

Recommended Immunization Schedule for the Expanded Programme on Immunization, Kingdom of Bahrain

AGE	VACCINE	DOSE
At birth	BCG for non Bahraini newborns	Single Dose
2 months	DPT + HB + Hib + OPV	1st Dose
4 months	DPT + HB + Hib + OPV	2nd Dose
6 months	DPT + HB + Hib + OPV	3rd Dose
12 months	MMR Hepatitis A	1st Dose 1st Dose
18 months	DPT + OPV Hepatitis B + Hib	1st Booster Booster
2 years	Meningococcal Hepatitis A	Single Dose 2nd Dose
5-6 years	DTaP OPV MMR	2nd Booster 2nd Booster 2nd Dose

ADOLESCENTS		
12 years	MMR	2nd Dose
13 years	Td	Booster
14 years	Hepatitis B	3 Doses

FOR PREVIOUSLY UNIMMUNISED WOMEN

	at first contact	ТТІ
	at least 4 weeks after TTI	TT2
Tetanus toxoid	at least 6 months after TT2	TT3
	at least 1 year after TT3	TT4
	at least 1 year after TT4	TT5

ELDERLY AND HIGH RISK GROUP

	Pneumococcal Polysaccharide	Single dose for \geq 2 years
	Pneumococcal Conjugate	3 doses for infants
ŝ	Influenza	Annually
	Chickenpox	Single dose 1-12 years 2 doses 6 weeks apart <u>></u> 13 years

ADULTS AND HAJII

Meningococcal	Single dose every 3 years
Td	3 primary and a booster every 10 years
Influenza (elderly)	Annually

OTHER VACCINES

Travellers	Yellow fever	Single dose every 10 years
Travellers	Typhoid	Single dose every 3 years
Post exposure	Rabies	5 dose plus RIG (Single)
Contacts	Hepatitis B	3 doses
Immunocompromised	Killed Polio	5 doses



TRAVELLERS HEALTH AND VACCINATION Part 2

The food safety recommendations for the traveler

- Make sure your food has been thoroughly cooked and is still hot when served.
- Avoid any uncooked food, apart from fruits and vegetables that can be peeled or shelled.
- Remember the dictum "Cook it, peel it or leave it".
- Avoid ice cream from unreliable sources.
- Avoid species of fish and shell fish that may contain poisonous biotoxins.
- Boil unpasteurized milk before consumption.
- Boil or disinfect the drinking water with reliable, disinfectant tablets.
- Avoid ice unless you are sure that it is made from safe water.
- Use hot tea or coffee, wine, beer, and carbonated soft drinks or fruit juices which are either bot tled or packaged.

The factors that affect the decision on the vaccines needed for travelers It depends on:

- The country visited.
- The length of the trip.
- The type of travel and accommo dation.
- The previous vaccination history.
- The general health, medications and allergies.
- The tolerance for risks.

Vaccines that travelers need

- 1. Routine vaccination
- (Diphtheria, Tetanus, Pertussis) vaccine.
- Hepatitis B vaccine.
- Haemophilus influenzae type (b) vaccine.
- Measles, Mumps and Rubella vaccine.
- Poliomyelitis vaccine.
- Hepatitis A vaccine.
- 2. <u>Selective vaccine use for travel-</u> ers
- Cholera for refugee.
- Influenza for high risk group (elderly, immunocompromised)

and travelers with chronic dis eases).

- Hepatitis A (HAV) for traveler to endemic areas.
- Japanese encephalitis for traveler to endemic zones.
- Lyme for traveler to forests in tick season.
- Meningococcal for traveler to outbreak zones.
- Pneumococcal for traveler to high risk groups.
- Rabies for traveler to endemic areas.
- Tick-borne encephalitis for travel er to endemic areas in tick season.
- Tuberculosis (BCG) for long term travelers to higher incidence countries (infants).
- Typhoid for traveler to endemic areas.
- Yellow fever for traveler to Jungle areas.
- 3. Mandatory vaccination
- Yellow fever for travelers visiting endemic countries
- Meningococcal meningitis for travelers to
- Umra.
- Hajj.

Safety of multiple vaccines before travel

- All vaccines can be given simulta neously at different sites.
- Live and inactivated vaccines can be given at the same time or sep arated with any interval.
- 2 live vaccines either to be given at the same visit or 4 weeks apart.
- Combined vaccines are safe and effective as individual single disease vaccines.

The differences between required and recommended vaccines

"Required" - no traveler will be allowed into the country unless he / she has proof of vaccination. Yellow Fever vaccine is a "required" vaccine in many countries. "Recommended" - vaccine and medications advised by doctors. Most vaccines fall into this category.

Yellow-fever vaccination center:

- Sheikh Sabah health center has been designated by the Ministry of Health to issue yellow-fever vaccination certificates as recommended by WHO.

The timing of vaccinations

- To start three weeks before the trip.
- Anti malarial drugs should commence two to three weeks before travel.
- Children traveling to very underdeveloped countries should seek advice at least five to six weeks before travel.

Consumption of Alcohol after vaccination

- Traveler can drink alcohol after receiving vaccines.
- Alcohol should be avoided for a few hours after taking the oral typhoid vaccine.
- If the traveler undertakes exer cise in the 24 hours after vaccina tion -do so in moderation.

The immunizations recommended for different countries

- For all areas.
 - If you have not previously been immunized against diphtheria, polio or tetanus, this is an ideal opportunity to have the immunizations carried out.
- For areas where standards of hygiene and sanitation may be less than ideal.

Hepatitis A and Typhoid

- For infected areas.
- Anti-malarial tablets.
- Precautions against insect bite.
- Yellow fever vaccine.
- In certain circumstances.
- Meningococcal Meningitis
- Hepatitis B
- Rabies
- Diphtheria booster
- MMR

TRAVELLERS HEALTH AND VACCINATION Part 2 (contd.)

Vaccines are safe before travel

- Vaccines, like medicinal drugs and natural substances, have the potential to trigger unwanted side effects. Mostly these are of nuisance value, but can be quite common.
- They can also rarely be associated with more serious allergic reactions.

The international certificate of vaccination

- Should be typed in English or French.
- It is an individual document.
- The yellow fever vaccine used should be approved by WHO.
- The vaccinating centre is designated by the national health administration.
- The data should be recorded as D.M.Y. with the month written in

letters i.e. 8 January 2003.

- The certificate must be signed by authorized national health administration.
- An official stamp of the centre should be there.

It is safe to swim abroad

- Stay away from lakes, Rivers, and fresh water streams.
- Do not swim if you have any skin or ear infection.
- Never use swimming suits belonging to other people.
- Avoid prolonged exposure to direct sun, use creams for protection.
- Never swim after a heavy meal.

The road safety procedures

- Continue to observe suitable safety standards.
- Wear a seat-belt.

- Observe reasonable speed limits.
- Avoid driving when you are tired.
- Be careful if you are walking and crossing roads.

The precautions against malaria

- At present no vaccine available for malaria.
- Avoid mosquito bites.
- Cover arms and legs, also avoid dark colored clothing.
- Sleep in screened accommodation or use mosquito nets.
- Use insect repellents on any exposed areas, and insect killer sprays.

Insect bite procedures

- Clean the area.
- Apply steroid / antiseptic or anti histamine cream immediately.
- If necessary, take antihistamine tablets.



/olume 5



A workshop on School Immunization Registration System (SIRS) for community health nurses at health centres was conducted by Immunization Unit on 31 October 2004..

The Objectives of the workshop were to obtain 100% accuracy of data on SIRS by 2005, to reduce school defaulters to 0% by 2005 and to reduce paper work. The workshop covers the school programme data and the way to enter data for defaulters.

Bahrain is the First Country in the Middle East to Introduce DTaP Vaccine

Bahrain has become the first country in the Middle East to introduce the new acellular pertussis combined DTPa (tetanus diphtheria and pertussis) vaccine.

The new vaccine has recently been approved for use by the World Health Organisation (WHO) as a replacement for the earlier combined DTPw whole cell vaccine.



"The new vaccine is a single-dose vaccine as opposed to the earlier

10 doses in a vial vaccine. The new vaccine not only considerably reduces the chances of infection, it also has much less local side effects like a rash, swelling or a pain in the limbs.

The important difference between the two is that according to the studies, the DTPa is about 10 times less likely to cause certain adverse reactions (such as fever, vomiting, and mild seizures) in children than the older vaccine. While the older vaccine contains the whole, inactivated pertussis bacteria, the new one uses only the parts of the bacteria that help children develop immunity to it and leaves behind all the other parts that may have been responsible for many of the vaccine's adverse effects.

The vaccine is already being administered in Bahrain as a single dose for the second booster dose, replacing the previously used multi dose vaccine.

Diphtheria is a bacterial infection that causes a thick gray coating at the back of the throat that makes it hard to breathe and swallow, and can result in suffocation, paralysis and heart disease. "One in 20 people who get the disease succumb to it."

A child can get tetanus from stepping on a rusty nail or from any kind of wound with a dirty object. "It's a bacterial infection that causes severe and painful muscle spasms, seizures, and paralysis.

Tetanus used to be called "lockjaw" because it can lead to locking of the jaw, making it impossible to open the mouth or swallow and causing death by suffocation in about 30 per cent of the people who get it. "The disease is not contagious, but because the tetanus bacterium lives in the soil, it will always be with us.

Pertussis, better known as whooping cough, is one of the most contagious diseases known to humans. "It's a bacterial infection that causes coughing spells so bad it's hard for children to eat, drink, or breathe for weeks at a time. It can lead to pneumonia, seizures, brain damage, and death. The disease remains a serious health problem among children in some parts of the world.



An estimated 1.5 million clinical cases of hepatitis A occur each year globally. The reported incidence rates in industrial countries range from 10 to 50 per 100000 population annually. The reported incidence rate of hepatitis A in Bahrain in recent years has ranged from 20.7 to 30.9 per 100000 population. The vast majority (74%) of cases were children aged < 14 years.

According to the World Health Organization, hepatitis A immunization strategies will vary depending on the level of endemicity.

Bahrain can be considered a country of intermediate endemicity, where transmission occurs primarily from person to person. Control can be achieved through widespread immunization programme. If the goal is to reduce the national incidence of hepatitis A, the strategy would be to incorporate hepatitis A vaccine in the routine childhood immunization schedule.

The Ministry of Health has incorporated hepatitis A vaccine in the childhood immunization programme since 1st September 2004. All infants in Bahrain receive the 1st dose of hepatitis A vaccine at 12 months of age and the 2nd dose at 24 months of age.

Inactivated hepatitis A vaccine has been licensed since April 1993. The vaccine is highly immunogenic. The protective efficacy in preventing clinical hepatitis A was found to be between 94% and 100% The duration of protection is likely to be at least 20 years and possibly lifelong.

The goal is to reduce the incidence of Hepatitis A from the previous range of 20.7 to 30.9 per 100,000 population to 10 per 100,000 population by the year 2007. This means to shift from intermediate endemicity to low endemecity.



Dr. Muna Al Musawi presenting to H.E. the Minister of Health, Dr. Nada Hafadh the 1st edition 2004 of the Manual of Immunization for the Kingdom of Bahrain

This manual is designed to serve as a reference source for vaccine usage, types, misconceptions, contraindications, immunization procedures, basic data and vaccination schedules as well as providing other information necessary for health professionals to effectively administer vaccines.

An immunization manual in the Kingdom of Bahrain is a timely and much needed publication for those involved in ensuring the care and well being of children and adults.

The subject of immunization is fundamental for medical practice, specially in the care of infants and children. The introduction of new vaccines during the past 30 years has been directly responsible for the striking reduction in the morbidity and mortality of many childhood diseases.



Worldwide experience indicates an urgent need to focus on preventive action, which can be taken by the family in the home. The definition of strategies and systems to accelerate preventive programmes for ensuring the improvement of both the health and well-being of mothers and children is the basic objective of the EPI

Bahrain has advantages over many countries in terms of health coverage, so that infant mortality and morbidity statistics are better than in other countries. However, a good start can be made under existing conditions to further improve the situation in order to achieve an impact on a national scale and, in a short period of time, to achieve even better health for all in Bahrain.



Dr. Muna Al Musawi presenting to H.E the Minister of Labour and Social Affairs, Dr. Majeed Al Alawi the 1st edition of the "What Parents Should Know About Vaccines" and the manual of immunization for the Kingdom of Bahrain.

> Author - Dr. Muna Al Musawi Consultant Family Physician Chief, Diseases Control Section Manager, Expanded Programme on Immunization. Email: drmonaepi@hotmail.com

Editor - Dr. Farouq Al-Zurba Consultant Family Physician Email: <u>Farouq@zurba.com</u>

> PO Box 42 - Bahrain Fax: (+973) 17279290