#### Distribution Method to Provide Medical Letter for Missionaries Departing from Africa

- 1. Whenever a missionary returns home from serving in Africa, the mission leader, area medical adviser, or mission health adviser ensure a physical copy of the letter below is sent with the missionary.
- 2. Upon returning to home, the missionary is recommended to set up an appointment to see a physician and have a physical exam.
- 3. The letter below should be provided to the physician to guide the assessment.
- 4. The missionary and the family are responsible for the costs of the physical exam and recommended treatment. If financial assistance is needed, the missionary should counsel with his or her local ecclesiastical leaders.

#### THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS

MISSIONARY DEPARTMENT 50 East North Temple Street Salt Lake City, Utah 84150-0303 2025

Dear Healthcare Providers of Latter-day Saint Missionaries Who Served in Africa,

The patient who gave you this letter lived for a prolonged period of time (up to 18-24 months) in Africa, often in remote villages where they could have been exposed to infectious diseases endemic in Africa. While most missionaries remain healthy during and after their missions, we have a few recommendations for the detection of diseases missionaries may have been exposed to.

# • All febrile illnesses for at least a year after returning from Africa should be considered malaria until proven otherwise.

Almost all malaria in Africa is caused by p. falciparum. It is possible that a missionary could have been bitten by a malaria-carrying mosquito in the weeks prior to coming home and develop the malaria illness after arriving home. P. falciparum causes an acute severe and potentially life-threatening illness and must be treated promptly. About 10% of cases are caused by p. vivax or p. ovale, both of which produce hypnozoites that reside in the liver and can reinfect the blood up to several years after the initial infection. Most cases occur within the first year.

• All bodies of fresh water in sub-Saharan Africa are infested with schistosomiasis larvae. Possible exposure to fresh water in Africa should prompt a test for serum IgG antibodies against the adult form of schistosomiasis despite the lack of symptoms. The test should be done at least three months after the last possible exposure.

Larvae of the blood fluke schistosomiasis which contaminate all African bodies of fresh water such as rivers, streams, lakes, ponds, and even waterfalls can penetrate the skin without a person being aware. The larvae (cercariae) travel through the blood stream where they mature and repeatedly produce large numbers of eggs. An inflammatory reaction to the eggs can cause serious organ damage which is typically asymptomatic for years until organ (usually liver) failure occurs. The test should be done at least 3 months after the last possible exposure due to the delayed development of detectable antibodies and because treatment is only effective against the adult form, not the larvae. African returned missionaries may have IgG antibodies from infection in childhood, so they should be tested for the presence of Schistosoma eggs in urine and stool. Early treatment prevents sequelae.

• If a missionary was diagnosed with typhoid during his or her mission, a test of cure by stool culture is recommended (even if the missionary is asymptomatic) before they are involved in food preparation for others.

Typhoid and paratyphoid are frequently diagnosed in missionaries (despite vaccination) due to fecal contamination of food and water. The incubation period is up to 30 days. The most common tests are blood, stool, or urine cultures.

## • Returning asymptomatic missionaries would benefit from a PPD or IGRA test to detect latent TB if these tests and treatment of latent TB are available.

Missionaries assigned to Africa receive a survey for TB symptoms before they travel home. If they have symptoms of active TB, they receive a chest x-ray and appropriate initial treatment while still in Africa. African countries where our missionaries serve all have high incidence rates for TB. Your local public health department recommendations will advise you regarding detection and treatment of latent TB. Not all countries treat latent TB.

## • There are other rare infections, some acquired from contaminated soil and mud, and others that require repeated bites from insects such as tsetse flies or sand flies.

Diagnosis in many cases is made by visualizing the parasites in tissue samples, but unusual rashes or neurologic and other symptoms should be evaluated with the help of infectious disease specialists. Common intestinal infections of giardiasis, amoebiasis, hookworm, ascariasis, etc. are also prevalent. If these are suspected, test three stool samples each on a different day. Serology is also helpful, and a CBC looking for eosinophilia can increase your suspicion of parasitic infection. Most viral infections have short incubation times and would be resolved before a missionary returns home.

## • Refer any complex cases to the missionary's local health department or locally available infectious disease specialists.

Payment for post-mission medical evaluations and treatments are the missionary's and the family's responsibility. If any positive results are found, I would appreciate a quick text message for research purposes.

Don't hesitate to contact me with any questions or concerns. Thank you for your care of our missionary!

Sincerely,

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