

INTRODUCTION

In Ireland, a number of stakeholders are involved in immunisation. These include agencies with responsibility for policy decisions, agencies responsible for vaccine procurement and storage and those involved in the provision of immunisation to the client.

In February 2007, the HSE National Immunisation Office undertook an assessment of the format, frequency and type of immunisation training currently provided to health professionals in Ireland. This assessment identified that there was no agreed standardised immunisation training programme and that immunisation training varied both in frequency and content across the country.

In an era where the incidence of many infectious diseases has declined, there is an onus on health professionals to be confident, knowledgeable and up to date to explain why immunisation is still necessary. The HSE National Immunisation Office has initially developed "A Practical Guide to Immunisation" which will provide health professionals involved in the immunisation programme with up-to-date information on many of the core components of an immunisation programme. It is intended that this guide will provide the core from which a training programme will be developed for all those involved in immunisation.

This Guide should be used in conjunction with the National Immunisation Advisory Committee Immunisation Guidelines for Ireland 2008.

DEFINITIONS

An Adjuvant is a compound used to increase antigenicity and to prolong the stimulatory effect of vaccines particularly of those containing inactivated microorganisms or their products (e.g. diphtheria and tetanus toxoids).

An Antigen is defined as anything that provokes an immune response, which is specific to that material. It can be a single molecule, or a more complex structure such as a bacteria or virus.

An Antitoxin is a solution of antibodies derived from the serum of animals immunised with specific antigens (e.g. diphtheria antitoxin) used to achieve passive immunity or for treatment.

Attenuated vaccines contain weakened (or attenuated) pathogens to make them safe.

Conjugate vaccines contain carrier proteins which, when combined with antigens, enhance the type and magnitude of the immune response. Examples include Haemophilus influenza B, Meningococcal conjugate and Pneumococcal conjugate vaccines.

Herd Immunity. Vaccination protects the individual immunised who is then less likely to be a source of infection to others. This reduces the risk to unimmunised individuals being exposed to infection. Thus, individuals who have not been immunised, or those who cannot be immunised, derive some benefit from the immunisation programme. This concept is known as herd (or population) immunity.

A **Hexavalent** vaccine is a combined vaccine that protects against six different diseases.

Idiopathic is the term used to describe a disease or disorder that has no known cause.

Immunisation denotes the process of inducing or providing immunity artificially. This may be either active or passive.

Immunoglobulin. Human immunoglobulin is that fraction of blood plasma that contains antibodies, notably those against infectious agents. Preparations of immunoglobulin belong to two main categories:

- Human Normal Immunoglobulin (HNIG)
- Human Specific Immunoglobulin / Hyperimmune Globulin.

Inactivated vaccines. These vaccines are manufactured either from the killed pathogen, or from the toxin, or using parts of the pathogen, either as component vaccines or as conjugate vaccines.

A **Pathogen** is an organism that produces disease e.g. a bacteria or virus.

A **Pentavalent Vaccine** is a combined vaccine that protects against five different diseases.

Pharmacoeconomics is the branch of health economics that focuses on the cost and benefits of drug treatments, including vaccines. It includes a comprehensive analysis of all alternative courses of action in terms of cost and health gain.

Reye's syndrome (RS) is primarily a disease of childhood, although it can occur at any age. It commonly occurs during recovery from a viral infection, although it can also develop 3 to 5 days after the onset of the viral illness. It can affect all organs of the body and can cause brain and liver damage. The cause of RS is unknown. However, studies have shown that using aspirin or salicylate-containing medications to treat viral illnesses increases the risk of developing RS.

A Tetravalent Vaccine is a combined vaccine that protects against four different diseases.

Thrombocytopenia is any disorder in which there are not enough platelets. This can be due to

- Low production of platelets in the bone marrow
- Increased breakdown of platelets in the bloodstream (called intravascular)
- Increased breakdown of platelets in the spleen or liver (called extravascular).

A Toxoid is a modified bacterial toxin that has been rendered non-toxic but has the ability to stimulate the formation of antitoxin.

A Vaccine is a suspension of live attenuated or inactivated micro-organisms or fractions thereof administered to induce immunity and thereby prevent infectious disease.

Vaccination is the term used to refer to the administration of any vaccine or toxoid.

GLOSSARY

Abbreviations

AEFI	Adverse events following immunisation
BCG	Bacille Calmette Guerin vaccine
CDC	Centre for Disease Control
DoHC	Department of Health and Children
Hib	Haemophilus influenzae type b
HIV	Human Immunodeficiency Virus
HNIG	Human Normal Immunoglobulin
HPSC	Health Protection Surveillance Centre
HPV	Human Papilloma Virus
HIQA	Health Information and Quality Authority
HSE	Health Service Executive
IM	Intramuscular
IMB	Irish Medicines Board
IPD	Invasive Pneumococcal Disease
IPV	Inactivated Polio Vaccine
Men C	Meningococcal C
MMR	Measles, Mumps and Rubella
NIAC	National Immunisation Advisory Committee
NIO	National Immunisation Office
OPV	Oral Polio Vaccine
PCCC	Primary, Community and Continuing Care
PCV	Pneumococcal Conjugate vaccine
PPD	Purified Protein Derivative
PPV	Pneumococcal Polysaccharide vaccine
SC	Subcutaneous
SPC	Summary of Product Characteristics
SSPE	Subacute Sclerosing panencephalitis
Td	Tetanus toxoid, low-dose diphtheria toxoid vaccine
Tdap	Tetanus, low-dose diphtheria and low-dose acellular pertussis vaccine
TB	Tuberculosis
WHO	World Health Organisation

