CORRESPONDENCE

Ebola Virus Disease in West Africa — The First 9 Months

TO THE EDITOR: The World Health Organization (WHO) Ebola Response Team (Oct. 16 issue)[1] predicted that the current Ebola epidemic would claim a dreadful 20,000 combined cases by early November 2014, assuming no change in the control measures applied in West Africa. The threat that Ebola poses to national public health and social, economic, and security foundations may worsen if a secondary epidemic eventually explodes in the region. Since June 2014, nearby Ghana has been affected by a serious cholera epidemic that was responsible for 12,622 cases as of September 6.[2] Current cholera and Ebola zones are separated by Ivory Coast, a frequent crossing point for commuters traversing West Africa. To effectively control cholera epidemics, specialized treatment centers, access to potable water, sanitation, and community hygiene awareness are critical. However, in Ebola-affected areas, quarantine units are overwhelmed, many health facilities are dysfunctional after the desertion by staff members who fear viral contamination, and it has become increasingly dangerous to conduct awareness campaigns owing to violence against health and humanitarian workers accused of spreading Ebola. Likewise, neglecting to rapidly control this cholera epidemic in Ghana could have unpredictable yet potentially devastating consequences.

Stanislas Rebaudet, M.D., Ph.D.
Assistance Publique–Hôpitaux de Marseille
Marseille, France

Sandra Moore, M.S., M.P.H.
Renaud Piarroux, M.D., Ph.D.
Aix–Marseille University
Marseille, France
renaud.piarroux@ap-hm.fr

No potential conflict of interest relevant to this letter was reported.

1. WHO Ebola Response Team. Ebola virus disease in West Africa — the first 9 months of the epidemic and forward projections. N Engl J Med 2014;371:1481-95.
2. Cholera outbreak in the West and Central Africa: regional update, 2014 (week 35). New York: UNICEF (http://www.unicef.org/cholera/files/Cholera_regional_update_W35_2014_West_and_Central_Africa.pdf).

DOI: 10.1056/NEJMc1413884

TO THE EDITOR: The WHO Ebola Response Team describes the epidemiology of Ebola virus disease (EVD) in West Africa using anonymized patient-level data generated from EVD surveillance in multiple countries. These data document the demographic profile of patients with EVD, their risk factors, and the course of their illness. We regret that the WHO neither makes this data set publicly available nor provides an interface to extract customized tabulations. Such data sharing could accelerate the discovery of key factors in the epidemic and could yield insight into the economic and demographic drivers of the outbreak. It would also permit a better assessment of possible control scenarios. Current models of EVD transmission[1,2] are parameterized with the use of outdated data from much smaller Central African outbreaks, which limits their applicability to West Africa. Some patient-level data sets collect-

THIS WEEK'S LETTERS

ed during the West African outbreak are already publicly available,[3] and some mobile telephone providers have released call-data records to help predict the spread of EVD.[4] We encourage the WHO to adopt these practices and share this data set with all researchers who wish to lend their skills to help stop this tragedy.

Stéphane Helleringer, Ph.D.

Mailman School of Public Health, Columbia University
New York, NY
sh2813@columbia.edu

Karen A. Grépin, Ph.D.

New York University
New York, NY

Andrew Noymer, Ph.D.

University of California, Irvine
Irvine, CA

No potential conflict of interest relevant to this letter was reported.

1. Rivers CM, Lofgren ET, Marathe M, Eubank S, Lewis BL. Modeling the impact of interventions on an epidemic of Ebola in Sierra Leone and Liberia. PLOS Currents Outbreaks 2014 October 16 (Epub ahead of print).
2. Estimating the future number of cases in the Ebola epidemic — Liberia and Sierra Leone, 2014–2015. MMWR Surveill Summ 2014;63:Suppl 3:1-14.
3. Gire SK, Goba A, Andersen KG, et al. Genomic surveillance elucidates Ebola virus origin and transmission during the 2014 outbreak. Science 2014;345:1369-72.
4. Wesolowski A, Buckee CO, Bengtsson L, Wetter E, Lu X, Tatem A. Commentary: containing the Ebola outbreak: the potential and challenge of mobile network data. PLOS Currents Outbreaks 2014 September 29 (Epub ahead of print).

DOI: 10.1056/NEJMc1413884

THE AUTHOR REPLIES: The WHO receives patient-level data on EVD from the ministries of health of the affected countries, which own the data. After discussion with external research groups, and under specific conditions, the WHO shares these data in order to carry out epidemiologic analysis, as well as the evaluation of interventions. The results of these joint analyses are consolidated by the WHO into recommendations to member states for action in the field. In addition to sharing patient-level data with collaborating institutions, the WHO publishes aggregated data, such as cases reported according to the week and district in Guinea, Liberia, and Sierra Leone, which are made publicly available in regular situation reports.

Christopher Dye, D.Phil.

World Health Organization
Geneva, Switzerland
dyec@who.int

for the WHO Ebola Response Team

Since publication of his article, the author reports no further potential conflict of interest.

DOI: 10.1056/NEJMc1413884

Goal-Directed Resuscitation in Septic Shock

TO THE EDITOR: The Australasian Resuscitation in Sepsis Evaluation (ARISE) Investigators and the Australian and New Zealand Intensive Care Society (ANZICS) Clinical Trials Group (Oct. 16 issue)[1] report that early goal-directed therapy (EGDT) did not reduce mortality at 90 days among patients with early septic shock. During the 72 hours after randomization, both groups in the study received a mean of approximately 6500 ml (70 to 75 ml per kilogram of body weight) of combined crystalloids and colloids (see Table S5 in the Supplementary Appendix of the article, available at NEJM.org). A footnote in Table S5 suggests that 0.9% saline was often used as crystalloid; rapid isotonic saline infusion predictably results in hyperchloremic acidosis.[2] Hyperchloremia can be associated with reduced gastric mucosal perfusion, renal vasoconstriction, a reduced glomerular filtration rate,[3] and even increased mortality.[4] Since the exact nature of fluid therapy is crucial in EGDT, can the authors provide data on the specific fluids that patients received both before and after randomization?

Hans-Joachim Priebe, M.D.

University Hospital Freiburg
Freiburg, Germany
hans-joachim.priebe@uniklinik-freiburg.de

No potential conflict of interest relevant to this letter was reported.

1. ARISE Investigators, ANZICS Clinical Trials Group. Goal-directed resuscitation for patients with early septic shock. N Engl J Med 2014;371:1496-506.
2. Prough DS, Bidani A. Hyperchloremic metabolic acidosis is a predictable consequence of intraoperative infusion of 0.9% saline. Anesthesiology 1999;90:1247-9.
3. Handy JM, Soni N. Physiological effects of hyperchloraemia and acidosis. Br J Anaesth 2008;101:141-50.
4. Silva Junior JM, Neves EF, Santana TC, Ferreira UP, Marti YN, Silva JMC. The importance of intraoperative hyperchloremia. Rev Bras Anestesiol 2009;59:304-13.

DOI: 10.1056/NEJMc1413936