

Introduction of hepatitis B vaccine into childhood immunization services

**Management guidelines, including
information for health workers and
parents**



**DEPARTMENT OF VACCINES
AND BIOLOGICALS**



*World Health Organization
Geneva
2001*

**The Department of Vaccines and Biologicals
thanks the donors whose unspecified financial support
has made the production of this document possible.**

This document was produced by the
Expanded Programme on Immunization
of the Department of Vaccines and Biologicals

Ordering code: WHO/V&B/01.31

Printed: November 2001

This document is available on the Internet at:

www.who.int/vaccines-documents/

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Abbreviations

AD	auto-disable (injection devices)
AEFI	adverse events following immunization
BCG	bacillus Calmette-Guérin (vaccine)
DTP	diphtheria-tetanus-pertussis (vaccine)
EPI	Expanded Programme on Immunization
FIC	fully immunized child
HBIG	hepatitis B immune globulin
HBV	hepatitis B virus
HepB	hepatitis B (vaccine)
Hib	<i>Haemophilus influenzae</i> type b (vaccine)
HIV	human immunodeficiency virus
IPV	injectable polio vaccine
OPV	oral polio vaccine
SIGN	Safe Injections Global Network
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
VVM	vaccine vial monitor

Glossary

Acute hepatitis B: new symptomatic HBV infection.

Antibody to HBsAg (anti-HBs): the protective antibody that develops following recovery from HBV infection and after vaccination.

Antibody to hepatitis B core antigen (anti-HBc): antibody produced in all HBV infections (indicating infection at sometime in the past).

Combination vaccine: a vaccine made by combining antigens that prevent different diseases (e.g. DTP).

Chronic HBV infection: persistent (long-term) infection with HBV.

Cirrhosis: permanent liver damage (scarring).

Formulation: the form in which a vaccine is presented (e.g. liquid or lyophilized, monovalent or in combination).

Hepatitis B e antigen (HBeAg): a marker of increased infectivity in persons who are infected with HBV.

Hepatitis B surface antigen (HBsAg): a marker present in persons who are currently infected with HBV (i.e. persons with both recent infection and chronic infection).

IgM class antibody to hepatitis B core antigen (IgM anti-HBc): antibody detectable for four to six months after infection with HBV, indicating recent infection.

Monovalent vaccine: a vaccine containing antigen for protection against a single disease.

1. Introduction

Hepatitis B is a major public health problem. Approximately 30% of the world's population, i.e. about 2 billion people, have serological evidence of infection with hepatitis B virus (HBV) (1). It is estimated that 350 million of them have chronic HBV infection, about a million of whom die each year from chronic liver disease, including cirrhosis and liver cancer. HBV is second only to tobacco as a known human carcinogen.

A safe and effective vaccine against hepatitis B has been available since 1982. WHO recommends that hepatitis B vaccine be included in routine immunization schedules for all children in all countries (2). The present manual provides management guidelines for the introduction of hepatitis B vaccine into childhood immunization services, with particular reference to developing countries.

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