



Research Article

ASSESSMENT OF COVID-2019 CASES IN UKRAINE AND THE WORLD

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ABSTRACT

The article demonstrates data on the identification and statistical analysis of cases of 2019-nCoV coronavirus infection in Ukraine and the world. Exploratory data analysis was presented for World Health Day April 07, 2020. It has been demonstrated that despite the timely adoption of measures to prevent the spread in Ukraine of acute respiratory disease caused by the 2019-nCoV coronavirus, including the introduction of an emergency regime throughout Ukraine with restrictive measures, the number of infected people is constantly increasing, there is also the number of fatal consequences was increased, causing concern. As a result of the analysis, it was revealed that, unlike other countries of the world in Ukraine, the greatest number of infected people is observed in people aged 40-60 years, among which female persons prevail. The necessity of compliance by the population with the recommendations of the Ministry of Health of Ukraine and World Health Organization (WHO) in Ukraine, as in the countries of the world for COVID-19, the implementation of quarantine standards to reduce cases of infection and deaths, was emphasized

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INTRODUCTION

World Health Day is a day which celebrate every year on 7 April, under the auspices of the WHO. In 2020, World Health Day was focused on the vital aspect analysis of the detection and consequences of cases of COVID-19 among the population in Ukraine. It is noted, unknown etiology pneumonia cases were first identified in December 2019 in Wuhan, Hubei Central China, as reported by the Chinese authorities to the WHO on December 31, 2019. Subsequently, in 2020 (February 11), the disease was officially named SARS-CoV-2 or 2019-nCoV (COVID-2019 coronavirus pneumonia). That is, a new virus has been discovered that causes the development of respiratory diseases in humans, namely acute COVID-19 respiratory disease and can be transmitted from person to person. Global COVID-19 studies show widespread dangerous infection, severe disease incidence and high mortality rates in almost all countries of the world, despite unprecedented measures to prevent. The high spread in all countries of 201 coronavirus-induced acute respiratory disease V9 further concern among the population [1-10].

The purpose of the work was analysis of the detection and consequences of cases of acute respiratory disease COVID-19 among the population in Ukraine. The research material was data published on the websites of the Ministry of Health of Ukraine, the Cabinet of Ministers of Ukraine, and international platforms.

DISCUSSION

In 2020 (March 11), the WHO identified the COVID-19 pandemic outbreak in the world, addressing four possible scenarios in the countries for COVID-19. COVID-19 readiness and response guidelines were developed for each scenario. In addition, the guidelines for clinicians on "Clinical Management of Severe Acute Respiratory Infection (SARI) for COVID-19 Disease" were updated, and a guide on risk communication and public involvement plan for WHO COVID-19 preparedness and response was developed Red Cross (IFRC) and UNICEF [11-13]. Given the rapid spread of COVID-2019 worldwide, the severe disease incidence of 20-30% and the high mortality rate of ministers around the world taking quarantine measures worldwide and declaring a global emergency [14]. Quarantine measures (some of which are listed below) were joined by Ukraine [15-18]:

1. Order of 03.02.2020 No. 93-p "On measures to exclude the introduction and spread in Ukraine of acute respiratory illness caused by coronavirus 2019-nCoV" (Cabinet of Ministers of Ukraine);
2. On March 11, the Government issued Decree No. 211 "On Prevention of Acute COVID-19 Acute Respiratory Disease Caused by the SARS-CoV-2 Coronavirus in Ukraine";
3. On March 14, the National Security and Defense Council adopted a decision to close the state border of Ukraine from 00:00 March 16 due to the threat of acute respiratory disease COVID-19, suspended entry to the territory of Ukraine for foreigners and stateless persons;

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4. On March 14, 2020, the Internal Operations Headquarters, exclusively dealing with COVID-19 issues, answering queries, collecting, processing and providing analytical findings, was coordinated at the Public Health Center of Ukraine in order to coordinate actions during a complex epidemiological situation;
5. On March 17, the Verkhovna Rada of Ukraine adopted a bill enhancement certain legislative acts of Ukraine aimed at preventing the emergence and spread of coronavirus disease (COVID-19);
6. On March 29, new standards for the provision of medical care for patients with COVID-19 have been introduced in Ukraine, in particular, the algorithms for outpatient and outpatient care for patients suspected of COVID-19 have been updated illness (COVID-19) »;
7. The Ministry of Health of Ukraine has purchased rapid tests to detect a new coronavirus: rapid A + B influenza tests (to exclude influenza and switch to coronavirus testing), a set of coronavirus detection reagents and rapid test systems for SARS-CoV-2 directly at the patient's bed;
8. On March 25, the Cabinet of Ministers of Ukraine introduced a state of emergency throughout the territory of Ukraine for 30 days (until April 24, 2020);
9. On April 3, the Cabinet of Ministers of Ukraine introduced new restrictive measures for the quarantine time.

14.03.2020	2	1	3
15.03.2020	2	1	3
16.03.2020	6	1	7
17.03.2020	12	2	14
18.03.2020	14	2	16
19.03.2020	18	3	21
20.03.2020	35	3	39
21.03.2020	42	3	47
22.03.2020	59	3	63
23.03.2020	69	3	73
24.03.2020	93	3	97
25.03.2020	139	5	145
26.03.2020	190	5	196
27.03.2020	216	5	226
28.03.2020	298	8	311
29.03.2020	459	10	475
30.03.2020	527	13	548
31.03.2020	618	17	645
01.04.2020	761	20	794
02.04.2020	856	22	897
03.04.2020	1023	27	1072
04.04.2020	1168	32	1225
05.04.2020	1243	37	1308
06.04.2020	1253	38	1319
07.04.2020	1389	45	1462

It should be noted that among COVID-19 infected in Ukraine the number of female persons prevails on men, on average by 5-7,4%. Most infected people are most often aged 30-60 years and make up 62%, from other age groups (for example up to 20 years - about 4%, 21-29 years - up to 11%, 61-70 - about 15%). The lowest number of infected persons is observed in persons after 80 years (up to 1%).

Despite the above measures to keep out the introduction and spread in Ukraine of acute respiratory disease caused by coronavirus 2019-nCoV, in Ukraine the coronavirus infection COVID-2019 was first recorded on March 3, 2020 in Bukovina in Chernivtsi, the first lethal event is March 13, 2020. As of April 7, 1462 persons were recorded infected with COVID-2019 in Ukraine, of whom 45 died (with the exception of the occupied territory of Donbass and the annexed territory of Crimea). When assessing the number of infected and comparative characteristics as of 07.04.2020, we see that today the number of it in Ukraine is constantly increasing, and within 29 days has increased by 1461 persons. The rapid increase of the infected (by 65%) occurred on March 28-29. Unfortunately, the number of deaths is increasing, which is 3.1% of the total number of infected people in Ukraine and 2.4% less than the number of deaths in the world, where the figure reaches 5.5% of the full number of people infected. To date, the number of people recovering from COVID-2019 is 1.9% of the total number of people infected in Ukraine and 19.4% less than the people number recovering from COVID-2019 in the world (Table 1, 2).

Table 1 Comparative characteristics for COVID-2019 in the world and Ukraine as of 04/07/2020

	in the world		Ukraine	
infected	1 350 357		1462	
have died	74 866	5,5%	45	3,1%
were cured	287 481	21,3%	28	1,9%
the sick	988 010	73,2%	1389	95%

Table 2 Characteristics of COVID-2019 cases in Ukraine as of 04/07/2020

date	COVID-19			In all
	infected	have died	were cured	
10.03.2020	1			1
11.03.2020	1			1
12.03.2020	1			1
13.03.2020	2	1		3

Fatalities are constantly changing. For example, as of April 2, 2020, 20 people died of COVID-19 in Ukraine, including 15 women and 5 men. The age of deceased women was: up to 40 years - 2 people, 50-59 years - 6 people, 60-69 years - 5 people, over 70 years - 2 people. The age of deceased men was: up to 40-49, 60-69 and over 80 years for 1 person, 50-59 years - 2 people. Among the deceased, three individuals had a history of traveling abroad for the last 14 days before the start of clinical symptoms. Despite the fact that all 20 patients were hospitalized, 60% of them were treated in intensive care units and underwent artificial lung ventilation or extracorporeal membrane oxygenation, and the treatment was fatal. All of the deceased from COVID-19 recorded a positive laboratory test result for the pathogen. As of April 4, 2020, 28 COVID-19 deaths have been reported in Ukraine, including 68% female and 32% male. The mortality rate of 40-60 years remains steadily high. The average duration from the origin of symptoms to the onset of death was 9 days, and from the moment of hospitalization to death - 4 days. Among those who died from COVID-19, most individuals had a history of chronic diseases, the largest number of which were cardiovascular disease and diabetes, and cancer, kidney and lung disease, and obesity were also observed.

Thus, to prevent fatalities from COVID-19 and to preserve life for citizens, it is necessary to strictly comply with quarantine measures (to prevent infection, avoid contact with persons with fever or cough; disinfect surfaces affected by the infected person), keep calm; if coronavirus infection occurs (fever, cough, shortness of breath - shortness of breath), seek medical advice from a family doctor and limit contact with other people, use face mask, cough and sneeze with a closed elbow or disposable elbow or sneeze, then throw away the cloth and wash your hands; follow hygiene rules: do not touch face with unwashed hands; wash hands thoroughly with soap and disinfectants; be in general protective mask, etc. Also, do not

contact people who have visited COVID-19 countries and have not been in isolation for 2 weeks.

CONCLUSIONS

Thus, it can be argued that: Ukraine had taken all steps to prevent the spread in Ukraine of acute respiratory disease caused by coronavirus 2019-nCoV. It was introduced an emergency regime throughout Ukraine with restrictive measures, which is constantly increasing.

In Ukraine, a greater number of persons who was infected are observed in persons aged 40-60 years, among whom the dominance of female persons and their number is constantly increasing, there is a magnification in the number of fatalities, which is worrying.

Therefore, full compliance with the recommendations of the Ministry of Health care of Ukraine and WHO's response in Ukraine, as well as in the COVID-19 countries.

References

1. <https://www.worldometers.info/coronavirus/>
2. Bernheim A, Mei X, Huang M, Yang Y, Fayad ZA, Zhang N, et al. Chest CT Findings in Coronavirus Disease-19 (COVID-19): Relationship to Duration of Infection. *Radiology*. 2020; 200463. doi: 10.1148/radiol.2020200463
3. Bissett B, Hodgson C. Physiotherapy Management for COVID-19 in the Acute Hospital Setting: Recommendations to guide clinical practice. 2020.
4. Li K, Wu J, Wu F, Guo D, Chen L, Fang Z, et al. The Clinical and Chest CT Features Associated with Severe and Critical COVID-19 Pneumonia. *Invest Radiol*. 2020; 1. doi: 10.1097/rli.0000000000000672
5. [5] Pan Y, Guan H, Zhou S, Wang Y, Li Q, Zhu T, et al. Initial CT findings and temporal changes in patients with the novel coronavirus pneumonia (2019-nCoV): a study of 63 patients in Wuhan, China. *Eur Radiol*. 2020 Feb; 1–4. doi: 10.1007/s00330-020-06731-x
6. Shi H, Han X, Jiang N, Cao Y, Alwalid O, Gu J, et al. Radiological findings from 81 patients with COVID-19 pneumonia in Wuhan, China: a descriptive study. *Lancet Infect Dis*. 2020 Feb 24; 20(4): P425-34. doi: 10.1016/S1473-3099(20)30086-4
7. Singhal T. A Review of Coronavirus Disease-2019 (COVID-19). *Indian J Pediatr*. 2020; 87: 281. doi: 10.1007/s12098-020-03263-6
8. Wang J, Wang BJ, Yang JC, Wang MY, Chen C, Luo GX, et al. Advances in the research of mechanism of pulmonary fibrosis induced by Corona Virus Disease 2019 and the corresponding therapeutic measures. *Zhonghua shaoshang zazhi, Chinese J Burn*. 2020; 36: E006.
9. Wu J, Wu X, Zeng W, Guo D, Fang Z, Chen L, et al. Chest CT Findings in Patients with Corona Virus Disease 2019 and its Relationship with Clinical Features. *Invest Radiol*. 2020; 1. doi: 10.1097/rli.0000000000000670
10. ACSM Guidelines for Exercise Testing and Prescription 10th | Nicolas Sepulveda Cisternas - Academia.edu. Available from: https://www.academia.edu/36843773/ACSM_Guidelines_for_Exercise_Testing_and_Prescription_10th (accessed 27 March 2020).
11. Critical preparedness, readiness and response actions for COVID-19
12. Clinical management of severe acute respiratory infection when novel coronavirus (nCoV) infection is suspected
13. Risk Communication and Community Engagement (RCCE) Action Plan Guidance COVID-19 Preparedness and Response
14. World Health Organization. Coronavirus disease 2019 (COVID-19): Situation Report – 39. 2020; 2. Available from: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200228-sitrep-39-covid-19.pdf?sfvrsn=5bbf3e7d_4
15. <https://moz.gov.ua/>
16. <https://index.minfin.com.ua/reference/coronavirus/ukraine/>
17. <https://www.who.int/ru/emergencies/diseases/novel-coronavirus-2019>
18. http://w1.c1.rada.gov.ua/pls/zweb2/webproc4_1?pf3511=68402

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