

Current major event

Update on Hepatitis E Virus outbreak in Sudan

Since early June 2021, a total of 2675 suspected Hepatitis E Virus (HEV) cases, including 24 associated deaths have been reported from seven states in Sudan. While more than 70% of total cases were reported from refugee camps in Gedarif State, most deaths (87%) were reported from North Darfur state.

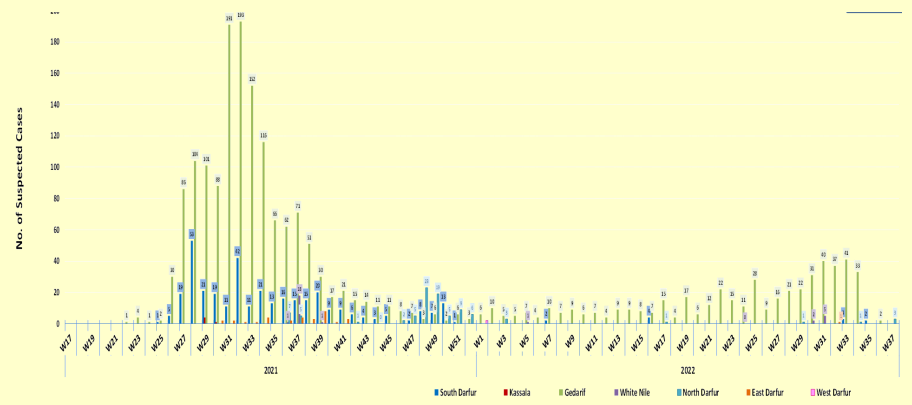
Editorial note

The HEV infection is usually self-limiting and resolves within 2–6 weeks. The clinical features of hepatitis E (all genotypes) are similar to those of acute viral hepatitis caused by other hepatotropic viruses. Pregnant women with hepatitis E, particularly those in the second or third trimester, are at increased risk of acute liver failure, fetal loss and mortality. Up to 20% to 25% of pregnant women can die if they get hepatitis E in their third trimester.

The first confirmed outbreak of HEV infection in Sudan was reported from Darfur region in 2004, an area severely affected by the civil conflict in the country with internally displaced people (IDP) residing in camps where water, sanitation and hygiene services are severely compromised. The IDP camps in Darfur have experienced recurring outbreaks of HEV infection with high case fatality observed among pregnant women.

This current surge of HEV cases was initially reported from East Jabal Marra, South Darfur in June 2021. Other than that, the other cases were reported in two states with Ethiopian refugee camp settings. The highest number of cases were reported from Rakouba camp (Gedarif) and East Jabal Marra (South Darfur) accounting for 45% and 13% cases, respectively. In total, Gedarif reported 2134 cases (80% of the total cases), followed by South Darfur state reported 369 cases (14% of the total cases) (*see table*). A total of 24 deaths have been reported so far. The highest number of deaths were reported from North Darfur 21 (87% of the total reported deaths), followed by Gedarif (2, 8%) and White Nile (1, 4%) leading to 0.9% overall case-fatality ratio. Around 157 samples have been collected and tested by PCR. Out of those, more than 69 were HEV-positive. The reported cases showed

Distribution of HEV suspected cases by week of reporting, Sudan



HEV cases reported from Sudan till epi week 37

State	Cases	Deaths
East Darfur	32	0
Gedarif	2134	2
Kassala	18	0
North Darfur	92	21
South Darfur	369	0
West Darfur	2	0
White Nile	28	1
Total	2675	24

that males are more affected (M:F 1.5) and the most affected age group is 15–30 year-olds (accounting for 50% of the total cases reported), followed by 30–45 year-olds. The highest number of cases were reported during epidemiological week 33 during 2022 (*See graph*).

Sudan Federal Ministry of Health, WHO and other partners continue to monitor the HEV outbreak situation while supporting prevention and control measures interventions to control the outbreak, such as improving access to safe water, sanitation and hygiene services in all refugees and IDP sites. In addition to enhancing surveillance and laboratory capacities in all affected areas.

There is no specific treatment for hepatitis E other than general supportive care. Therefore, prevention is the most effective approach, by maintaining quality standards of public water supplies and implementing adequate disposal systems for stool and general personal hygiene measures. WHO advocates for using hepatitis E vaccines to combat or prevent outbreaks of hepatitis E, as well as to mitigate its effects in high-risk groups such as pregnant women and people living in camps.

Update on outbreaks in the Eastern Mediterranean Region

COVID-19 in 22 EMR countries

Current public health events of concern

[cumulative N° of cases (deaths), CFR %]

Coronavirus disease 2019 (COVID-19): 2019-2022

Afghanistan	[198 455 (7797), 3.9%]
Bahrain	[678 280 (1520), 0.2%]
Djibouti	[15 690 (189), 1.2%]
Egypt	[515 371 (24 797), 4.8%]
Iran (Islamic Republic of)	[7 546 673 (144 382) 1.9%]
Iraq	[2 459 505 (25 352), 1%]
Jordan	[1 746 997 (14 122), 0.8%]
Kuwait	[658 520 (2563), 0.4%]
Lebanon	[1 214 892 (10 670), 0.9%]
Libya	[506 955 (6437), 1.3%]
Morocco	[1 264 872 (16 278), 1.3%]
occupied Palestinian territory (oPt)	[702 768 (5707), 0.8%]
Oman	[398 424 (4628), 1.2%]
Pakistan	[1 572 316 (30 612), 1.9%]
Qatar	[446 277 (682), 0.2%]
Saudi Arabia	[815 743 (9341) 1.1%]
Somalia	[27 207 (1361), 5%]
Sudan	[63 280 (4961), 7.8%]
Syrian Arab Republic	[57 267 (3163), 5.5%]
Tunisia	[1 145 686 (29 249), 2.6%]
United Arab Emirates	[1 025 213 (2343), 0.2%]
Yemen	[11 935 (2157), 18.1%]