

HUMANITARIAN ALTERNATIVES**The response to the Ebola epidemic: negligence, improvisation and authoritarianism**

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If MSF has held a preponderant position in the response to the Ebola crisis, it owes it just as much to its intervention capacities as to its capacity for criticism. The following article by Jean-Hervé Bradol embodies perfectly the latter in pointing to the issues that appeared on the occasion of this epidemic.

For the first time in history, since the discovery of the virus in 1976, medical institutions had to organise the response to an Ebola epidemic on a grand scale. As for any answer to a particularly murderous epidemic, the scrutiny of the result obtained can be carried out by discussing the impact of two types of actions on the number of deaths: those aiming at diminishing the number of new cases (incidence) and those aiming to reduce the number of deaths amongst people already infected (lethality). Between the beginning of 2014 and June 2015¹, 27 550 cases were reported, mainly in three countries (Guinea, Sierra Leone and Liberia), with 11 235 leading to the patient's death.

Let's state it to begin with, such a result of around 41% of deaths amongst the cases reported, was not obvious at the start. Effectively, out of the 2 387 cases reported during the preceding epidemics (from 1976 in Zaire to 2012 in Uganda), 1 590 deaths were reported². In reality, for these epidemics, in which cases were counted by hundreds instead of thousands, the proportion of deceased patients amongst the people registered as Ebola cases was subject to ample variations, the extremes being: 90% of deaths in the Democratic Republic of the Congo (2003) and 25.1% in Uganda (2007).

If it appears appropriate to salute the medical teams who took charge of patients in precarious situations while endangering their own lives, it is also justified to ask oneself if it was possible to obtain better results. Nobody can say so assuredly. That is why it is important to open a debate, in spite of the unavoidable cruelty of any critical review exercise in the field of emergency medical and sanitary responses. In effect, the consequence of one operational choice rather than another can sometimes translate into a variable number of deaths (higher or lower). In such a situation, when even the lower hypothesis concerning the death toll is appalling, controversies arise from the inescapable disarray of teams having to face the death of one out of two hospitalised patients. To give voice to conflicting points of view was not easy in such a context. Especially since, amongst MSF managers, numerous are those who think that it is only by participating in action and taking decisions that one appears legitimate to discuss these. My point of view is that of an MSF doctor who has been participating in the international response to epidemics for the past 25

¹ WHO, Ebola Situation Reports, <http://apps.who.int/ebola/ebola-situation-reports>, June 2015.

² *Ibid.*

HUMANITARIAN ALTERNATIVES

years. I did not go to the areas where the epidemic was developing. My hierarchy asked me to observe at distance the operations of our association and to formulate some remarks. It is part of these that I reproduce in this text³.

Was it possible to avoid having the disease transmitted to so many people?

From a scientific point of view, the unprecedented amplitude of the epidemic cannot be explained by the appearance of a new virus⁴. This is one of the rare aspects of this affair where solid scientific data exists. From an empirical point of view, the absence of an epidemical outburst in Nigeria, Senegal and Mali confirms that in these countries it was possible to control the phenomenon at the beginning with the help of the usual confinement measures of people with whom they were in contact. The initial confusion in Nigeria, in Senegal, in Mali, in the United States and in Europe at the time of taking charge of the first cases did not entail a number of cases exceeding several tens. On the contrary, the development of the epidemic in Guinea, then in Sierra Leone and in Liberia is the consequence of a double failure.

The first deficiency is that of the epidemical watch, since the epidemic is detected late, more than two months after its start⁵. Then the fiasco is political and social, as once the epidemic identified, the mobilisation required for the fight against the sickness long remained insufficient. States and International organizations, in particular the World Health Organization, don't appreciate the danger to its true measure before the summer of 2014. Important segments of the populations neither adhered to the explanations given concerning the origin of the epidemic nor to the measures proposed by authorities (giving up consumption of meat from the bush, modification of funeral rites, regrouping and isolation of patients in specialised centres, follow-up of persons having been in contact with an Ebola patient). Now, succeeding in the response to an epidemic rests upon the state of available science and technology and also on a successful social and political mobilisation. In this precise case, the available "toolkit" included neither vaccination, nor rapid diagnosis test, nor anti-viral treatment nor an organisational health model adapted to the wide geographical area concerned and the thousands of cases of this exceptional epidemic. This deficit of medical products and adapted protocols obliged the response to the epidemic to get organised using rudimentary "tools": the recourse to an unpractical diagnosis test for use by clinicians, confinement procedures for patients and those for search of persons with whom they had been in contact. The success of the undertaking was based in great part on the adhesion of the population to the changes in behaviour proposed by authorities. Well, when with delay the medical and political actors were alerted of the danger in the middle of the summer, they developed towards the different populations and infected persons too authoritarian stances to truly inspire confidence. In Sierra Leone, the whole population was required to stay several days at home without going out, while waiting for the visit of sanitary agents in charge of finding the people still living there⁶. In Monrovia, Liberia's capital, the police encircled a popular neighbourhood (Westpoint) and forbade inhabitants to go outside of it for several days⁷. In the three most affected countries, infected persons were ordered to go to containment centers to avoid transmission of the virus to others. Television images travelled around the world⁸. Those of a man in a red polo shirt walking in the streets of Monrovia with a bracelet on his wrist indicating

³ This work could not have been carried out without the help of Andrea Bussoti, communication advisor, MSF Paris.

⁴ Abayomi S. Olabode, "Ebola virus is evolving but not changing : no evidence for functional change in Ebola from 1976 to the 2014 outbreak", *Virology*, vol. 482, August 2015, pp 202-207.

⁵ Sylvain Baize et al., "Emergence of Zaïre Ebola virus disease in Guinea", *New England Journal of Medicine*, vol 371, October 9th 2014, pp 1418-1425.

⁶ Adam Nossiter, "Lockdown begins in Sierra Leone to battle Ebola", *The New York Times*, September 19th 2014.

⁷ AFP, "Ebola quarantine in Liberia's capital sparks violence in slum", *The Guardian*, August 21st 2014.

⁸ http://www.dailymotion.com/video/x2553jg_ebola-patient-escapes-medical-centre-spreads-panic-in-monrovia-liberia_news

HUMANITARIAN ALTERNATIVES

that he came from a containment center. He was pursued by a group of passers by, denouncing him as a menace for the community. An MSF team embarked him by force in an ambulance to bring him back to confinement. The truth of it was that the rest of the story showed that this man was not infected by the Ebola virus. His sojourn in an isolation centre while waiting for a final diagnosis, in proximity to infected persons objectively put him in danger⁹. His decision to leave the confinement center was not irrational, it was on the contrary justifiable regarding the risk that a hospitalisation, while waiting for the result of the diagnosis test, would make him take if the result of the test indicated, at the end of the treatment protocol, that he was not carrying the virus. So what? In a few hours he had become for the whole world the symbol of the undisciplined patient, dangerous for society.

Let us imagine for a moment that, at the beginning of the epidemic, instead of falling into authoritarianism, the medical actors had offered 200 euros for all confirmed cases, to make patients and family understand that they were ready to take into account not only public health interests but also those of patients and their families. Slightly more than 5 million euros could thus have arrived directly in the families hit by the Ebola disease. A drop of water if one remembers that the expenses made to respond to the epidemic will surpass several billion euros and that those of MSF will approach 100 million euros. Imagine that, when a sick person and his/her family refused isolation, the following answer was given: medical teams are convinced that chances of survival are higher in case of admission in a treatment and confinement center, but if the sick person wishes to stay at home, he/she would nonetheless receive medical aid, in the form of medicine and equipment. Of course all this has to do with imagination, although some of these measures have sometimes been applied. In Liberia, during the summer and autumn, as a response to the saturation of isolation and treatment centers, MSF distributed an equipment kit for patients who could not be hospitalised for lack of space. This kit offered them the means and ways to protect themselves from an infected member until they could have access to an Ebola Treatment Center (ETC)¹⁰. In Sierra Leone, the International Red Cross Committee sometimes distributed money to sick people and their families, using for this purpose a mobile phone network¹¹. What is not as well known is the fact that the efficiency of the authoritarian measures applied in reality, also corresponds to imagination. The repetition of these practices in the history of the response to epidemics should not lead to forgetting this. In the present state of available data, it is certain that to interrupt the propagation of a virus within a population, physical contact with infected persons must be limited and protected. But the best combination of actions to attain this result has not been able to be scientifically established, if only because of the rarity and the short duration of Ebola epidemics that render scientific studies and their capitalisation difficult. Thus, the choice of privileging the opening of big confinement and treatment centres has shown all its limits:

“After having spent hundreds of millions of dollars and deployed 3000 soldiers to build Ebola treatment centres, the United States finally opened premises that remained largely empty: only 28 Ebola patients were taken care of in the 11 treatment units constructed by the US Army, while American authorities now say that nine centres never received one single Ebola patient¹².”

⁹ Adam J ; Kucharski et al., “Evaluation of the benefits and risks of introducing Ebola Community Care Centers in Sierra Leone”, *Emerging Infectious Diseases*, vol 21, number 3, March 2015, http://wwwnc.cdc.gov/eid/article/21/3/14-1892_article

¹⁰ MSF, *Ebola: Massive Distribution of Home Disinfection Kits Underway in Monrovia*, Brussels, October 2nd 2014, <http://www.doctorswithoutborders.org/news-stories/field-news/ebola-massive-distribution-home-disinfection-kits-underway-monrovia>

¹¹ ICRC, *Liberia: Surviving Ebola with care and cash*, Geneva, November 28 2014, <https://www.icrc.org/en/document/liberia-surviving-ebola-care-and-cash>

¹² Norimitsu Onishi, “Empty Ebola clinics in Liberia are seen as misstep in U.S. relief effort”, *The New York Times*, April 11th 2015.

HUMANITARIAN ALTERNATIVES

In reality, the large treatment centres were never ready to operate at the time the number of cases exploded, neither in Monrovia nor in Freetown. Then why, in the face of uncertainty, were authoritarian actions more generally privileged, for example the grouping of cases in large centres, at the expense of those based on the information of sick people, the respect of their freedom to refuse care and socio-economic support? However, the fight against AIDS (in particular the administration of anti retroviruses) and the treatment of severe malnutrition of infants (from now on administered in the majority of cases by the mother), have shown that more cooperative medical policies permitted achieving unexpected results, thanks to the active participation of patients and their kin in the administration of treatments. This regressive attitude concerning the fight against epidemics, encouraged by the dread provoked by the strong lethality of the Ebola disease, did not escape Gregg Gonsalves, one of the historical leaders in the fight for access to anti-retroviruses for HIV infected patients:

“History repeating itself, punitive irrational measures deployed during the HIV epidemic of thirty years ago are reactivated by another sickness, this time a rare hemorrhagic fever responsible for a few isolated cases. And the counterattack to HIV was not the first of its kind. During the First World War, for instance, because of the Chamberlain-Kahn laws, 20 000 women were put in quarantine by the federal government and thousands of others by local authorities, under suspicion of propagation of syphilis and gonorrhoea, although many of those put behind barbed wire did not have the sickness¹³.

To isolate or to dispense care?

The image of a dangerous patient that imperatively needs to be controlled by authoritarian measures has also imposed itself in medical care protocols. This has been translated into the *no touch policy*, that is to say the avoidance of physical contact between medical personnel and patients as well as between team members. Let's be well understood, this does not mean that physical contact was not dangerous under such circumstances. But it is the radicalism with which this policy has sometimes been applied that is questionable: sick persons deprived of outside contacts, sometimes even during the last hours of their life, doctors required to stop wanting to individualise care and summoned to respect a unique protocol, personnel members excluded from their team because of sexual intercourse in obvious contradiction with the *no touch policy*, the handing over to close family of the mobile phone and the ID papers of a deceased patient, once these objects had been immersed for 45 minutes in chlorine...

One of the consequences of this form of collective panic was to consider the intravenous perfusion of dehydrated patients too dangerous because of the risk of infection of personnel by needle sting. Nonetheless there existed a technical solution to this problem: apparatuses with retractable needle. By consequence, for a sickness in which dehydration is frequent and severe, intravenous rehydration was rare and often poorly conducted, as shown by the low volumes of water and salts administered by perfusion to the patients admitted in the confinement and treatment centre of MSF in Conakry, a site that was never overwhelmed by a high number of hospitalisations¹⁴. In isolation and treatment centres certain patients did not manage to compensate by oral tract their losses in water and in salts due to vomiting and diarrhoeas which are frequent and substantial in the Ebola sickness. There is little doubt that the survival chances

¹³ Gregg Gonsalves, B.S. and Peter Staley, “Panic, paranoia, and public health. The AIDS epidemic's lessons for Ebola”, *New England Journal of Medicine*, vol. 371, December 18th 2014, p. 2348-2349

¹⁴ Elhadj Ibrahima Bah et al., “Clinical presentation of patients with Ebola virus disease in Conakry, Guinea”, *New England Journal of Medicine*, vol. 372, n° 1, January 1st 2015.

HUMANITARIAN ALTERNATIVES

of these patients were affected by the decision to restrain intravenous treatment. Lack of water and salts in the organism is a risk factor with fatal outcome, this doesn't need to be demonstrated anymore. From the point of view of their medical practice, practitioners found themselves in an unusual position for personnel exercising in a hospital unit, because of the amplitude of mortality and the limited means engaged to reduce it:

“MSF volunteers going to the field ‘to save lives’ have to face their own lack of hope what with the daily deaths...including those of their fellow members and colleagues. Experienced physicians and specialists end up by having to accomplish the most elementary medical acts...administering ORS [oral rehydration salts], paracetamol...And so it is! There does not exist yet a well defined treatment! One could finally even wonder if we really needed doctors¹⁵.”

This demedicalisation of treatments met field resistance. The CEO of the International MSF Movement bears testimony to this when, beginning of December 2014, she is winding up her second visit to West Africa:

“The other key subject that was re-emerging when speaking with international and national colleagues was the level of treatment dispensed in the Ebola treatment centres. In each site that I visited, I was asked so many times how we could improve patient care. The message was recurrent, strong and coherent –medical personnel wanted to do more for infected patients. I heard this message publicly in staff meetings and in private during end of evening discussions¹⁶.”

The medical and general press reported this debate concerning treatment protocols that divided doctors. Several physicians and medical professors made the remark that the absence or low frequency of implementation of rehydration protocols was not justifiable in their eyes¹⁷. To speak the truth, the fact of establishing a care standard and during months to rarely compensate by intravenous tract the losses in water and salt of patients whose dehydration resists oral treatment only seems possible in Sub-Saharan Africa. Elsewhere this would be a temporary measure for a few days or up to a few weeks at the time of an epidemical peak when the saturation of health services by the number of patients becomes unavoidable. In the poorest countries of the continent, government failures, lack of resources and negative prejudice (concerning the capacity of patients to adhere to care protocols and the competence of personnel to apply them) are too often invoked to justify low quality treatment.

Beyond rehydration, symptomatic treatments could have been improved in several other fields, control of vomiting and that of pain for example. But to begin with it is the communication between the sick and their next of kin that should have been improved. For a person who, nearly once out of twice, was going to die, to be able to remain in contact with his/her family was not a luxury.

Was it possible and reasonable to use anti-viral treatments?

¹⁵ Dr. Rony Zachariah, “12 days in Sierra Leone on the Ebola front, Reflections on a series of medical and humanitarian stakes for MSF”, Contact (Internal journal, MSF Belgium), number 128, 2015, p. 104-106.

¹⁶ Joanne Liu, MSF International, “Ebola field visit-Letter to international general assembly members”, Geneva, December 2014.

¹⁷ François Lamontage et al., “Doing today's work superbly well – Treating Ebola with current tools”, *New England Journal of Medicine*, vol. 371, October 23rd 2014, pp. 1565-1566. Ian Roberts and Anders Perner, “Ebola virus disease: clinical care and patient-centred research”, *The Lancet*, vol. 384, n° 9959, December 6th 2014, p. 2001-2002. Sarah Boseley and Lisa O'Carroll, “Number of Ebola deaths could be cut by use of basic measures, say experts”, *The Guardian*, December 5th 2014. Donald G. McNeil Jr., “Ebola Doctors Are Divided on IV Therapy in Africa”, *The New York Times*, January 1st 2015.

HUMANITARIAN ALTERNATIVES

To approach the answer to this question, the example of favipiravir is interesting. This molecule was already on the market as a treatment against influenza by oral tract. Its side effects were known and considered acceptable, with the restriction that the doses to be used to treat Ebola disease cases are more important than those administered for influenza. Certain scientific data, in particular resulting from experiments on animals, brought hope that use of favipiravir would reduce lethality, but the molecule had never been used to treat patients suffering from Ebola. The choice was made to use it only within a scientific study. To be clear, the only possibility of receiving this treatment was to be voluntarily enrolled in this study. Well, the latter only took place at the end of the epidemic and only in four centres, all in Guinea. The results of this first study have shown that in 58% of cases, those in which the viral attack is not yet too developed, the prescription of favipiravir permitted to obtain a lethality rate of 15% without giving way to undesirable effects leading to discourage its use. In the three preceding months, the death rate in this same category of patients presenting themselves with a mild viral penetration was of 30%¹⁸.

In reality, because of its unavoidable methodological limits in a context where it was neither feasible nor advisable to go ahead with a true random clinical test in double blindness, with a group receiving a placebo, the scientific scope of this study is reduced. The physicians proposing this treatment to a patient with Ebola must specify that its efficiency is not demonstrated and that health authorities do not officially recommend its use in this case. Wouldn't it have been reasonable to inform much earlier, away from any clinical trial, the patients of this situation, leaving to them the choice of taking or not that medicine? Such is the principle of a so called compassionate treatment. Only international staff members, when they returned home, were able to benefit from treatments against the virus on the basis of compassion. In France, the Higher Council for Public Health delivered a favourable opinion concerning the use of favipiravir in prophylaxis after an accidental exposure to the virus during professional practice¹⁹. Nonetheless, neither infected national staff members, nor the sick people in West Africa, were offered the choice. This is particularly open to criticism since this concerned a treatment by oral tract, simple to administer, while national health staff were paying a heavy tribute to the epidemic. Let us be reminded that several hundreds of them died from this. They deserved to have the choice to take or not favipiravir.

The epidemic that arose in West Africa is an unprecedented event by its amplitude and its duration. To organise the response, professionals disposed of three tools, all unpractical for use in emergencies: a precise diagnosis test but with delayed results, symptomatic treatments in an environment (that of Guinea, Sierra Leone and Liberia) where they are normally deficient, whatever the pathology and calls for behavioural change difficult to implement rapidly at the scale of important populations (confinement of patients, follow-up of contacts, safeguarding of burials and stopping consumption of meat from the bush). Facing the unknown with such limited tools, the probability was weak that the choices made by the leaders of the response to the epidemic would be satisfying. It is precisely for this reason that reflecting upon and freely discussing – while being well informed – the possible alternatives (a less authoritarian relation to patients and to the population, the short term development of a rapid test, an anti-viral treatment and of a vaccination), was and remains indispensable.

Translated from French by Philip Wade

¹⁸ Inserm, Ebola: Preliminary results of the JIKI trial to test the efficiency of favipiravir, February 24th 2015.

¹⁹ Higher Council of Public Health, Opinion concerning the taking in charge of health personnel in a care environment, as victims of an AES/AEV, based on a patient index confirming the Ebola virus.

HUMANITARIAN ALTERNATIVES

Biography • Jean-Hervé Bradol

Jean-Hervé Bradol is a doctor in medicine, with diplomas in emergency medical care, in tropical medicine and medical epidemiology. On field missions from 1989 to 1993, he joins the department of operations of MSF, in Paris, in 1994 as a program manager. He will then successively occupy the functions of Press Relations Manager, Director of Operations and Chief Executive Officer. He then becomes Research Manager within the “Centre of Reflection on Humanitarian Action and Knowledge” (Centre de réflexion sur l’action et les savoirs humanitaires, known as CRASH, the acronym in French) of the MSF Foundation. In parallel to this position, still occupied today, he has been a professor (“The international response to health crises”) at the Institute of Political Science in Paris (2008-2013). His latest mission: field officer for MSF, El Bab district, Aleppo Province, Syria, summer 2013.

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