

Abstract

Overseas Ebola Virus Outbreak and Responses

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Ebola virus disease outbreak have been reported sporadically since the first case reported at DR Congo in 1976. Zaire Ebola virus is one of the 6 sub species of Ebola virus which has continued to be epidemic in the last three years at DR Congo. The country is demonstrating control of deadly endemic diseases through the use of the Zaire Ebola virus vaccine and systematic response strategies. Response to the Ebola epidemic basically include control of the moving population, test, tracing of contacts, isolation and treatment, safe funeral, and training of health care worker. Characteristic strategies for Ebola endemic include ring vaccination, mother and child care, and survivor management. There are currently no reports of Ebola virus cases in Korea but the presence of natural host in Africa makes it unpredictable when the Ebola epidemic occurs. Also, the possibility of secondary infection through survivors cannot be ruled out, so symptom monitoring, voluntary report and management for those visited emerging areas are important.

Keywords: Ebola virus infection, Epidemic status, Response, Vaccine

Table 1. Recent Ebola virus disease outbreaks (2018–2020)

Outbreak period	Country of origin	Virus type	Cases	Death	Fatality rate (%)	Region
2020.6. – 2020.11.	DRC*	Zaire	130	55	42.3	State of Equateur
2018.5. – 2020.5.	DRC*	Zaire	3,470	2,287	65.9	State of North Kivu · Ituri
2018.4. – 2018.6.	DRC*	Zaire	54	33	61.1	State of Equateur

* DRC: Democratic Republic of the Congo

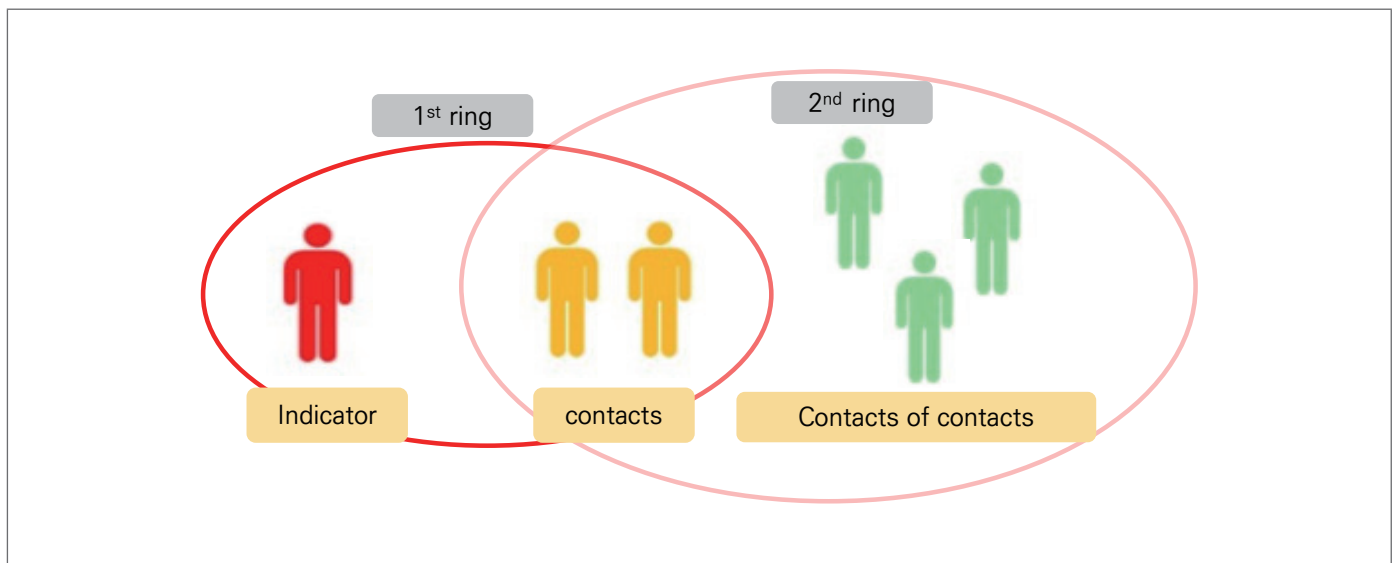


Figure 1. Ring vaccination strategy

Table 2. Decision making for mother–baby dyads affected by Ebola

Status	Mother	Child	Guidance
Ebola	Positive (+)	Positive (+)	BMS* feeding
	Positive (+)	Negative (–)	Separation and BMS* feeding
	Negative (–)	Positive (+)	
	Negative (–)	Negative (–)	Continued breast feeding

* BMS: Breast milk substitutes

Table 3. Reported suspected cases in Republic of Korea (2018–2020)

Year	Nationality	Visited countries	First notice	Isolation site	Epidemiological risk	Sign and symptom	Lab result	
							Ebola	Exclusive test
2020	Korea	DR Congo	Hospital	National Designated Isolation Unit	Low	Fever (37.8°C) Myalgia, Diarrhea	Neg	Neg
2019	Korea	DR Congo	Quarantine office		Low	Fever (38.5°C), Diarrhea, Vomiting	Neg	Not tested
	Korea	Uganda	Hospital		Low	Fever (40.5°C), Myalgia, Headache	Neg	Pos (malaria)
	Korea	DR Congo	Hospital		Low	Fever (37.8°C), Abdominal pain	Neg	Neg
2018	Korea	DR Congo	Hospital		Low	Fever (37.8°C), Myalgia, Headache, Diarrhea	Neg	Neg
	Korea	DR Congo	Health Center		Low	Headache, Fatigue	Neg	Neg
	Korea	DR Congo	Hospital		Low	Fever (40°C), Headache	Neg	Neg