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## A Focus On: Ebola

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Ebola is a widely known, but poorly understood, virus. Even in West Africa, in the middle of the 2014 West African Ebola Epidemic, the vast majority of patients with a [differential diagnosis of Ebola Virus Disease \(EVD\)](#) will in fact be suffering with something else serious and potentially fatal. The possibility of EVD should not over-shadow other investigations and management.

Peter Piot's team discovered Ebola in 1976 – he's now the head of the London School of Tropical Medicine and was reassuringly quoted in 2014 as saying 'I would sit next to an infected person on a train'. It is one of two [Filoviruses](#) (the other being Marburg) and according to the CDC, it has caused [thirty-four outbreaks](#), twenty-four of which have been in Sub-Saharan Africa, with total fatalities numbering only in the thousands. Transmission relies on direct contact with bodily fluids containing the virus, either through broken-skin or through mucous membranes. Airborne, droplet- aerosol transmission does not seem to be a popular mechanism of spread, though it is possible that this does occur. [Symptoms](#) are visible as soon as people are contagious and

Ebola Virus is not, therefore, what Piot termed the 'right kind of virus' to start an epidemic in a major western city. It is conceivable that an outbreak could occur, but it lends itself to active case finding, contact tracing, and containment far more easily than, for example, the [flu-viruses](#).

Its relative fame therefore, is probably related to three aspects of EVD: the extremely high (both untreated and treated) case fatality rates (as high as 90% in some outbreaks); the extremely rapid onset and dramatic nature of its symptoms (it is a hemorrhagic fever and death is usually preceded by haemorrhage and widespread organ necrosis); and finally the enigmatic nature of the outbreaks—the [animal reservoir](#) is not yet clarified (though fruit bats are currently the most likely candidate). This last aspect allows popular descriptions of the virus to describe it as lurking in the sinister darkness of the African jungle, waiting to emerge on an unsuspecting population.

If you work in the global north in a modern, well-equipped hospital, the management of a low-risk of an extremely dangerous event must be governed by national and international protocols rather than the arbitrary decisions of individual clinicians. Members of medical teams should ensure that these protocols are available, and followed – they govern [isolation techniques](#), [blood sample procurement](#) and delivery, and [contact tracing](#).

If you work in a region where Ebola epidemics are a possibility then you will be faced with a vast number of challenges to identify and manage these cases: poor data collection and management systems, [weak public health infrastructure](#), limited availability of personal protective equipment and, perhaps most importantly, a population who are vulnerable because of (in many cases) limited education, weakened immunity and cultural practices that encourage transmission. In these contexts the epidemic potential of the virus is greatly magnified. The 2014 epidemic has demonstrated that the international community is quite content to allow widespread transmission across several countries until [expatriates are affected](#). The overstretched expatriate and national staff of the responding agencies have two jobs – to manage as best they can with [epidemic control](#) and to advocate for, and demand the vast resources – human and financial – that are needed to control the spread of a disease that reflects [poverty](#) and lack of long term investment in regions of the world that are vulnerable to so many other threats to life and health.

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