

# DIPHTHERIA TETANUS

01. **Name of the vaccine :** D. T. Vaccine.
02. **Category :** scheduled Vaccine.
03. **Contents :** Toxoid of Diphtheria & Tetanus.
04. **Dose :** 0.5 ml.
05. **Route of administration :** I. M.
06. **Side Effects :** Local-Pain, tenderness, at the site of injection.
07. **Contraindication :** Nothing particular.
08. **Comments :** D. T. is given to preschool children after 24 months of age as booster. As there is no need to give pertussis after 2 yrs. of age, D. T. is preferred in place of D.P.T.

Comments : D. T. is given to preschool children. Pertussis component in DPT is more prone for reactions and pertussis is less common after 3 yrs of age.

## **YELLOW FEVER VACCINE**

01. **Name of the vaccine** : 17-D Vaccine or yellow fever vaccine.
02. **Contents** : Live attenuated freeze-dried vaccine.  
  
Prepared from a non-virulent strain (17 D strain ).
03. **Dose** : 0.5 ml.
04. **Route of administration** : S. C. at the insertion of deltoid.
05. **Adverse effect** : Myalgia, Headache, low grade fever.
06. Validity of the vaccine starts 10 days after vaccination and remains so for 10 years.

**Comments :** If international travelers come to India without a valid

international certificate of vaccination against yellow fever, They are placed on quarantine, in a mosquito proof ward, for 6 days. If the traveler arrives before the certificate becomes 'valid'. He is isolated till the certificate becomes valid.

# **Oral Polio Vaccine**

## **(Sabins Polio Vaccine)**

- 1) Contents : Live attenuated Virus type I, II and III grown in human  
temp for Diploid cell Cultures.
- 2) Dose : 3 drops oral with vaccine dropper
- 3) Schedule : At birth – Zero dose.  
  
3 doses at interval of 4 to 6 weeks along with DPT.  
  
Booster at 18 – 24 months age.
- 4) Side effects : None  
  
Rarely paralytic Polio. ( 1 in 1 Million vaccines).
- 5) Contra indications : Severely ill.  
  
On steroid therapy concern.
- 6) Storage & transport : Stabilized vaccine can be kept at 4°C for a year and at room  
temp. for month. Non stabilized stored.

**(Bacilli - Calmette – Guerin**

1. Contents : Attenuated Bovine. Tubercle bacilli.
2. Type of vaccine : Liquid / freeze dried.
3. Dose : Vaccine is reconstituted with diluents of 1 ml.  
Normal saline and used within 3 hours.  
0.1ml intradermal given with tuberculin syringe  
at left arm at the insertion of deltoid
4. Age : 1 At birth.  
I/ not given then, along with 1st dose of DPT  
And polio.
5. Contraindications : Generalized eczema, infective disease, deficient  
immunity. Diagnosed HIV/AIDS, Cancer.  
Pregnancy.

# DPT Vaccine

1. Contents : Combined adjuvant Vaccine of Diphtheria, Pertussis and Tetanus toxoid.
2. Dose and route of administration : 0.5ml, Deep Isth year.
3. Storage : Should not be frozen.
4. Schedule : 3 Doses at interval of 4 to 6 wks along with oral Polio. Booster dose at 18 – 24 months of age.
5. Side effects : Fever and mild local reaction.

## Measles vaccine

1.     Contents               : live attenuated, Measles virus.
2.     Type of vaccine     : freeze dried provided with diluents.  
  
                                Monovalent- measles only  
  
                                Bivalent- measles rubella  
  
                                Trivalent- measles-mumps-rubella
3.     Dose                 : Vaccine is reconstituted with diluent.  
  
                                0.5ml subcutaneously.  
  
                                At right arm at the insertion of deltoid
4.     Age                 : 9 completed months of age (85-95% seroconversion).  
  
                                2<sup>nd</sup> dose at age between 16-24 months.
5.     Adverse reaction   : minor- urticaria, slight fever, cough, conjunctivitis,  
  
                                Transient rash  
  
                                Major reaction- encephalitis, subacute sclerosing  
  
                                Pan encephalitis extremely rare.
6.     Contraindications   : immunodeficiency, immunosuppressive drug therapy,  
  
                                pregnancy, active untreated tuberculosis, hypersensitivity to  
  
                                antimicrobials in vaccine, hypersensitivity to egg proteins
7.     Efficacy            : single dose produces adequate antibody response in 95%.  
  
                                Universal vaccination reduces incidence to 90-95%

# Vitamin A

1.     Exists as                 : preformed vit.A-retinol.  
  
                                      Provitamin A- carotene-alpha, beta, gamma  
  
                                      1µg of betacarotene yields 0.5µg retinol  
  
                                      Stored in liver as retinol palmitate
2.     Essential for :   integrity of internal epithelial linings of intestinal, respiratory  
  
                                      and urinary tracts, lining of glandular passages  
  
                                      Integrity of skin and external epithelial lining of eye balls  
  
                                      Normal vision and dark adaptation  
  
                                      Resists infections and promotes skeletal growth
3.     Sources:   animal food for retinol  
  
                                      Vegetable food- beta carotene  
  
                                      Liver, eggs, butter, milk, cheese and fish  
  
                                      Cod, halibut, shark liver oil are richest sources.  
  
                                      Dark green leaves, fenugreek, drum stick, spinach, amaranth, mint  
  
                                      Fruits- mango, orange, apricot, papaya
4.     Deficiency:   night blindness  
  
                                      Xerophthalmia  
  
                                      Keratomalacia  
  
                                      Non ocular manifestations- roughness and dryness of skin,  
  
                                      diminished resistance to infections and retarded body growth
5.     Prevention and control of deficiency:

Supplementation- 2,00,000 IU of oil miscible vitamin A solution  
every 6 months till age of 5 years

Safe, effective can bring down incidence of xerophthalmia by 80%

Linked with UIP and ICDS activities

Fortification- foods like margarine, vanaspati and bread are  
suitable for the purpose

Fortified sugar in Central America with excellent results