

Guidelines on the international packaging and shipping of vaccines

Immunization, Vaccines and Biologicals



World Health
Organization

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Acronyms

The following acronyms are used in this document.

°C	degree Celsius
°F	degree Fahrenheit
AWB	airway bill
BCG	bacille Calmette–Guérin (tuberculosis vaccine)
CCM	(vaccine) cold chain monitor
cm ³	cubic centimetres
DT	diphtheria–tetanus vaccine
DTP	diphtheria–tetanus –pertussis vaccine
ETA	estimated time of arrival
HepB	hepatitis B (vaccine)
Hib	<i>Haemophilus influenzae</i> type b (vaccine)
IPV	inactivated polio vaccine
IVB	(Department of) Immunization, Vaccines and Biologicals (WHO)
kg	kilogram
LCD	liquid crystal display
LRC	lot release certificate
MMR	mumps–measles–rubella (vaccine)
MR	measles–rubella (vaccine)
NRA	national regulatory authority
OPV	oral polio vaccine
PAHO	Pan American Health Organization
PQS	performance, quality and safety
SD	Supply Division (UNICEF)
SLP	summary lot protocols
Td	tetanus toxoid and diphtheria (reduced component) vaccine
T'T	tetanus toxoid (vaccine)
UN	United Nations
UNICEF	United Nations Children's Fund
VAR	vaccine arrival report
VVM	vaccine vial monitor
WHO	World Health Organization
YF	yellow fever (vaccine)

Preface

The World Health Organization (WHO) document, *Guidelines on the international packaging and shipping of vaccines*, has been one of the most widely used manuals in the field of immunization. It is referenced by UNICEF and PAHO in all their invitations to bid for vaccine supplies and also by countries that directly procure their vaccines.

This 2005 edition* takes into account new developments in the field of vaccine stability, temperature monitoring and information on recently prequalified vaccines. In addition to the updated volume per dose of vaccine, it provides data on the packed volume of diluents and droppers and includes transport-box bulking factors for countries where insulated packages are used for the storage of vaccines. A special section on temperature monitoring has been added to describe the temperature limits for international shipments.

WHO recommends that all United Nations (UN) procurement agencies include the *Guidelines on the international packaging and shipping of vaccines* as part of the technical specifications and requirements in invitations to bid.

This document has been reviewed and commented upon by personnel in the vaccine industry.

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