Health Authority – Abu Dhabi		هـيئـــة الصحة ـ أبوظبي
Division/Department/Section: PPR/HCP Subject: Policy for Infection Control in the Health Care Facilities	Reference Number: PPR/HCP/P0010/07 Issue Date: May 2007 Revision Date: May 2009 Version: I

1. PURPOSE

Health care associated infection (HAI) leads to death, disability and excess medical costs world wide. Infection prevention and control programs in health care facilities maximize patient outcomes and should be an integral part of health care facility management and operations. Nosocomial or hospital acquired infections significantly increase the duration of hospitalization and costs for many patients and may result in permanent disability or death. The Centers for Disease Control and Prevention (CDC), estimates that billions of dollars in additional hospital costs are incurred annually as a direct result of health care setting infections. It is also important to recognize the diversity of services offered in primary care and community based health care facilities, nursing homes, rehabilitation centers, which are also equivalently subjected to infection related adverse effects. Thereby there is a need to expand the horizon of infection control from hospital acquired infections to all health care associated infections.

A breach in infection control practices facilitates transmission of infection between patients, health care workers, other patients and attendants. It is therefore mandatory to have an infection control plan, and policies, procedures, and guidelines as per recognized standards in each health care facility.

Infection control is the responsibility of all Health Care Facility (HCF) personnel. The goal of the infection control policies are to identify and reduce risks of acquiring and transmitting infections among patients, staff, students, volunteers, contract service workers, and visitors. The Health Authority - Abu Dhabi (HAAD) is committed to ensure the health and safety of all patients in the health care setting and to provide a safe and healthy work environment for all health care employees. This commitment is translated to developing and implementing policies on infection control in the health care facilities that will minimize the risk to the health care consumers and providers in acquiring health care associated infections, in making health care practices safer and in creating a safer environment for all concerned in the health care setting/facilities.

The purpose of this policy is to outline the broad principles of infection control for all public and private health care settings. This Policy will be used as a framework within which the HCFs can develop detailed operational policy/procedures and guidelines appropriate to their

own setting, which is evidence based and consistent with internationally recognized standards.

2. POLICY STATEMENT

2.1. Infection prevention and control is a major indicator to improve the quality and outcome of patient care and the occupational related risks among health care workers and staff as stated by the World Health Organization (WHO), CDC, and the recognized leaders in health care.

2.2. HAAD, as a leader in regulating health care for the Emirate of Abu Dhabi, mandates that all HCF's administration must implement infection prevention and control policies, procedures and guidelines based on best practice models in their health care settings, which is supported by the institutional management.

2.3. All health care staff, specifically those providing direct clinical care to patients and clients, should participate in the prevention and control of infection by adopting consistent and best practice guidelines wherever health care interventions takes place

2.4. HAAD recommends that the overall approach to an infection prevention and control policy at the HCF should be based on the following infrastructure:

2.4.1. Management: Infection prevention and control policies and procedures should be in place with a committee and a person dedicated for infection control. An initial assessment of infection control at the HCF, assignment of staff responsibilities, choice of appropriate technologies, costing, budgeting and financing, identifying quality standards, continuous monitoring and supervision for IC and performance assessment should be established.

2.4.2. Information, Education and Communication (IEC): Each organization should ensure adoption of best practices standards, standard precautions, pre-service training, in service training, and mass awareness.

2.4.3. Available Resources: Management of the organization should ensure availability of essential equipment and supplies, forecasting needs, procurement, inventory control and stock management and maintenance.

2.4.4. Surveillance: Management supervises continuous monitoring, feedback, outbreak investigation, evaluation using indicators of structure, process/practices, outcomes/incidence of infections.

2.4.5. Other interventions should include: health care worker protection, isolation protocols for specific infectious diseases (TB, SARS etc), identification of high risk settings, rational use of antimicrobials, safe and appropriate use of injections and infusions, safe and appropriate use of blood and blood products and sanitation.

2.5. HAAD requires all HCF to have an IC program for the HCF based on the above statements and criteria.

2.6. HAAD will monitor and audit all HCFs of their IC policies, procedures and guidelines and review outcome of the IC program and impact on patient care and outcome.

2.7. HAAD mandates this policy as a compulsory requirement of any health care facility; non compliance will result in penalty from warning to closure of the facility.

3. SCOPE

Prevention and control of infection in the health care facilities.

4. TARGET AUDIENCE

Health care facility management and all health care staff in Public and Private health care sector.

5. RESPONSIBILITY

Health care facility management /administrators ensure implementation of the policy to include patients, their family members; close contacts and visitors comply with the policy and infection control guidelines.

6. PROCEDURE

Ten steps to implement an Infection Control Program within the HCF:

6.1 Announce management's commitment and policy to improve the quality and outcome of patient care and to reduce work related risks among health care workers through implementation of an effective and state-of-the-art infection control program.

6.2 Review initially and continuously the current local IC program and manual regarding existing and needed resources, structure, authority, policies, procedures and guidelines and identify gaps and needs for improvement, uHCPate and completion.

6.3 Review HAAD recommended guidelines and other relevant, internationally recognized and evidence-based IC guidelines.

6.4 Assign responsibility and authority for coordinating the development and implementation of the IC program to an **Infection Control Committee** (applicable for hospitals, medical centers, polyclinics and other large health care facilities).
    6.4.1 Determine duties, responsibilities and authority of IC committee, meeting frequency and reporting structure
    6.4.2 Select chairperson (physician/microbiologist), representatives and members of IC committee.

6.5 Assign responsibility and authority for coordination, development and implementation of the IC program to designated staff member/members (applicable for e.g. General Practitioners clinics and other small clinics).

6.6 Provide adequate **resources** for effective functioning of the infection control program, including human resources, office room(s), technical resources, professional development and training and annual budget as suggested by the infection control committee.

6.7 Appoint an **Infection Control Team** through IC committee (applicable for hospitals, medical centers, polyclinics and large health care facilities).

6.7.1 Determine duties, responsibilities and authority of the infection control team, team structure, reporting structure, cooperation & collaboration with other concerned parties and resources.

6.7.2 Employ at least **1.0 FTE qualified infection control practitioners/nurses for every 100 occupied acute care beds** or for every 200 occupied long-term care or rehabilitation care beds as adequate staffing.

6.7.3 Perform regular internal **infection control inspections/audits** in all relevant units of the HCF at least once a year, including a written report. Follow up and correct the IC deficiencies identified during the inspections.

6.7.4 Establish and maintain additional access of the HCF to specialists in infection control, epidemiology and infectious diseases, including physicians and infection control practitioners/nurses as necessary.

6.8 Develop and continuously uHCPate an **Infection Control Manual** that contains instructions and best practices for direct and indirect patient care, policies and procedures for infection prevention and control including surveillance and environmental controls, management of infectious diseases, reporting of notifiable diseases etc.

6.8.1 Create awareness and ensure availability and accessibility to the IC manual for all relevant staff.

6.8.2 See **Appendix 1** for required and recommended contents of the infection control program and manual (documented evidence must be available).

6.8.3 The following basic principles of infection control must be implemented as a part of the IC program and manual within 6 months after the date of issue of this policy:

6.8.3.1 Hand hygiene

6.8.3.2   Isolation precautions

6.8.3.3   Notification of reportable diseases

6.8.3.4   Prevention of surgical site infections, catheter associated urinary tract infections, healthcare associated pneumonia and intravascular device related infections

6.8.3.5   Nosocomial Infection Definitions

6.8.3.6   Management of MDRO

6.8.3.7   Employee health initial evaluation, screening, and communicable disease control (including Varicella zoster and TB control program)

6.8.3.8   Occupational exposure to HBV, HCV and HIV

6.8.3.9   Medical waste management

6.8.3.10   Catering and food services management

6.8.3.11   Laundry management

6.8.3.12   House keeping and Environmental safety

Other required elements (see Appendix 1) of the IC program and manual must be implemented within 18 months after the date of issue of this policy.

6.9   Educate and train health care workers, including but not limited to physicians and nurses, about the policies and procedures of the local IC program and manual through:

6.9.1.1 Assessment of training needs of the staff

6.9.1.2 Provision of required training through awareness programs, in-service education, on-the-job training and regular training programs for the staff for essential infection control practices that are appropriate to their job description

6.9.1.3 Provision of periodic re-training or orientation of staff

6.9.1.4 Review of the impact of training

6.10   Orient administration of health care facility towards the importance of the IC program

6.11   Educate employees, patients, visitors and guests about the IC program

7. DEFINITIONS AND ABBREVIATIONS

ESBL	Extended-spectrum beta-lactamase producing bacteria (e.g. some strains of *E. coli*, *Klebsiella* spp.)
ENT	Ear-nose-throat
C & D	Cleaning and Disinfection
FTE	Full Time Equivalents
ICP	Infection Control Practitioner
IC	Infection Control
ICU	Intensive Care Unit
HACCP	<u>H</u>azard <u>A</u>nalysis and <u>C</u>ritical <u>C</u>ontrol <u>P</u>oints - a systematic preventative approach to food safety that addresses physical, chemical and biological hazards as a means of prevention rather than finished product inspection
Health care facility (HCF)	Any Public/private facility, organization directly/indirectly providing health care or services, which will include clinics, centers, hospitals, administrative offices, corporate offices, insurance providers, pharmacies etc.
HCFs	Health care facilities
HCWs	Health care workers
HAAD	Health Authority - Abu Dhabi.
HAI, nosocomial infections	Healthcare-associated infections or nosocomial infections are infections that patients acquire during the course of receiving treatment for other conditions or that healthcare workers acquire while performing their duties within a healthcare setting.
HVAC	Heating, ventilating, and air-conditioning
MDR-TB	Multidrug-resistant *Mycobacterium tuberculosis*
MDRO	Multidrug-resistant Organism
MRSA	Methicillin-resistant *Staphylococcus aureus*
NICU	Neonatal Intensive Care Unit
NLV	Norwalk-like virus
PMD	Preventive Medicine Department

PPE	Personal Protective Equipment
QM	Quality management
SDS	Safety data sheets
SSI	Surgical site infection
VRE	Vancomycin-resistant *Enterococcus*

8.   CROSS REFERENCE

1. The World Health Organization (WHO). Practical Guidelines for Infection Control in Health care Facilities. Regional Office for Western Pacific (Manila) and South East Asia (New Delhi). SEARO Regional publication No.41; 2004.

2. Department of Health, NSW. Infection Control Policy Directive. Sydney, NSW. 2002.

3. The World Health Organization (WHO). Aide- memoire for infection control in a health care facility. Department of Essential Health technologies. Geneva, Switzerland. 2004.

4. Walter Reed Army Medical Center. Infection Control Policy and Procedure Guide. Available at: http://www.wramc.army.mil/providerinfo/infection_control/index.htm. Accessed 27, March, 2007.

5. Centers for Disease Control and Prevention (CDC). Infection Control Guidelines. Available at: http://www.cdc.gov/ncidod/dhqp/guidelines.html. Accessed 28, March, 2007.

9. APPENDIX I

Required and recommended contents of a health care facility's IC program and manual

The IC program and manual should finally include the contents listed below.

- Please note that not all of these elements might be applicable or necessary due to the type, structure and needs of the health care facility.
- The local IC program and manual may and should also contain additional elements that are not listed here, according to the type, structure and needs of the health care facility.
- It is recommended that more sophisticated contents of the IC program are implemented **after** basic principles of infection control (e.g., hand hygiene, standard precautions, use of personal protective equipment, isolation precautions, and medical waste management) have been implemented.

It is the responsibility of the local IC committee, together with the IC team to identify and close existing gaps and to uHCPate the IC program and manual. This should be achieved by reviewing the structure of the health care facility, range and type of health care services delivered, patient care procedures performed and medical devices used as well as through interpretation of surveillance data, investigation of outbreaks, review of existing guidelines, screening the scientific literature and other means.

1.1 Organization & resources of IC program
  - Reference: HAAD recommended Guidelines, 2007

1.2 Personal Hygiene
  - Hand hygiene, working clothes, PPE

1.3 Employee Health
  - Employee health: Initial and periodical physical examination, communicable diseases screening, vaccination (hepatitis B, influenza, other vaccinations, e.g. for pediatric HCWs or laboratory staff)
  - Prevention of occupational exposure to blood borne pathogens (e.g. HBV, HCV and HIV) and post-exposure prophylaxis

1.4 Prevention, surveillance, control and reporting of health-care acquired infections
  - Definitions for health care acquired infections
  - Prevention, surveillance, control and reporting of surgical site infections (SSI) and device-associated infections (pneumonia, septicemia, urinary tract infections)
  - Others (e.g. Legionella, Clostridium, NLV)

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1.5   Surveillance, management and reporting of multi-resistant pathogens or pathogens with relevant resistance; antimicrobials policy
- Management of MDRO/ MRSA, VRE and others, e.g. ESBL, MDR-TB, *Pseudomonas aeruginosa, Candida albicans*
- Antimicrobials policy

1.6   Isolation precautions and management of specific infectious diseases
- Isolation precautions (standard, contact, droplet, airborne)
- Communicable diseases from A(scaris) to Z(ytomegalovirus)
- Tuberculosis control program
- Notification of reportable diseases (as per Federal Law No. 27 and HAAD regulations), including forms
- Outbreak management and investigation, emergency preparedness
- Relationship to PMD and Public Health

1.7   Patient related procedures (in accordance with nursing standards)
- E.g., blood withdrawal, intravascular and other catheters and devices (peripheral, central; venous, arterial, urinary, cerebrospinal and other catheters), implanted central venous access devices (e.g. ports), injections, infusion systems, respiratory equipment, blood culture collection, blood transfusion, wound dressings and any other contaminated articles or equipment
- Transportation of patients with communicable diseases or colonization/infection with multi-resistant pathogens
- Handling of drugs, blood & blood products
- Handling of medical devices
- Immune suppressed and neutropenic patients

1.8   Catering and kitchen, HACCP

1.9   Cleaning and disinfection
- General hygiene and cleaning policy
- List of approved products for cleaning and disinfection purposes, safety data sheets (SDS)
- Specific cleaning and disinfection plans for each unit (wards, OP, ICU, endoscopy, kitchen, laboratory, …)
- Terminal disinfection

1.10 Sterilization and storage of sterile supplies
- Staff (incl. qualification, responsibilities, authorization), QM, equipment, procedures (from A to Z), quality control, storage conditions, expiration date/shelf life

1.11 Unit specific infection control
- Operating rooms, surgical ICU and wards; internal medicine including infectious diseases ward, ICU, renal dialysis and endoscopy; pediatric wards and NICU, gynecology & obstetrics, urology, ENT, ophthalmology and other medical disciplines, rehabilitation, clinical imaging, pharmacy, laboratory, home care, kitchen, laundry, mortuary

1.12 Infection control in supply and disposal
- Purchasing of surgical instruments, medical devices and other patient care products
- Medical waste handling

1.13 Environmental and Engineering Controls
- Housekeeping services
- Microbiologic sampling procedures in patient care
- Microbiologic sampling procedures for environmental controls, including performance controls of cleaning & disinfection machines, sterilizers, laundry, kitchen, water and other fluids, hand hygiene
- Air-condition (HVAC) systems, clean air rooms, negative pressure rooms
- Construction and renovation policy