

Role of Pneumococcal Vaccine in Travelers

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Today a lot of people undertake international travel. For such population, a number of diseases may be encountered while traveling. While evaluating the need for vaccination in travelers, it is important to consider not only the incidence rate but also the impact of the respective infection.¹ Immunized travelers are less likely to contaminate other travelers or the local population with a number of potentially serious diseases. From a European survey, it was noticed that only² 52.1% of responders had sought travel health advice. The risk to a traveler of acquiring a disease depends on age, immunization status and current health state of traveler, travel itinerary, duration and style of travel. Based on these factors, health care professional has to decide about need for immunizations and/or preventive medication (prophylaxis) and provide advice. Regardless of administration of vaccine/ medications traveler should always follow all possible precautions against infection for avoiding disease.

There cannot be single vaccination schedule applicable to all travelers. Considering individual traveler's immunization history, the countries to be visited, the type and duration of travel, and the availability of time for vaccination before departure a tailor made schedule would be most appropriate.

Vaccines – When to Take?

It is dire essential that travelers should consult health care provider in advance of their travel about the need to take vaccines. When exactly to take the vaccine depends on the type of vaccine and the number of

doses required for development of immunity.

Following vaccination, the immune response of the vaccinated individual varies with the type of vaccine, the number of doses required, and whether the individual has been vaccinated previously against the same disease. For this reason, travelers are advised to consult a travel medicine practitioner or physician 4–8 weeks before departure in order to allow sufficient time for optimal immunization schedules to be completed. However, even when departure is imminent, there is still time to provide both advice and possibly some immunizations. Another standard advice to all travelers should be that no vaccine renders cent percent protection against a particular disease. Personal protection, chemoprophylaxis wherever applicable and contacting health care services on appearance of unusual symptoms during or soon after returning home is of utmost importance.

Vaccines for travelers include (i) basic vaccines used in routine immunization program- in all age groups. (ii) vaccines that may be advised before travel to countries or areas at risk of these diseases. As per the International Health Regulations, vaccination to prevent meningococcal diseases and yellow fever are required for visiting certain countries.³ The vaccines that may be recommended or considered for travelers are summarized in Table 1.

Table 1: Vaccines for travelers

Routine vaccines	<ul style="list-style-type: none"> • Diphtheria • Hepatitis B • Haemophilus influenza type b • Human papilloma virus • Seasonal influenza • Measles • Mumps • Pertussis • Rubella • Pneumococcal disease • Poliomyelitis • Rotavirus • Tuberculosis • Tetanus • Varicella
Selective use for travelers	<ul style="list-style-type: none"> • Hepatitis A • Typhoid fever • Rabies • Cholera • Japanese encephalitis • Tick borne encephalitis • Meningococcal disease • Yellow fever
Required vaccination	<ul style="list-style-type: none"> • Yellow fever • Meningococcal (against serogroups A, C, Y and W135) and polio (required by Saudi Arabia for pilgrims)

Pneumococcal Vaccination

While travel itself does not normally increase the risk of acquiring pneumococcal disease, access to optimal health care may be limited during travel; increasing the risk of a poor outcome should disease occur. Thus, before travel to countries with limited medical resources is undertaken, vaccination against invasive pneumococcal disease is advisable for children <2 years of age and for children and adults

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considered to be at particular risk of serious disease. Conditions predisposing to complications of pneumococcal infections include sickle-cell disease and other haemoglobinopathies, chronic kidney disease, chronic liver disease, immunosuppression after organ transplantation, asplenia and dysfunctional spleen, leaks of cerebrospinal fluid, diabetes mellitus and HIV infection. Elderly individuals, especially those over 65 years of age, are also at increased risk for pneumococcal disease.

PCV13 is licensed for the prevention of pneumococcal disease in adults >50 years of age. PPV23 is licensed only for individuals aged

>2 years. The vaccine is commonly recommended for children and adults who have certain underlying medical conditions predisposing for pneumococcal infection, although its efficacy in several of these conditions is not well documented. In some countries, such as USA, routine vaccination is recommended for everyone over 65 years of age.

Vaccination Document

Travelers should carry a written record of all vaccines administered, preferably using the international vaccination certificate signed by the clinician or authorized health

worker stamped by the vaccination center. It must be in English.

References

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