**FY 2018 Immunization Recommendations for the Crew and Travelers to the NOAA Ship Ronald H. Brown**

This document provides the Center for Disease Control’s (CDC) recommendations for travel to the foreign ports of call on the FY2018 sailing schedule for the NOAA Ship Ronald H. Brown. NOAA Health Services will be offering Yellow Fever (FY) vaccines to all crew members sailing to South Africa, India, and Australia. NOAA Health Services will also offer daily doxycycline to crew members for the prevention of malaria beginning 2 days prior to arrival in India, while in India, and for 4 weeks after departure.

Scientists traveling to South Africa, India, or Australia should travel with proof of a current YF immunization (less than 10 years old). Scientists traveling to India should talk to their doctors before departing and obtain a malaria prevention treatment if desired. Scientists should inform their doctors if their travel will require them to take the malaria prevention medication while at sea because some medications require monitoring, lab work, and risks that exceed the capabilities aboard the NOAA Ship Ronald H. Brown. The CDC website below provides a list of drugs commonly used for malaria prevention as well as the pros and cons associated with each drug regimen. Scientists should discuss these pros and cons with their doctors when selecting malaria prevention. Please have your doctor call CAPT Les Cruise at 757-441-3004 if there are questions about the medical capabilities aboard the NOAA Ship Ronald H. Brown.

<https://www.cdc.gov/malaria/travelers/drugs.html>

Unfortunately the CDC is predicting a major shortage of YF vaccine is the near future. The following link provides a recent CDC announcement regarding access to the YF vaccine. Scientists requiring a YF vaccine should plan well in advance to improve chances of locating a clinic that has YF vaccine available.

<https://wwwnc.cdc.gov/travel/news-announcements/yellow-fever-vaccine-access>

The remainder of this document provides the CDC‘s travel recommendations. Please do not hesitate to contact CAPT Les Cruise at 757-441-3004 or les.cruise@noaa.gov if you have questions regarding immunizations for travel aboard any OMAO ship.

**SOUTH AFRICA-INCLUDES CAPE TOWN AND DURBAN**

*REQUIRED*

* ***YELLOW FEVER (YF)VACCINE REQUIRED***
* Valid International Certificate of Vaccination or Prophylaxis showing vaccine give at least 10 days before arrival if traveler > 1 year old. Unvaccinated travelers can be refused entry or quarantined for up to 6 days. Unvaccinated travelers with a valid medical waiver should be allowed entry. S. Africa does not require revaccination after 10 years.

*RECOMMENDED*

 Hep A, Typhoid

*OTHER RISKS*

MALARIA- *Kruger National Park’s* strain of malaria is *resistant to CHLOROQUINE*. MALARIA season in the northeastern game reserve is at its highest from Sept. through May. Preventing mosquito bites is the first line of defense. The CDC recommends malaria prophylaxis medication for travelers to areas in S. Africa with high risk from September through May

TICK-BITE FEVER – caused by rickettsial species common in S Africa. Hikers and campers in rural areas are at greatest risk, 4-5% rate. Travelers taking Doxycycline for malaria chemoprophylaxis may have some protection against tick-bite fever, but no studies to confirm or deny this treatment.

TRAVELERS DIARRHEA – Fluoroquinolone, such as *Ciprofloxacin*, can be considered for self-treatment of moderate to severe diarrhea.

WATERBORNE DISEASES - Schistosomiasis a common parasite in Africa may be present in any freshwater bodies. Avoid swimming in unchlorinated water.

ANIMAL AVOIDANCE – Rabies is common. The KwaZulu-Natal Province has the highest incidence of rabies. Rabies Immune Globulin is available in major urban medical centers.

SAFETY and SECURITY- Violent crimes, i.e. carjacking, home invasion robberies, rape on the rise. Most cases in the lower income neighborhoods. Use the buddy system. Check with local authorities’ guidance.

*TRAVEL HEALTH NOTICES* - None currently in effect for South Africa.

 **Seychelles**

*REQUIRED*

None, however Seychelles requires proof of vaccination if traveling from a country where YF is high risk.

*RECOMMENDED*

Hep A, Typhoid

*TRAVEL HEALTH NOTICES* – None currently in effect for Seychelles

**INDIA**

*REQUIRED*

* ***YELLOW FEVER (YF) VACCINE***

Requirements: Any traveler (except infants <6 months old) arriving by air or sea without a **yellow fever** **vaccination certificate** is detained in isolation for up to 6 days if that person— (same as S. AFRICA).

*RECOMMENDED*

Typhoid, Cholera, MMR, HEP-A, HEP-B, Japanese Encephalitis, Rabies.

**MALARIA-**Antimalarial recommended for travelers.

Estimated relative risk of malaria for US travelers: **Moderate.**

Drug resistance4: Chloroquine.

Malaria species: P. vivax 50%, P. falciparum >40%, P. malariae and P. ovale rare.

Recommended chemoprophylaxis: Atovaquone-proguanil, doxycycline, or mefloquine.

*OTHER RISKS*

Chikungunya, Dengue, Tuberculosis (TB),

H5N1 Avian- Endemic among poultry in India.

*TRAVEL HEALTH NOTICES* - None currently in effect for India.

**AUSTRALIA**

*REQUIRED*

Yellow Fever – if traveling from a country with risk of YFV transmission. i.e. S. Africa

*RECOMMENDED*

Hep A, Typhoid

*TRAVEL HEALTH NOTICES* – None currently in effect for Australia.

**GUAM**

*REQUIRED*

None

*RECOMMENDED*

Hep-A, Hep-B, Typhoid

*TRAVEL HEALTH NOTICES* **-** None currently in effect for Guam (U.S.).