

---

## *Letters to the Editor*

---

### **Can BCG be Given Along with DPT and Polio?**

In answers to the question that which vaccines can be given simultaneously with BCG, Seth has stated that BCG can be given with OPV or DPT at the same time. Further in answer to another question, it is stated that there is no harm in giving DPT and Polio on the same day as BCG(1). On the other hand Miller has stated that it (BCG) should not be given at the same time as diphtheria, pertussis or tetanus toxoid or with poliomyelitis vaccine although it should be included as a part of the regular immunization schedule for children

in high prevalence areas where it is not done through the medium of a national programmed).

I would like to know should I continue to give BCG along with DPT and /or OPV?

**Yash Paul,**

*A-C-4, Gayatri Sudan,  
Jai Singh Highway, Bani Park,  
Jaipur 302 016.*

#### **REFERENCES**

1. Seth V. *In: Immunization in Practice*, 2nd edn. Eds Mittal SK, Kukreja S. Delhi, CBS Publishers and Distributors, 1991, p 38.
2. Millar FJW. *Tuberculosis in Children*, 1st Indian edn. New Delhi, BI Churchill Livingstone, 1986, p 77.

---

### **Comments**

Recommendation of an immunization schedule of a nation depends on the epidemiology, health infrastructure and socio-economic conditions of the nation. For any immunization programme to be successful, the national schedule should be such that it is epidemiologically relevant, immunologically competent, technologically feasible, economically viable and socially acceptable(1).

An immunization schedule is not a set of strict requirements, it is a way of

ordering priorities in accordance with children's ability to acquire immunity, the epidemiology of diseases and the different antigenic qualities of vaccines, be they microbial or viral, live or killed, single or combined(2).

Physicians are free to perform vaccination which they deem to be of value within the framework of national schedule. Certain general principles should be kept in mind while performing vaccinations: (i) A minimum interval of 4 weeks is necessary between two doses or two different vaccines unless specific short interval is stated for a vaccine. Six

weeks is better; however, it is not in the universal programme of immunization because the objective is to catch as many infants as possible, at the earliest because there is a very heavy fall rate; (ii) Vaccines can be given at all ages as per requirement; (iii) Generally the child should be healthy at the time of vaccination; (iv) Separate disposable syringes and needles are required for each prick; (v) Vaccines must be properly preserved maintaining the cold chain; and (vi) While giving more than one vaccine at a time, their efficacy and safety must be known(1).

When two or more than two vaccines are given together there may be antigenic synergy or antigenic competition. If BCG, DPT and OPV are given together, the chances of antigenic competition are least, because BCG induces cell mediated immunity while DPT and OPV induce humoral immunity(3). The antigenic competition has not been found in clinical trial of simultaneous administration of all these three vaccines(4). The aim of immunization is to protect children from infectious, illnesses which are endemic in our country. So all children should be given vaccines against six killer diseases by calling the

parents with child to clinic/hospital minimal number of times. In view of efficacy trials and theoretical aspects, BCG, DPT and OPV can all be given at the same visit.

**V. Seth,**

*Professor, Department of Pediatrics,  
All India Institute of Medical Sciences,  
New Delhi 110 029.*

#### REFERENCES

1. Committee on Immunization, Indian Academy of Pediatrics. Immunization. *In: Immunity, Immunization and Infections: Reports and Recommendations Committee on Immunization and Infectious Disease, Eds. Desai AB, Shah RC. Indian Academy of Pediatrics, 1994, pp 16-17.*
2. Ajjar N. The Immunization Schedule in Vaccination; Paris, Pasteur Merieux, 1992, pp 29-37.
3. Seth V. BCG vaccine. *In: Immunization in Practice, 2nd ed. Eds. Mittal SK, Kukreja S. Delhi, CBS Publishers, 1991, pp 22-45.*
4. Gal Brain MS, Crosby G, Barnes TM, *et al.* Simultaneous immunization with BCG, diphtheria, tetanus and oral poliomyelitis vaccine in children aged 13-14. *Br Med J* 1971, 2:193-197.

---

### Typical Facies in Duchenne Muscular Dystrophy

Duchenne muscular dystrophy is an X-linked recessive disorder. Isolation and cloning of Duchenne gene located

on the middle of short arm of the X-chromosome (Xp 21.2) and the discovery of dystrophin (400 kD protein located at the inner phase of the myofibre cell membranes), the encoded protein that is deficient in Duchenne muscular dystrophy, provides a new and precise