



# النشرة الوبائية السعودية Saudi Epidemiology Bulletin

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## Characteristic of Clorox Poisoning before and during COVID-19 Pandemic, Saudi Arabia, 2019-2020

Reported by: Dr. Hamoud Alrougi, Dr. Jaber Sharaheeli

Poisoning is one of the leading causes of morbidities and mortalities worldwide, (1) with a significant burden on health systems. (2). Among chemical substances, sodium hypochlorite (NaOCI) products are widely used in the household for bleaching laundry and to clean and disinfect hard surfaces; although it had been recognized as a safe household product, yet, the hazards of poisoning had been proven in many studies. (3)

The compliance with the precautionary measures during COVID-19 pandemic has been associated with significant increase in the use of disinfectants; such as sodium hypochlorite, hydrogen peroxide and alcohol. (4) Despite that these products had been proven to be effective in mitigating the virus burden; the incorrect overuse of these products could have adverse effect on human health as well as the environment. (5)

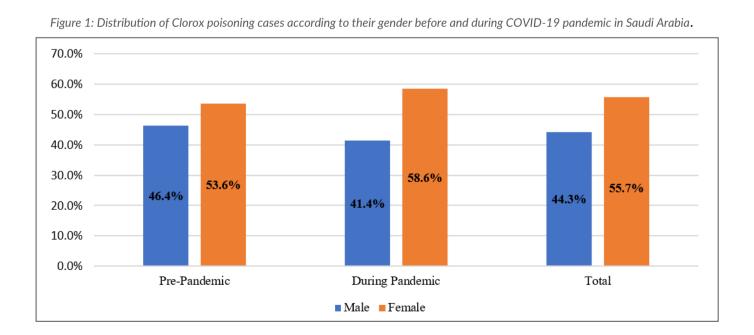
the current study aimed at determining the impact of overusing disinfectants during COVID-19 pandemic on the rates of chemical poisoning compared to prepandemic.

This was a cross-sectional retrospective record-based study design. That had been conducted in the environmental health department, MOH, Saudi Arabia, where all poisoning cases are reported as part of the national program of food, drug and chemical safety. All the cases who had been reported to have poisoning with "Clorox" in the period between January 2019 and December 2020 were included in the study.

The study demonstrates that a total of 267 Clorox poisoning cases had been reported in 2019, compared to 198 cases reported during the pandemic. There was slight dominance of females (55.7%) and marked dominance of Saudis (85.2%). Most of the cases were in the age group (1-5 years) (47.7%), followed by those in the age group (20-39 years) (27.3%).

Regarding clinical characteristics of the cases the majority of the cases occurred at home (96.3%), with a higher percentage in 2020 (98.0%) than in 2019 (95.1%), and few minorities (9.7%) occurred intentionally, with a relatively lower percentage in 2020 (7.6%) than in 2019 (11.2%). The great majority of the cases arrived the hospital in stable conditions (99.1%); they were mostly suffering from vomiting (60.2%) followed by nausea (21.1%), abdominal colic (15.5%) and dyspnoea (15.3%). The great majority of the cases recovered (93.8%) before discharge, while the rest (6.2%) were discharged against medical advice.

There was a decline in the incidence of Clorox poisoning during the pandemic as it reached to 0.57/100,000 population during the pandemic, compared to 0.78/100,000 in the pre-pandemic, the highest rates (per 100,000 population) were reported in AlQassim (11.83/100,000) and AlQrayat (9.14/100,000), while the lowest rate was recorded Hail (0.04/100,000).



# Characteristic of Clorox Poisoning before and during COVID-19 Pandemic, Saudi Arabia, 2019-2020 Cont...

#### **Editorial notes:**

There is a need for health education messages about safe store and using of detergents and disinfectants including Clorox.

Keywords: Sodium hypochlorite, Clorox, poisoning, COVID-19.

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## Delta Variant among increased cases of COVID-19 in Makkah, June 2021.

Reported by: Dr. Abdulmohsen M. Alahmad, Dr. Shady A Kamel

In 2019, a novel coronavirus, the Severe Acute Respiratory Syndrome Coronavirus 2 (SARSCoV2), was identified as the first Case in Wuhan, China.[1] The virus was designated coronavirus disease 2019 (COVID-19). Since then, various variants of the virus have been discovered globally, such as alpha, beta, and delta. Vaccinated people still have good benefits as they get less severe complications and a lower infectious period. These variants require more understanding of transmission and diagnosis to detect them early and reduce infection by applying the best preventive measures. [2]

Our objectives were to detect the distribution and magnitude of the delta variant in comparison to other variants, investigate the vaccine efficiency against infection, and to clinically profile the cases infected by the delta variant.

A cross-sectional study was conducted for COVID-19 cases in June 2021 in Makkah city, all the samples were genetically tested to detect the variant type in regional labs. A total of 115 subjects were included in the study. All of the participants were positive for COVID-19. Moreover, all of the subjects had genomic sequencing to identify SARS-CoV-2 variants.

(56.5%) of cases were males and the mean age was (40.8±18.4 years, range=9-95years). The majority are Saudi nationals (87%) and lives in Makkah (87%). Most of the subject are employed (64.3%). Household (19.1%) in the study are higher than other employed subjects by percentage. (Table 1)

Table 1: Demographics

Demography	Category	n (%)				
Candar	Male	65 (56.5)				
Gender	Female	50 (43.5)				
	1-20	11 (9.6)				
Age	20-30	31 (27)				
	31-40	20 (17.3)				
	41-55	24 (20.9)				
	>55	29 (25.2)				
N1 - 42 124	Saudi	100 (87)				
Nationality	Non- Saudi	15 (13)				
Fuereles mesent	Unemployed	41 (35.7)				
Employment	Employed	74 (64.3)				

After the genomic sequences for the subjects, we found three types of variants: Alpha (B.1.1.7), Beta (B.1.351) and Delta (B.1.617.2). The Delta variant 101 (87.8%) was the predominant. 77 (67%) of the cases had symptoms. The majority had moderate symptoms (68.6%). 111(99.4%) recovered from the illness and only one case (0.6%) died. The percentage of vaccinated subjects (68%) is more significant than non-vaccinated (23.6%). Most of them took the Pfizer-BioNTech vaccine (72.1%). Only 36 (52.9%) took the second dose of the vaccine. 34 (29.8%) had confirmed exposure to a COVID-19 case. Only 17 (19.8%) have travel history. Where Four (23.5%) cases traveled to Country A, and four (23.5%) cases traveled to Country B.

63 (62.4%) Cases with delta variant received one dose of vaccine, 46 (73%) had Pfizer-BioNTech and 17 (27%) Oxford-AstraZeneca, 30 (47.6%) just took first dose only, and 33 (52.4%) cases were fully vaccinated. However, it did not significantly differ by vaccination status. (Table 2).

Table 2: Association between the variant type and vaccine

		Variant									
Vaccine	Alpha (%)	Beta (%)	Delta (%)	p value							
No	8 (72.7%)	1 (33.3%)	38 (37.6%)	5.23							
Yes	3 (27.3%)	2 (66.7%)	63 (62.4%)	5.23							
Type of Vaccine											
Pfizer- BioNTech	2 (66.7%)	1 (50%)	46 (73%)	0.56							
Oxford- AstraZeneca	1 (33.3%)	1 (50%)	17 (27%)	0.56							
Dose											
First	0 (0%)	2 (100%)	30 (47.6%)	4.02							
Second	3 (100%)	0 (0%)	33 (52.4%)	4.93							
Contact with	Covid-19 C	Case									
No	7	2	71	1.00							
Yes	4	0	30	1.08							
Travel History	/										
No	4	0	65	6.88							
Yes	3	1	13	0.88							

## Delta Variant among increased cases of COVID-19 in Makkah, June 2021. Cont...

In conclusion, an increased number of cases was primarily due to the introduction of the delta variant. Among our study group, delta variant shows high transmissibility compared with other variants detected. Most cases with travel history came from country A and B. Moreover, according to our results, there was a breakthrough infection. More genomic sequencing and conducting surveillance is highly recommended to detect and monitor emerging variants.

Keywords: delta variant, covid 19, Makkah.

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# The Foodborne Outbreak investigation: Hail city, Saudi Arabia, 2021. A case control study.

Reported by: Dr. Hamoud Alrougi, Dr. Eman Elsayed

Foodborne illnesses refer to diseases acquired through eating or drinking contaminated food or liquids. The most frequent causes of foodborne illnesses include bacteria, bacterial toxins, viruses, and parasites (1).

The symptoms of most foodborne illnesses include diarrhea, nausea, vomiting, and abdominal cramping. A foodborne illness can vary according to the pathogen, individual host factors (1).

Each year, unsafe food causes 600 million cases of foodborne disease and 420 000 deaths worldwide, resulting in the loss of 33 million healthy life years (DALY), according to the WHO (3).

On Saturday 31<sup>st</sup> of July 2021, Hail General Health Directorate reported unexpected number of patients had presented with gastrointestinal symptoms. All patients gave history of sharing a meal from fast food restaurant in Hail city.

We defined a foodborne disease probable case as previously well individual who suddenly developed any of the Following symptoms (diarrhea, abdominal pain ± vomiting, Fever) after eating a meal from fast food restaurant in Hail city. While individual who ate the same meal from the same fast-food restaurant in Hail city and didn't become ill is control.

A case control study design was conducted. All cases of foodborne recorded from 28<sup>th</sup> to 30<sup>th</sup> July 2021 in Hail city were traced, and relevant details were obtained. The search was also made for people who had taken fast food from the same restaurant but had not fallen ill and the data was recorded on the Epidemiological Case Sheet.

Between July 28th and 30th, 2021, a total of 33 cases were reported in this outbreak after eating at a fast-food restaurant in Hail City.

The first case symptoms began at 6 a.m. on July 29th, and the last case symptoms were reported at 12 a.m. on July 31st. All cases occurred between 9 and 38 hours. with a mean incubation period of 15.5 hours and a total of 48 hours on the Epi curve. (Fig1).

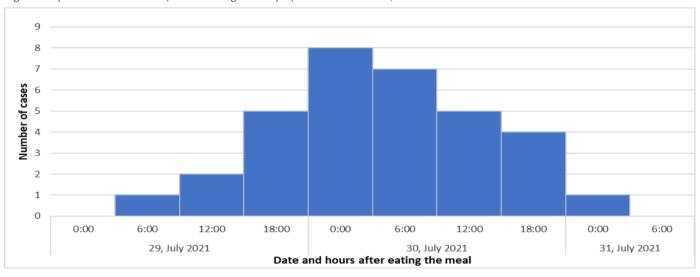


Figure 1: Epi curve distribution of cases among Hail city's foodborne outbreak, Saudi Arabia 2021

A total of 66 people were interviewed, with 33 (50%) meeting the definition of food poisoning and 33 (50%) acting as controls. The majority of cases (82 %) were Sau-

The minimum age was 3 years old, the maximum age 63 years old, mean (26.18 hrs.) and the most affected age group by this outbreak 10-19 years.

Diarrhea was present in 100% of the cases (33 cases), 84 % of the cases experienced abdominal discomfort and fever (28 cases), 57 % of the cases had vomiting (19 cases), and 27 % of the cases had nausea (9 cases).

Pizza, fried chicken, salad, garlic sauce, and tahina sauce were among the dishes prepared at the restaurant. Garlic sauce had the highest odd ratio number by 112.4 with a significant P value of less than 0.0001, indicating a strong association between garlic sauce and this outbreak. Stool cultures were performed on ten cases, six of which revealed Salmonella spp.

The outbreak's clinical-epidemiological profile hints at its cause. Diarrhea, abdominal pain and fever is a presenting feature of Salmonella spp. which is seen in the majority of cases in the current outbreak (4).

# The Foodborne Outbreak investigation: Hail city, Saudi Arabia, 2021. A case control study. Cont...

In 2018, a similar outbreak from a fast-food restaurant in Hail City was linked to Salmonella, with an incubation period ranging from 8 to 52 hours, suggestive clinical criteria, and positive laboratory results (5).

We believe that improper food storage at room temperature with bad hygiene could aggravate bacterial growth. According to epidemiological investigation and high odd ratio with significant p value the garlic sauce was incremented food item with salmonella bacteria as causative agent supported by incubation period and clinical characteristics.

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By the time Field Epidemiology Training program team arrived Hail the restaurant was closed by the local municipality as a precautionary measure to prevent more cases from occurring. For this reason, they don't have a chance to perform an environmental assessment.

Salad and pizza have also been linked to this outbreak due to significant p value. They may have contributed to the outbreak either by contamination with garlic sauce during serving as they are served together in a box or by food mixture during patient eating

Keywords: Foodborne, outbreak, case control

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# The Crimean Congo Hemorrhagic Fever Outbreak in North Part of Oman in August 2019 - A Case Series Study.

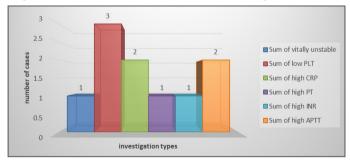
Reported by: Dr. Khalid Alsaadi, Dr. Eman Elsayed.

Crimean-Congo hemorrhagic fever (CCHF) is a viral (Nairovirus of the Bunyaviridae family) hemorrhagic and zoonotic tick-borne with a case fatality rate ranges from 2% to 50% and usual incubation period ranges 5-6 days. The patient may suffer from sudden onset of fever, malaise, weakness, irritability, headache, body aches and loss of appetite. Also, the patient may present late with bleeding from gums, nose, skin and petechial rash due to low platelets count (1).

In Oman, CCHF disease was first reported in 1995. Since then, sporadic cases have been diagnosed in different areas of the country. The surveillance system recorded 10 cases in 2013, 18 in 2014 and until the end of 2015, 20 cases have been reported in Oman (2).

Between 17<sup>th</sup> and 23<sup>th</sup> August 2019 (Eid Adha festival) directorate of public health and disease control in North region in Oman received notification of 4 cases of CCHF from different areas in North Region in Oman, (Swaig, Sohar, Shinas) 3 cases working in slaughter houses in Swaig, Shinas and Sohar and one case (case 2) secondary to first case. We prepared for field visit at the same day of notification along with teams from Ministry of Agriculture and Fisheries and Municipality. We conducted a case series to gather information using semi structured questionnaire between 17th August and 23th August 2019 in North Batinah region of Oman. The case definition was implicated according to Ministry of Health guideline (3).

Figure 1: Distribution of cases by vitals and investigation



The results showed that all cases are males (100%), with age ranges 40-55 years and 3 are Omanis. They are working in slaughterhouses except 1 and all patients had direct contact with fresh sheep's tissues with the average incubation period 8.4 days; (2-14 days), maximum incubation period was 14 days. The most frequent symptoms were fever (3/4) followed by gastrointestinal symptoms with case fatality rate of 25%. For investigation part, all were reactive to PCR for CCHFV, 2 had low WBC, while all had normal Hb, 3 had low platelets count while 2 had high hematocrit

and CPR. 1 had mild ascites in ultra-sound of abdomen.1 had high prothrombin time and INR while 2 had high APTT. From the patient who died (case number 3) we can estimate that the poor prognosis criteria are when a patient with CCHF presented with bleeding symptoms, hemodynamically unstable with very low platelets and high INR, PT, APTT.

From all above we can conclude that CCHF is high among males who are dealing with animals' tissues like butchers without precaution measures. Based on the symptoms, signs, lab investigations and incubation period (ranges 2-14 days), the causative agent is most likely CCHF Virus and the source of the outbreak was due to infected imported sheep through direct contact with infected biological tissues. It is mandatory to test and flag all the imported sheep on the main gate of the 3 ports in the North Region of Oman. High mortality is among those who have abnormal coagulopathy (PLT, INR, APTT, PT) while the mortality rate remains 25 % in the last 5 years (4).

Keywords: Crimean Congo Hemorrhagic Fever, Oman, 2019

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# خصائص حالات التسمم بالكلوركس في المملكة العربية السعوديه قبل واثناء جائحة كورونا كوفيد - 19, 2019 – 2020م

إعداد: د.حمود الروقي، د.جابر شراحيلي

الغالبية العظمى من الحالات في المنزل) (96.3٪) ، مع وجود نسبة مئوية أعلى أثناء الجائحة مقارنة يفترة ما قبل الجائحة (98٪ مقابل( 95.1٪) ، وقليل من الحالات حدثت عمدًا (9.3٪). وصلت معظم الحالات إلى المستشفى في حالة مستقرة ، مع وجود حالات قليلة (17٪) بحاجة إلى مضاد التسمم. شفيت الغالبية العظمى من الحالات قبل الخروج. بلغ معدل الإصابة بالتسمم الكلوركس 0.57 لكل 100000 من السكان خلال الجائحة ، مقارنة بـ 0.78 لكل 100000 في فترة ما قبل

ختاماً، حدث انخفاض في حدوث التسمم بالكلوروكس أثناء الجائحة مع زيادة نسبية في الحوادث المنزلية ، كما كان الغثيان والقيء من الأعراض الأكثر شبوعًا وقد تعافت جميع الحالات.

نوصى بشدة زيادة حملات التثقيف الصحى حول التخزين والاستخدام الآمن المنظفات والمطهرات. التسمم هو أحد اهم الأسباب الرئيسية للأمراض والوفيات على مستوى العالم، كانت هناك زيادة في استخدام المنظفات سواءاً في دور الرعاية الصحيه او البيئات المنزلية . ولأن الكلوركس هو الأكثر استخداماً لهذه الأغراض ،كان من المتوقع أن تكون هناك تغيرات في خصائص التسمم

تهدف هذه الدراسة إلى معرفة خصائص حالات التسمم بالكلوركس في المملكة العربية السعودية خلال جائحة كورونا كوفيد 19 مقارنة بفترة ماقيل الحائحة.

تم دراسة قائمة السجلات التي تم الإبلاغ عنها إلى وزارة الصحة في عام 2019 والتي تمثل ماقبل الجائحة (العدد = 267) و عام 2020 ( العدد = 198) مَثل خلال فترة الجائحة ومن ثم تم استرجاع البيانات من قاعدة البيانات الالكترونية وتحليلها بعد ذلك باستخدام برنامج SPSS.

كان هناك انخفاض العدد الإجمالي لحالات تسمم الكلوركس المبلغ عنها من 267 قبل الجائحة الى 198 حالة خلال الجائحة. كما أن نسبة الإناث أكثر بقليل من الذكور 55.7% مقابل 44.3 %، وكانت معظم الحالات في الفئات العمرية (1-5 سنوات) و (20-39 سنة) بنسبة (27.3%). حدثت

#### Field Epidemiology Training Program (FETP)

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## متحور ديلتا من بين الحالات المتزايدة لـ كوفيد-١٩ في مكة المكرمة، يونيو 2021م

إعداد: د.عبدالمحسن محمد الأحمد، د.شادي كامل

بعد اكتشاف مرض كورونا-١٩ في الصبن عام ٢٠١٩، تم اكتشاف متحورات مختلفة من الفيروس على مستوى العالم مثل ألفا وبيتا ودلتا. ولا يزال الأشخاص الذين تم تطعيمهم يتمتعون بفوائد جيدة حيث يعانون من مضاعفات أقل خطورة وفترة عدوى أقل. تتطلب هذه المتغيرات مزيدًا من الفهم لانتقال العدوى والتشخيص لاكتشافها مبكرًا وتقليل العدوى من خلال تطبيق أفضل التدابير الوقائية.

تم تأكيد اول حالة مصابة بالمرض في المملكة العربية السعودية في مارس ٢٠٢٠ لمواطن قادم من السفر من خارج المملكة. تعد منطقة مكة المكرمة من أكثر المناطق كثافة بالسكان من جميع الجنسيات مما يجعلها منطقة حرجة لدراسة الأوبئة والامراض ومعدلات انتشارها لتطبيق الإجراءات اللازمة للحد منها.

تم اجراء دراسة مقطعية لدراسة انتشار المتحورات ضمن مصابي كوفيد-١٩ وتم عمل لهم تسلسل جيني للمتحور.

من بين 115 مصابًا ب كوفيد-١٩ (متوسط العمر، 40 عامًا ؛ 56.5٪ ذكور) ، تلقى (47.1٪) لقاحًا بجرعة واحدة ؛ و (٥٢٪) تلقوا جرعتين من اللقاح ، (٢٣,٦٪) لم يتلقوا أي جرعة من اللقاح. بعد عمل التسلسل الجيني للفايروس، وجدنا ٣ انواع من المتحورات: الفا ، بيتا، وديلتا. كان متحور دیلتا هو السائد (۸۷,۸).

كان (٧٢,١٪) من الحالات قد حصلوا على لقاح فايزر و (١٦,٥٪) حصلوا على لقاح استرازينكا. معظم الحالات كانت لمتحور ديلتا (٨٧,٨٪)، ( ۲۸,۸٪) مخالطین لحالة مصابة بالمرض، و (۱۹,۸٪) کانوا عائدین من السفر خارج مرضية متوسطة (٦٨,٦٪). وبلغت نسبة التعافي (٩٩,٤٪) وحدثت حاله وفاة واحدة لاحد مصابي كوفيد-١٩٠ المملكة. اغلب الحالات عانت من اعراض

تشير هذه النتائج إلى أن معظم الحالات كانت أولية، وكان متغير دلتا هو السائد. علاوة على ذلك، كان هناك عدوى اختراق. كانت معظم الحالات خفيفة إلى متوسطة الاعراض. يوصى بشدة بدراسة المزيد من التسلسل الجيني للمتحورات لاكتشافها ومراقبة الوضع الوبائي لها.

#### Field Epidemiology Training Program (FETP)

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Dr. Suhair Saleh Alsaleh Epidemiology Specialist, Bulletin Editor

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Dr. Sahibzada Azhar Mujib

## فاشية الأمراض المنقولة بالغذاء: مدينة حائل، المملكة العربية السعودية، 2021 م

إعداد: د.حمود الروقي، د.اهان السيد

أفادت المديرية العامة لصحة حائل في 31 تموز / يوليو بتسجيل عدد فوق المتوقع من المرضى التي ظهرت عليهم أعراض في الجهاز الهضمي حيث أفاد جميعهم عن تناول وجبة من مطعم للوجبات السريعة في مدينة حائل في الفترة من 28 إلى 30 يوليو 2021م.

كانت اهداف فريق التقصى الوبائي هي تأكيد وجود الفاشية، التشخيص الدقيق، تعريف الحالات وتحديدها، تحديد مصدر التفشي، تحديد العامل المسبب إن أمكن وطريقة انتقاله، والتوصية بالتدايير الوقائية التي سيتم تطبيقها من أجل منع تفشى الأمراض المماثلة في المستقبل.

تم دراسة الحالات والشواهد في استقصاء الفاشية لتحديد المصدر. تم تحديد الحالة على أنها الشخص الذي كان سليم سابقًا و ظهرت عليه أي من الأعراض التالية (الإسهال ، ألم البطن ± القيء ، الحمي) بعد تناول وجبة من مطعم للوجبات السريعة في مدينة حائل في الفترة من 28 إلى 30 يوليو 2021م. اما من تناول نفس الوجبة من نفس مطعم الوجبات السريعة في مدينة حائل في الفترة من 28 إلى 30 يوليو 2021م ولم تظهر عليه اعراض تم اعتبارها شواهد. قمنا بجمع معلومات عن التركيبة السكانية والأعراض والتاريخ الغذائي باستخدام استبيان. تم فحص الملفات الطبية للمرضى وتسجيل العلامات الحيوية ووقت التعرض وظهورالأعراض. كما قمنا بتتبع نتائج المعامل للحالات ومقدمي الطعام والمواد الغذائية.

بينت النتائج وجود 33 حالة (52%) من المرضى كانوا من الذكور. كان متوسط عمر الحالات (26.18) سنة. جميع الحالات 100% عانت من الإسهال بينما 84% منهم عاني من التقلصات المعوية. كانت فترة الحضانة الدنيا والقصوى 9 و38 ساعة على التوالي. من بين 5 مواد غذائية تم تناولها ارتبطت صلصة الثوم بشكل كبير بالمرض بناء على التحليل الإحصائي. لم يتم تسجيل وفيات بين الحالات. كما أظهرت نتائج المختبر ستة من عشره عينات البراز كانت إيجابية لبكتيريا السالمونيلا.

بناءً على الاستقصاء الوبائي والأعراض والتحقيق والنتائج المعملية، كانت صلصة الثوم مع بكتيريا السالمونيلا عاملاً مسبباً لهذه الفاشية. ختاماً، نوصي بمستوى أعلى من الإشراف والفحص الدوري للمطاعم والعاملين فيها، وينبغى زيادة التعاون بين مختلف السلطات المشاركة في مثل هذه

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# تفشَّى حمى الكونغو القرمية النزفية في الجزء الشمالي من سلطنة عمان في أغسطس٢٠١٩ -

إعداد: د.خالد السعدى، د.إيان السيد

حمى الكونغو القرمية النزفية هي مرض فيروسي (نايروفيروس من عائلة بونيافيريدي) ينقله القراد النزفي. تتراوح فترة الحضانة للمرض بين ٥ إلى٦ أيام ومعدل وفيات المرض بين ٢% و٥٠%. يعاني المريض من حمي، ضعف، تهيج أو صداع مع أوجاع في الجسم وفقدان الشهية. كذلك، قد يعاني المريض من نزيف من اللثة، والأنف، والجلد، والطفح الجلدي بسبب انخفاض عدد الصفائح الدموية.

تم الإبلاغ في سلطنة عمان عن مرض الحمى النزفية لأول مرة في عام ١٩٩٥ومنذ ذلك الحين، تم تشخيص حالات متفرقة في مناطق مختلفة من البلد حيث سجل نظام المراقبة ١٠ حالات في عام ٢٠١٣ و١٨ حالة في عام ٢٠١٤ وحتى نهاية عام ٢٠١٥ تم الإبلاغ عن ٢٠ حالة في عمان.

تلقت مديرية الصحة العامة ومكافحة الأمراض في منطقة شمال عمان بين١٧ و٢٣ أغسطس ٢٠١٩ (عيد الأضحى) إخطارا بـ ٤ حالات إصابة بالحمى النزفية من مناطق مختلفة في شمال عمان (السويق وصحار وشناص) ٣ حالات تعمل في مذبح في السويق وصحار وشناص وحالة واحدة (الحالة الثانية) ثانويه للحالة الأولى، وقد أعددنا لزيارة ميدانية في نفس اليوم من الإخطار مع فرق من وزارة الزراعة والثروه الحيوانيه والبلدية. قمنا بإجراء سلسلة من الحالات لجمع المعلومات باستخدام استبيان بين ١٧ و٢٣ أغسطس ٢٠١٩ في منطقة شمال عمان. وقد تم تعريف الحالة وفقًا للمبدأ التوجيهي لوزارة الصحة العمانيه.

وأظهرت النتائج أن جميع الحالات هي ذكور (١٠٠١%)، وتتراوح أعمارهم بين ٤٠ و٥٥ سنة و٣ حالات عمانين. وهم يعملون في المذبح ما عدا حاله واحدة، كما أن جميع المرضى كانوا على اتصال مباشر بأنسجة الحيوان مع متوسط فترة الحضانة التي تبلغ ٨,٤ أيام؛ (من يومين إلى ١٤

يوماً)، كانت فترة الحضانة القصوى ١٤ يوماً. وكانت الأعراض الأكثر تكراراً هي الحمي(٣/٤) التي أعقبتها أعراض الجهاز الهضمي مع معدل الوفاة في حالة إصابة ٢٥%. بالنسبة للفحوصات المخبريه، كان الجميع البالى الفحص اللمره (PCR) بالنسبة لفروس الحمى النزفيه CCHFV، وكان ٢ لديهم كريات الدم البيضاء (WBC)منخفض ٣٠ كان لديهم عدد الصفائح الدمويه منخفض بينما ٢ كان لهم hematocrit والCRP مرتفع، في حين الحالة الأولى كان لديه وقت البروثرومبين (PT) وINR) مرتفع في حين كانت الحالة الثانية لديهم PTT مرتفع. نستنتج من المريض الذي توفي (الحالة رقم ٣) معايير الوفاه عندما يعاني مريض من أعراض النزيف، وعدم استقرار الدورة الدموية مع الصفائح الدموية المنخفضة جدا وارتفاع نسبة INR، PT، INR

ومما سبق نستنتج أن الحمى النزفية مرتفع بين الذكور الذين يتعاملون مع أنسجة الحيوانات مثل الجزارين من دون اتخاذ تدابير وقائية. واستناداً إلى الأعراض والإشارات والتحقيقات المعملية وفترة الحضانة (تتراوح بين ٢-١٤ يوماً)، فإن العامل المسبب للمرض هو فيروس CCHF ومصدر التفشي كان راجعاً إلى خراف مستوردة مصابة من خلال الاتصال المباشر بالأنسجة البيولوجية. كما أن ارتفاع معدل الوفيات هو من بين الذين لديهم اعتلال غير طبيعي PT ، APTT ،INR ،(PLT في حين أن معدل الوفيات لا يزال ٢٥ ٪ في السنوات الخمس الأخيرة. من الضروري فحص جميع الحيوانات المستوردة وفرزها على البوابات الرئيسية للموانئ الثلاثة في منطقة شمال عمان.

### The Saudi Epidemiology Bulletin welcomes reports from the regions. Send correspondence, comments, calendar listing, or articles to:

### Saudi Epidemiology Bulletin

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## Top Twenty Reported Diseases by Regions, Kingdom of Saudi Arabia, (June-2022).

Diseases	Riyadh	Makkah	Jeddah	Taif	Madinah	Qassim	Eastern	Ahsa	Hafr Al-Batin	Asir	Bisha	Tabuk	Hail	Al-Shamal	Jizan	Najran	Baha	Al-Jouf	Goriat	Gonfuda	Total
Influenza (Seasonal)	562		105				129	4													800
Hepatitis B	64	182	66	7	20	15	22	21		7	4	22	3	4	43	14	11	3		2	510
Pulmonary Tuberculosis	37	22	64	29	13		23	4		6		5	2		43	2	1		6	1	258
Brucellosis	18	19	20	19	20	15	6	6	1	2	32	5	15	3		22	3	5		1	212
Salmonella infection	44	5	64		2		32	2				1				2	4				156
Hepatitis C	22	31	29	4	4	4	19	2		2	7		2			1	4			1	132
Chicken pox	13	4	15	8	23	15	11	2	5		5	1	1	4	3	6	1			1	118
Amoebiasis	3		11			1	73	4	2				6			6	1				107
VHF - Dengue fever		10	79	1						1					3						94
Malaria	13	4	12	12	9	2	9	5		3		1	1	1	6	8		1		1	88
Scorpion sting	8				61	16	1									1					87
Animal Bite	2				11	52	8			1	1				3	3	2				83
Extra-Pulmonary Tuberculosis	8	5	13	5	3		3	1							14		1				53
Severe acute resp. syndrome							30	2													32
Leishmaniasis Cutaneous	1					1	1	16		1		2				2					24
Hand foot and mouth disease							18	2													20
Scabies		1	4	2	1	1	3	2			1	5									20
Measles	4	1	4				3					2		4							18
VHF - Dengue (severe) fever		7	8												1						16
Bordetella/Pertussis	1		2		1		6														10

## Top Twenty Reported Diseases by Gender, Age and Nationality, Kingdom of Saudi Arabia, (June-2022).

Diseases	Gen	ıder		Α	Nationality					
Discases	Male	Female	0-4	5-14	15-29	30-59	60 & above	Saudi	Non-Saudi	
Influenza (Seasonal)	420	380	187	256	111	159	87	744	55	
Hepatitis B	308	202	2	0	35	376	97	428	82	
Pulmonary Tuberculosis	188	70	1	2	89	135	31	88	169	
Brucellosis	155	57	4	22	47	105	34	154	58	
Salmonella infection	79	77	81	22	12	24	17	121	35	
Hepatitis C	86	46		3	20	66	43	88	44	
Chicken pox	73	45	8	20	58	30	2	84	34	
Amoebiasis	51	56	15	15	30	41	6	65	42	
VHF - Dengue fever	81	13	2	3	30	54	5	36	58	
Malaria	66	22	2	1	29	51	5	13	75	
Scorpion sting	63	24	5	9	25	40	8	53	34	
Animal Bite	55	28	2	9	26	44	2	59	24	
Extra-Pulmonary Tuberculosis	37	16	3	2	12	32	4	26	27	
Severe acute respiratory syndrome	23	9	1		8	20	3	19	13	
Leishmaniasis Cutaneous	20	4		5	4	12	3	14	10	
Hand foot and mouth disease	9	11	8	10	2			20		
Scabies	11	9	2	2	5	11		12	8	
Measles	9	9	7	4	5	2		14	4	
VHF - Dengue (severe) fever	15	1			7	9		4	12	
Bordetella/Pertussis	6	4	6	2	1		1	6	4	

### Top Twenty Reported Diseases, National Surveillance data and Trend, Kingdom of Saudi Arabia, (June-2022).

	Cı	urrent Year 202	22	Previous Year 2021					
Diseases	Jun-2022 Cases	Cumulative total since 1st June	Current rate*	Jun-2021 Cases	Cumulative total since 1st June	Previous rate*			
Influenza (Seasonal)	800	800	2.2	0	0	0			
Hepatitis B	510	510	1.4	353	353	0.98			
Pulmonary Tuberculosis	258	258	0.71	191	191	0.53			
Brucellosis	212	212	0.58	207	207	0.58			
Salmonella infection	156	156	0.43	217	217	0.61			
Hepatitis C	132	132	0.36	156	156	0.44			
Chicken pox	118	118	0.32	50	50	0.14			
Amoebiasis	107	107	0.29	125	125	0.35			
VHF - Dengue fever	94	94	0.26	294	294	0.82			
Malaria	88	88	0.24	27	27	0.08			
Scorpion sting	87	87	0.24	96	96	0.27			
Animal Bite	83	83	0.23	59	59	0.16			
Extra-Pulmonary Tuberculosis	53	53	0.15	45	45	0.13			
Severe acute respiratory syndrome	32	32	0.09	0	0	0			
Leishmaniasis Cutaneous	24	24	0.07	10	10	0.03			
Hand foot and mouth disease	20	20	0.05	10	10	0.03			
Scabies	20	20	0.05	25	25	0.07			
Measles	18	18	0.05	0	0	0			
VHF - Dengue (severe) fever	16	16	0.04	39	39	0.11			
Bordetella/Pertussis	10	10	0.03	0	0	0			

<sup>\*</sup> Rate per 100,000 Population

### **Important Consideration!**

Due to migration of HESN into HESN plus. The data from January 2022 to May 2022 is not available in the HESN plus system. Third summary table of this report, comparison of diseases for current and the last year are referenced from June 2022 and June 2021 instead of January 2022 and January 2021.

Data contained within these tables are based on available information extracted from HESN+ database by the time of publishing of the bulletin Issue. Please note that Covid-19 is excluded from the Top twenty diseases list.

Contributions to this publication are invited in the form of concise reports on surveillance issues or outbreak investigations. Please send contributions to: Surveillance and Data Management Unit, Assistant Agency for Preventive Health, Ministry of Health.





النشرة الوبائية السعودية Saudi Epidemiology Bulletin