



## Marburg Virus - the next big outbreak

Lisa Bebell, MD, Infectious Diseases Division, Massachusetts General Hospital, Boston, MA

With the Ebola Virus Disease (EVD) epidemic of 2014-2016 still fresh in our minds, now is the time to think ahead. What will we do when (not 'if') the next filovirus outbreak occurs? What lessons have we learned, and what safeguards can be placed to save lives?

In my view, the next step we must take is to strengthen health systems in filovirus-endemic areas.<sup>1</sup> West Africa's struggling health infrastructure was dealt a heavy blow by the EVD outbreak,<sup>2</sup> and a too-soon filovirus outbreak would see the devastation multiplied. Other countries repeatedly affected by Marburg Virus Disease (MVD) or EVD outbreaks, including Democratic Republic of Congo and Uganda should re-examine their own preparedness, anticipating the worst. Many countries, including Uganda (where I live and work) have protocols and response teams awaiting the call to action when the next filovirus case presents. Government and non-government partnerships have the potential to strengthen first responses, magnify and sustain efforts beyond the reach of any one organization alone.

In past epidemics, we have seen even well-laid plans lag, owing to politics and heavy-handed bureaucracy. We now have an opportunity to examine previous sub-optimal responses deeply, and lay better frameworks for the future. As an example, ACESO (Austere environments Consortium for Enhanced Sepsis Outcomes) is working to partner with government and non-government organizations in East and West Africa to design an ever-ready mobile filovirus treatment unit to travel to outbreak sites within hours (<http://aceso-sepsis.org/#>). Medecins sans Frontières and others are also strategizing for rapid scale-up.

Advance planning goes a long way towards saving lives of filovirus-infected patients, but the first-line defense is prevention, the ultimate life preserver. Ebola virus vaccine trials have identified a highly effective candidate vaccine that could protect countless people worldwide against EVD.<sup>3</sup> A vaccine against Marburg virus is far behind in the research pipeline, though its development may be accelerated by lessons learned from Ebola vaccine development.

Such vaccines can be life-saving, but are only helpful when deployed in the right place at the right time. Coming full-circle, the success of vaccination campaigns depends on health system strength – can we utilize or strengthen existing systems (especially those weakened by EVD) and vaccinate thousands or millions? Would vaccination campaigns overwhelm clinics and hospitals teetering on the edge? Could vaccination be scaled-up to reach thousands within days or weeks of a new outbreak?

Moving forward, we must face these challenges head-on, working closely with recently-affected and potentially-affected countries to ensure that we are all stronger the next time a filovirus outbreak arrives.

**For more information on Marburg virus infection please check our new Best Practice topic.**

## References

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