

Ebola virus disease outbreak in Guinea, 2021

22 February 2021

Summary

On 14 February 2021, national authorities declared an Ebola virus disease (EVD) outbreak in the rural area of Gouéké in Nzérékoré region, Guinea. As of 18 February 2021, seven EVD cases (three confirmed and four probable) have been identified, including five deaths. The first case died on 28 January 2021. Response measures have been initiated and the World Health Organization is supporting the country to procure EVD vaccine doses, as well as therapeutics, reagents and personal protective equipment. Neighbouring countries have initiated response plans. So far, no neighbouring countries have reported confirmed cases.

These are the first EVD cases reported in Guinea since the large outbreak that occurred in West Africa between 2013 and 2016. This ongoing outbreak may increase in size and spread to other areas within Guinea and/or to neighbouring countries.

Risk assessed

Overall, the current risk for European Union/European Economic Area (EU/EEA) citizens living in or travelling to affected areas in Guinea is considered low, as while disease in unvaccinated people is severe and most EU/EEA citizens are not commonly vaccinated against the disease there is a very low likelihood of infection of EU/EEA citizens in Guinea. The current risk for citizens in the EU/EEA is considered very low, as the likelihood of introduction and secondary transmission within the EU/EEA is very low.

Options for response

EU/EEA visitors and residents in Guinea should apply the following precautionary measures:

- Avoid contact with symptomatic patients/their bodily fluids, and bodies and/or bodily fluids from deceased patients;
- Avoid the consumption of bush meat and contact with wild animals, both alive and dead;
- Wash and peel fruit and vegetables before consumption;
- Wash hands regularly using soap or antiseptics;
- Ensure safe sexual practices.

Significant developments for the prevention of EVD have been made, with two vaccines (Ervebo and Zabdeno/Mvabea) now licensed for use in several countries, including in the EU. Guinea has approved the Ervebo vaccine.

Screening of travellers returning from Guinea is not justified at this stage.

Event background

On 14 February 2021, national authorities declared an Ebola virus disease (EVD) outbreak in the rural area of Gouéké, Nzérékoré region, Guinea. Guinea was one of the three most-affected countries in the EVD outbreak in West Africa between 2013 and 2016, which was the largest outbreak of Ebola virus disease ever recorded. During the West Africa EVD outbreak, there were over 28 000 cases, including around 11 000 deaths reported [1]. The 2013-2016 outbreak started in Guinea, in the same area as the current outbreak, and then moved across land borders to result in major epidemics in Sierra Leone and Liberia, with several sporadic cases occurring in other countries, including EU/EEA countries [2,3].

As of 18 February 2021, seven EVD cases (three confirmed and four probable) have been identified in the area of Gouéké, Nzérékoré region, Guinea [4]. According to the World Health Organization (WHO) and the Ministry of Health of Guinea, the index case was a healthcare worker [4]. Between 18 January and 24 January 2021, the patient visited two healthcare facilities and a traditional practitioner while symptomatic; the patient died on 28 January 2021. Five family members who attended the funeral on 1 February and the traditional practitioner the patient had visited showed Ebola-like symptoms such as diarrhoea, vomiting and bleeding.

Five of the seven cases have died; the other two remaining cases (both confirmed cases) have been isolated in healthcare facilities in Nongo (Conakry prefecture) and in Gouéké (Nzérékoré prefecture).

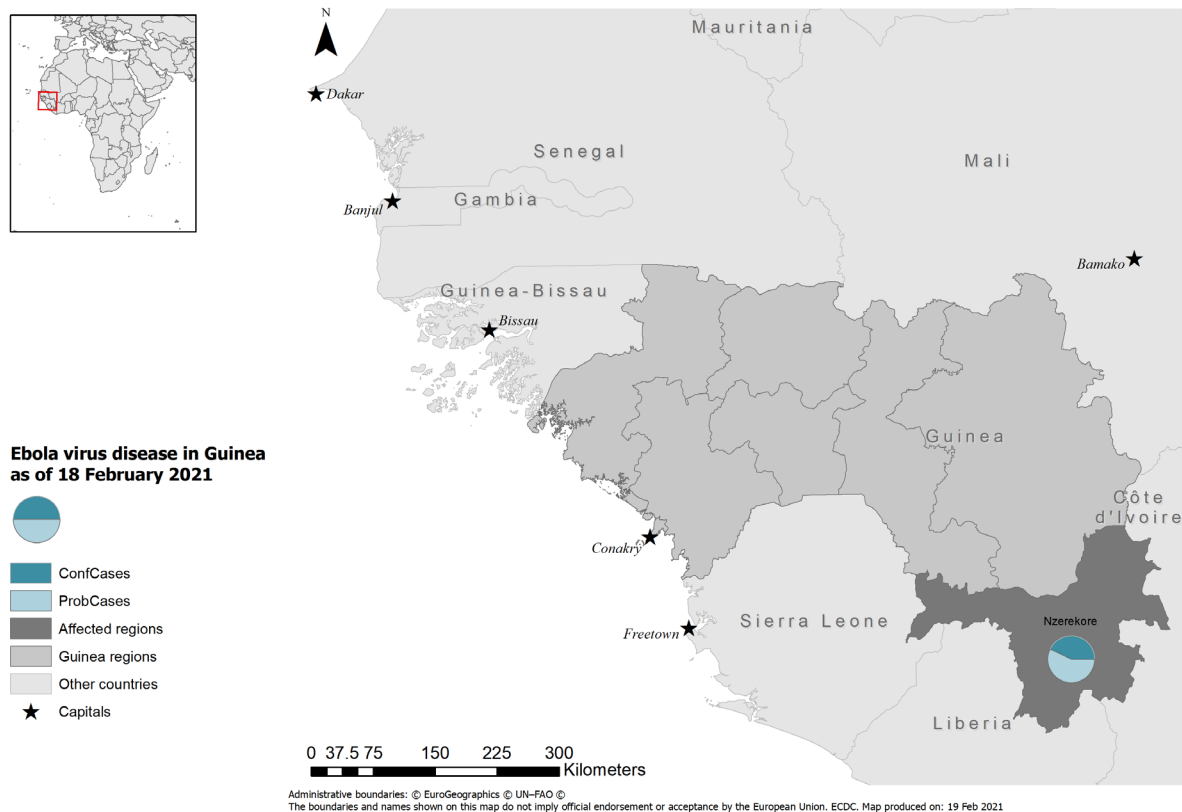
Unsafe burials occurred for two of the five reported deaths without any safety or protective measures to avoid transmission, although contact tracing was undertaken retrospectively [5].

Samples of the confirmed cases have been sent to the Institut Pasteur in Senegal for full genome sequencing; preliminary results confirmed that these cases were infected with the *Zaire* species of the *Ebolavirus* genus, which was the species that was circulating in the 2013–2016 EVD outbreak.

As of 16 February 2021, 250 contacts have been identified, of which 243 have been traced, including contacts from two prefectures (Conakry and Nzérékoré). Guinea and neighbouring countries are tracking and testing suspected cases [6].

Response measures have been initiated, and WHO is supporting Guinea to procure an EVD vaccine, as well as therapeutics, reagents and personal protective equipment [4]. As the outbreak is located in an area close to national borders, WHO is also liaising with health authorities from Liberia and Sierra Leone to enhance surveillance activities in their bordering districts as well as strengthening their testing capacity. WHO is also in contact with Côte d'Ivoire, Mali, Senegal and other countries considered at risk in the sub-region. According to media sources, Sierra Leone has upgraded its health emergency response plan, and the border with Guinea is closed [7]. Africa Centres for Disease Control and Prevention is preparing to deploy an emergency response support team of experts [8]. A meeting between an international team of humanitarian partners, including UNICEF and the Red Cross, to assess the scale of the outbreak and strategise interventions, was planned for 19 February 2021 [5].

The Guinean Ministry of Health, together with Global Outbreak Alert and Response Network (GOARN) partners, have initiated measures to control the outbreak and prevent further spread [4]. Multidisciplinary teams have been deployed to the field to actively search and provide care for cases, trace and follow up contacts, and sensitise communities regarding infection prevention and control. Planned and in-progress response measures include the initiation of a ring vaccination strategy and the vaccination of frontline workers, as well as strengthening the capacity of the Nzérékoré Ebola Treatment Centre.

Figure 1. Distribution of confirmed and probable Ebola virus disease cases in Guinea, 2021

Risk assessment questions

- What is the risk for EU/EEA citizens living in or travelling to affected areas in Guinea to be affected by the current outbreak of EVD?
- What is the risk of the introduction and spread of the Ebola virus circulating in the Nzérékoré region, Guinea within the EU/EEA?

ECDC risk assessment

In this document, the risk was assessed following ECDC's rapid risk assessment methodology [9].

These EVD cases are the first cases of the disease reported in Guinea since the large outbreak occurred in West Africa between 2013 and 2016. The source of infection of the first human case in this current epidemic is unknown. Importation of the infection via travellers from an Ebola virus-endemic country is a possible scenario. A spill-over event from animal reservoirs is another potential source of the infection. Some bat species are reservoir hosts for Ebola virus in Central Africa. However, the evidence for competent animal reservoirs of the virus in West Africa is inconclusive and the role of other animals such as non-human primates as (intermediate) hosts remains unclear [10].

The ongoing outbreak may spread to other areas within Guinea and/or to neighbouring countries. During the 2013–2016 outbreak in West Africa, Guinea acquired essential experience, which is an asset to adequately respond to this outbreak, including the timely identification and isolation of cases to prevent further transmission. The ongoing COVID-19 pandemic and other ongoing outbreaks (e.g. yellow fever and measles) might challenge the response.

Risk to EU/EEA citizens living in or travelling to affected areas in Guinea

Considering the limited size of the outbreak to date and the fact that its epicentre is in a rural area (Gouéké), the probability that EU/EEA citizens living in or travelling to an EVD-affected area of Guinea will be exposed to the virus is very low, provided that they adhere to the recommended precautionary measures outlined in the first section of the 'Options for response' below. Transmission requires direct contact with blood, secretions, organs or other bodily fluids of dead or living infected persons or animals, all of which are unlikely exposures for EU/EEA tourists or

expatriates to Guinea as there are currently only a limited number of cases in the country and public health measures are in place.

An increase in cases and, most importantly, the occurrence of chains of transmissions in populated areas and cities such as Conakry would increase the likelihood of exposure of EU/EEA citizens to Ebola virus.

Although the disease in unvaccinated people is severe and EU/EEA citizens are not commonly vaccinated against the disease, considering the very low likelihood of infection of EU/EEA citizens in Guinea, the impact for EU/EEA citizens living and travelling in affected areas in Guinea is considered low.

Overall, the current risk for EU/EEA citizens living in or travelling to affected areas in Guinea is considered low.

Staff members of humanitarian, religious and other organisations, particularly healthcare workers in direct contact with patients and/or local communities in the affected areas, are more likely than EU/EEA tourists or expatriates to be exposed to the virus. The likelihood of infection is currently low, provided that they adhere to the appropriate infection prevention and control measures [11]. EU/EEA citizens deployed to support the response to the outbreak are more likely than EU/EEA tourists or expatriates to be vaccinated against the disease, reducing its impact.

The overall risk for EU/EEA citizens deployed in response to the outbreak is considered low.

Risk of introduction and spread within the EU/EEA

The most likely route by which the Ebola virus could be introduced to the EU/EEA is through infected people from affected areas travelling to the EU/EEA or the medical evacuation of cases to the EU/EEA. According to the International Air Travel Association, there were approximately 57 000 travellers arriving from Guinea to the EU/EEA in 2019 [12]. Considering that the number of travellers has substantially decreased due to the COVID-19 pandemic and associated travel restrictions, the likelihood of the introduction of the virus into the EU/EEA via an infectious traveller is very low.

The likelihood of secondary transmission of Ebola virus within the EU/EEA and the implementation of sustained chains of transmission within the EU/EEA is very low, as cases are likely to be promptly identified and isolated and follow-up control measures are likely to be implemented. During the large EVD outbreak in West Africa between 2013 and 2016, there was only one case of local transmission in the EU/EEA (in Spain), a healthcare worker attending to an evacuated EVD patient [13].

Although the disease in unvaccinated people is severe and EU/EEA citizens are not commonly vaccinated against the disease, considering the very low likelihood of introduction and secondary transmission of the virus within the EU/EEA, the impact for EU/EEA citizens living in the EU/EEA is considered very low.

Overall, the current risk for the citizens within the EU/EEA is considered very low.

Options for response

EU/EEA visitors and residents in Guinea

EU/EEA visitors and residents in affected areas in Guinea should apply the following precautionary measures:

- Avoid contact with symptomatic patients/their bodily fluids, bodies and/or bodily fluids from deceased patients;
- Avoid the consumption of bush meat and contact with wild animals, both alive and dead;
- Wash and peel fruit and vegetables before consumption;
- Wash hands regularly using soap or antiseptics;
- Ensure safe sexual practices.

Vaccines in the EU/EEA

Significant developments for the prevention of EVD have been made, with two vaccines now licensed for use in several countries, including in the EU [14-17]. The first of these vaccines is the Ervebo vaccine, which is a recombinant rVSVΔG-ZEBOV-GP live vaccine manufactured by Merck [18]. It was prequalified by WHO on 12 November 2019, and therefore allows its procurement for at-risk countries. Guinea has approved the vaccine [19,20].

The second of these vaccines is a two-component vaccine (Zabdeno/Mvabea) manufactured by Janssen [15,16].

More information about EVD vaccines is available on ECDC's website.

Treatments

Recent advances have also been made in the treatment of EVD.

Inmazeb is manufactured by Regeneron Pharmaceuticals, and is a mixture of three monoclonal antibodies (atoltivimab, maftivimab, and odesivimab-ebgn). The drug was approved for use in the United States in October 2020 [21].

Ebanga (Ansuvimab-zykl) is manufactured by Ridgeback Biotherapeutics, and is a human monoclonal antibody (mAb114). The drug was approved for use in the United States in December 2020 [22].

More information about EVD treatment is available on [ECDC's website](#).

Screening of travellers

Screening of travellers returning from Guinea is not justified at this stage.

Options for information and communication

In order to minimise the time between onset of symptoms, isolation and diagnosis, people who travel to or return from Guinea should be informed about:

- the possibility of exposure to Ebola virus while visiting affected areas;
- the clinical presentation of the disease and the need to seek immediate medical care if symptoms develop;
- the need to immediately disclose their travel history when seeking medical care and to do so before arriving at a healthcare facility;
- the need to indicate any possible contact with sick individuals or wild animals while in the affected country;
- the procedure for contacting local public health authorities if infection is suspected.

In addition, healthcare providers in the EU/EEA should be informed of and sensitised to:

- the possibility of EVD among travellers returning from affected areas;
- the clinical presentation of the disease and the need to enquire about travel history and contacts in people returning from EVD-affected countries;
- the availability of protocols for the ascertainment of possible cases and procedures for referral to healthcare facilities;
- the imperative need for strict implementation of barrier management, use of personal protective measures and equipment and disinfection procedures in accordance with specific guidelines and WHO infection control recommendations when providing care to EVD cases.

Source and date of request

ECDC internal decision, 17 February 2021.

Consulted experts

ECDC experts (in alphabetic order): Tamas Bakonyi, Olivier Briet, Carlos Carvalho, Céline Gossner, Joana Haussig, Emily Scott, Ariana Wijermans.

Disclaimer

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This report was written with the coordination and assistance of an Internal Response Team at the European Centre for Disease Prevention and Control. All data published in this risk assessment are correct to the best of our knowledge at the time of publication. Maps and figures published do not represent a statement on the part of ECDC or its partners on the legal or border status of the countries and territories shown.

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