

Subsequently, several countries, including South Africa and Botswana, advised against the use of dolutegravir in pregnant women and those of child-bearing potential and recommended treatment with efavirenz instead. Since 2018, new data have emerged. A Brazilian study included 392 women taking dolutegravir when falling pregnant, with no cases of birth defects. The Tsepamo study also continued to recruit participants. It included more than 119 000 deliveries between 2014 and 2019, of which close to 1700 women were taking dolutegravir at the time of conception. Since the initial 2018 report, the estimated prevalence of neural tube defects has diminished to approximately three cases per 1000 births, compared with one per 1000 deliveries among women taking other antiretroviral drugs. Rebecca Zash of Harvard University and lead author of the dolutegravir safety studies, told *The Lancet Infectious Diseases* that “although the increased risk of neural

tube defects remained, the absolute difference was very small, 0.20% higher than women on all non-dolutegravir-based antiretroviral therapy at conception. With this new estimate and all the other considerations around community input, risk/benefit analysis, and lack of data for other alternative antiretroviral therapy, WHO decided that the benefits of dolutegravir likely outweigh the risks of neural tube defects in a public health approach”.

**“Since the initial 2018 report, the estimated prevalence of neural tube defects has diminished”**

The guidelines are an important advance in HIV treatment, but some questions remain. Andrew Phillips from University of College London explained that “these recommendations only cover people who are initiating treatment. They do not cover people who are currently on a first-line efavirenz-based regimen”. He went

on to say “there is a particular concern over those [who] do not have access to a (recent) viral load test, as is the case for many people in sub-Saharan Africa currently. Currently there is no WHO recommendation to switch from efavirenz to dolutegravir in this situation”. The WHO guidelines considered the value and preferences of people living with HIV; a large criticism of the 2018 guidelines from many activists was that they took away women’s choice of medication. “It’s important that health care providers really understand the magnitude of all the risks and benefits and also the values and preferences of the patient when making treatment recommendations” said Zash. “This kind of risk/benefit counselling is challenging, and takes time, but ultimately is the best approach to treatment decisions, not just in this circumstance, but more broadly.”

Susan Rahimi



## Infectious disease surveillance update

For more on **wild poliovirus** see <http://polioeradication.org/polio-today/polio-now/this-week/>

For more on **West Nile virus** in the USA see <http://outbreaknewstoday.com/maricopa-county-az-107-human-west-nile-virus-cases-7-deaths-60670/>

For more on **malaria in Burundi** see <https://www.theguardian.com/global-development/2019/aug/08/burundi-malaria-outbreak-at-epidemic-levels-as-half-of-population-uninfected>

For more on **tuberculosis in Germany** see <https://www.dw.com/en/tuberculosis-outbreak-at-german-school-infected-over-100/a-49854829>

For more on **yellow fever in Nigeria** see <https://www.ncdc.gov.ng/news/189/the-ncdc-is-aware-of-a-suspected-outbreak-of-yellow-fever-in-ebonyi-state>

### Wild poliovirus in Pakistan

A case of wild poliovirus (WPV) was reported in Pakistan, bringing the number of cases there this year to 48, as of Aug 7. The case was reported in Balochistan province with a date of paralysis onset of July 2. Eight WPV1 positive environmental samples were also reported, from Sindh province (n=3) and Punjab province (n=4). Globally, 60 cases of WPV have been reported so far this year from two countries: Pakistan and Afghanistan.

### West Nile virus in Arizona, USA

As of Aug 9, county health officials in Maricopa county in Arizona, USA, have reported 107 cases of West Nile virus infection including seven deaths (a case fatality rate of 6.5%). Most of the cases reported have been severe, suggesting that milder or asymptomatic cases have been missed. In 2018, 24 cases were reported in the USA.

### Malaria in Burundi

WHO has reported that cases of malaria in Burundi reached epidemic levels in May, 2019. Almost 6 million cases were reported during Jan–July, including 1800 deaths as of Aug 4. This is almost double the number of cases reported in the same period in 2018. As of June 17, 34 districts in Burundi had crossed the emergency threshold. Only six of the 46 districts in Burundi reported normal malaria incidence in this period.

### Tuberculosis in Germany

As of Aug 1, 109 teachers, students, and other employees in schools have been affected in a tuberculosis outbreak in Karlsruhe, Germany. Four patients (two teachers and two students) have active tuberculosis, while the remaining patients have latent tuberculosis. The cases were first reported in July, when two children

from two different schools were found to have active tuberculosis.

### Yellow fever in Nigeria

A suspected outbreak of yellow fever virus infection is being investigated in Izzi (Ebonyi State, Nigeria). Following reports of cases and deaths from a fever of unknown origin, the Ebonyi state public health team began investigations on July 30. As of July 31, three cases have tested positive. Retrospective analysis showed that between May 1 and Aug 7, several cases of illness that match the case definition of yellow fever had occurred, including 20 deaths. The response teams are focusing on active case finding, contact tracing, and risk communication; a reactive vaccination campaign is also planned.

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