nurse/technician) I know □The drug package insert □Internet/tv □Neighbors or relatives □Other
19	Did your neighbors or relatives give you non-drug recommendations for the coronavirus disease, and did you follow these recommendations? □Yes (cupping/leech/amulet/herb mixture) □No
20	Did you take any food supplements or drugs other than coronavirus drugs? □Yes (*Vitamin D/ *Vitamin B/ *Omega 3/* Propolis/* Mg /* Zn/ *Coraspin /*Other:……) □No
21	Are you thinking of getting vaccinated? □Yes □No (Move to the question 23)
22	Where did you get information about the vaccine? □TV/Social Media □The website of the Ministry of Health □Relatives □Other:
23	Why do you not want to be vaccinated? □I do not think it is safe. □I think it is harmful. □Other:
24	Were you vaccinated against flu and pneumonia? □Yes □No
25	Do you get the flu vaccine regularly every year? □Yes □No

It was determined that no drug was recommended for 9.8% of the patients, and hydroxychloroquine and favipiravir were recommended together in 49.9%. The use of chloroquine alone was 4.8%, and the rate of using only favipiravir was 32.8%. In the study, 82% of the patients reported that they regularly used the drugs recommended by the pandemic outpatient clinic and/or the physician of the contact tracing team. Among them, 11.5% either never used the recommended drugs or did not use them at the recommended dose and time. Of the 46 (11.5%) patients who did not use the prescribed drugs regularly, none died. In other words, improvement was observed in the patients who did not use the drugs.

In the evaluation questions, the patients' reasons for not using drugs were questioned by providing them with the options "I do not think drugs are beneficial, I think drugs are harmful, I did not use them because I was afraid of their side effects, I did not use them because I felt good, I do not like taking drugs". During the pandemic process, most of the patients (50.6%) received their information about the drugs

used in COVID-19 from the contact tracing team. Many patients (21.3%) also searched for information about drugs on the internet/TV. Accordingly, it was observed that the patients preferred the Ministry of Health's website (1.3%) and pharmacies (0.5%) much less to obtain relevant information (Table 2).

Table 2. Frequency and % values of the patients participating in the study

		N (%)
Sex		
	Female	204 (51.1)
	Male	195 (48.9)
Age		
	18-30	110 (27.6)
	31-40	97 (24.3)
	41-50	75 (18.8)
	51-64	76 (19.0)
	65+	39 (9.8)
Education status		
	Illiterate	12 (3.0)
	Primary school	143 (35.8)
	High school	95 (23.8)
	Bachelor's degree	129 (32.3)
	Postgraduate	5 (1.3)
Chronic Diseases		
	Asthma	18 (4.20)
	Diabetes (DM)	40 (9.32)
	Hypertension (HT)	40 (9.32)
	Heart Diseases (CAD/CHF)	15 (3.5)
	Cancer	7 (1.63)
	Liver Disease	2 (0.47)
	Other Liver Diseases	3 (0.70)
	Thyroid Diseases	8 (1.86)
	Kidney Diseases	1 (0.23)
	COPD	2 (0.47)
	None	281 (65.50)
	Other (Rheumatic, skin-related, etc. diseases)	12 (2.80)
Do you smoke?		
	Yes	86 (21.6)
	No	302 (75.7)
Do you wear a mask when going out of the house (when you go shopping, etc.)?		
	Yes	386 (96.7)
	No	1 (0.3)
Are you currently in a job?		
	Yes	164 (41.1)
	No	229 (57.4)
Do you get together with your colleagues at work, drink tea, coffee, etc., and eat something?		
	Yes	53 (13.3)
	No	325 (81.5)
When drinking tea, coffee or eating, do you pay attention to the Scientific Advisory Board's recommendations (social distancing and number of people in a closed environment)?		
	Yes	368 (92.2)
	No	5 (1.3)
Do guests come to your house, or do you go on visits?		
	Yes	27 (6.8)
	No	361 (90.5)
When did you get the diagnosis of COVID-19?		
	0- 3 months ago	344 (86.2)
	4- 6 months ago	21 (5.3)
	7- 9 months ago	28 (7.0)
	10-12 months ago	2 (0.5)
Which drugs were recommended to you by the pandemic outpatient clinic/contact tracing team? (you can check more than one option)		
	Plaquenil	19 (4.8)
	Favipiravir	131 (32.8)
	Plaquenil +Favipiravir	199 (49.9)
	None (Pregnant/lactation)	39 (9.8)
Did you regularly use the drugs recommended by the pandemic outpatient clinic/contact tracing team?		
	Yes	327 (82.0)
	I started using them when my condition got worse	4 (1.0)
	No	46 (11.5)
If your answer was I started using them when my condition worsened, or no, why did you not use them?		
	I do not think coronavirus drugs are beneficial.	0 (0.0)
	I think coronavirus drugs are harmful.	0 (0.0)
	I did not use them because I was afraid of their side effects.	3 (0.8)
	I did not use them because I was feeling good.	2 (0.5)
	I do not like taking drugs.	
	Other	39 (9.8)

Did you use the drugs recommended by the pandemic outpatient clinic/contact tracing team in the amount recommended by them?		
	Yes	324 (81.2)
	No	61 (15.3)
Did you adjust the dosage of the drugs recommended by the pandemic outpatient clinic/contact tracing team by **yourself**?		
	Yes	7 (1.8)
	No	349 (87.5)
Did you use the drugs recommended by the pandemic outpatient clinic/contact tracing team more than the amount recommended by them?		
	Yes	16 (4.0)
	No	368 (92.2)
Where did you get information about drugs used against COVID-19?		
	The physicians working in the pandemic outpatient clinic	20 (5.0)
	Physicians I know	15 (3.5)
	The Contact Tracing Team	202 (50.6)
	The pharmacy	2 (0.5)
	Healthcare personnel I know	22 (5.5)
	The drug package inserts	1 (0.3)
	Internet/TV	85 (21.3)
	The website of the Ministry of Health	5 (1.3)
	Family physician	21 (5.0)
Did you take any food supplements or drugs other than coronavirus drugs?		
	Yes	26 (6.5)
	No	356 (89.2)
Supplement		
	Vitamin C	20 (60.60)
	Vitamin D	6 (18.18)
	Multivitamin	6 (18.18)
	Ginger	1(3.0)
	Propolis	0 (0.0)
Are you thinking of getting vaccinated?		
	Yes	262 (65.7)
	No	119 (29.8)
Where did you get information about the vaccine?		
	TV/social media	307 (76.9)
	The website of the Ministry of Health	0 (0.0)
	Relatives	15 (3.8)
	Contact tracing team/Provincial Health Directorate	22 (5.5)
	Other	35 (8.8)
Why do you not want to be vaccinated?		
	I do not think it is safe.	78 (19.5)
	I think it is harmful.	3 (0.8)
	Other	181 (45.4)
Were you vaccinated against flu and pneumonia?		
	Yes	54 (13.5)
	No	327 (82.1)
Do you get the flu vaccine regularly every year?		
	Yes	16 (4.0)
	No	366 (91.7)
Patients getting the COVID-19 vaccine		
	No	374 (93.7)
	Yes	25 (6.3)

Note: The rates that led to incomplete sums were caused by the fact that some participants did not respond to some questions.

A clear reason was not determined among these options as the reason for 9.8% of the patients to not use the drugs regularly as these patients stated that they did not want to answer this question in general. Among the patients who responded to this question, there were those who stated that the drugs are not beneficial, they have side effects, they are malaria drugs, and they did not use it because of stomach disorders (Table 3).

While 81.2% (n=324) of the patients reported that they used the drugs recommended by the pandemic outpatient clinic or contact tracing team at the recommended dose, 15.3% (n=61) did not use the recommended dose. There were no patients who died among the patients who stated that they did not use the drug/s at the recommended dose. When the study was terminated, a retrospective evaluation was made to detect the deceased. Two patients who died reported that they had used the exact doses of the drugs recommended to them during our evaluation.

According to the results, 1.8% of the patients adjusted the dose of the drugs recommended by the pandemic outpatient clinic or the physician of the contact tracing team by themselves. Dosage adjustment by oneself was considered as taking less or more tablets than the recommended dose. The number of the patients who reported using more tablets than the recommended drug dose was 16 (4%). These patients made their explanations as that they forgot that they had taken the drug and took it again or that they thought that the higher dose would be more effective, and they would recover quickly. All patients in this group were hospitalized and followed up, without any organ failure or death (Table 3).

Table 3. The patients' characteristics of using of drugs

Did you regularly use the drugs recommended by the pandemic outpatient clinic/contact tracing team?					
		Yes	I started using them when my condition got worse	No	p
Which drugs were recommended to you by the pandemic outpatient clinic/contact tracing team? (you can check more than one option)	Plaquenil	19 (100.0)	0 (0.0)	0 (0.0)	0.000
	Favipiravir	116 (90.6)	3 (2.3)	9 (7.0)	
	Plaquenil + Favipiravir	184 (93.9)	1 (0.5)	11 (5.6)	

Note: The rates that led to incomplete sums were caused by the fact that some participants did not respond to some questions.

Of the patients, 6.5% stated that they used food supplements and/or additional drugs other than the drugs that were recommended for them for their COVID-19 infection status. It was determined that vitamin C (60.6%) was the most frequently used supplement (Table 2).

While 65.7% of the patients were thinking of vaccination, 29.8% of them stated that they did not think of vaccination. Most patients reported that they obtained information about the vaccine from TV/social media (76.9%). According to the results, 19.5% of the patients stated that they did not think of having the vaccine because they did not find the vaccine safe. While 13.5% of the patients had had influenza and pneumococcal vaccines, 82.1% had not. At the end of the study, when the 399 patients participating in the study were evaluated retrospectively, it was found out that 2 patients (0.5%) died, and the vaccination rate was 6.3% (Table 4).

Table 4. Analysis of the patients' opinions about the COVID-19 vaccine and other vaccine-related characteristics

Are you thinking of getting vaccinated?				
		Yes (n=262)	No (n=119)	p
Where did you get information about the vaccine?				
	TV/social media	201 (77.3)	106 (89.1)	0.036
	The website of the Ministry of Health	0 (0.0)	0 (0.0)	
	Relatives	12 (4.6)	3 (2.5)	
	Contact tracing team	27 (10.4)	8 (6.7)	
	Other	20 (7.7)	2 (1.7)	
Were you vaccinated against flu and pneumonia?				
	Yes	38 (14.6)	16 (13.4)	0.773
	No	223 (85.4)	103 (86.6)	
Do you get the flu vaccine regularly every year?				
	Yes	14 (5.4)	2 (1.7)	0.094
	No	244 (94.6)	117 (98.3)	

Note: The rates that led to incomplete sums were caused by the fact that some participants did not respond to some questions.

4. Discussion

In our study, interesting results contrary to what is commonly known were presented. These were the results which were contrary to the information that individuals over the age of 65, those with chronic diseases and/or those who are smokers are more easily infected and evaluated in a higher-risk group. According to our data, the lowest number of the patients in our sample was in the group of individuals who were 65 years and older (9.8%) specified in the high-risk group. No history of chronic disease was detected in 65.5% of the patients, and 75.7% of them were not smokers. In other words, contrary to what is known, the rate of COVID-19 diagnosis was found to be high in the individuals in our sample who did not smoke and/or did not have any chronic diseases. We think that the low rate of infection in the patients in our sample aged 65 and over may have occurred due to the frequent emphasis on the warning that they are at risk, as well as the strict social isolation practices imposed upon this age group (12-18). Studies that reflect different views on the relationship between smoking and the disease have been conducted. It has been reported that there is a higher rate of disease progression in smokers compared to non-smokers, and smoking is a risk factor for the progression of COVID-19 (5, 6). On the other hand, there are also studies stating that the effects of smoking on the severity of the disease, duration of hospital stay, non-invasive mechanical ventilation need (NIMV), admission to the intensive care unit (ICU) and mortality are not statistically significant (7). According to the results of our study, although we cannot clearly state that smoking is a risk factor, we also cannot say that smoking has negative effect on COVID-19 progression. In this study conducted in the 11th month of the pandemic process, it was observed that the majority of the patients received their diagnosis in the 3-month period before the study was carried out. In other words, the disease diagnosis rate between the 8th and 11th months of the pandemic (November, December, January) was found to be high in our sample. In this result, we think the increase in the number of daily tests and the flexibility of the implementation of restrictions, measures and prohibitions across the country may have been effective (12, 17, 18).

Although most of the patients stated that they paid attention to the rules of protection and precaution in their workplaces and private lives, they became infected. However, studies conducted so far have clearly revealed that the most effective way to prevent infection with the disease is wearing

masks and complying with rules and recommendations on social distancing and hygiene (2, 9, 10). This result showed that individual compliance with rules and recommendations cannot be evaluated objectively. In other words, the person may think that they comply with the rules and/or recommendations, but they might actually be not applying these practices properly or in the correct manner. For example, the person may have used a mask, but they might have not applied the mask properly to cover their nose and mouth completely. Nevertheless, when studies evaluate this patient, they evaluate their use of masks positively based on the patient's self-report. This evaluation may also be considered in other measures and applications. For this reason, the rules and measures that affect public health should not be left to an individual approach, but they should be managed with strict control, criminal action and sanctions.

In Turkey, the treatment protocol was determined by the Scientific Advisory Board of the Ministry of Health, which was created with the announcement of the pandemic, and the treatment protocols have been made available to all healthcare professionals with the guidelines of this board. Thus, the treatment protocols have been standardized throughout the country. The New Coronavirus National Diagnosis and Treatment Guideline prepared by the Ministry of Health Coronavirus Scientific Advisory Board was published online on 14 January 2020 on the Ministry's website (9). According to this guideline, it was recommended to add only hydroxychloroquine at the beginning of the pandemic and favipiravir at later stages of all cases in the early period (viral replication) both in mildly symptomatic and even asymptomatic cases that can be treated on an outpatient basis and in cases requiring hospitalization. The recommended 5-day treatment was extended to 10 days when deemed necessary by the physician (19-22). Even though their PCR test was negative, these treatments could also be given to people with clinical and thoracic computed tomography (CT) findings compatible with COVID-19-related pneumonia. The pharmacy sales of these drugs were restricted and withdrawn, and they could be prescribed directly by the Ministry and free of charge in hospitals on a case-by-case basis. The drugs to be used by the patient were given from the hospital or brought to the homes of some patients who were found to be positive by contact tracing and response teams. It was also observed that healthcare workers with a high risk of contact sometimes used these drugs in terms of preventive/early/pre-treatment (9). These practices have differed in different countries, especially in European countries. In these countries, even PCR-positive asymptomatic patients were followed up without drugs.

According to the data collected in our study, medication was not indicated in 9.8% of the patients, only hydroxychloroquine was started in 4.8%, only favipiravir was started for 32.8%, and hydroxychloroquine and favipiravir were started together for 49.9%. The Patients without drug indication have consisted of those in pregnancy or lactation periods, those with cardiac disease diagnosis and/or electrocardiography (ECG) findings evaluated before drug prescription, as specified in the guidelines of the Ministry of Health. Pregnant or lactating patients indicated for medication have been hospitalized and treated (9-11). According to our data, the rate of physicians prescribing drugs for the patients in our study was 97.3%. The prescribed drugs were given to the patients from the hospital's pharmacy at that time. The rate of the patients in our sample who were not prescribed drugs was caused by the fact that the physician wrote a prescription, but prescription records could not be made due to computer system errors at the time. In other words, no system registration was made, but the manuscript prescription and the drug were given to the patient.

In Turkey, pandemic outpatient clinics were opened with the announcement of the pandemic, and patients whose RT-PCR tests were positive in the examinations there were collected in the system records and the provincial and countrywide data pool. The contact tracing teams formed by the provincial directorates also undertook the follow-up of individuals who had contact and home treatment in the field. Physicians and assistive health personnel were assigned in the contact tracing teams. PCR-positive contacts were identified by the team and tested by visiting homes. Medical treatment for contacts and patients was provided by the contact tracing teams according to the principles specified in the guidelines (9-11). While 82% of the patients in our study stated that they regularly used the drugs recommended by the pandemic outpatient clinic or contact tracing team physician, 11.5% did not use them regularly. A group among the patients who did not use the recommended drugs regularly did not state a clear reason for not using drugs regularly (9.8%). As it may be seen here, although concern for the efficacy and side effects of drugs seems to be common in society, the rate of drug usage was found to be quite high in our sample. However, the rate of not using drugs is exaggerated on social media. Nevertheless, the other striking result was that there was no death among the 46 (11.5%) patients who did not use the prescribed drugs regularly. Some of these patients also recovered without medication. In these patients, many factors such as being affected by the disease, their immune system, viral load, and maybe, genetic factors might have been effective. On the other hand, this result may have been obtained because the patients stated that the drugs were ineffective and that they did not intend to use them but in fact used the drugs in practice. Still, the interesting thing was that, among the patients who stated that they did not use the drugs at their recommended dosage, there were no patients who died. In the evaluation we made, 2 patients who were found to die afterwards, had reported in our study that they had taken the exact dose of the drugs recommended to them. The low rate of death in the patients who did not use drugs may have been found because of the low number of the patients who did not comply with drug usage. This result brings to mind the

question of whether drugs have individual efficacy, which has not been emphasized much in previous studies. This subject may also be considered as the topic of a separate study. It may be seen that, in the last three-month period before the study started (November, December, January), the infection rate was high, and the mortality rate was quite low (0.5%). This result gives the hope that SARS-CoV-2's virulence and mortal mutations/variants are reduced, and there may be mild mutations (10).

According to our data, the patients mostly (50.6%) obtained information about the drugs used in COVID-19 from the contact tracing team. This was a promising result in terms of informing patients accurately about drugs. We attribute the high rate of drug usage in the patients to their acquisition of drug-related information from the contact tracing teams. In this regard, a large number of patients (21.3%) received information about drugs also via the internet/TV. We think, during the pandemic period, social media and communication tools were not managed well, and control over accurate information/news could not be fully achieved. Non-physicians from many unrelated fields made comments, and people in anxiety and panic accepted what was said to be true without questioning it. Unexpectedly, the patients in our study used the Ministry of Health's website (1.3%) and pharmacies (0.5%) much less frequently for information. However, an up-to-date and comprehensible data network was created for the public on the website of the Ministry of Health (9-11). Another interesting result of our study was related to the usage of supplements. Although the rate of using supplements preferred in traditional medicine practices seems to be very high in the general public, only 6.5% of the patients in our study stated that they took food supplements and/or drugs other than the specified drugs. In studies on COVID-19 and the use of supplements, the usage of various herbal products such as propolis, vitamins C, D and B12, probiotics, Sambucus, sumac and herbal teas was mentioned (13,14,15). In our study, it was observed that the patients who used supplements mostly used vitamin C (60.6%), followed by multivitamin supplements and ginger during this period. This result may have been a consequence specific to our local population. There are no clear data on the level of evidence on supplements, and studies are ongoing (13-15).

In Turkey, the vaccination program was initiated on healthcare professionals as of 14 January 2021. During the period covering the study, only healthcare workers were included in the vaccination program, and the vaccination program of other individuals in the community was not initiated (9). In our study, where we also evaluated the opinions of the patients about the vaccination program, 65.7% of the patients stated that they were thinking of vaccination, while 29.8% said they were not. Most patients reported that they obtained information about the vaccine from TV/social media (76.9%). Moreover, because 19.5% of the patients did not find the vaccine safe, they did not think of having the vaccine. Different opinions on this matter and the vaccination comments of non-physicians might have been effective on this result. Routine influenza and pneumococcal vaccines are recommended for individuals with chronic diseases and/or those over 65 years of age in Turkey (23). While 13.5% of the patients in the sample of this study had had influenza and pneumococcal vaccines, 82.1% had not. However, when these vaccines were started, individuals showed interest in these vaccines like the COVID-10 vaccine, and the vaccines ran short, and it was difficult to obtain the influenza and pneumococcal vaccines from the market for a while. The interesting result was that the rate of having influenza and pneumococcal vaccines in the indicated individuals decreased during the pandemic period. In a study evaluating the media's relationship with patients' views on influenza and pneumococcal vaccines, it was reported that patients with chronic respiratory disease were not affected by the media regarding vaccination, and the rate of those receiving these vaccines was 44% (24). This rate was determined as 13.5% in our study. We think that the incomplete data obtain in research on vaccines might have caused this rate to decrease (25-28). As of February, the 11th month of the pandemic, only 6.3% of the 399 patients who participated in this study were found to have received COVID-19 vaccine. In Turkey, the gradual implementation of the vaccination program according to age, occupation and risk groups and the groups that have not been vaccinated yet are effective in the low vaccination rate.

A limitation of our study was the inadequate evaluation of the clinical course, complications, contamination, and mortality in the patient group who did not use the recommended drugs. In our study, the number of such patients was limited. This issue may be evaluated in more detail with studies with larger samples.

Consequently, our aim in this study was to determine the rate of use and characteristics of drugs prescribed by physicians in diagnosed patients. As a cross-sectional sample of Turkey, it was determined that the rate of the use of the recommended drugs was sufficient with the data of the city where the study was carried out. Moreover, as the process progressed, it was observed that the mortality rate decreased, but the number of infected individuals increased. In cases involving public health, compliance with personal protection and precaution rules should be more strictly controlled, and sanctions should be increased. Social media has a great impact and a great responsibility to provide accurate information. Controls and sanctions for providing accurate information should be increased.

Conflict of interest
None to declare

Acknowledgments
We dedicate our work to healthcare workers around the world who died from COVID-19.

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