

Immunization Handbook

Third Edition

**National Expanded
Programme on
Immunization,
Sri Lanka**

**Epidemiology Unit
Ministry of Health
Sri Lanka
2012**



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Funded by the UNICEF

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FOREWORD

Sri Lanka's national immunization programme is frequently quoted as one of the strongest performers, not only in the region, but also in the world. The National EPI programme has an excellent record, with extremely low incidence of EPI diseases and high coverage of all EPI vaccines.

The provision of routine immunization services in Sri Lanka constitutes a major preventive health activity of the Ministry of Health. The first manual for Medical Officers on technical and implementation information on the Expanded Programme on Immunization was published by the Epidemiology Unit of the Ministry of Health in 1979 with the assistance of UNICEF and WHO. The updated 2nd edition of the Immunization Handbook was published in 2002 with the assistance of WHO.

As the epidemiological pattern of the EPI diseases changed over the years and more cost effective vaccines are available, the Ministry of Health revised the immunization schedule on a few occasions since 2002. Objectives of the EPI programme were also changed accordingly as coverage of immunization has improved. Hence improvement of quality of services provided and changing of target age groups were considered.

As the immunization schedule and the objectives of the immunization programme changed, Epidemiology Unit of the Ministry of Health decided to update the Immunization Handbook accordingly. I am pleased with this new edition of the Immunization Handbook, published by the Epidemiology Unit and hope this edition, will help health professionals to provide quality immunization services.

Producing such a publication was possible through the dedication and voluntary time commitment on the part of those involved. I would like to extend my sincere thanks to all the contributors for completing this very important and timely task.

Appreciation is extended to UNICEF for providing necessary funds for its publication.



Dr U. Ajith Mendis
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Sri Lanka

June 2012.

PREFACE

Immunization is one of the most successful and cost-effective public health interventions in the constant struggle of the human being against the diseases that affect its well-being.

The National EPI programme has an excellent record, with extremely low incidence of EPI diseases and high coverage of all EPI vaccines. However, unless the country pays attention to key issues of programme quality it could lose the advantages it has gained in disease control over the last 30 years.

Due to the rapidly expanding environment in the immunization field, some information published in the previous edition of the Immunization handbook is already outdated. This continues to be a challenge for the National EPI as more new vaccines are approved for use, new vaccine combinations are developed and additional data are available on the immunogenicity and efficacy of vaccines.

The objective of the Immunization Handbook 2012 is to provide updated clinical guidelines for health professionals in Sri Lanka on the safest and most effective use of vaccines in their practice. This new Immunization Handbook provides information on vaccine preventable diseases, the vaccines available, and the updated National Immunization Schedule, as well as practical advice and strategies for health professionals immunizing children and adults.

These guidelines are based on the best available scientific evidence at the time of writing, from published and unpublished literature. The guidelines will be reviewed periodically when new evidence becomes available.

All chapters have been updated and revised since the 2002 edition. In addition, 10 new chapters for Human Papillomavirus, live Japanese Encephalitis, Rabies, Typhoid, Influenza, Varicella, Hepatitis A, Yellow Fever, Cholera and Rotavirus vaccines are included in the new edition.

I would like to thank all the authors who updated the handbook - and all those who acted as peer reviewers. I am grateful to Dr Samitha Ginige consultant Epidemiologist for his untiring efforts as the editor in making this manual a reality. Appreciation is extended to the UNICEF for their assistance in providing funds for this publication.

I trust this edition, like its previous editions, will prove a valuable resource for health professionals.

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June 2012

ABBREVIATIONS

AD syringe	auto-disable syringe
AEFI	adverse events following immunization
AFP	acute flaccid paralysis
AIDS	acquired immunodeficiency syndrome
ARV	anti-rabies vaccine
aTd	adult diphtheria and tetanus toxoid vaccine
BCG	Bacillus Calmette-Guérin vaccine
BP	blood pressure
CHDR	child health development record
CFR	case fatality rate
CCID50	cell culture infective dose 50
CRS	congenital rubella syndrome
CSF	cerebrospinal fluid
DNA	deoxyribonucleic acid
DTP	diphtheria, tetanus and pertussis vaccine
DT	diphtheria and tetanus vaccine
DTwP	diphtheria, tetanus and whole cell pertussis vaccine
DTaP	diphtheria, tetanus and acellular pertussis vaccine
DTaP-HepB	diphtheria, tetanus and acellular pertussis and hepatitis B vaccine
DTwP/Hib	diphtheria, tetanus, whole cell pertussis and <i>Haemophilus influenzae</i> type b vaccine
DTwP-HepB-Hib	diphtheria, tetanus and whole cell pertussis, hepatitis B and <i>Haemophilus influenzae</i> type b vaccine
DTaP-HepB-IPV -Hib	diphtheria, tetanus, acellular pertussis , hepatitis B and inactivated polio vaccine
dTpa	reduced antigen diphtheria, tetanus and acellular pertussis vaccine
ELISA	enzyme linked immunosorbent assay

EPI	Expanded Programme on Immunization
ERIG	equine rabies immunoglobulin
GBS	Guillain-Barré Syndrome
HAV	hepatitis A virus
HBV	hepatitis B virus
HCC	hepatocellular carcinoma
Hep B	hepatitis B
HBIG	hepatitis B immunoglobulin
HBsAg	hepatitis B surface antigen
HDC	human diploid cell
HDCV	human diploid cell vaccine (for rabies)
HHE	hypotonic, hyporesponsive episode
Hib	<i>Haemophilus influenzae</i> type b
HIV	human immunodeficiency virus
HPV	human papilloma virus
HRIG	human rabies immunoglobulin
HTIG	human tetanus immunoglobulin
ICNO	Infection Control Nursing Officer
ID	intradermal
IG	immunoglobulin
IgA	immunoglobulin A
ILI	Influenza Like Illness
IM	intramuscular
IPD	invasive pneumococcal disease
IPV	injectable polio vaccine

IU	international units
JE	japanese encephalitis
LJEV	live JE vaccine
mIU	milli international units
mL	millilitre
MMR	measles, mumps and rubella vaccine
MNT	maternal and neonatal tetanus
MOH	Medical Officer of Health
MR	measles and rubella vaccine
MRI	Medical Research Institute
MVHRV	Monovalent Human Rotavirus Vaccine
NNT	neo-natal Tetanus
NIDs	National Immunization Days
OCV	oral cholera vaccine
OPD	Out Patient's Department
OPV	oral polio vaccine
PCEC	purified chick embryo cell vaccine (for rabies)
PCV	pneumococcal conjugate vaccine
PHI	Public Health Inspector
PVBHRV	Pentavalent Bovine Human Reassortant Vaccines
PET	post exposure treatment (for rabies)
PVRV	purified vero cell rabies vaccine

RDHS	Regional Director of health services
RE	Regional Epidemiologist
RIG	rabies immunoglobulin
RMSD	Regional Medical Supplies Division
RNA	ribonucleic acid
SC	subcutaneous
SMI	School Medical Inspection
TB	tuberculosis
TCV	tissue culture vaccine
TIG	tetanus immunoglobulin
TOPV	Trivalent Oral Polio Vaccine
TT	tetanus toxoid
UNICEF	United Nations Childrens Fund
VAPP	vaccination associated paralytic poliomyelitis
VLPs	virus-like particles
VPD	Vaccine Preventable Disease
VVM	Vaccine Vial Monitor
WER	Weekly Epidemiological Report
WHO	World Health Organization
WRCD	Weekly Return of Communicable Diseases

