School of Veterinary Science

Biosecurity and Infection Control Procedures

Companion animal clinics
Introduction

Biosecurity and infection control are increasingly important in veterinary practice. All professionals involved in veterinary practice have a responsibility to ensure the safety and welfare of people and animals involved in veterinary care.

This short, practical biosecurity and infection control guideline is intended to ensure that everyone, all staff, students and where applicable, clients, working in or visiting the companion animal clinics of the University of Queensland School of Veterinary Science are aware of the minimum standards expected, and that procedures and principles are similar in every location. This guideline is not intended to be a comprehensive document covering all aspects of biosecurity and infection control.

Additionally, understanding and application of excellent infection control principles are important requirements for accrediting bodies for veterinary schools. Biosecurity and infection control procedures are evaluated during accreditation visits. In Queensland, veterinary surgeries, hospitals and clinics are required to comply with Occupational Health and Safety requirements relating to infection control as well as other areas. State government inspections of veterinary premises commenced in 2010, thus it is extremely important that staff and students maximize their knowledge and skills in this area.

The aims of the policies are to:

- Protect animals, staff, students and clients from exposure to anthrozoosonoses;
- Minimise the risk of nosocomial (hospital-acquired) infection to patients;
- Ensure students learn and apply best-practice in biosecurity and infection control in the clinical setting;
- Educate, by example, clients and members of the public in biosecurity and infection control;
- Provide a clean and safe working environment for everyone concerned;
- Protect operational capabilities of the clinics.
An excerpt from the Australian Veterinary Association policy for infection control is below.

**AVA policy**

3.3 - Code for infection control

**Policy**

The Australian Veterinary Association (AVA) supports practices that:

- ensure the safety and welfare of all animals under veterinary care
- provide a safe and healthy working environment for owners, veterinarians and staff

Animal hospitals and practitioners have a duty of care and must take reasonable action to safeguard animals, staff and the public from infection. Employers must establish procedures and provide information, training and supervision, especially for infection control.

Veterinarians must be conscious of the potential for zoonoses to present as inapparent infections in animals and of their responsibilities regarding cross infection among animal patients. They must recognise the potential for pyrogens and pathogens to be introduced through inadequate infection control during administration of medication.

**Environment**

The working environment is to be kept scrupulously clean and the following are recommended:

- Monitoring infections (passive monitoring of clinical infections)
- Active surveillance (having a plan in place to take environmental samples from high risk areas to ensure the hospital is free of bacteria)
• Ensure all antiseptics, and disinfectants are made up properly, are properly labelled and stored correctly, consider chemical rotations

• Generally check all areas and all staff implement good infection control polices – washing hands, equipment, changing lab coats, not eating with lab coats on etc.

As part of the infection control and to monitor and eliminate possible nosocomial infections, it is recommended that the swabs be regularly taken as appropriate, determined by microbiologists and cultured to identify the presence of microorganisms. Areas to be sampled will depend on the organism of concern i.e. an organism from an animal, human, or environmental source. Samples can be taken from:

• Areas that should be sterile (ICU, surgery)
• Areas that have housed an animal with an organism of concern (multidrug resistant bacteria)
• Areas at an increased risk of contamination (drains, sinks, wet area)
• Disinfectants/antiseptics to confirm they are free of contamination
• Areas post cleaning to confirm infection control

Reception areas
Reception areas are the public face of the clinic and create the all-important first impression for clients. Reception areas should be noticeably clean and fresh at all times.

Specifically:

• All surfaces damp-dusted daily using an appropriate disinfectant. Surfaces which are touched by people (e.g. door handles and door plates, front and top of reception counter) should be regularly cleaned with alcohol spray and dried.
• Floors should be vacuumed at least daily and more often if any noticeable amount of hair accumulates during the day. Hair should be vacuumed from the floor using a vacuum cleaner equipped with a hepa-filter to minimize spread of potential pathogens such as ringworm spores into the environment. Vacuuming should be performed before floor washing.
Floors must be washed daily with a suitable detergent (to remove grease and oils) and a germicidal disinfectant (one which kills parvovirus). During the day, any organic matter on the floor (urine, saliva, faeces, vomitus) or any liquid (e.g. solution spills) must be cleaned promptly. Clean-up areas should be either dried immediately with paper or cloth towel, or any slip hazard identified and taped off and marked as a hazard until the floor is dry.

Any display shelving must be damp dusted using a suitable disinfectant at least weekly and preferable more often. Shelf contents must be similarly kept clean.

Toys should be of a material which can be disinfected. Soft toys are unsuitable for reception areas where they may be handled by many children or their carers. Toys should be disinfected as least weekly, e.g. by immersion in a bleach solution and natural drying, more often if indicated. Toy boxes should be cleaned with bleach or alcohol at least weekly.

In case of possible infectious diseases (the primary diseases of interest are Canine Parvovirus, Cat Flu and Canine Cough or Kennel Cough, infections with ringworms) which are shown by symptoms such as vomiting and diarrhea, sneezing and watery eyes, acute cough, and skin lesions respectively, the client’s animal is to stay in the vehicle or outside of the Clinics, away from other patients until ready to be seen/consulted in isolation. Once they come through the reception area, they should be taken directly into a dedicated area to avoid unnecessary contact with other animals or people. For details, refer to “Procedure: Infectious Diseases in dogs and cats and the role of Reception” on N:\SOP's\Reception\Small Animal Reception\Common Infectious diseases dogs and cats and reception.doc

Consulting rooms
Consulting rooms are the public face of clinical practice in the hospital. The environment in the consulting room is keenly observed by clients and procedures must not only minimize the risk of spread of infection but also be seen to do so. Infection control is as for reception areas and additionally:

- Examination table surfaces must be sprayed with F10 or Virkon or equivalent suitable product and dried with paper towel after every animal.
• Any area which becomes contaminated during a consultation (e.g. sink bench after minor procedures such as ear cleaning, corneal staining, venipuncture) must be sprayed with F10 or Virkon or equivalent suitable product and wiped between every animal examined and treated.

• Sinks and benches in consulting rooms must be cleaned thoroughly with a standard cleaner which will lift grease, oil, and water-soluble contaminants (for example Jif or Ajax), finished with F10 or Virkon or equivalent suitable product and wiped dry at least daily.

• All surfaces in consulting rooms including table legs, shelves, equipment trolleys etc. must be cleaned at least weekly, including cleaning with suitable disinfectant. Everything on shelves and trolleys must be moved for effective cleaning. Equipment, models, books, leaflets, etc should be cleaned or damp-wiped as appropriate.

• Floors must be vacuumed and washed daily and spills and contamination removed promptly as for floor care in the reception areas. It is useful to have easy access to a small vacuum cleaner in the consulting room.

• Disinfectant should be kept in the consulting room. Paper towels rather than cloth towels should be used and appropriate yellow biohazard bags for disposal of organic waste located in the consulting room.

**Hospital, preparation and theatre areas**

• Hospital, preparation and theatre areas

• All persons entering the hospital area, including visiting clients, should wash hands on entry and exit.

• Hands must be washed after any animal, its bedding or equipment is touched.

• Cages must be changed regularly at least daily, and soiled bedding or equipment changed promptly.

• As for consulting rooms, all sharps to be disposed of immediately in sharps containers, soiled dressings or organic material to be disposed of in yellow biohazard bags and bins.

• Regular cleaning of all surfaces, shelves, trolleys, etc. as for consulting rooms.

**Isolation wards**

Scrupulous cleaning and hygiene as for other areas plus:
• Change of shoes and paper booties on entry; change of shoes OR remove booties on exit;
• Wash hands on entry and exit;
• Fresh gown on entry, to be removed on exit. (If consideration is given to leaving the same gown ‘hung up’ in the isolation ward, extreme care should be taken not to contaminate clothing with the outside of the gown).
• Gloves should be worn if touching an animal or its bedding or equipment.
• Consideration given to masks (P2 if necessary) and protective eyewear.
• Isolation wards to have their own equipment – thermometers, stethoscopes etc, must be disinfected after each use and if brought outside isolation ward.

**Intensive care wards**

As for isolation wards – intensive care patients likely to be more at risk of infection even if not themselves diagnosed with infectious disease. Therefore controls should include:

• New gloves be worn and hands to be washed after de-gloving between patients.
• Minimum cleaning standards – vacuum/sweep/mop at least twice every day
• Regular disposal of clinical wastes
• For more details, refer to AVA Guidelines for Veterinary Personal Biosecurity

**Personal biosecurity**

**Handwashing**

• Wash hands before and after every patient and after contact with any body fluids, potentially infectious or contaminated material;
• Handwashing technique - 20 seconds under running water using antibacterial liquid soap; attention to rings, watches, jewellery etc (it is recommended that jewellery not be worn on the hands during clinical work as it is difficult to wash hands adequately; rings can be kept on a neck chain in these circumstances); short-sleeved clothing or sleeves to the elbow at maximum is recommended to facilitate adequate handwashing;
• Wear gloves especially if handling infectious/contaminated material.
Personal practices and protective equipment

- Long hair tied back.
- Appropriate PPE including closed-toe shoes which are easily cleaned should be worn.
- Short fingernails to make washing and scrubbing effective.
- Note special care should be taken in the case of personal risk factors such as possible immunosuppression in persons with conditions which may affect the immune system, or taking immunosuppressive drugs (cortisone, cyclosporine etc); wounds, cuts & scratches; chronic or acute intercurrent medical conditions (e.g. colds and influenza, asthma, eczema, respiratory disease, diabetes etc.) and during pregnancy.
- Don’t touch face with hands to minimise likelihood of germ transfer.
- Protective clothing such as scrubs tops, scrubs, gowns, overalls or lab coats should be worn.
- Protective clothing must be changed if grossly contaminated or if an animal with a known infectious disease is contacted.
- Fresh protective clothing must be worn every day.
- Used protective clothing should be put in a suitable bag separate from clean items until it is laundered.
- Students to provide their own protective clothing which should be kept separately from other clothing and equipment after wearing (e.g. in a garbage bag) and laundered in hot water after each use;
- Gloves and masks should be worn if in warranted in the judgment of the student or staff member, e.g. if there is likely to be contact with body fluids or transmission of a zoonotic disease by aerosol (e.g. Bordetella). Protective eye-wear should be worn if there is a possibility of contamination of the eyes with organic material or a pathogen (e.g. during orthopaedic or dental procedures).
- Gloves do not preclude the necessity of regular handwashing between each animal.
- Special protective equipment (such as heavy gloves) should be used if there is a higher risk associated with a procedure, wildlife or fractious cats (towels may be handy for such cases). However under UQ policies and guidelines, handling of injured and febrile bats are not permitted without an approval.
from Institute for Biosafety. VMC currently does not an approval in place. Therefore febrile and injured bats are not seen or admitted currently. Reception staff have the contact details for QldBats in Locker Valley to redirect the callers. This is also included as part of new staff induction.

- No human food is to be kept in the clinical areas except for designated kitchen or dining areas. No eating or drinking in clinic areas except for designated areas.

Disposal of waste

- Soiled dressings, swabs etc and infected or contaminated material to be removed from work areas and placed in biohazard bins (yellow liner) for appropriate disposal (incineration);
- Appropriate bins to be provided in convenient places in the clinic; wear gloves while changing and disinfecting bins;
- Work areas to be cleaned and disinfected immediately after any procedure is completed;
- Blood, body fluids, infective substances to be immediately sprayed with disinfectant and cleaned; gloves to be worn when handling any contaminated material;
- Infected bedding to be disposed of away from the hospital in accordance with local council regulations;
- Sharps to be disposed of immediately after use in designated sharps container.

Companion animal infectious diseases of concern\(^1\)

- Canine distemper
- Canine parvovirus
- *Bordetella* spp. infection
- Canine leptospirosis
- *Campylobacter* spp. infection
- *Salmonella* spp. infection

\(^1\) This list not exhaustive – please add to it and annotate if needed.
• Cryptosporidium and Giardia
• Psittacosis (Chlamydia psittaci (avian))
• Feline Leukaemia
• Feline Immunodeficiency Virus
• Cat scratch disease (Bartonella henselae & other bacteria)
• Methicillin Resistant Staphylococcus aureus infection
• Australian Bat Lyssavirus (not reported clinically in dogs & cats but develop antibodies after experimental exposure)
• Canine influenza

For further information, refer to:

• AVA Guidelines for Veterinary Personal Biosecurity

Other useful educational links:

• Canadian Committee on Antibiotic Resistance 2008, Infection Prevention and Control Best Practices for Small Animal Veterinary Clinics*

• National Association of State Public Health Veterinarians, NASPHV
  Compendium of Veterinary Standard Precautions JAVMA, Vol 237, No. 12, December 15, 2010
  http://www.nasphv.org/documentsCompendia.html

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<td>Version 1</td>
<td>2011</td>
<td>Ristan Greer</td>
<td>First issue</td>
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Biosecurity and Infection Control Procedures
Version 1: 20/11/2009  r.greer@uq.edu.au
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Version 2: 16/04/2015 revised by Justine Gibson/Myat Kyaw-Tanner/Bob Doneley/Emma Bennett/Anne Covill
C:\Users\vpmkyawt\Documents\OH&S\2015\Biosafety\Biosecurity\Biosecurity and Infection Control Procedures

Version 3: Revised 24/10/2016 Myat Kyaw-Tanner, Bob Doneley and Anne Covill
C:\Users\vpmkyawt\Documents\OH&S\2016\VMC\Small Animals\Biosecurity and Infection Control Procedures
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