

Cuadro I
EFFECTOS ADVERSOS ASOCIADOS CON INGREDIENTES ACTIVOS UTILIZADOS EN PRODUCTOS DESINFECTANTES PARA MANOS DE USO FRECUENTE

Ingrediente activo	Efectos adversos
Etanol	Dermatitis atópica. Resequedad, agrietamiento, piel descamada, enrojecimiento y prurito dérmico con exposición prolongada. Irritación ocular. La absorción dérmica puede llevar al nivel tóxico si este producto es utilizado durante meses y varias veces al día. ¹
Alcohol isopropílico	Dermatitis atópica. Resultados de una serie de casos mostraron que la ingestión de 1 onza (oz) de solución de isopropanol da como resultado efectos clínicos graves en niños menores de seis años. ¹
Peróxido de hidrógeno	La toxicidad del peróxido de hidrógeno depende de su concentración. En pocos casos provoca embolia de la vena porta, problemas gastrointestinales, irritación leve de las mucosas y vómitos. También, se han informado casos de distensión intestinal asociada a la exposición de peróxido de hidrógeno al 3%. ¹
Cloruro de n-alquil dimetil bencil amonio (derivado del amonio cuaternario)	Este tipo de productos son utilizados en toallitas húmedas. Se debe poner especial atención en las que son diseñadas para limpieza de superficies ya que éstas no deben utilizarse en la piel, por el riesgo de irritación química. ³

Por todo lo anterior consideramos que los desinfectantes de manos no deben de ser utilizados como un equivalente al lavado de manos en la población pediátrica. De igual manera, hacemos hincapié en la necesidad de supervisar el uso de estos productos en caso de seguir utilizándolos en niños.

Declaración de conflicto de intereses. Los autores declararon no tener conflicto de intereses.

Julieta Rodríguez-de Ita, MD, PhD,^(1,2)
 julyrdz@tec.mx
 Fabiola Castorena-Torres, PhD,⁽¹⁾
 Bárbara Mariel Garza-Ornelas, MC.⁽¹⁾

(1) Escuela de Medicina y Ciencias de la Salud, Tecnológico de Monterrey, Monterrey, Nuevo León, México.

(2) Instituto de Pediatría, Hospital Zambrano Hellion, Tec Salud. Monterrey, Nuevo León, México.

<https://doi.org/10.21149/12124>

Referencias

1. Mahmood A, Eqan M, Pervez S, Alghamdi H, Tabinda A, Yasar A, et al. COVID-19 and frequent use of hand sanitizers; human health and environmental hazards by exposure pathways. *Sci Total Environ.* 2020;742:140561. <https://doi.org/10.1016/j.scitotenv.2020.140561>
2. Leeper S, Almatari A, Ingram J, Ferslew K. Topical absorption of isopropyl alcohol induced cardiac and neurologic deficits in an adult female with intact skin. *Vet Hum Toxicol.* 2000;42(1):15-7.
3. Rundle C, Presley C, Militello M, Barber C, Powell D, Jacob S, et al. Hand hygiene during COVID-19: Recommendations from the American Contact Dermatitis Society. *J Am Acad Dermatol.* 2020;83(6):1730-7. <https://doi.org/10.1016/j.jaad.2020.07.057>
4. American Association of Poison Control Centers. Hand Sanitizer [internet]. Alexandria: American Association of Poison Control Centers [citado diciembre 21, 2020]. Disponible en: <https://aapcc.org/track/hand-sanitizer>

5. Food and Drug Administration. FDA updates on hand sanitizers consumers should not use [internet]. Silver Spring: Food and Drug Administration, 2020 [citado diciembre 21, 2020]. Disponible en: <https://www.fda.gov/drugs/drug-safety-and-availability/fda-updates-hand-sanitizers-consumers-should-not-use#products>
6. Koriath T. Warning issued for more hand sanitizers containing methanol [internet]. AAP News. 6 de julio de 2020 [citado diciembre 21, 2020]. Disponible en: <https://www.aapublications.org/news/2020/07/06/handsanitizer070620>

Sanitary barriers as educative and preventive´s action for the control of Covid-19 dissemination in a big city at southeastern Brazil

Dear editor: To contain the spread of the novel coronavirus (SARS-CoV-2), some Brazilian municipalities have implemented strategic checkpoints called sanitary barriers.^{1,2} This action was realized by the prefecture of Belo Horizonte with objectives of detect suspected cases which had not sought for medical care; promote health education on preventive measures and self-identification of Covid-19 red flags; timely refer suspected cases to healthcare centers for assessment and stratification; provide strategic data for health surveillance and to follow cases of epidemiological or assistance interest.^{3,4}

Through a cross-sectional study carried out in Belo Horizonte from June 18th and July 18th 2020, we aim to estimate the prevalence of people that have gone to hospital after being categorized as suspected cases in “sanitary barriers” in Belo Horizonte, Minas Gerais, Brazil.

Referrals to telemonitoring were made by prefecture personnel and voluntary medical students in eighteen sanitary barriers established in the city. Those units approached cases by convenience sampling and used the following criteria: people

who reported influenza-like illness; people who had fever detected at the barrier or who had contact with suspected or confirmed Covid-19.

Through self-report, variables related to sociodemographic characteristics (age, sex, education, municipality of residence), clinical status (symptoms, onset of symptoms, evolution of symptoms, previous contact, comorbidities) and behavioral actions towards Covid-19 (social distance, hand hygiene and use of personal safety equipment) were collected. The consultation in a health service after the sanitary barrier instructions was the variable of interest in this study.

Of the 690 individuals, 54.7% had between 20 to 39 years and 67.3% were male. The prevalence of 61.7% for effective referral to health care centers as the main outcome, whereas 38.2% did not seek medical assistance as oriented. Among these, 84% were asymptomatic and 30% confirmed previous exposure with confirmed or suspected cases of Covid-19 (table I).

In conclusion, there was a high prevalence of demand for health after guidance on health barriers, which demonstrates the importance of this measure as an educative practice in controlling the transmission of infection at Belo Horizonte city.

Declaration of conflict of interests. The authors declare that they have no conflict of interests.

- Nathalia Sernizon-Guimarães, PhD,⁽¹⁾
naserizoon@gmail.com
- Maria do Carmo Barros-de Melo, PhD,⁽²⁾
Taciana Malheiros Lima-Carvalho,
M in Health Prom and Viol Prev,⁽³⁾
- Jackson Machado-Pinto, D in Med and Biomed,⁽³⁾
- Ana Otávia Ribeiro-Paiva, Spec Proj Manag,⁽³⁾
- Karine Aparecida Ribeiro Soares Bertoni,
Spec Fam Health,⁽³⁾
- Elisa França Chaves, Med Stud,⁽⁴⁾
- Ronniel Moraes-Albuquerque, Med Stud,⁽⁴⁾
- Ricardo Tadeu de Carvalho, Med Stud,⁽⁴⁾
- Carmem Lage-Vieira, Med Stud,⁽⁴⁾
- João Eduardo dos Santos, Med Stud,⁽⁴⁾
- Luis Felipe Rezende-de Almeida, Med Stud,⁽⁴⁾
- Unai Tupinambás, PhD,⁽⁵⁾

Table I
BASELINE CHARACTERISTICS OF THE SUSPECTED OR EXPOSED CASES OF COVID-19 IN BELO HORIZONTE, MINAS GERAIS, CONCERNING SOCIALDEMOGRAPHICS. CLINICAL SYMPTOMS AND OUTCOMES. 2020

Variables	Total		Health care service referral				p
	n	%	Effective		Non-effective		
Socialdemographics characteristics							
Age (years) (n=690)							0.676
Child or adolescent (0-19)	32	4.64	22	68.75	10	31.25	
Young adult (20-39)	378	54.78	237	62.70	141	37.30	
Middle age (40-59)	250	36.23	148	59.20	102	40.80	
Elder (≥ 60)	30	4.35	19	63.33	11	36.67	
Sex (n=690)							0.351
Male	465	67.39	281	60.43	184	39.57	
Female	225	32.61	145	64.44	80	35.56	
Education (n=674)							0.134
Elementary school	136	20.18	74	54.41	62	45.59	
High school	353	52.37	217	61.47	136	38.53	
Faculty	185	27.45	121	65.41	64	34.59	
City (n=681)							0.013
Belo Horizonte	389	57.12	222	57.07	167	42.93	
Other	292	42.88	195	66.78	97	33.22	
Evaluation analysis (n=690)							0.912
June 18th and July 07th	491	71.16	302	61.51	189	38.49	
July 08th and July 18th	199	28.84	124	62.31	75	37.69	
Clinical characteristics – Covid-19							
Symptoms (n=681)							<0.001
Yes	607	89.13	404	66.56	203	33.44	
No	74	10.87	19	25.68	55	74.32	
Flu-like syndrome (n=607)							0.001
Yes, all of symptoms	29	4.78	26	89.66	3	10.34	
Yes, but not all symptoms	427	70.35	293	68.62	134	31.38	
No	151	24.88	85	56.29	66	43.71	
Symptoms' description (n=607)							0.002
Anosmia ou dysgeusia							0.002
Yes	136	22.41	106	77.94	30	22.06	
No	471	77.59	298	63.27	173	36.73	
Dyspnea							0.003
Yes	82	13.51	67	81.71	15	18.29	
No	525	86.49	337	64.19	188	35.81	
Sore throat							0.477
Yes	165	27.18	114	69.09	51	30.91	
No	442	72.82	290	65.61	152	34.39	
Fever							<0.001
Yes	224	36.90	179	79.91	45	20.09	
No	383	63.10	225	58.75	158	41.25	
Dry or productive cough							0.047
Yes	266	43.82	189	71.05	77	28.95	
No	341	56.18	215	63.05	126	36.95	

(continues...)

(continuation)

Symptoms onset (days) (n=554)							0.302
0-7	485	87.55	331	68.25	154	31.75	
8-14	41	7.40	28	68.29	13	31.71	
≥ 15	28	5.05	23	82.14	5	17.86	
Symptoms' outcome (n=601)							0.140
Recovery	515	85.69	335	65.05	180	34.95	
Maintenance	66	10.98	51	77.27	15	22.73	
Worsening	20	3.33	13	65.00	7	35.00	
Comorbidity (n=603)							0.146
Yes	159	26.37	107	67.30	52	32.70	
No	444	73.63	268	60.36	176	39.64	
Types of comorbidity (n=159)							
Respiratory diseases							0.268
Yes	57	35.85	42	73.68	15	26.32	
No	102	64.15	65	63.73	37	36.27	
Cardiovascular diseases							0.746
Yes	72	45.28	47	65.28	25	34.72	
No	87	54.72	60	68.97	27	31.03	
Endocrine disorders							0.912
Yes	36	22.64	25	69.44	11	30.56	
No	123	77.36	82	66.67	41	33.33	
Prevention measures (n=567)							0.401
Yes	457	80.60	276	60.39	181	39.61	
Partially or none	110	19.40	61	55.45	49	44.55	
Previous exposure (n=609)							0.937
Known case	178	29.23	112	62.92	66	37.08	
Possible or unknown	431	70.77	268	62.18	163	37.82	
Covid-19 testing (n=695)							<0.001
Yes	206	29.64	174	84.47	32	15.53	
No	469	67.48	243	51.81	226	48.19	
Final classification (n=681)							<0.001
Doesn't meet the criteria	206	30.25	95	46.12	111	53.88	
Confirmed	68	9.99	64	94.12	4	5.88	
Suspected	260	38.18	169	65.00	91	35.00	
Discarded	104	15.27	72	69.23	32	30.77	
Assymptomatic	25	3.67	4	16.00	21	84.00	
Other confirmed diagnosis	18	2.64	18	100.00	0	0.00	

(1) Post-Graduate Program in Infectious Diseases and Tropical Medicine, School of Medicine, Federal University of Minas Gerais, Belo Horizonte, Minas Gerais, Brazil.

(2) Department of Pediatrics, School of Medicine, Federal University of Minas Gerais, Belo Horizonte, Brazil.

(3) City Hall of Belo Horizonte, Belo Horizonte, Brazil.

(4) Medical School, Federal University of Minas Gerais, Belo Horizonte, Brazil.

(5) Department of Medical Clinics, Federal University of Minas Gerais, Belo Horizonte, Brazil.

<https://doi.org/10.21149/12299>

References

1. John Hopkins University. Coronavirus COVID-19 Global Cases [Internet]. United States: Center for Systems Science and Engineering, John Hopkins University, 2020 [cited November, 2020]. Available from: <https://coronavirus.jhu.edu/map.html>
2. Center for Disease Control and Prevention. How coronavirus spreads [Internet]. United States: CDC, 2020 [cited November, 2020]. Available

from: <https://www.cdc.gov/coronavirus/2019-ncov/prepare/transmission.html>

3. Prefeitura de Municipal de Belo Horizonte. Decreto nº 17.356, de 14 de maio de 2020. Diário Oficial do Município. 2020 May 14 [cited November, 2020]. Available from: <http://portal6.pbh.gov.br/dom/iniciaEdicao.do?method=DetalheArtigo&pk=1228765>

4. Prefeitura de Belo Horizonte. Decreto nº 17.377. Diário Oficial do Município. 2020 May 14 [cited November, 2020]. Available from: <http://portal6.pbh.gov.br/dom/Files/dom6047%20-%20assinado.pdf>

La falta de personal médico en México en el contexto de la pandemia de Covid-19: ¿El programa de medicina para graduados es la solución?

Señor editor: La pandemia de Covid-19 trajo de nuevo al contexto nacional la falta de personal médico, pues de acuerdo con cifras de la Organización para la Cooperación y el Desarrollo Económico (OECD, por sus siglas en inglés), en México existen 2.4 médicos por cada 1 000 habitantes, mientras lo necesario son 3.4 médicos por cada 1 000 habitantes.¹

La carrera de medicina en México dura de 6 a 7 años dependiendo del plan de estudios que desarrollen las universidades. Es el único sistema que existe en México para formar médicos generales.

En países como Canadá, Australia, Reino Unido, Estados Unidos de América, Irlanda y Arabia Saudita existen programas de medicina diseñados para personas que tienen una licenciatura previa al estudio de medicina, conocidos en inglés como *Graduate Entry Medicine* (GEM). Estos planes fueron implementados en el año 2000 con el objetivo de reducir de manera rápida la falta de personal médico en dichos países. Este sistema consiste en un plan de estudios que generalmente dura cuatro años y ha sido implementado en instituciones como Oxford y Cambridge.²