News

Ebola Update in West Africa

(Prepared by the section editor)—Cases of Ebola virus disease (EVD) in West Africa have continued to occur at a low rate. Since 26 July 2015, there have been 1–3 cases of EVD each week, all from Guinea or Sierra Leone. There were 2 confirmed cases reported in the week ending 6 September 2015, 1 from Guinea and 1 from Sierra Leone. There have been no new cases in Liberia since 12 July 2015.

Governments Are Not Following Advice on MERS, Experts Warn

3 September 2015 (Reuters [Tom Miles])—Governments are not doing all they should to tackle the deadly Middle East respiratory syndrome (MERS), a committee of health experts at the World Health Organization (WHO) said.

The WHO’s emergency committee, which meets regularly to consider the international response to the disease, said in a statement that its advice had not been completely followed and some countries were not doing their duty to report all cases to the WHO.

“Asymptomatic cases that have tested positive for the virus are not always being reported as required,” the committee said. Scientific research and virological surveillance were not always shared in a timely manner, it said.

“Inadequate progress has been made, for example, in understanding how the virus is transmitted from animals to people, and between people, in a variety of settings. The Committee was disappointed at the lack of information from the animal sector.”

The committee said it wanted to alert public health authorities and animal and agricultural agencies to the “significant public health risks” posed by MERS and urged them to collaborate with each other and internationally.

MERS is caused by a coronavirus from the same family as the one that triggered China’s deadly 2003 outbreak of severe acute respiratory syndrome.

The WHO has been notified of 1493 laboratory-confirmed cases, including at least 527 deaths, since September 2012. The vast majority of infections and deaths have been in Saudi Arabia, where more than 1000 people have been infected.

But many other countries have been affected, including South Korea, where a 2-month outbreak earlier this year infected 186 people, killed 36, and put nearly 17 000 in quarantine.

As US Legionnaires’ Cases Rise, So Do Expert Theories on Causes

4 September 2015 (Reuters [Julie Steenhuyssen])—Cases of Legionnaires’ disease have been increasing dramatically in the United States, with reported cases in August alone more than doubling from expected levels for that period, US health officials say.

So far this summer, the Legionella bacterium has killed 12 people in New York’s Bronx borough and 8 at a veterans’ home in Illinois. It is currently affecting scores of prisoners at the San Quentin State Prison in California.

The recent figures represent an acceleration from the most recent overall national data available, which show the number of cases reported to US public health authorities more than tripled between 2001 and 2012.

According to the Centers for Disease Control and Prevention’s (CDC) weekly report of 4 September on death and disease, there were 404 cases of legionellosis—Legionnaires’ and Pontiac fever—in the 4 weeks ended 29 August. That is more than twice as many cases as would be expected for the same 4-week period in the past 5 years, said CDC spokesman David Daigle.

According to the CDC, an estimated 8000 to 18 000 people are hospitalized with Legionnaires’ disease each year in the United States.

Dr Matthew Moore, a medical epidemiologist at the CDC, said this summer’s outbreaks have tended to be larger than the CDC has seen in the past. The New York outbreak was traced to a cooling tower outside of a building, which could have exposed anyone outside it to the bacteria.

He did not discount the possibility of climate change as a possible contributor, noting that some research indicates increased rainfall could be associated with the increased cases of Legionnaires’ disease. But Moore and several other experts cited steady increases in the age of the US population as a particularly crucial factor.

University of Pittsburgh infectious disease expert Dr Amesh Adalja, speaking on behalf of the Infectious Diseases Society of America, believes at least some of the increase in reported cases is related to greater awareness and the fact that doctors now routinely test pneumonia patients for the disease.
Ukraine Outbreak Brings Polio Back to Europe, WHO Says

2 September 2015 (Reuters [Tom Miles])—Two children in southwestern Ukraine have been paralyzed by polio, the first outbreak of the disease in Europe since 2010, the World Health Organization (WHO) said, in a setback for a global eradication campaign.

The WHO said Ukraine had been at particular risk of an outbreak because of inadequate vaccination coverage. In 2014, only 50% of children were fully immunized against polio and other preventable diseases, it said.

The risk of further spread within the country is high, although the threat to nearby Romania, Poland, Hungary, and Slovakia is low, a WHO statement said.

A global vaccination campaign has largely stamped out the virus, and only Pakistan and Afghanistan have reported cases of wild polio virus this year. Madagascar and Nigeria have suffered vaccine-derived outbreaks, like Ukraine.

The oral vaccine contains a very weak live virus and is considered very safe and effective in preventing the disease. But immunized children excrete the vaccine, and within about 12 months it can mutate in unvaccinated children.

The two cases in Ukraine—a 4-year-old and a 10-month-old—are merely the visible cases among many silent carriers.

Vaccine-derived polio strains tend to spread less easily and not cause as many cases as the wild virus, and a full outbreak response could stop the spread in its tracks. The cost of such a response was still being worked out.

Ukraine, where a conflict between government forces and pro-Russian separatists erupted in the east in April 2014, has been rid of wild polio virus since 1996.

Turkey was the last country in Europe where polio was endemic, but it has been rid of the disease since 1999. Europe’s last outbreak was in 2010, after the virus was imported from Tajikistan to Russia, leading to 14 cases.

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Polio Resurfaces in Mali From Ebola-Hit Guinea—WHO

7 September 2015 (Reuters [Tom Miles])—There is a high risk of polio spreading in Ebola-ravaged Guinea and Mali, the World Health Organization (WHO) said, after a Guinean toddler traveled to Mali and became that country’s first case of the crippling disease in more than 4 years.

The Mali and Ukraine cases are both vaccine-derived polio, meaning the virus spread after being excreted by people who have been immunized with live oral polio vaccine.

Vaccine-derived polio outbreaks are rare, but pose more of a risk in populations where health systems are fragile and people’s immunization coverage is low.

WHO figures show Guinea’s polio vaccination coverage fell from 63% to 42% in 2014, as the Ebola outbreak caused chaos and overwhelmed an already weak national health system. In Mali, by contrast, polio vaccination coverage rose to 84% in 2014, from 72%–77% in preceding years.

A global vaccination campaign has largely stamped out the virus, and only Pakistan and Afghanistan have reported cases of wild polio virus this year.

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Gilead’s Investigational Fixed-Dose Combination of Emtricitabine/Tenofovir Alafenamide Meets Primary 48-Week Objective in Phase 3 Study

2 September 2015 (Gilead press release) —Gilead Sciences, Inc today announced that a phase 3 study evaluating its investigational fixed-dose combination of emtricitabine and tenofovir alafenamide (200/10 mg and 200/25 mg) (F/TAF) for the treatment of human immunodeficiency virus (HIV-1) infection met its primary objective. The ongoing study was designed to explore the efficacy and safety of F/TAF-based regimens among virologically suppressed adult patients switching from HIV treatment regimens containing emtricitabine/tenofovir disoproxil fumarate (FTC/TDF) (Truvada). At week 48, the F/TAF-based regimens and the TDF-based regimens achieved similar rates of virologic suppression based on the proportion of patients with HIV RNA levels (viral load) of <50 copies/mL (94.3% for F/TAF-based regimens vs 93.0% for TDF-based regimens; difference in percentages: 1.3%; 95% confidence interval: −2.5% to 5.1%).

Compared to the TDF-based regimens, the F/TAF-based regimens demonstrated statistically significant positive differences in mean bone mineral density at the hip and spine (P < .001) and in the median change in estimated glomerular filtration rate (P < .001).

The phase 3 study is a randomized, double-blind clinical trial among 663 virologically suppressed adults (HIV-1 RNA levels <50 copies/mL).

Editorial comment. Truvada does cause modest decreases in bone mineral density and renal function. The benefit of F/TAF in producing less bone loss and decrease in renal function will have to be measured against what will undoubtedly be a significant increase in price. The new drug may be of most value in a limited number of patients where these side effects are critical.

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