



INTERIM REPORT ON THE RIFT VALLEY FEVER (RVF) OUTBREAK IN SOUTH AFRICA

Data and information last updated: 21 July 2010

Report issued by: The Outbreak Response Unit, Special Pathogens Unit, and South African Field Epidemiology and Laboratory Training Programme (SAFELTP), National Institute for Communicable Diseases (NICD) of the National Health Laboratory Service (NHLS). In collaboration with the South African Department of Health and Department of Agriculture, Forestry and Fisheries.

Case summary

Investigations to obtain a detailed history on all confirmed cases are ongoing, and all data presented here is thus preliminary and subject to change. We are able to provide the following information based on data collected to date. As of 21 July 2010, we have confirmed a total of 229 human cases and 26 deaths (Table 1). Cases range in age from 1 – 86 years (median 43 years), and the majority (86%, 196/229) are male.

Table 1: Number of laboratory-confirmed RVF cases and deaths by province, South Africa

Province (place exposed)	Cases	Deaths
Eastern Cape	17	1
Free State	123	11
Gauteng	0	0
KwaZulu-Natal	0	0
Limpopo	0	0
Mpumalanga	0	0
Northern Cape	75	11
North West	9	2
Western Cape	4	1
Unknown	1	-
South Africa Total	229	26

Occupation and exposure

Of the 229 confirmed cases, data on occupation is available for 214 cases (93%). Of these, the majority (81%, 174/214) work within occupations where direct contact with animals frequently occurs (Table 2).

Table 2: Number of laboratory-confirmed RVF cases by occupation group, South Africa

Occupation	No. (%)
Farmer or farm worker	130 (61)
Animal health worker†	16 (7)
Abattoir worker, meat inspector or hunter	28 (13)
Farm resident (non farm-worker)	3 (1)
Non-animal related occupation	37 (17)
Total with known occupation	214 (100)

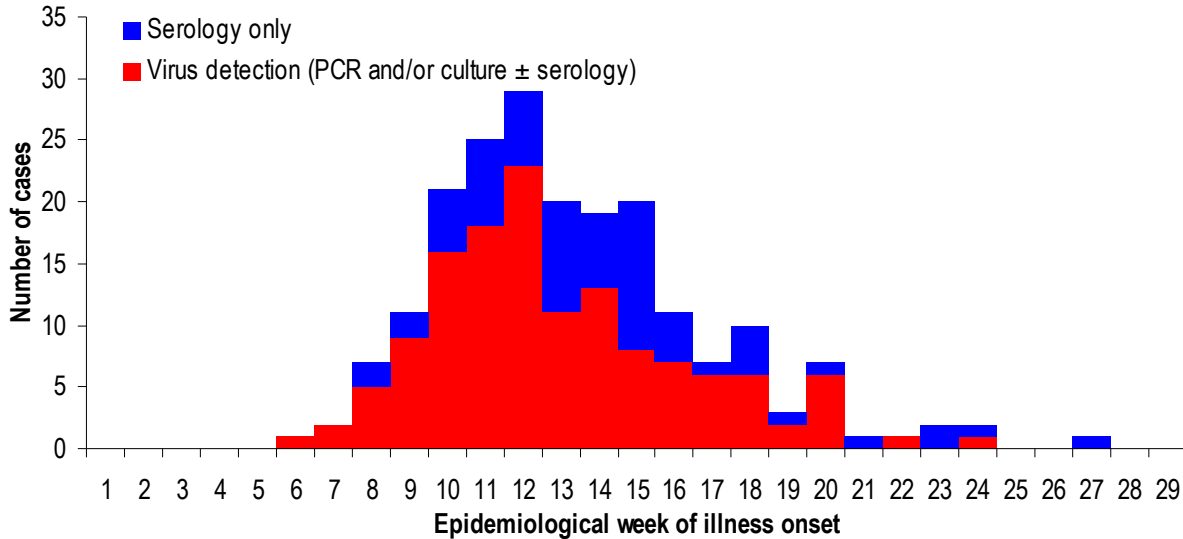
†Includes veterinarians, veterinary assistants/nurses, and animal health technicians.

Further history regarding exposure has been obtained for 87% (199/229) of the total cases to date. Amongst these cases, 94% (187/199) report a history of direct contact with RVF-infected ruminants prior to onset of symptoms, 3.5% (7/199) report exposure to mosquitoes in the absence of direct animal/animal tissue or unpasteurised milk exposure, and 2.5% (5/199) report drinking unpasteurised milk but no direct contact with infected animals.

Progress of the outbreak

There has been one additional laboratory confirmed RVF case (positive serology) since our last update. The patient is a farm worker from Northern Cape Province who handled and slaughtered sheep. On 6 July 2010, he developed an illness in keeping with acute RVF infection. This is the most recent human case confirmed to date and highlights the possibility of continued transmission in limited areas. Historically, the onset of cold weather in RVF-affected areas results in die-off of the mosquito vectors and often heralds the end of RVF outbreaks in animals and humans. There remains a need for continued vigilance amongst all healthcare workers. Clinicians should continue to suspect RVF in patients meeting the case definition and submit specimens to the NICD for laboratory testing. Additionally, clinicians should bear in mind that certain RVF-complications often manifest a few weeks after the acute infection; meningoencephalitis may present up to 4 weeks later, and ocular complications (notably retinitis) may present weeks to months later. In such cases, the acute infection may have been extremely mild and not have been diagnosed initially.

(A)



(B)

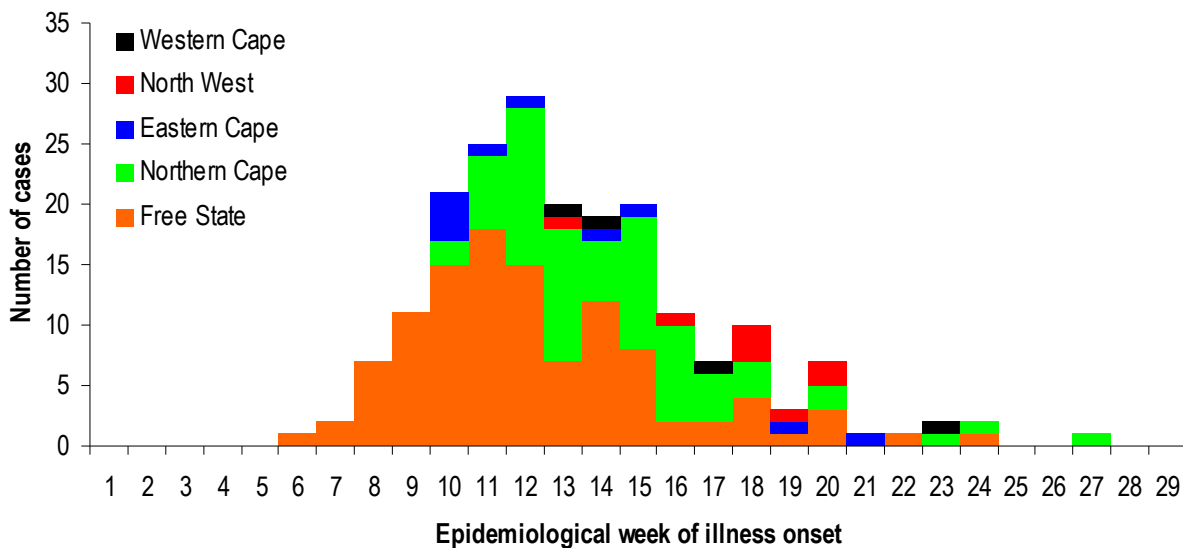


Figure 1: Epidemic curve illustrating the number of laboratory-confirmed RVF cases by epidemiological week of illness onset, by (A) laboratory tests and (B) province, South Africa, updated 21 July 2010 (N=298 cases, of which date of onset is available for 87% (n=200), and an additional 3% (n=7) of cases were asymptomatic).



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Member of the Regional EPI Laboratory Network
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