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Introduction
In 2007, a new Ebola virus, Bundibugyo virus (BDBV), was discovered in Uganda. A second BDBV outbreak was declared on 17th August 2012 in Isiro, Democratic Republic of Congo (DRC), where MSF opened an Ebola Treatment Centre (ETC) and conducted active case finding and prevention of transmission. In a quantitative and observational analysis, we aimed to describe the clinical features, treatment and outcomes of BDBV disease in the 2012 outbreak.

Methods
We included patients with confirmed BDBV disease from the ETC or a confirmed/probable diagnosis from other healthcare facilities in the Isiro Health Zone. Community BDBV cases were defined as patients with BDBV disease who did not attend the ETC. Confirmed cases had BDBV disease confirmed by PCR or IgM Elisa; probable cases fitted the DRC Ministry of Health definition but lacked laboratory confirmation. Detailed clinical data were available only for ETC patients. Data from patient files were entered anonymously into EpiData/Word Forms and analysed using Stata and Microsoft Excel. For community BDBV cases, frequencies of differential diagnoses were established. Ethics approval was obtained from the Ethics Review Board (ERB) of Kisangani University, DRC; the study met the criteria of the MSF ERB for exemption from full ethics review.

Results
52 patients were included: 18 confirmed ETC cases; and 34 community cases (18 [53%] confirmed). 28 patients died. Women were over-represented among community cases (85% [29/34]) compared with national demographic data (50%; p<0.0001). The case fatality proportion (CFP) was 56% (n=19/34) for community and 50% (9/18) for ETC cases. CFP was insignificantly higher in women (58%) than men (42%; p=0.51) and in the 15–54 year age group vs all other ages (57 vs 40%; p=0.48). Among community cases, CFP was 94% (15/16) in probable and 22% (4/18) in confirmed cases (p<0.001). 88% (15/17) of ETC patients had self-reported fever at admission; 56% (10/18) developed fever during their hospital stay. Major symptoms included asthenia (82%), anorexia (82%), myalgia (71%) and sore throat/difficulty swallowing (71%). Gastrointestinal symptoms were frequent (77%), haemorrhagic signs were not (29%). Hiccups were more frequent during hospital stay (35%) than self-reported at admission (12%). ETC patients who received standard treatment including cefixime, multivitamins and paracetamol had insignificantly lower CFP (4/10 [40%] vs 5/8 [63%]; p=0.64), as did patients who received oral or intravenous rehydration (CFP 38% vs 60%; p=0.64). CFP was insignificantly lower in ETC patients for whom body temperature and symptoms were thoroughly documented (CFP 46 vs 60%; p=1). Malaria was the initial differential diagnosis for 28% of the 46 differential diagnoses given to the 18 (n=5) of ETC cases, followed by intestinal parasitosis and infectious syndrome (both 11%), gastritis (9%), gastroenteritis (7%) or dehydration (7%).

Conclusion
This is the first analysis of the 2012 BDBV outbreak; data are scarce on the only previous outbreak. New findings include: over-representation of women; high prevalence of non-specific symptoms including gastrointestinal signs; low prevalence of haemorrhage; hiccups more prevalent during hospital stay than pre-admission and could be a late sign; and a non-significant association of thorough monitoring, standard treatment and rehydration with decreased CFP. Testing of the case definition including confirmed BDBV cases and proven non-cases is needed.