

Missionary Immunization Guidelines

Review date: June 25, 2019

(Please discard ALL previous immunization guidelines)

Immunizations are not a requirement for missionary service, but young or senior missionaries who decline or are unable to receive immunizations will serve in their home countries. This policy helps protect both the missionary and the populations to be served. Vaccines must be approved by the Advisory Committee on Immunization Practices (ACIP) in the United States or by an approved government agency internationally. Some vaccines contain live viruses and certain precautions apply. MMR, chicken pox, influenza by nasal spray, yellow fever, and shingles vaccines contain live viruses. They must be given on the same day or separated by 28 days before another live virus vaccine can be given.

Note: Regarding yellow fever vaccine *only*, when not administered on the same day, the CDC recommends that yellow fever vaccine and other parenteral or nasal live vaccines should be separated by at least 30 days, if possible. Because of concern about protection from yellow fever, CDC recommends postponing travel if the 30 day interval cannot be established between other live vaccines.

Each missionary should complete their immunizations BEFORE entering the MTC.

Immunizations Required for ALL Countries

In some locations all vaccines may not be available, and immunizations may need to be completed during MTC training. An appropriate fee may be charged to the missionary or home stake for this service. The duration of the MTC training does not always allow sufficient time to follow standard vaccine schedules, so every attempt should be made by the family and/or local priesthood to complete immunizations before entering the MTC. In certain areas of the world, it may be more appropriate to complete vaccination series during missionary service, depending on vaccine availability in field, rather than deferring to the less reliable post mission completion.

Tetanus-Diphtheria- Pertussis: A primary series should have been received in childhood. Tdap is the preferred booster vaccine to protect against all three diseases and is given after age 11. The Missionary Department recommendation for protection against tetanus is for either vaccine (Tdap or Td) to be given within 5 years of missionary service. If this interval is not possible, the 10-year interval (advised by the CDC) is acceptable if it is timed from the end of the missionary's service, i.e., an interval of eight (8) years at the beginning of a two-year mission.

Measles-Mumps-Rubella (MMR) LV (live virus): This vaccine is not needed for those born before 1957. Two doses of MMR should have been received, usually ages 1 and 4-6 years. If only one dose, or if a person is unsure, a second dose should be given. Two doses of this vaccine given >28 days apart in older children and adults give 99% lifetime measles immunity.

Polio (P): A primary series should have been received in childhood. No booster is required unless serving in an endemic country (see "Country/Mission Specific Required Immunizations"). A single booster following the primary series gives lifetime immunity.

Hepatitis A: Hep A is a 2-dose series given on days 0 and 180 for lifetime protection. One dose protects for two years. Persons from developing countries may not need Hep A vaccine. Senior missionaries residing in developed countries and serving in their home countries are not required to have Hep A or Hep B immunizations.

Hepatitis B: Hep B is a 2 dose or 3-dose series depending on brand. The 2 dose series is administered one month apart. The 3 dose series are given on a 0, 30, and 180-day schedule. Both provide lifetime protection. For the 3 dose series, at least 2 doses must be received before entering the MTC but gives only 60-70% protection during the mission. If only 2 doses of the 3 dose series are given before missionary service, a third should be given at least 5 months after the 2nd dose during the mission or following its completion. The 3 dose series has recently been approved for an accelerated

schedule of 0, 7, 21-30 days, with a 4th dose after 12 months (or after completion of mission) for lifetime protection. HepB is a new vaccine that is a 2-dose option with a schedule of 0 and 30 days, with reported higher immune response, but it is more expensive.

Combined Hep A/Hep B (Twinrix): This is available and is approved for an accelerated schedule of 0, 7, and 21-30 days, with a 4th dose recommended after 12 months for lifetime protection. If a person has started Hep A and/or Hep B vaccines separately, Twinrix may be used to complete the immunization.

Influenza: Injectable vaccine needs to be given at least 2 weeks **BEFORE** entering MTC during Sept.-Mar. in the northern hemisphere, and Mar.-Aug. in the southern hemisphere, to prevent epidemics under dormitory living conditions. Missionaries should be certain they receive the current vaccine if possible. Repeating the influenza vaccination is appropriate if changing hemispheres and a 3-month time span has elapsed. During July and August in the northern hemisphere the current vaccine is not available, and so missionaries may come to the MTC without being immunized for influenza, making it necessary to receive the vaccine at the MTC or infield. For missionaries under age 65, the quadrivalent vaccine is preferred. For those over age 65, a high dose vaccine is recommended.

Country/Mission Specific Required Immunizations

Each missionary will be notified if these vaccinations are required in their assigned mission.

Polio (P): Only those serving in countries where polio is endemic (see table) need to have a booster dose. If one's vaccination status is unknown, and current protection is needed, 2 injections of inactivated polio vaccine (IVP) should be given at least 4 weeks apart. Some countries use the oral live virus vaccine, either method is acceptable.

Typhoid (TY): This vaccine is required for missionaries going from developed countries to developing countries. It is not recommended for those going to the Mexico MTC just for training, and then assigned to serve in a developed country. Two types of vaccine are available (not always in developing countries). The preferred method is an oral dosing, taking one capsule on a 0, 2, 4, and 6-day schedule, and immunity lasts 5 years. They should not be taken while on an antibiotic. The injection is a single dose which lasts 2 years, and is the method used at MTCs because of dosing problems with the oral capsules in that setting.

Yellow Fever (YF-LV): Vaccine is available only in travel clinics or health departments and should be given in advance of entering the MTC because of common mild adverse reactions (10-30%). Those over age 65, especially if they have never been vaccinated for YF, have increased adverse reaction risk, some of which are serious. These persons should consult their personal physicians regarding their risks of vaccine reaction versus the disease risk in their assigned missions. It is now generally accepted that a single shot of YF vaccine confers lifetime immunity, although some countries still require a booster dose after 10 years.

Japanese Encephalitis (JE): The Missionary Health Services Division (MHSD) requires Japanese Encephalitis Vaccine (JEV) in hyperendemic countries, which are marked with an X in the JE column in the Table which follows. The CDC also advises JEV in additional endemic but lower risk countries, which are marked OPT in the Table, but MHSD does not require JEV in those countries. There are 2 JEVs preferred by MHSD:

1. Ixiara is an inactivated virus vaccine given in 2 injections 28 days apart. Recently an accelerated schedule has been approved for ages 18-65 which is 2 injections only 7 days apart. It is best to have the second dose at least 14 days before entering a high-risk area. This vaccine is the only JEV approved and available in the US and New Zealand.

A booster dose 12 or more months after the primary series has been suggested by the CDC, but the MHSD does not feel there is sufficient evidence for such practice to be required by the Mission Department.

2. Imojev, is a live virus vaccine given as a single injection, is produced in Australia and is available in many Asian countries. It is less expensive than Ixiara and is equally as effective.

Missionaries required to receive JEV attend one of 3 MTCs: Provo, Philippines, or New Zealand. Only Ixiara is available in Provo and New Zealand. The availability of either Ixiara or Imojev has been unreliable at the Philippines MTC. MHSD prefers that immunizations be completed before entering an MTC, but if cost or availability prevents this from being accomplished, JEV can be provided at Provo and New Zealand, but only possibly at the Philippines. In some cases, particularly with senior missionaries, Imojev can be received on arrival in the mission in those countries where it is available. Those countries are noted in the Table in the JE column as explained in footnote *5.

Recommended Immunizations

Meningitis: The five meningococcal serotypes that cause meningitis are A, B, C, W-135, and Y. The existing vaccines (Men A-Y) protect against types A, C, W-135, and Y. Two vaccines (Men B) now approved protect against type B infection. The Missionary Department (MD) requires Men A-Y vaccine for all missionaries (including seniors) going to high risk countries-see IG table. The MD recommends it for all young missionaries at least 10 days before entering an MTC. It is not recommended for senior missionaries going to low risk countries or before entering an MTC. If the most recent dose of Men A-Y was given more than 5 years before the end the mission, a booster dose is advisable. Men B vaccine is recommended for those with an increased risk of meningococcal disease: people with complement deficiencies, anatomic or functional asplenia, and any exposed persons during an outbreak of type B meningitis.

Pneumonia: There are two approved vaccines for prevention of pneumococcal disease, PCV13 and PPSV23. They are recommended for all seniors over 65, and for any age person with chronic heart or lung conditions, including asthmatics taking prevention or maintenance medications, those with sickle cell disease, diabetes, after splenectomy, or other immune challenged condition. Whether a person takes one or both vaccines should be determined after an informed discussion with his or her personal physician.

Chicken Pox (varicella-LV): This two-injection live virus vaccine is given 4 weeks apart and presumably provides lifetime immunity. It is advised for those who have never been vaccinated or never had the disease. Those persons born before 1980 in the U. S. do not need the vaccine. If a missionary is exposed to chicken pox in field, a single dose of vaccine is 90% effective in preventing disease in children if given within 3 days of exposure. There is no data regarding this for adults.

Shingles (H. Zoster): Shingrix, a new vaccine, which is not live virus, is now recommended over Zostavax (LV) for any healthy person over age 50, even those who were previously vaccinated. It is 97% effective against shingles regardless of age over 50. It is a two-dose injection at 0 and 60-180 days.

Other Vaccines

Rabies: The emphasis of AMAs and mission personnel should be on prevention of rabies exposure. Rabies is transmitted through the bite or saliva exposure of a rabid animal. Missionaries should not pet or play with any animals including dogs, cats, bats, raccoons, mongooses, skunks, foxes, monkeys, or any wild animal. If a bite occurs, wash the wound thoroughly with soap and water, no matter how small it is, and promptly notify mission health personnel. The animal should be observed for any signs of illness for 10 days where possible.

Detailed management of post rabies exposure is available from CDC and WHO websites:

https://www.cdc.gov/rabies/medical_care/index.html

<https://www.who.int/ith/vaccines/rabies/en/>

The Missionary Health Services Division advises following either of these guidelines with missionaries who have likely been exposed to rabies infection from animal bites or saliva. When considering the high risk of a fatal outcome of rabies infection, it is important to follow post-exposure prophylaxis. Since some areas of the world do not have ready access to vaccine, rabies immune globulin (RIG), or equine rabies immune globulin (ERIG), AMAs should prepare for such urgent situations by locating in advance sources for these products. Aetna International or its local affiliates can be of help in procuring them.

Cholera: Vaxchora is the only cholera vaccine approved in the US. It is a live-oral vaccine effective for outbreaks of cholera but does not provide long term protection. The missionary department does not recommend it for routine pre-mission use in at risk countries.

Legend

| | |
|-----|--|
| X | Immunization or malaria prevention required |
| TY | Typhoid |
| P | Polio |
| YF | Yellow Fever |
| Men | Meningitis |
| JE | Japanese Encephalitis |
| OPT | Optional JEV—make an informed choice |
| Mal | Malaria prevention necessary, including medication, repellent, insecticide and net use |
| IP | Insect prevention needed. Medication to prevent malaria may be needed. |

Specific immunizations are required for missionaries serving in the countries so indicated in the following Table, as is malaria prevention. Countries not listed require the basic immunizations.

Immunizations checked with X are REQUIRED in those countries
Malaria prevention and/or medication required as noted in last column

| COUNTRY | TY | P | YF | Men | JE | Malaria |
|--|----|---|-----|-----|------|---------|
| Afghanistan | x | x | | | | IP |
| Algeria | x | | | | | |
| Angola | x | | x | x | | x |
| Argentina | x | | x*1 | | | |
| Azerbaijan | | | | | | IP |
| Bahamas, The | x | | | | | |
| Bahrain | x | | | | | |
| Bangladesh | x | | | | x | x |
| Barbados Bridgetown Mission (Barbados, Anguilla, French Guiana, Grenada, Guadeloupe, Martinique, St. Barthelemy, St. Lucia, St. Martin, St Vincent and the Grenadines) | x | | x | | | IP |
| Belize | x | | | | | IP |
| Benin (Africa) | x | | x | x | | x |
| Bermuda | X | | | | | |
| Bhutan | X | | | | x | IP |
| Bolivia | X | | x | | | IP |
| Botswana (malaria in north only) | X | | | x | | IP |
| Brazil (Belem, Brasilia, Maceio, Manaus, Salvador, Salvador Sul, Teresina) | X | | x | | | IP |
| Brazil (all other missions not noted above) | | | x | | | IP |
| Brunei | X | | | | x | |
| Burkina Faso | X | | x | x | | x |
| Burma (Myanmar) | X | x | | | x | x |
| Burundi | X | | x | x | | x |
| Cambodia | X | | | | X *5 | IP |
| Cameroon | X | x | x | x | | x |
| Cape Verde (Praia mission) | X | | x*6 | x | | IP |
| Central African Republic | X | x | x | x | | x |
| Central Eurasia Mission (Azerbaijan, Bulgaria, Tajikistan, Turkey, Turkmenistan, Uzbekistan) | X | | | | | IP |
| Chad | X | x | x | x | | x |
| Chile | X | | | | | |
| China | X | | | | OPT | IP |
| Christmas Island (Australia) | X | | | | | |
| Colombia | X | | x*2 | | | IP |
| Comoros | X | | | x | | x |
| Congo | X | | x | x | | x |
| Cook Islands (New Zealand) | X | | | | | |
| Costa Rica | X | | | | | IP |
| Côte d'Ivoire (formerly Ivory Coast) | X | | x | x | | x |
| Cuba | X | | | | | |
| Democratic Republic of Congo (formerly-Zaire) | x | x | x | x | | x |
| Djibouti | x | | | x | | x |
| Dominican Republic | x | | | | | IP |
| East Timor (Indonesia) | x | | | | x | x |
| Ecuador (Guayaquil West and North) | x | | *2 | | | IP |
| Ecuador (Guayaquil South, Quito, Quito North) | x | | x | | | IP |
| Egypt | x | | | | | |
| El Salvador | x | | | | | IP |
| Equatorial Guinea | x | x | x | x | | x |
| Eritrea | x | | x | x | | x |
| Ethiopia | x | x | x | x | | x |

| COUNTRY | TY | P | YF | Men | JE | Malaria |
|--|----|---|----|-----|-----|---------|
| Fiji (Suva) | x | | | x | | |
| French Polynesia (incl. Island groups) | x | | | | | |
| Gabon | x | | x | x | | x |
| Gambia, The | x | | x | x | | x |
| Ghana | x | | x | x | | x |
| Guam (U.S.) | x | | | | | |
| Guatemala | x | | | | | IP |
| Guinea | x | x | x | x | | x |
| Haiti | x | | | | | x |
| Honduras | x | | | | | IP |
| Hong Kong (including Macao) | X | | | | | |
| India | x | | | | x | x |
| Indonesia | x | | | | X*5 | IP |
| Iran | x | x | | x | | IP |
| Iraq | x | x | | | | |
| Jamaica | x | | | | | |
| Japan (Islands of Kyushu & Shikoku) | | | | | OPT | IP |
| Jordan | x | | | | | |
| Kazakhstan | x | | | | | |
| Kenya | x | x | x | x | | x |
| Kiribati (formerly Gilbert Islands) | x | | | | | |
| Korea, South | x | | | | OPT | IP |
| Kuwait | x | | | | | |
| Kyrgyzstan | x | | | | | |
| Laos | x | | | | x | x |
| Lebanon | x | | | | | |
| Lesotho | x | | | | | |
| Liberia | x | x | x | x | | x |
| Libya | x | | | | | |
| Madagascar (Antananarivo mission) | x | x | | x | | x |
| Malawi | x | | | x | | x |
| Malaysia (malaria in rural areas) | x | | | | x | x |
| Maldives | x | | | | | |
| Mali | x | | x | x | | x |
| Marshall Islands | x | | | | | |
| Mauritania | x | | x | x | | x |
| Mauritius | X | | | | | |
| Mayotte (French territorial collectivity) | x | | | | | x |
| Mexico | x | | | | | IP |
| Micronesia (Federated States of) | x | | | | | |
| Mongolia | X | | | | | |
| Morocco | X | | | | | |
| Mozambique | x | X | | x | | x |
| Namibia | x | | | x | | IP |
| Nauru | x | | | | | |
| Nepal | x | | | | x | IP |
| New Caledonia (France) | x | | | | | |
| Nicaragua | x | | | | | IP |
| Niger | x | X | x | x | | x |
| Nigeria | x | X | x | x | | x |
| Niue (New Zealand) | x | | | | | |
| Northern Mariana Islands | x | | | | | |
| Oman | x | | | | | |
| Pakistan | x | X | | | OPT | x |
| Palau | x | | | | | |
| Panama (S. Panama, YF prevent. as needed) | x | | x | | | IP |
| Papua New Guinea | x | X | | | x | x |
| Paraguay | x | | x | | | IP |
| Peru (Chiclayo, Cusco, Piura, Iquitos and Huancayo mission) | x | | x | | | IP |
| Peru (Trujillo North and South, Lima North, South, East, West, and Central, and Arequipa missions) | x | | *7 | | | IP |
| Philippines | x | | | | OPT | IP |
| Puerto Rico Mission (Puerto Rico, Virgin Islands (British and US), St. Croix, St. Kitts-Nevis) | x | | | | | |
| Qatar | x | | | | | |
| Réunion (France) | x | | | | | |
| Russia | x | | | | | |
| Rwanda | x | | x | x | | x |
| Samoa (formerly Western Samoa) | x | | | | | |
| Samoa, America (U.S.) | x | | | | | |
| São Tome & Príncipe | x | | x | | | x |
| Saudi Arabia | x | | | x | | IP |
| Senegal | x | | x | x | | x |
| Seychelles | x | | | | | |
| Sierra Leone | x | X | x | x | | x |

| COUNTRY | TY | P | YF | Men | JE | Malaria |
|--|----|---|----|-----|--------|---------|
| Singapore | x | | | | X *3*5 | IP |
| Solomon Islands | x | | | | | x |
| Somalia | x | X | x | x | | x |
| South Africa | x | | | | | IP |
| Sri Lanka | x | | | | x | x |
| Sudan | x | X | x | x | | x |
| Swaziland | x | | | x | | x |
| Syria | x | X | | | | IP |
| Tahiti | x | | | | | |
| Taiwan | | | | | OPT *5 | |
| Tajikistan | x | | | | | IP |
| Tanzania | x | X | | x | | x |
| Thailand | x | | | | X*5 | IP |
| Togo | x | | x | x | | x |
| Tokelau (New Zealand) | x | | | | | |
| Tonga | x | | | | | |
| Trinidad Port of Spain Mission (Trinidad, Tobago, Aruba, Bonaire, Curacao, Guyana, and Suriname) | x | | x | | | IP |
| Tunisia | x | | | | | |
| Turkey | x | | | | | IP |
| Turkmenistan | x | | | | | |
| Tuvalu | x | | | | | |
| Uganda | x | | x | x | | x |
| United Arab Emirates | x | | | | | |
| Uruguay | X | | | | | |
| Uzbekistan | X | | | | | |
| Vanuatu | X | | | | | x-*4 |
| Venezuela | X | | x | | | IP |
| Vietnam | X | | | | x | x |
| Western Sahara | X | | | | | |
| Yemen | X | | | | | x |
| Zambia | X | | | x | | x |
| Zimbabwe | X | | | x | | x |

*1 - YF vaccine is in needed the Posadas, Resistencia, and Salta Missions.

*2 - Missionaries going to the Lima, Peru MTC and the Bogota, Colombia MTC and then to serve in Ecuador need to have YF vaccine. The Ecuador government requires YF vaccine for anyone entering Ecuador from Peru or Colombia.

*3 - The country Singapore has little risk of JE, but the mission headquartered in Singapore includes Malaysia and Brunei which are high incidence areas.

*4 - Missionaries from countries other than Vanuatu but serving there should be tested for glucose-6-phosphate dehydrogenase deficiency (G6PD) in case treatment with primaquin is needed.

*5 – Imojev, a single dose JE vaccine, is available in this country for missionaries who wish to defer this immunization until arrival in field.

*6 - YF documentation is required in Cape Verde to renew visas every 6 months. Missionaries must travel to Africa in order to renew their visas, and Cape Verde requires evidence of YF vaccination as they come back into the country. There is not a risk of getting the disease in Cape Verde.

*7 - Missionaries serving in the Lima East Mission (such as in the Lima Temple) do not need YF vaccine. The YF vaccine is not necessary for senior missionaries and available in the Lima MTC for those with traveling assignments or who might travel to high risk areas.

Source: Missionary Public Health Committee

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