



Television

Ebola in your living room



“Every virus tells a story. We still don’t know how this one ends. Only that we’re the ones that will write it”.

Ebola virus remains, in public conscience, the most notorious emerging pathogen, particularly after the massive west African 2013–16 outbreak and the ongoing, hard-to-control, Democratic Republic of Congo outbreak. This notoriety has been shaped by the pathogen’s mortality rates and epidemic potential, as well as its exotic nature (related to Africa, jungle, tribal practices, and possibly wild animals). One of the major and earliest sources of information about (and thus fear of) Ebola was *The Hot Zone*, Richard Preston’s 1994 international best-seller, based on the 1989 Reston Ebola virus epizootic—a book that has even been acknowledged as career inspiration for today’s infectious disease experts. *The Hot Zone’s* cinematic adaptation was planned immediately after publication, but the project never materialised. Instead, another film about an exotic outbreak (a zoonotic virus like Ebola virus, but airborne), Wolfgang Petersen’s *Outbreak*, was immediately released, to financial, critical, and scientific acclaim. 25 years on, *The Hot Zone* has finally transitioned from page to screen as a six-episode mini series by National Geographic. But what is *The Hot Zone’s* significance 25 years on and how can it affect public perception at times when information (and diseases) travel fast and worldwide? And how useful is it for medical practitioners, health-care workers, and academics?

The series focuses on the 1989 Reston Ebola virus epizootic in imported non-human primates, through the eyes of US Army Medical Research Institute of Infectious Diseases veterinary pathologist Dr Nancy Jaax, but in parallel travels back to the initial 1976 Ebola outbreak, through Jaax’s mentor, a fictional adventurous virus hunter. Peter Jahrling, currently chief of the Emerging Viral Pathogens Section of the National Institute of Allergy and Infectious Diseases, is depicted, but not Thomas W Geisbert: both were crucial in Reston strain recognition and might feel that the series does not adequately recognise their contribution.

The 1976 scenes are exceptional, as medical history, philosophy, social medicine, and epidemiology lessons. The series accurately recreates viral transmission through a shared vaccine needle by missionary nuns, the need to go deep in the forest to find the viral source, the early implementation (even through martial law) of isolation as a preventive measure, the complex interaction with the local witchdoctors, and the need to look for therapeutic answers in disease survivors. Most viewers would also recognise subtle references to current sociomedical issues—for example, the female volunteer activist’s revolt against military quarantine as a “fascist fiasco”. The 1976 scenes are surprisingly solemn

in disease depiction (given that the book had been accused for its bloodthirsty descriptions of Ebola virus disease pathophysiology and clinical presentation); although the startling papular and pustular lesions of patients are not your typical clinical finding for Ebola virus disease.

The 1989 scenes are less successful, often not being a scientifically sound outbreak description, but a glorification of a hard-working woman, scientist, wife, mother, and daughter, overcoming numerous adversities to save the world. The series strives to be politically correct, particularly when presenting a carefully chosen multiracial response team. More successful is the depiction of asphyxiation inside a hazmat suit, and of the anguish of potential pathogen exposure. An academic might also find useful some rapid successive frames that focus on transmission risks, in which suddenly a door handle, a shared drink, or a lovers’ kiss may become morbid weapons (although these are no match to *Outbreak’s* exemplary scene in which the camera follows the infected respiratory particles expelled by a patient sneezing in a cinema).

One keeps wondering why Jaax was never quarantined, but the series tells you that these procedural gaps were the real issue. That the importance of Jaax and the Reston incident was in outlining the need for detailed response protocols dealing even with the unthinkable—ie, Ebola virus in Washington, DC, USA. However, the final message can’t help but be populist: a reference to the Isle of the Plagues (a Lake Victoria island where such deadly pathogens supposedly breed) and an overtly loud call to arms (“there is a deadly pathogen coming for us, what are we going to do about it?”).

National Geographic has also released an accompanying documentary, entitled “*Going Viral*”, excellently detailing the current Ebola virus disease situation, hosting interviews with Dr Anthony S Fauci, Dr Pardis Sabeti, Jeremy Konyndyk, and Dr Adaora Okoli (who survived Ebola virus disease), among others. Its philosophy is different, as one of the interviewees states: “Earth’s immune system recognises humans as the most destructive pathogen”.

Public perception, often affected by movies and television series, is of paramount importance in cases of emerging infectious diseases with outbreak or epidemic potential: adequate health literacy allows for better public understanding of the need for specific interventions that go beyond purely medical issues. Does *The Hot Zone* augment such health literacy? In part. But it definitely helps in reminding of the urgency of facing Ebola virus disease. Even if it is not actually coming for us.

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