Australasian College for Emergency Medicine
ABN 76 009 090 715

GUIDELINES FOR INFECTIOUS DISEASE AND BIOHAZARD EXPOSURE IN THE EMERGENCY DEPARTMENT

1. PURPOSE AND SCOPE

1.1. This document is a guideline of the Australasian College for Emergency Medicine and relates to clinical practice for infectious disease and biohazard exposure in the emergency department

1.2. This policy is applicable to emergency departments in general

2. INTRODUCTION

As a part of their role, Emergency Departments see and assess undifferentiated patients without notice and hence emergency department staff members are at risk of exposure to serious infectious illnesses before a microbiological diagnosis is possible. The risk of secondary infection to emergency department staff is increased by emergency department overcrowding and access block.

ACEM recognises that strict adherence to "universal precautions" is the single most important measure to prevent secondary infections and emergency departments should have systems in place to monitor compliance with "universal precaution" guidelines. In addition emergency departments should have procedures and practices that passively protect staff when the possibility of serious infectious illness has either not been considered, or there has been a delay in recognizing patients with serious infectious illnesses at the start of an epidemic.

3. HAZARD IDENTIFICATION

Emergency departments should ensure a nominated emergency physician is available as a single point of contact by local public health authorities to facilitate communication on disease surveillance. Emergency departments should have on public display the list of notifiable diseases which are required to be reported to the local public health authorities along with the contact numbers of the local public health authorities. Emergency Department handover rounds should include information on possible infectious disease outbreaks and regular updates on the diagnosis and manifestations of new infectious diseases.

4. HAZARD REDUCTION

4.1. Reducing risk of generating infective aerosol droplets

Emergency departments should reduce the use of nebulizers to deliver medications within the emergency department and use metered dose inhalers with spacers wherever possible.
Nebulizers should not be used on any patient in the emergency department with fever and lower respiratory tract symptoms or otherwise suspected of having an infectious disease.
Procedures at high risk of generating aerosol droplets, such as taking nasopharyngeal swabs and aspirates from patients suspected of having serious infectious illness should not be taken outside of the confines of a negative pressure room. If the emergency department is not equipped with a negative pressure room then these samples should not be taken within the emergency department.

4.2. Reducing the risk of exposure to infective aerosol droplets

A minimum separation of one meter is to be maintained between all patients in the emergency department at all times.

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In the event of “separation breakdown" consideration should be given to moving waiting patients to other designated areas which are appropriately staffed, diverting patients away to less crowded facilities, clearing the ED of access blocked patients, and if all else fails temporary closure of the ED to reduce the risk of secondary infection.

Any Emergency department staff members involved in manipulating a patient’s airway, potentially exposing them to the patient’s respiratory tract secretions should use a N95 duckbill mask and eye shields as a minimum level of protection against any potential pathogens.

Higher level PPE required to protect staff against high risk exposures from potentially fatal infectious diseases will consist of impervious disposable overalls with integrated hoods, leggings and shoe covers used in conjunction with either full face supplied gas respirators or fit tested, positive pressure air purifying respirator using an N-100 ultra low penetrating air filter with double gloving of nitrile gloves taped over the point they join the disposable overalls.

Emergency departments should have at least 12 sets of higher level PPE to manage an outbreak of potentially fatal infectious diseases for every two hour period of the incident. This will allow two patient care attendants and one person at triage on thirty minutes shift rotations and one and half hour rest breaks.

Patients with pyrexia of unknown origin should be admitted to an appropriate hospital ward bed within two hours of the decision to admit the patient. Patients with fever and lower respiratory tract symptoms or otherwise suspected of having an infectious disease should be isolated in the emergency department. Patients suspected of having serious infectious illness should have a surgical mask applied during transfer to a ward bed. Hospital security staff should ensure there is a clear unimpeded transit of the patient to the appropriate ward bed.

4.3. Reducing the risk of exposure from contaminated objects and surfaces

Dispensers for hand sanitisers should be situated at the front counter of emergency departments and entrance into the emergency department with signage asking patients and visitors to clean their hand before entering the emergency department. When items such as Medicare cards are handed over to clerical staff, they should ask the patient to clean their hands before hand.

Emergency departments should provide non sterile nitrile disposable gloves to provide hand barrier protection of emergency department staff. Non sterile latex or vinyl gloves should not be used. During potential high infectious risk exposures emergency department staff should double glove to protect against inadvertent glove perforations. Emergency department staff should use disposable gowns which are impervious to body fluids when they need “splash” protection from body fluids in routine procedures. Disposable adhesive labels should be available to clearly identify the designation of staff members while wearing impervious gowns.

Where possible patients with serious infectious illness should have a designated stethoscope kept with them at all times. Procedures need to be in place to ensure that no stethoscope used on another patient after it has been used during the examination of a patient with a serious infectious illness until it has been appropriately cleaned.

5. HARM MINIMIZATION

5.1. Protecting vulnerable staff and patients

No emergency department staff member who does not have the appropriate personal protective equipment and training should be compelled to deal with a patient who is suspected as having a serious infectious illness with the risk of secondary infection. Any emergency department staff member who is pregnant, immuno-compromised or otherwise at risk of serious adverse health outcomes should not have contact with a patient who is suspected of having a serious infectious illness with the risk of secondary infection. Emergency departments should not stock “surgical masks” for staff use.

The minimum quantity of N95 masks that should be kept in the emergency department is one for each staff member working in the emergency department each four hour duty time for one week. In addition there should be a N95 mask available for every patient that could be present in the emergency department and waiting room. There should be enough N95 masks kept immediately available in the triage area to provide protection to all triage and clerical who may work during a 24 hour period.

Patients who are immuno-suppressed should be protected from other emergency department patients who present an infectious risk to the immuno-suppressed patient. Free prophylaxis and treatment should be offered to all emergency department staff members and their families.

Minimum respiratory protection in emergency departments against pathogens potentially spread by in the inhalation of infectious aerosols will be the “duckbill” N95 mask with basic respiratory protection to front counter staff and individuals in the waiting room at all times.
Any patient with fever and obvious lower respiratory tract symptoms should not enter the emergency department until they have an N95 mask appropriately applied to them. Signage should be in place to alert the public of this policy and N95 masks should always be available in the triage area.