

Cambridge University Press
0521687012 - Manual of Infection Control Procedures, 2nd Edition
N. N. Damani
Frontmatter
[More information](#)

MANUAL OF INFECTION CONTROL
PROCEDURES
2nd Edition

Cambridge University Press
0521687012 - Manual of Infection Control Procedures, 2nd Edition
N. N. Damani
Frontmatter
[More information](#)

*To my wife Laila, and my children Numair and Namiz for
their abiding love, understanding and encouragement*

MANUAL OF INFECTION CONTROL
PROCEDURES
2nd Edition

Dr N. N. DAMANI

MSc (Lond.), MBBS, FRCPath, FRCPI

*Clinical Director Pathology & Laboratory Services
Consultant Microbiologist & Infection Control Doctor
Craigavon Area Hospital Group Trust, Portadown, UK*

Honorary Lecturer

*Department of Medical Microbiology
Queens University, Belfast, UK*

Treasurer, International Federation of Infection Control

Foreword by

Professor A. M. Emmerson

OBE, FRCP, FRCPath, FMedSci, DipHIC

*Emeritus Professor of Microbiology
Division of Microbiology and Infectious Diseases
University Hospital
Queen's Medical Centre
Nottingham, UK*



CAMBRIDGE
UNIVERSITY PRESS

Cambridge University Press
0521687012 - Manual of Infection Control Procedures, 2nd Edition
N. N. Damani
Frontmatter
[More information](#)

CAMBRIDGE UNIVERSITY PRESS
Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo

Cambridge University Press
The Edinburgh Building, Cambridge CB2 2RU, UK

Published in the United States of America by Cambridge University Press, New York

www.cambridge.org
Information on this title: www.cambridge.org/9780521687010

© 2003 Greenwich Medical Media Limited
The right of Dr Nizam N. Damani to be identified as author of this work has been asserted by him in accordance with the Copyright Designs and Patent Act 1988.

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 1997
Second Edition Published 2003
Digitally reprinted by Cambridge University Press 2006

A catalogue record for this publication is available from the British Library

ISBN-13 978-0-521-68701-0 paperback
ISBN-10 0-521-68701-2 paperback

While the advice and information in this publication is believed to be true and accurate, neither the authors nor the publisher can accept any legal responsibility or liability for any loss or damage arising from actions or decisions based in this publication. The ultimate responsibility for the treatment of patients and the interpretation lies with the medical practitioner. The opinions expressed are those of the authors and the inclusion in this publication of information relating to a particular product, method or technique does not amount to an endorsement of its value or quality, or of the claims made by its manufacturer. Every effort has been made to check drug dosages; however, it is still possible that errors have occurred. Furthermore, dosage schedules are constantly being revised and new side-effects recognised. For these reasons, the medical practitioner is strongly urged to consult the drug companies' printed instructions before administering any of the drugs mentioned in this publication.

What, will these hands ne'er be clean?

WILLIAM SHAKESPEARE
Macbeth

Foreword to the Second Edition

When Professor Graham Ayliffe wrote the foreword to the first edition of this manual in 1997, he said ‘*this manual contains a wealth of practical advice, a number of useful tables, diagrams, definitions and essential references.*’ He also said that the policies were detailed enough and provided enough instruction to allow health care workers (HCWs) to carry out individual procedures. In this respect, the second edition of this manual fulfils these requirements and will appeal to both medical and nursing practitioners in infection control and to nurse educators whose job it is to provide first-hand practical advice to those responsible for the provision of a safe environment for patients and staff alike.

This second edition has been revised and updated and the reader eager to find out what is new and different from the first edition will be pleasantly surprised. New sections include the *Principles of Infection Control, Design and Management of Health Care Facilities, Surveillance and Outbreak Control, Epidemiology and Biostatistics* and not least a section on *Infection Control Information Resources*. This latter section, together with the updated and easily accessible reading lists which are highlighted at strategic points in the text and at the end of each section provides a wealth of information for the inquisitive reader. In this respect, as much evidence-based information as there is available has been presented.

Infection control is a quality improvement activity that focuses on improving the care of patients and protecting the health of staff, and yet, despite advances in modern medicine and surgery, 5–10% of patients admitted to hospital subsequently acquire an infection of varying degrees of severity. Because of the need to discharge patients to the community with the shortest possible length of stay in hospital, some patients may not manifest their hospital-acquired infection (HAI) until some time later. Post-discharge surveillance is still in its infancy but some record of its occurrence will need to be taken into account before the true cost of HAIs can be measured. Unfortunately, the incidence of HAI is as high today as it has been for many years, but there are many reasons for this. Improvements in supportive care have led to more aggressive medical and surgical therapy and seriously ill patients with several underlying risk factors are often highly susceptible to infection.

Manual of Infection Control Procedures

This manual addresses the need for patient care and recognises that the factors involved in HAI are complex and that cost-effective measures to combat them are needed which are based on evidence-based guidelines. Reliable comparisons of infection rates between units, hospitals and countries are difficult without ongoing monitoring with risk factor adjustment and benchmarking. The new section on *Epidemiology and Biostatistics* will facilitate worthwhile comparison and make benchmarking a challenge, not a threat.

The control of infection in hospitals has greatly improved in recent years; we have many more professional staff, who are better trained, and more resources are being set aside for infection control since the acknowledgement by management that infection control is part of the quality improvement process required of health care services. However, the free movement of patients between hospitals and the community, by breaking down invisible barriers, will always remain a challenge for HCWs. We still lack sufficient isolation facilities to contain the major problems of patients with antibiotic-resistant strains of bacteria such as multi-drug resistant tuberculosis (MDR-TB), methicillin-resistant *Staphylococcus aureus* (MRSA) and glycopeptide resistant enterococci (GRE). A combined approach of prudent antibiotic prescribing, effective surveillance and good infection control practices is essential if antibiotic resistance is to be contained. This is a worldwide problem, and the spread of infection is a major problem in the developed world, but the principles of effective control are the same throughout the world.

In the developed world, people are having longer and more 'adventurous' surgery and transplantation is being carried out in hospitals in the face of emerging new diseases and newly-identified micro-organisms which are difficult to treat. There is a sharp increase in the use of minimally invasive surgery, with the widespread use of expensive, heat-labile equipment like endoscopes, which require a high quality system for decontamination. This manual contains most of the procedures necessary to carry out such a service, but the author has not forgotten that basic hand washing is generally considered to be the most important single measure in the control of hospital infection and is dealt with in detail in this manual.

I have enjoyed reading this manual and commend it to all health care workers involved in the prevention and control of infection.

M. Emmerson
London
November, 2002

Foreword to the First Edition

Hospital-acquired (nosocomial) infection is a major problem in the hospitals of most countries and despite improvements in control methods, the prevalence of infection remains at 5–10%. Infections are mainly of surgical wounds, the respiratory and urinary tracts, and the skin. The important risk factors for the acquisition of infection are invasive procedures which include operative surgery, intravascular and urinary catheterization and mechanical ventilation of the respiratory tract. Other risk factors include traumatic injuries, burns, age (elderly and neonates), immunosuppression and existing disease.

Many infections are endogenous (i.e. acquired from the patient's own microbial flora) and are not necessarily preventable, although infection can be kept to a minimum by good aseptic techniques. The spread of infection from patient to patient is often difficult to prevent, particularly in overcrowded hospitals with staff shortages and limited facilities. The prevention of cross-infection with highly antibiotic-resistant organisms, such as epidemic methicillin-resistant *Staphylococcus aureus* (MRSA) can be difficult and often requires considerable resources. Vancomycin-resistant enterococcal infections may be untreatable with currently available antibiotics and Gram-negative bacilli resistant to the quinolones and the third generation cephalosporins frequently cause therapeutic problems. Cross-infection can be considerably reduced by a few basic measures, for example handwashing or disinfection correctly performed at the right time. Handwashing is generally considered to be the most important single measure in infection control and is dealt with in detail in this manual. Although prevention of transmission is of major importance, the rational use of antibiotics and restriction of certain agents is necessary to achieve a long-term effect. Other organisms which have emerged in hospitals in recent years include *Clostridium difficile*, causing outbreaks in the elderly, and legionella associated with cooling towers and contaminated water supplies. Food poisoning is mainly a problem in the community, but epidemics occur in hospitals. *Escherichia coli* O157:H7 has recently been responsible for large outbreaks of severe gastroenteritis and occasional deaths from renal failure.

Manual of Infection Control Procedures

The potential hazards of blood-borne viruses (hepatitis B (HBV) and C (HCV) and human immunodeficiency virus (HIV)), particularly from injuries due to sharp instruments, cause considerable anxiety to staff. Policies for the safe disposal of clinical waste, especially needles, must be correctly implemented. Spread of these blood-borne infections to patients from contaminated medical equipment is also a potential hazard and the production of safe decontamination policies is a major responsibility of infection control teams. Although decontamination of equipment by heat is the optimal method, many items are heat-labile and chemical disinfection is required. Flexible endoscopes fall into this category and are difficult to clean and disinfect. The nature of surgery is also changing and minimal access surgery is often replacing conventional surgery, but the equipment is often heat-labile and difficult to clean. All of these problems have been well addressed in this manual.

Litigation for negligence is becoming increasingly common and often involves possible deficiencies in control of infection procedures. This further emphasises the importance of having well-defined procedures and ensuring that they are implemented by training of staff and audit.

The prevention of infection is one of the requirements for good quality of care of patients and is relevant to all members of staff. Protection of staff from infection is now a major consideration and is backed by health and safety legislation. Hospitals should have an infection control organization which includes an infection control doctor, usually the medical microbiologist in the UK, and one or more infection control nurses, depending on the size of the hospital and the type of patient. These are members of the team who should meet daily or at least several times a week. The infection control committee is an expansion of the team and meets less frequently. It is important for approving policies and programmes, and for making recommendations which have a major financial implication to the Chief Executive. Collaboration with the community is also necessary and the Consultant in Communicable Disease Control (CCDC) should be a member of the infection control committee.

It is obviously necessary, in view of the problems described, for every hospital to have an infection control manual. To produce such a manual is a major task and it is time wasting for every hospital to produce its own. This manual, originally produced by Dr. Damani and his colleagues for Craigavon hospital, covers all the main policies required in a hospital. It has been expanded to include basic information on the various topics and is now generally applicable to other hospitals in the UK and many other countries. It will be particularly useful in countries or hospitals which are setting up new infection control programmes. However, although national and hospital guidelines are important, individual departments differ and the final decisions should be made by local infection control staff.

This manual contains a wealth of practical advice, a number of useful tables, diagrams, definitions and essential references. The policies are detailed and provide sufficient instructions to carry out individual procedures. Infection control staff will

Foreword to the First Edition

find this manual useful for producing shorter manuals for individual wards. These should be introduced as part of an ongoing educational programme to ensure the manuals are not only read but are followed by nursing and medical staff and administrators. The manual should also be useful in preparing audit programmes. I congratulate Dr. Damani on producing a comprehensive and useful manual of procedures.

G. A. J. Ayliffe
1997

Preface to the Second Edition

A fundamental activity in health care establishments is to continually improve the quality of care and provide a safe working environment. Central to this activity is an effective infection control strategy, which prevents the acquisition of infection within the health care environment.

The second edition of this book has been thoroughly revised and rearranged. Four new chapters *Principles of infection control*, *Design and maintenance of health care facilities*, *Epidemiology and biostatistics*, and *Infection control information resources* have been added as I have found that these subjects are especially useful to infection control practitioners.

While revising the book I have made changes that are in keeping with current guidance and the recommendations made by various professional and statutory bodies with an overall intention to provide advice based on current evidence and the fundamental principles of infection control.

The scope of this book is intentionally broad and, whilst it does not attempt to cover all aspects of infection control in detail, it aims to serve as a practical manual on infection control procedures and provide essential information on the most important issues relating to infection control on a day-to-day basis.

Nizam N. Damani
November, 2002

Preface to the First Edition

...by foreseeing in a distance, which is only done by men of talents, the evils which arise from them are soon cured; but when, from want of foresight, they are suffered to increase to such a height that they are perceptible to everyone, there is no remedy.

NICCOLÒ MACHIAVELLI

Prevention of infection acquired in the health care setting remains a major goal for all health care personnel because of increased morbidity and mortality for patients. In addition, it utilizes resources that could be used elsewhere in health care.

Studies in the UK, Europe and North America indicate that approximately 10% of patients develop infection whilst in hospital. Evidence in the US suggests that one third of hospital-acquired (nosocomial) infections could be prevented. Therefore financial benefit to the health care provider could be substantial by prevention of such infections.

Although in recent years there have been an increased allocation of resources directed to the problem on infection control services, the resources allocated have been constrained. This is because in the recent years the very nature of the hospital has changed. With the reduction in numbers of beds, the sickest patients have been concentrated in hospital and the throughput of patients has increased. Patients are often subjected to more aggressive diagnostic and therapeutic procedures and a greater number of health care workers (HCWs) are involved in the patient's management. In addition, newer varieties of the microorganisms are responsible for a wider spectrum of nosocomial infection, and bacterial isolates are becoming more resistant to the standard antibiotic therapies.

Although hospital-acquired infection has been worrying health care professionals for many years, more recently it is worrying patients and the public as well. This is due to emerging new pathogens coupled with heightened public awareness caused by AIDS, blood-borne hepatitis (B&C), methicillin-resistant *Staph. aureus* (MRSA), and more recently by *Clostridium difficile*, multidrug resistant tuberculosis (MDR-TB),

Manual of Infection Control Procedures

vancomycin resistant enterococci (VRE) and *E. coli* 0157 making their control more problematic and challenging for infection control personnel world wide.

Until the 1960s, recommendations on the control of infection were subjective, based on personal observations and anecdotes. The art beginning to emerge but the science was lacking. It is only in the past two decades that infection control has been taken as a serious issue although there are still areas where practice is still ritualist and controversial. An attempt has been made in this book to provide practical advice to the HCW on the control of infection based on current scientific knowledge and recommendation from various bodies on prevention and control of infection in the health care setting.

Nizam N. Damani
1997

Acknowledgements

I would like to thank the following people who have made the production of this book possible:

- Dr. Christopher Armstrong, MRCPATH, Consultant Microbiologist and Jemima Keyes, Infection Control Nurse, Craigavon Area Hospital for reading the manuscript and making helpful comments.
- Dr. Conall McCaughey, FRCPATH, Consultant Virologist, The Royal Hospital Group, Belfast for reviewing Chapter 10 *Blood-borne hepatitis and HIV infections* and Chapter 11 *Protection for health care workers*.
- Dr. John Yarnell, MD, FFPHM, Senior Lecturer in Epidemiology and Public Health, Queen's University, Belfast for reviewing Chapter 5 *Epidemiology and Biostatistics*.
- Linda McAlister for secretarial assistance.
- Gavin Smith of Greenwich Medical Media for seeing the book through completion.
- Finally, I thank my wife Laila and my children Numair and Namiz for their understanding and willingness to accommodate their life to my chaotic schedules.

Contents

| | |
|--|-----------|
| Foreword to the Second Edition | vii |
| Foreword to the First Edition | ix |
| Preface to the Second Edition..... | xiii |
| Preface to the First Edition | xv |
| Acknowledgements | xvii |
| Abbreviations..... | xxv |
| Glossary of Infection Control Terms | xxvii |
| 1. Principles of Infection Control | 1 |
| Chain of Infection | 1 |
| Body's Defense Mechanisms | 6 |
| Strategies to Control Health Care Associated Infection | 7 |
| 2. Administrative Arrangements | 9 |
| Infection Control Doctor..... | 9 |
| Infection Control Nurse | 10 |
| Infection Control Team | 11 |
| Infection Control Committee | 11 |
| Infection Control Link Nurse | 12 |
| Policies and Procedures Manual | 13 |
| Occupational Health and Safety | 13 |
| Education and Training..... | 13 |
| Risk Management in Infection Control | 14 |
| 3. Design and Maintenance of Health Care Facilities | 17 |
| Infection Control Risk Assessment | 18 |
| The General Hospital Environment | 18 |
| Patient's Accommodations | 19 |
| Hand Washing Facilities | 20 |
| Isolation Rooms | 20 |
| Operating Theatres | 22 |
| Ventilation and Air-Conditioning..... | 23 |

Manual of Infection Control Procedures

| | | |
|----|---|-----|
| | Cooling Towers and Water System | 23 |
| | Construction, Renovation and Demolition | 24 |
| 4. | Surveillance and Outbreak Control | 27 |
| | Incidence of Various Nosocomial Infections | 27 |
| | Surveillance of Nosocomial Infection | 28 |
| | Methods of Surveillance | 29 |
| | Management of an Outbreak | 30 |
| | Look Back Investigations | 35 |
| 5. | Epidemiology and Biostatistics | 39 |
| | Cohort Studies | 39 |
| | Case-Control Studies | 40 |
| | Cross Sectional (Prevalence) Surveys | 41 |
| | Measures of Disease Frequency | 42 |
| | Measures of Association | 43 |
| | Bias and Confounders | 44 |
| | Confounders | 45 |
| | Biostatistics | 46 |
| | Measures of Central Tendency | 46 |
| | Measures of Dispersion | 48 |
| | Hypothesis Testing | 49 |
| | Error of Hypothesis Testing | 49 |
| | Test of Statistical Significance | 49 |
| | The <i>P</i> Value | 50 |
| | Confidence Intervals | 50 |
| | Sensitivity and Specificity | 51 |
| 6. | Disinfection and Sterilization | 55 |
| | Methods of Decontamination | 55 |
| | Risks of Infection from Equipment | 57 |
| | Chemical Disinfectants | 58 |
| | Chemical Disinfectants and Antiseptics | 59 |
| | Disinfection of Flexible Fibreoptic Endoscopes | 69 |
| | Environmental Cleaning | 73 |
| | Management of Infectious Spills | 78 |
| | Cleaning and Disinfection of Medical Equipment | 78 |
| 7. | Isolation Precautions | 95 |
| | Source Isolation | 96 |
| | Protective Isolation | 98 |
| | Practical Issues and Considerations | 98 |
| | Appendix I | 114 |
| 8. | Prevention of Infections Caused by Multi-resistant Organisms | 119 |
| | Methicillin Resistant <i>Staph. aureus</i> (MRSA) | 121 |

| | | |
|-----|--|-----|
| | Vancomycin Resistant Enterococci (VRE) | 130 |
| | Multi-resistant Gram-negative Bacilli | 134 |
| 9. | Prevention of Infection Caused by Specific Pathogens | 137 |
| | Tuberculosis (TB) | 137 |
| | <i>Clostridium difficile</i> Infection | 147 |
| | Legionnaires' Disease | 151 |
| | Gastrointestinal Infections and Food Poisoning | 155 |
| | Meningococcal Infections | 160 |
| | <i>Varicella zoster</i> Virus (VZV) | 165 |
| | Creutzfeldt-Jakob Disease (CJD) | 169 |
| | Viral Haemorrhagic Fevers (VHFs) | 175 |
| | Rabies | 179 |
| | Infestations with Ectoparasites..... | 180 |
| 10. | Blood-borne Hepatitis and Human Immunodeficiency Virus (HIV) Infections | 185 |
| | Viral Hepatitis | 185 |
| | HIV Infection | 188 |
| | Routes of Transmission | 190 |
| | Occupational Risks to HCWs | 192 |
| | Risks to Patients from HCWs | 192 |
| | Responsibility of HCWs..... | 193 |
| | Exposure-Prone Procedures..... | 194 |
| | Surgical Procedure | 194 |
| | Protection of the Newborn | 198 |
| | Procedure after Death..... | 199 |
| 11. | Protection for Health Care Workers | 203 |
| | Occupation Health Department | 203 |
| | Measures to Protect HCWs | 204 |
| | Management of Sharps Injury | 205 |
| | Protection Against Tuberculosis | 213 |
| | Pregnant HCWs | 215 |
| 12. | Hand Hygiene and Personal Protective Equipment | 227 |
| | Personal Protective Equipment | 235 |
| 13. | Prevention of Surgical Site Infections | 245 |
| | Surveillance | 245 |
| | Microbiology..... | 248 |
| | Pre-operative Patient Care | 248 |
| | Operative Factors | 252 |
| | Post-operative Factors | 256 |
| | Other Factors | 256 |
| | Environmental Cleaning of Operating Theatre | 257 |

Manual of Infection Control Procedures

| | | |
|-----|---|-----|
| 14. | Prevention of Infection Associated with Intravenous Therapy | 261 |
| | Sources of Infection | 261 |
| | Pathogenesis of Infection | 262 |
| | Education and Training | 263 |
| | Monitoring and Surveillance of Catheter-Related Infection | 263 |
| | Intravascular Catheters and Parenteral Solutions | 264 |
| | Selection of Catheter Type | 264 |
| | Selection of Insertion Site | 265 |
| | Aseptic Techniques | 265 |
| | Catheter Site Dressing Regimens | 268 |
| | In-line Filters | 268 |
| | Antimicrobial Prophylaxis | 269 |
| | Anticoagulant Flush Solutions | 269 |
| | Replacement of Intravascular Set, Tubings and Parenteral Fluids | 269 |
| | Replacement of Catheters | 269 |
| | Guidewire Exchange | 270 |
| | Catheter-Related Infections | 270 |
| | Device Reprocessing | 270 |
| 15. | Prevention of Infections Associated with Urinary Catheterization | 273 |
| | Consideration Prior to Catheterization | 273 |
| | Maintenance of Catheter | 274 |
| | Removal of Catheter | 278 |
| | Use of Antimicrobial Agents | 278 |
| | Policy and Staff Training | 279 |
| | Re-use of Catheters | 279 |
| 16. | Prevention of Nosocomial Pneumonia | 283 |
| | Pathogenesis | 283 |
| | Strategy for Prevention | 285 |
| 17. | Hospital Support Services | 291 |
| | Food and Catering Service | 291 |
| | Staff Health/Hygiene | 292 |
| | Cook-chill Food Production Systems | 292 |
| | Texture Modified Products | 293 |
| | Food Trolleys | 293 |
| | Refrigerators | 294 |
| | Inspection | 294 |
| | Food Handlers | 294 |
| | Hospital Kitchen | 294 |
| | Ward Kitchens | 295 |
| | Ice Machines | 295 |

| | |
|---|------------|
| Linen and Laundry Service | 298 |
| General Principles to Prevent Infection | 298 |
| Laundry Process | 299 |
| Microbiological Sampling | 300 |
| Staff Uniforms | 300 |
| Mattresses and Pillows | 301 |
| Air-fluidized Beds | 301 |
| Management of Clinical Waste | 303 |
| Definition and Categorization of Clinical Waste | 303 |
| Methods for Safe Handling of Clinical Waste | 304 |
| Methods for Safe Use, Handling and Disposal of Sharps | 305 |
| Management and Disposal of Clinical Waste | 308 |
| Pest Control | 312 |
| 18. Infection Control Information Resources | 315 |
| Internet Resources | 315 |
| Books | 317 |
| Computer Software | 321 |
| Index | 323 |

Abbreviations

| | | | |
|-------|--|-------|---|
| AAFB | Acid and Alcohol Fast Bacilli | GRE | Glycopeptide resistant Enterococci |
| ACDP | Advisory Committee on Dangerous Pathogens | GISA | Glycopeptide resistant <i>Staphylococcus aureus</i> |
| A & E | Accident and Emergency Department | HAV | Hepatitis A Virus |
| AIDS | Acquired Immune Deficiency Syndrome | HBIG | Hepatitis B Immunoglobulin |
| AZT | Azidothymidine (Zidovudine) | HBeAg | Hepatitis B e antigen |
| BS | British Standard | HBsAg | Hepatitis B surface antigen |
| BBV | Blood-borne Viruses | HBV | Hepatitis B Virus |
| BSE | Bovine Spongiform Encephalopathies | HC | Health Circular |
| CDC | Centers for Disease Control and Prevention | HCV | Hepatitis C Virus |
| CDSC | Communicable Disease Surveillance Centre | HCW | Health Care Worker |
| CFU | Colony forming units | HEPA | High efficiency particulate air |
| CI | Confidence Interval | HEV | Hepatitis E Virus |
| CJD | Creutzfeldt-Jakob Disease | HIV | Human Immunodeficiency Virus |
| DHSS | Department of Health and Social Services | HMSO | Her Majesty's Stationery Office |
| DoH | Department of Health | HN | Health Notice |
| EIA | Enzyme Immuno Assay | HSE | Health and Safety Executive |
| ELISA | Enzyme Linked Immunosorbent Assay | IV | Intravenous |
| ERCP | Endoscopic retrograde cholangiopancreatography | ICC | Infection Control Committee |
| | | ICD | Infection Control Doctor |
| | | ICN | Infection Control Nurse |
| | | ICT | Infection Control Team |

Manual of Infection Control Procedures

| | | | |
|------------------------|--|------|---|
| ICU | Intensive Care Unit | RIBA | Recombinant immunoblot assay |
| MDA | Medical Device Agency | SCBU | Special Care Baby Unit |
| MDR-TB | Multi-drug resistant Tuberculosis | SSD | Sterile Supply Department |
| MRSA | Methicillin-resistant <i>Staphylococcus aureus</i> | SSI | Surgical Site Infection |
| NaDCC | Sodium Dichloroisocyanurate | TB | Tuberculosis |
| NNIS | National Nosocomial Surveillance System | UTI | Urinary Tract Infection |
| OPA | Orthophthalaldehyde | vCJD | New variant Creutzfeldt-Jakob Disease |
| PCR | Polymerase Chain Reaction | VHFs | Viral Haemorrhagic Fevers |
| PHLS | Public Health Laboratory Service | VISA | Vancomycin resistant <i>Staphylococcus aureus</i> |
| ppm av Cl ₂ | Parts per million of available chlorine | VRE | Vancomycin resistant Enterococci |
| QAC | Quaternary Ammonium Compound | VZIG | Varicella Zoster Immunoglobulin |
| | | WHO | World Health Organization |

Glossary of Infection Control Terms

| | |
|---------------------|--|
| ANTISEPSIS | The destruction or inhibition of microorganisms on living tissues having the effect of limiting or preventing the harmful results of infection. |
| ANTISEPTIC | A chemical agent used in antiseptis. |
| CARRIER | A person (host) who harbours a microorganism (agent) in the absence of discernible clinical disease. Carriers may shed organisms into environment intermittently or continuously and therefore act as a potential source of infection. |
| CASE | A person with symptoms. |
| CHEMOPROPHYLAXIS | The administration of antimicrobial agents to prevent the development of an infection or the progression of an infection to active manifest disease. |
| COHORT | A group of patients infected or colonized with same microorganism, grouped together in a designated area of a unit or ward. |
| COLONIZATION | The presence of microorganisms at a body site(s) without presence of symptoms or clinical manifestations of illness or infection. Colonization may be a form of carriage and is a potential method of transmission. |
| COMMENSAL | A microorganism resident in or on a body site without causing clinical infection. |
| COMMUNICABLE PERIOD | The time in the natural history of an infection during which transmission may take place. |

Manual of Infection Control Procedures

| | |
|--|--|
| CONTACT | An exposed individual who might have been infected through transmission from another host or the environment. |
| CONTAMINATION | The presence of microorganisms on a surface or in a fluid or material. |
| DISINFECTANT | A chemical agent which under defined conditions is capable of disinfection. |
| ENDEMIC | The usual level or presence of an agent or disease in a defined population during a given period. |
| ENDOGENOUS INFECTION | Microorganisms originating from the patient's own body which cause harm in another body site. |
| EPIDEMIC | An unusual, higher than expected level of infection or disease by a common agent in a defined population in a given period. |
| EPIDEMIOLOGY | The study of the occurrence and cause of disease in populations. |
| EXOGENOUS INFECTION | Microorganisms originating from a source or reservoir which are transmitted by any mechanism to a person, i.e. contact, airborne routes etc. |
| FLORA | Microorganisms resident in an environmental or body site. |
| HOSPITAL-ACQUIRED INFECTION (<i>Nosocomial infection</i>) | Infection acquired during hospitalization; not present or incubating at the time of admission to hospital. |
| IMMUNITY | The resistance of a host to a specific infectious agent. |
| IMMUNOCOMPROMISED | A state of reduced resistance to infection that results from malignant disease, drugs, radiation illness or congenital defect. |
| INCIDENCE | The number of new cases of a disease (or event) occurring in a specified time. |
| INCIDENCE RATE | The ratio of the number of new infections or disease in a defined population in a given period to the number of individuals at risk in the population. |

Glossary of Infection Control Terms

| | |
|---------------------------|--|
| INCUBATION PERIOD | The time interval between initial exposure to the infectious agent and the appearance of the first sign or symptoms of the disease in a susceptible host. |
| INDEX CASE | The first case to be recognized in a series of transmissions of an agent in a host population. |
| INFECTION | The damaging of body tissue by microorganisms or by poisonous substances released by the microorganisms. |
| ISOLATION | The physical separation of an infected or colonized host from the remainder of the at risk population in an attempt to prevent transmission of the specific agent to other individuals and patients. |
| MICROBIOLOGICAL CLEARANCE | The reduction of the number of pathogenic microorganisms in a specimen below that detectable by conventional means. |
| MICROORGANISM | A microscopic entity capable of replication. It includes bacteria, viruses and the microscopic forms of algae, fungi and protozoa. |
| OUTBREAK | An outbreak may be defined as the occurrence of disease at a rate greater than that expected within a specific geographical area and over a defined period of time. |
| PATHOGEN | A microorganism capable of producing disease. |
| PATHOGENICITY | The ability of an infectious agent to cause disease in a susceptible host. |
| PREVALENCE RATE | The ratio of the total number of individuals who have a disease at a particular time to the population at risk of having the disease. |
| RESERVOIR | Any animate or inanimate focus in the environment in which an infectious agent may survive and multiply which may act as a potential source of infection. |
| SEROCONVERSION | The development of antibodies not previously present resulting from a primary infection. |
| SOURCE | Place where microorganisms are growing or have grown. |

Manual of Infection Control Procedures

| | |
|---|---|
| SPORADIC CASE | A single case which has not apparently been associated with other cases, excretors or carriers in the same period of time. |
| STERILE | Free from all living microorganisms. |
| STERILIZATION | A process which renders an item sterile. |
| STERILIZING AGENT (<i>Sterilant</i>) | An agent or combination of agents which under defined conditions leads to sterilization. |
| SURVEILLANCE | A systematic collection, analysis, and interpretation of data on specific events (infections) and disease, followed by dissemination of that information to those who can improve the outcomes. |
| SUSCEPTIBLE | A person presumably not possessing sufficient resistance (or immunity) against a pathogenic agent who contracts infection when exposed to the agent. |
| TRANSMISSION | The method by which any potentially infecting agent is spread to another host. |
| VIRULENCE | The intrinsic capabilities of a microorganism to infect host and produce disease. |
| ZOONOSIS | An infectious disease transmissible from vertebrate animals to humans. |