ORIGINAL PAPER

HEALTH PROFILE OF THE POPULATION THAT ATTENDED AN INTEGRATED HEALTH CAMPAIGN IN THE TIME OF COVID-19 AT A PERUVIAN CITY

PERFIL EPIDEMIOLOGICO DE LA POBLACION QUE ACUDE A UNA CAMPAÑA DE SALUD INTEGRAL EN TIEMPO DE COVID-19 EN UNA CIUDAD PERUANA

Edgar Moisés Huaraca-De los Santos[1], Norka Rocío Guillen-Ponce[1,2], Marlon Morales-Moisela[1,2], Lucy E. Correa-López[1,2,3]

ABSTRACT

Objective: The aim of the study was to determine the health profile of the population that attended an integrated health campaign in times of the COVID-19. **Methods:** It was a Cross-sectional, observational, descriptive, and retrospective study. The population is made up of a total of 289 patients who met the selection criteria. **Results:** Of the total number of patients (289), 64.7% were female, from this group 8.3% reported having had the COVID-19. The COVID-19 cases were reported to be between the ages of 15 to 59 years (37%). The most frequent comorbidity was: obesity (26.6%), followed by arterial hypertension (11.8%) and diabetes mellitus (3.8%). The most frequent signs and symptoms of COVID-19 were: dyspnea (4.5%), myalgia (4.2%), cough (3.1%), and rhinorrhea (3.1%). Only 19.7% of patients reported having received the COVID-19 vaccine at the time of the study. The most frequently reported pathologies were: respiratory (26.3%), musculoskeletal (25.3%), endocrinological (12.1%), cardiovascular (11.1%), and infectious pathologies (11.1%). The associated variables were: no comorbidity (p = 0.014; CI 95 [0.208-0.853]; OR = 0.421), obesity (p = 0.010; CI 95% [1.228-5.161] OR = 2.518), and dyspnea (p = 0.000; CI 95 [4,052-22,980], OR = 9,649). **Conclusions:** A predominance of female patients was found. Obesity was the most frequent comorbidity. The most frequent pathologies were those of the respiratory system. The absence of comorbidities shows a protective association for the COVID-19, while obesity and dyspnea increase this association.

Keywords: Health profile; COVID-19, Comorbidity. (Source: MeSH NLM)

RESUMEN

Objetivo: Determinar el perfil epidemiológico de la población que acude a una campaña de salud integral en tiempo de COVID-19. **Métodos:** Estudio transversal con componentes analíticos. La población se compone de un total de 289 pacientes que cumplieron con los criterios de selección. **Resultados:** Del total de pacientes (289) el 64,7% eran de sexo femenino y estas refirieron haber tenido la COVID-19 (8,3%). Se reportó que los casos de la COVID-19 fueron entre las edades de 15 a 59 años (37%). La comorbilidad más frecuente fue la obesidad (26,6%), seguida por la Hipertensión arterial (11,8%) y la Diabetes Mellitus (3,8%). Los signos y síntomas más frecuentes en los cala sos de COVID-19 fueron disnea (4,5%), mialgia (4,2%), tos (3,1%) y rinorrea (3,1%). Solo el 19,7% de pacientes refirieron haber recibido la vacuna la contra COVID-19 al momento del estudio. Las patologías más frecuentemente reportadas fueron la patología respiratoria (26,3%), del aparato locomotor (25,3%), endocrinológicas (12,1%) cardiovasculares (11,1%) e infecciosas (11,1%). Las variables asociadas fueron no comorbilidad (p = 0,014; IC 95 [0,208-0,853]; OR = 0,421), obesidad (p = 0,010; IC 95% [1,228-5,161] OR = 2,518) y disnea (p = 0,000; IC 95 [4,052-22,980]; OR = 9,649). **Conclusiones:** Se encontró predominancia de pacientes de sexo femenino. La obesidad fue la comorbilidad más frecuente. Las patologías más frecuentes fueron las respiratorias. La ausencia de comorbilidades muestra asociación protectora para la COVID-19, mientras que la obesidad y la disnea aumentan dicha asociación.

Palabras clave: Perfil epidemiológico; COVID-19; Comorbilidad. (Fuente: DeCS BIREME)

Journal home page: http://revistas.urp.edu.pe/index.php/RFMH

INTRODUCTION

Currently, the COVID-19 pandemic continues to position itself as the disease with the highest mortality rate from a single infectious agent. Likewise, the rapid spread of this disease has promoted a series of interruptions in health services worldwide [1].

This disruption especially affects patients with chronic non-communicable diseases such as cancer, high blood pressure, chronic respiratory diseases, and diabetes mellitus, since it has been reported that the severe symptoms of this disease are more frequent in this group of people [2].

According to reports from the World Health Organization (WHO), the region of Latin America and the Caribbean is in a prolonged health crisis, to which has been added a persistent deterioration in social development with the arrival of the pandemic in this region. Latin America and the Caribbean encompass more than 44 million cases and almost 1.5 million deaths due to the COVID-19. This means that despite having only 8.4% of the world's population, the Latin American and Caribbean region contains 20% of the cases and 30% of the deaths from the COVID-19 globally [3].

At the national level, in addition to having a fragmented health system, there is a low number of doctors per population (13.6 doctors per 10,000 people)[4]. Likewise, the scarcity of resources and technological supplies has been decisive in the decision to allocate them to intensive care units, leaving aside primary care centers [5]. This is where the health profile can give us an overview of the health status of a population of primary care centers [6], in which activities related to the control of the pandemic are carried out, as would be the case in recent years the implementation of vaccination strategies against the COVID-19 at the national level [3,7].

As a result, the objective of this study is to determine the epidemiological profile of the population that attended a health campaign in Subtanjalla, Ica, in the year 2021.

METHODS

Study design type and area

This is an observational, descriptive study with

Population and sample

The information of the population obtained with the inclusion and exclusion criteria was used. Which was made up of 289 medical records collected from the integrated health campaign organized by the Polyclinic of the Faculty of Human Medicine of the Ricardo Palma University in conjunction with the Area of Cultural Extension and Social Projection in Subtanjalla, Ica. All medical records of care provided during the integrated health campaign were included in Subtanjalla, Ica, on October 16th and 17th, 2021, excluding all medical records without a specified diagnosis.

Variables and instruments

The independent variables were: sex (female and male), age (which was divided into three groups from zero to 14 years old, from 15 to 59 years old, and 60 years old and older), comorbidities (grouped in non-comorbidities, arterial hypertension, diabetes mellitus, and obesity), pathologies (which was grouped into healthy patients, cardiovascular, respiratory, neurological, dermatological, endocrinological, infectious, gastrointestinal, musculoskeletal and other pathologies), signs and symptoms (which were grouped into no signs and symptoms, fever, dyspnea, runny nose, cough, sneezing, sore throat, headache, abdominal pain, epigastric pain, loss of appetite, dizziness/nausea, vomiting, diarrhea, constipation, urine, dysuria, myalgia, arthralgia, tiredness/fatigue, pruritus, others), and vaccine against the COVID-19.

The dependent variable was: a diagnosis of COVID-19.
A clinical data collection form was used as an information collection instrument.

Procedures

A clinical data collection form was applied to all patients, the data tabulated in an Excel 2013 datasheet, and finally, the data was entered into the IBM SPSS Statistics v25 program to obtain results.

Statistical analysis

Descriptive statistics were performed with tables. Likewise, Logistic regression analysis was performed to find the crude odds ratio (OR), with their respective confidence intervals at 95%, and considering a statistically significant p-value if it was less than 0.05. The data was processed using the Excel 2013 datasheet, and the analysis, tables, and graphs, will be processed by the IBM SPSS Statistics v25 program;   The

frequency and percentages of the variables already described were estimated. Likewise, the Chi-square test was performed on the variables "comorbidities" and "signs and symptoms", with the variable the "COVID-19".

Ethical aspects

In carrying out this work, the confidentiality of the information collected from the medical records was taken into account, the anonymity of the participants was also maintained, the ethical principles were respected and there will be no risks for the participants. This study was approved by the Biomedical Sciences Research Institute and the Research Ethics Committee of the Faculty of Human Medicine of the Ricardo Palma University, Committee Code: PG 022 – 2022.

RESULTS

A population of 289 patients was included, predominantly female representing 64.7%, Of the patients evaluated with the diagnostic test for the COVID-19, 8.3% of the female patients tested positive for COVID-19 the, and 4.2% of the male patients also tested positive. In the variable AGE, those who tested positive for the COVID-19 were mostly in the range of 15 to 59 years (37%). It is observed that the most frequent comorbidity was Obesity with 26.6%, followed by Arterial Hypertension with 11.8%, and Diabetes Mellitus with 3.8%. Likewise, it was obtained that 5.5% of obese patients tested positive for the COVID-19. On the contrary, the patients who answered not presenting comorbidity and not the COVID-19 were 172 (59.5%). Regarding the Signs and Symptoms Variable, myalgia (22.8%), cough (15.6%), rhinorrhea (11.1%), and dyspnea (9.3%) were found. (Table 1).

Table 1. Frequencies and percentages of the variables: sex, age, comorbidities, and signs and symptoms vs COVID-19, of patients who were treated in the integrated care campaign in Subtanjalla, Ica, October 16 to 17, 2021.

Variable		COVID-19 Yes n (%)	No n (%)	Total
Sex	Male	12 (4.2)	90 (31.1)	102 (35.3)
	Female	24 (8.3)	163 (56.4)	187 (64.7)
Age	<= 14	81 (28.0)	0 (0.0)	81 (28.0)
	15 - 59	107 (37.0)	26 (9.0)	133 (46.0)
	60+	65 (22.5)	10 (3.5)	75 (26.0)
No Comorbidities	Affirmed	17 (5.9)	172 (59.5)	189 (65.4)
	Denied	19 (6.6)	81 (28)	100 (34.6)
	Obesity Yes	16 (5.5)	61 (21.1)	77 (26.6)
	Obesity No	20 (6.9)	192 (66.4)	212 (73.4)
	Arterial hypertension Yes	5 (1.7)	29 (10)	34 (11.8)
	Arterial hypertension No	31 (10.7)	224 (77.5)	255 (88.2)
	Diabetes Mellitus Yes	1 (0.3)	10 (3.5)	11 (3.8)
	Diabetes Mellitus No	35 (12.1)	243 (84.1)	278 (96.2)
	No signs or symptoms Yes	4 (14)	39 (13.5)	43 (14.9)
	No signs or symptoms No	32 (11.1)	214 (74)	246 (85.1)
Signs and symptoms	Myalgia Yes	12 (4.2)	54 (18.7)	66 (22.8)
	Myalgia No	24 (8.3)	199 (68.9)	223 (77.2)
	Cough Yes	9 (3.1)	36 (12.5)	45 (15.6)
	Cough No	27 (9.3)	217 (75.1)	244 (84.4)
	Runny nose Yes	3 (1)	29 (10)	32 (11.1)
	Runny nose No	33 (11.4)	224 (77.5)	257 (88.9)
	Dyspnea Yes	13 (4.5)	14 (4.8)	27 (9.3)
	Dyspnea No	23 (8)	239 (82.7)	262 (90.7)

Headache	Yes	1 (0.3)	24 (8.3)	25 (8.7)
	No	35 (12.1)	229 (79.2)	264 (91.3)
Arthralgia	Yes	2 (0.7)	14 (4.8)	16 (5.5)
	No	34 (11.8)	239 (82.7)	273 (94.5)
Loss of appetite	Yes	0 (0)	14 (4.8)	14 (4.8)
	No	36 (12.5)	239 (82.7)	275 (95.2)
Abdominal pain	Yes	0 (0)	11 (3.8)	11 (3.8)
	No	36 (12.5)	242 (83.7)	278 (96.2)
Sneeze	Yes	0 (0)	8 (2.8)	8 (2.8)
	No	36 (12.5)	245 (84.8)	281 (97.2)
Throat pain	Yes	2 (0.7)	6 (2.1)	8 (2.8)
	No	34 (11.8)	247 (85.5)	281 (97.2)
Dizziness/Nausea	Yes	1 (0.3)	5 (1.7)	6 (2.1)
	No	35 (12.1)	248 (85.8)	283 (97.9)
Diarrhea	Yes	0 (0)	6 (2.1)	6 (2.1)
	No	36 (12.5)	247 (85.5)	283 (97.9)
Pruritus	Yes	0 (0)	6 (2.1)	6 (2.1)
	No	36 (12.5)	247 (85.5)	283 (97.9)
Concentrated urine	Yes	0 (0)	5 (1.7)	5 (1.7)
	No	36 (12.5)	248 (85.8)	284 (98.3)
Epigastralgia	Yes	0 (0)	4 (1.4)	4 (1.4)
	No	36 (12.5)	249 (86.2)	285 (98.6)
Vomiting	Yes	0 (0)	3 (1)	3 (1)
	No	36 (12.5)	250 (86.5)	286 (99)
Constipation	Yes	0 (0)	3 (1)	3 (1)
	No	36 (12.5)	250 (86.5)	286 (99)
Tiredness/Fatigue	Yes	1 (0.3)	2 (0.7)	3 (1)
	No	35 (12.1)	251 (86.9)	286 (99)
Fever	Yes	0 (0)	2 (0.7)	2 (0.7)
	No	36 (12.5)	251 (86.9)	287 (99.3)
Dysuria	Yes	0 (0)	1 (0.3)	1 (0.3)
	No	36 (12.5)	252 (87.2)	288 (99.7)
Others	Yes	15 (5.5)	74 (25.6)	90 (31.1)
	No	20 (6.9)	179 (61.9)	199 (68.9)

ORIGINAL PAPER

Table 2 shows that only 12.5% of patients reported a history of having suffered from the COVID-19, on the other hand, 87.5% answered that they did not have the COVID-19. Regarding the vaccine against the COVID-19, it can be seen that 19.7% received the vaccine, while 80.3% denied having been immunized at the time of evaluation.

Likewise, it was found that the most frequent pathologies present were: respiratory pathologies with 26.3%, musculoskeletal pathologies with 25.3%, endocrinological pathologies with 12.1%, cardiovascular pathologies with 11.1%, and infectious pathologies with 11.1%. On the contrary, no pathologies were found in 8.3% of the population.

Table 2. Frequency of COVID-19, COVID-19 vaccine, and pathologies of patients treated in the integrated health campaign in time of covid-19 in Subtanjalla, Ica, October 16th to 17th, 2021.

Variable		Frequency	Percentages
COVID-19	Yes	36	12.5
	No	253	87.5
COVID-19 vaccine	Yes	57	19.7
	No	232	80.3

Patient without pathology				
		Respiratory	76	26.3
		Musculoskeletal system	73	25.3
		Endocrinological	35	12.1
		Cardiovascular	32	11.1
Pathologies		Infectious	32	11.1
		Gastroenterological	31	10.7
		Others	20	6.9
		Dermatological	17	5.9
		Neurological	14	4.8

We observe in Table 3 the association between the variables "signs and symptoms" and "comorbidities", with the "COVID-19", The following variables were found to be significant: "no comorbidities" (p = 0.014; 95% CI [0.208-0.853]; OR = 0.421), obesity (p = 0.010; 95% CI [1.228-5.161] OR = 2.518), and dyspnea (p= 0.000, CI 95 [4.052-22.980], OR = 9.649). It was reported that the fact of not having comorbidities is a 0.421-fold protective factor for the development of COVID-19. Obesity was found to be a 2,518-fold risk factor for the COVID-19. Finally, it was found that having dyspnea is a risk factor 9,649 times for having the COVID-19.

Table 3. Association of comorbidities and signs and symptoms for COVID-19, of patients who attended an integrated care campaign in Subtanjalla, Ica, October 16 to 17, 2021.

Variable		p Value	Odds Ratio (OR)	IC 95%	
				LI	LS
No Comorbidity		0,014	0,421	0,208	0,853
Comorbidities	Obesity	0,010	2,518	1,228	5,161
	Arterial hypertension	0,672	1,246	0,449	3,457
	Diabetes Mellitus	0,730	0,694	0,086	5,591
No signs or symptoms		0,497	0,686	0,230	2,048
Signs and symptoms	Dyspnea	0,000	9,649	4,052	22,980
	Runny nose	0,576	0,702	0,202	2,435
	Cough	0,095	2,009	0,874	4,621
	Throat pain	0,276	2,422	0,470	12,483
	Headache	0,180	0,273	0,036	2,0791
	Dizziness/Nausea	0,752	1,417	0,161	2,486
	Myalgia	0,109	1,843	0,866	3,922
	Arthralgia	0,996	1,004	0,219	4,612
	Tiredness/Fatigue	0,271	3,586	0,317	40,582
	Others	0,065	1,935	0,950	3,940

* Chi-squared test

DISCUSSION

In the study carried out, a predominance of female patients was found with a frequency of 187 (64.7%). Similar results were found in the study by Aguilar-Martín I, Ferra-Murcia S, et al. Where a female predominance was found (70.9%)[8]. On the contrary, in the study carried out at the national level by Garcia Inga BO, Martínez Véliz MR, et al. It was found that the majority was male with 78.8% [9]. Likewise, in the research by Geyner Yonatan Becerra Uriarte, et al. It was found that of the total number of patients, 59% were male and 41% female [10].

The most frequently reported ages were 15 to 59 years old (46%), followed by zero to 14 years old (28%), and finally 60 years old or older (26%). Similarly, a greater number of patients aged 15 to 59 years affected by the COVID-19 (37%) was observed, in contrast to the ages of zero to 14 years (28%) and 60 years or more (22.5%). Similar results were found in the study by Jmaa MB, Ayed HB, et al. In which a mean age of 39 years was reported [11] . Likewise, in the investigation of Pezo Dianderas Katia Michelle, Chávez Fernández Diego Rolando, et al. In which the age range with the highest percentage of cases was reported between the ages of 50 to 59 years (34.83%)[12], and in the study by Suárez V, Suarez Quezada M, et al. In which of a total of 12,656 confirmed cases, the majority were between the ages of 30 to 59 years (65.85%)[13].

Of the total number of patients, it was found that the majority had obesity (26.6%), followed by arterial hypertension (11.8%) and diabetes mellitus (3.8%). Similarly, of the cases that reported having had the COVID-19, it was found that the highest percentage had obesity (5.5%), followed by high blood pressure (1.7%) and diabetes mellitus (0.3%). A similar distribution can

be observed in the study by Díaz-Lazo Aníbal, Montalvo Otivo Raul, et al. Where it was reported that the most frequent comorbidities were obesity (4.47%), diabetes mellitus (2.76%), and arterial hypertension (1.31%) [14]. Likewise, in the study by Haw NJL, Uy J, et al. The main comorbidities were arterial hypertension with 17.9% and diabetes mellitus with 12.7%[15].

Of the total number of patients, it was found that the most frequent signs and symptoms were myalgia (22.8%), cough (15.6%), rhinorrhea (11.1%), and dyspnea (9.3%). Regarding its distribution in the patients who reported the COVID-19, these same variables were found in different frequencies, having dyspnea (4.5%), myalgia (4.2%), cough (3.1%), and rhinorrhea (1%). These signs and symptoms were also reported in the study by Zuccone G, Albornoz V, et al. In which, dry cough (46.95%), myalgia (41.46%), dyspnea (19.51%), productive cough (14.63%), nasal congestion (5.49%) was found[16]. On the other hand, in the research by Llaro M, Eyzer B, Campos K., et al. A different distribution to that described in this study was reported, with dyspnea (91.30%) and cough (86.96%) predominating, and rhinorrhea to a lesser extent (8.70%)[17].

The diseases were grouped into pathologies, respiratory (26.3%), musculoskeletal (25.3%), endocrinological (12.1%), cardiovascular (11.1%), and infectious pathologies (11.1%) among the more frequent. We can observe in the study of Marín-Sánchez A. that those diseases that would fall into the: respiratory pathology group were mainly reported, Chronic Obstructive Pulmonary Disease (16%); endocrinological diseases, Diabetes Mellitus (21%); In cardiovascular diseases, Arterial Hypertension (35%); and the group cardiovascular and cerebrovascular diseases (19%) [18].

It was found that the variable no comorbidity has statistical significance (p = 0.014; CI 95 [0.208-0.853]; OR = 0.421), to be associated as a protective factor for the development of the COVID-19, in the same way, the study of Franco VD, Morales Chorro L, Baltrons Orellana R, et al. Statistical significance was found for patients without comorbidities (HR = 0.31; 95% CI [0.27-0.35]; p<0.01), reporting a relationship between the absence of comorbidities and a lower risk of death in patients with the COVID-19[19]. In this case in which the patients did not report comorbidity, it could be deduced that the patient already had this absence of comorbidity at the time of having suffered from the COVID-19.

Obesity was found to be statistically significant (p = 0.010; 95% CI [1.228-5.161] OR = 2.518) to be associated as a risk factor for the development of the COVID-19, Likewise, in the study by C. Kaeuffer, C. Le Hyaric, T. Fabacher, et al. Statistical significance was found for patients with a BMI ≥ 30 (OR = 2.2; 95% CI [1.5-3.3]), which is considered obesity, finding a relationship between this comorbidity and the development of a severe form of the COVID-19 [20]. Similar to what is described in the No Comorbidity variable, it could be deduced that concerning the obesity variable, considered in the literature as a chronic disease, it was already present at the time the patient suffered from the COVID-19.

Finally, it was observed that dyspnea presented statistical significance (p = 0.000; CI 95 [4.052-22.980]; OR = 9.649) to be associated as a risk factor for presenting the COVID-19, in the same way, the study by C. Kaeuffer, C. Le Hyaric, T. Fabacher, et al. Statistical significance was found for patients who presented dyspnea (OR = 2.5; 95% CI [1.8–3.4]), finding a relationship between this variable and the development of a severe form of the COVID-19[20].

Regarding the significant variable dyspnea, this has been described in the literature as a symptom for the diagnosis of the COVID-19 and even as a predictor of the evolution of this disease towards more severe forms.

The results of this research present the limitations of an observational, retrospective study. Additionally, this research has the limitation of not having the exact date on which the patients contracted COVID-19.

CONCLUSION

In the population that attended an integrated health campaign in times of the COVID-19, a higher frequency of female patients was found. The most frequent comorbidity was obesity. The most frequent pathologies were those of the respiratory system. The most frequent signs and symptoms were: myalgia, cough, rhinorrhea, and dyspnea. The absence of comorbidities was found to show a protective association for the COVID-19, while obesity and dyspnea show a risk association.

Correspondence: Edgar Moisés Huaraca De los Santos.
Dirección: Av. 27 de Diciembre 836 Villa María del Triunfo, Lima-Perú.
Teléfono: 959158648
Correo: ed.hds.3@gmail.com

REFERENCES

1. WHO. Global tuberculosis report [Internet]. Geneva: World Health Organization, 2021 [citado 2022 abril 20]. Disponible en: https://www.who.int/publications-detail-redirect/9789240037021

2. WHO. The impact of the COVID-19 pandemic on noncommunicable disease resources and services: results of a rapid assessment [Internet]. Geneva: World Health Organization, 2020 [citado 2022 abril 20]. Disponible en: https://www.who.int/publications-detail-redirect/9789240010291

3. Pan American Health Organization. La prolongación de la crisis sanitaria y su impacto en la salud, la economía y el desarrollo social [Internet]. Washington, D.C.; OPS, 2021 [citado 2022 abril 21]. Disponible en: https://iris.paho.org/handle/10665.2/54990

4. Ministerio de Salud. Compendio Estadístico: Información de Recursos Humanos del Sector Salud Perú 2013 – 2018. [Internet] Lima: Ministerio de Salud, 2019 [Citado 2022 abril 20]. Disponible en: http://bvs.minsa.gob.pe/local/MINSA/10896.pdf

5. Cuba Herberth. La Pandemia en el Perú. Acciones, impacto y consecuencias del COVID-19 [Internet]. Lima: Colegio Médico del Perú; 2021 [consultado 2022 abril 20]. Disponible en: https://www.cmp.org.pe/wp-content/uploads/2021/05/La-Pandemia-CUBA-corregida-vale.pdf

6. Jane S. Durch, Linda A. Bailey, and Michael A. Stoto. Improving Health in the Community A Role for Performance Monitoring [Internet]. Washington (DC): National Academies Press (US), 1997 [Citado 2022 mayo 1]. Disponible en: https://www.ncbi.nlm.nih.gov/books/NBK233010/

7. Pan American Health Organization. COVID-19 y comorbilidades en las Américas: Herramienta práctica para estimar la población con mayor riesgo alto de COVID-19 grave debido a afecciones de salud subyacentes en las Américas [Internet]. Washington, D.C.; OPS, 2021 [citado 2022 abril 21]. Disponible en: https://iris.paho.org/handle/10665.2/53253

8. Aguilar-Martín I, Ferra-Murcia S, Quesada-Yáñez E, Sandoval-Codoni J. Perfil clínico y epidemiológico de los residentes infectados de COVID-19 en instituciones sociosanitarias medicalizadas y su evolución durante la pandemia. Aten Primaria [Internet]. 2021 [consultado 2022 abril 22]; 53(5):101984. Disponible en: http://dx.doi.org/10.1016/j.aprim.2021.101984

8. Marivel Rosa Martínez Véliz, Belinda Olga Garcia Inga, Jenny Giovanna Poma Salinas, Rosario Elena Cuadros Ríos. Perfil epidemiológico de los pacientes con COVID 19 unidad de cuidados intensivos en un Hospital Nacional de la ciudad de lima 2020. Visionarios en ciencia y tecnología [Internet] 2021 [consultado 2022 abril 24]; 6:1-8. Disponible en: https://doi.org/10.47186/visct.v6i1.91

9. Geyner Yonatan Becerra Uriarte, Hector Eduardo Pardo Lizana, Enrique Guillermo Llontop Ynga, Elmer Lopez-Lopez. Perfil Clínico y Epidemiológico en pacientes COVID-19 atendidos en el Hospital Apoyo I Santiago Apóstol – Utcubamba 2020. Rev. Fac. Med. Hum [Internet] 2022 [citado 2022 abril 21];22(2): 353-358. Disponible en: DOI. 10.25176/RFMH.v22i2.4330

10. Jmaa MB, Ayed HB, Kassis M, Hmida MB, Trigui M, Maamri H, et al. Epidemiological profile and performance of triage decision-making process of COVID-19 suspecteed cases in southern Tunisia. African Journal of Emergency Medicine [Internet] 2022[consultado 2022 abril 23]; 12(1): 1-6. Disponible en: https://www.sciencedirect.com/science/article/pii/S22114 19X21000677?via%3Dihub

11. Jmaa MB, Ayed HB, Kassis M, Hmida MB, Trigui M, Maamri H, et al. Epidemiological profile and performance of triage decision-making process of COVID-19 suspecteed cases in southern Tunisia. African Journal of Emergency Medicine [Internet] 2022[consultado 2022 abril 23]; 12(1): 1-6. Disponible en: https://www.sciencedirect.com/science/article/pii/S2211419X21000677?via%3Dihub

12. Pezo Dianderas Katia Michelle, Chávez Fernández Diego Rolando, Porras Serna Raúl Ernesto. Características epidemiológicas de los pacientes atendidos por COVID-19 en el Servicio de Emergencia del Hospital Militar Central Luis Arias Schreiber. Horiz. Med. [Internet]. 2021 Jul [citado 2022 Mayo 10]; 21(3): e1337. Disponible en: http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1727-558X2021000300003&lng=es

13. Suárez V, Suarez Quezada M, Oros Ruiz S, Ronquillo De Jesús E. Epidemiología de COVID-19 en México: del 27 de febrero al 30 de abril de 2020. Rev Clin Esp. 2020 [citado 2022 abril 28]; 220(8):463-471. Disponible en: https://doi.org/10.1016/j.rce.2020.05.007

14. Díaz-Lazo Aníbal, Montalvo Otivo Raul, Lazarte Nuñez Ernesto, Aquino Lopez Edinson. Caracterización clínica y epidemiológica de los pacientes con COVID-19 en un hospital situado en la altura. Horiz. Med. [Internet]. 2021 Abr [citado 2022 Mayo 10]; 21(2): e1303. Disponible en: http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1727-558X2021000200008&lng=es

15. Haw NJL, Uy J, Sy KTL, Abrigo MRM. Epidemiological profile and transmission dynamics of COVID-19 in the Philippines. Epidemiol Infect [Internet] 2020 [consultado 2022 abril 27]; 148: 1-8. Disponible en: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7506175/

16. Zuccone Giancarlo, Albornoz Valentina, Ibáñez Helga, Betancur Raúl, Matute Julio. Características clínicas y epidemiológicas del COVID-19 en la Unidad de Emergencia del Hospital Barros Luco: los primeros 164 pacientes. Rev. Méd. Chile [Internet]. 2020 [citado 2022 abril 29]; 148(8): 1096-1104. Disponible en: http://www.scielo.cl/scielo.php?script=sci_arttext&pid=S0034-98872020000801096&lng=es

17. Llaro-Sánchez Manuel K., Gamarra-Villegas Bernardo E., Campos-Correa Karen E. Características clínico-epidemiológicas y análisis de sobrevida en fallecidos por COVID-19 atendidos en establecimientos de la Red Sabogal-Callao 2020. Horiz. Med. [Internet]. 2020 [citado 2022 abril 27]; 20(2): e1229. Disponible en: http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S558X2020000200003&lng=es. http://dx.doi.org/10.24265/horizmed.2020.v20n2.03

18. Marín-Sánchez A. Características clínicas básicas en los primeros 100 casos fatales de COVID-19 en Colombia. Rev Panam Salud Publica [Internet] 2020 [citado 2022 abril 28]; 44: e87. Disponible en: https://doi.org/10.26633/RPSP.2020.87

19. Franco VD, Morales Chorro L, Baltrons Orellana R, et al. Mortalidad por COVID-19 asociada a comorbilidades en pacientes del Instituto Salvadoreño del Seguro Social. Alerta. [Internet] 2021 may [citado 2022 julio 12];4(2): 28-37. Disponible en: https://www.camjol.info/index.php/alerta/article/view/10366/13342

20. Kaeuffer, C., Le hyaric, C., Fabacher, et al. Caractéristiques cliniques et facteurs de risque associés aux formes sévères de COVID-19 : analyse prospective multicentrique de 1045 cas. Med Mal Infect.[Internet] 2020 Sep [citado 2022 Julio 12];50(6): S27. Disponible en: https://doi.org/10.1016/j.medmal.2020.06.440

ORIGINAL PAPER