

Improving Pre-hospital Infection Control in the ACT

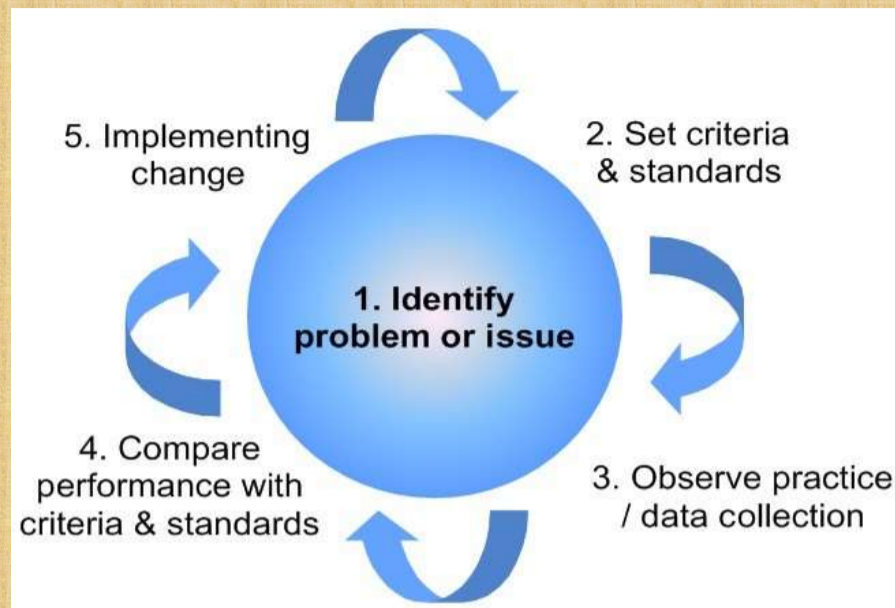
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Introduction:

Within the Australian Capital Territory Ambulance Service (ACTAS) the infection control performance of paramedics and monitoring of their practices in the pre-hospital setting is constrained by the lack of appropriate resources, paramedic knowledge and understanding, social pressures, and the care requirements of patient presentations. For the paramedic patient interventions often occur outside of the ambulance in uncontrolled environments. Compliance measuring and monitoring is very difficult owing to the diversity of situations where patient contact occurs. There is also a lack of effective ways to measure whether interventions resulted in infections.



ACT AMBULANCE SERVICE		
011 Clinical Work Instruction	Point of Care Risk Assessment	CWI
Version 1		ALL STAFF
Date 28/07/2021		

Purpose
This instruction provides guidance for staff when performing a patient risk assessment to prevent the spread of infection.

General Information
Correct choice and use of personal protective equipment (PPE) can reduce the risk of spread of infection.
Information about a patient's condition from the case information can be used to alert staff to possible infection risks and PPE requirements.
Additional information that is obtained upon first contact with the patient can be used to refine these risks and can result in a revision of PPE selection.

Actions/Method
Patient care officer will determine PPE requirements through asking the following questions:

1. Is there potential to be exposed to blood or body fluids?
2. Will hands be exposed to blood, faecal matter, vomit, non-intact skin, rash, or contaminated items?
3. Will the face be exposed to splash, spray, or an uncontained cough?
4. Will the skin or clothing be exposed to splashes/sprays or items contaminated with blood, excretions, or secretions?
5. Does the patient have a known or suspected infection that may be transmitted through droplet, contact or airborne routes?

Patient care officer will direct assisting crew to don or doff PPE as necessary.

Equipment
Face shield – Single use or reusable protective transparent shield designed to be worn over the entire face to provide protection from splashes or sprays. May be used instead of protective goggles.

VERIFY THAT THIS IS THE CORRECT REVISION BEFORE USE
1 of 3

Process:

An observational audit of infection control policy, procedures and practices was performed. Adoption of an overriding Infection Prevention and Control (IP&C) policy was required so that governance could be clearly defined. A suite of Clinical Work Instructions (CWIs) was developed that aligned with the National Safety and Quality Health Service Standards and Australian Guidelines for the Prevention and Control of Infections in Healthcare (2019). Each CWI was written and formatted in a simple style that was more easily compatible with electronic access platforms. The audit included the provision and use of personal protective equipment (PPE), hand hygiene products and cleaning supplies. A trial of different styles of hand hygiene product was undertaken to gauge acceptability and applicability amongst paramedics.

Findings:

- IP&C policy and CWIs were well received by paramedics.
- Recognition that vehicle cleaning required additional resources.
- Accessibility to CWIs was hindered by the lack of a suitable electronic platform.
- The audit demonstrated inconsistent retention of PPE, cleaning equipment and hand sanitiser across the fleet.
- Fleet cleaning was not performed consistently.
- Introduction of personal carry hand hygiene products was readily accepted.



Blood remaining on stored sphygmomanometer tubing



Residual blood and dirt on preparation area

Ambulance Cleaning Audit		
Evidence that crews have had training in infection prevention and control procedures (% compliance):		
<input type="checkbox"/>	Hand hygiene	
<input type="checkbox"/>	Standard and Transmission Based Precautions	
<input type="checkbox"/>	Ambulance cleaning	
<input type="checkbox"/>	PPE Selection Donning/Doffing	
<input type="checkbox"/>	Aseptic technique	
<input type="checkbox"/>	Number of BBFE in previous year	
Ambulance No.: _____ Date: / /		
Location (Station): _____		Weeks in location: _____
Auditor: _____		
Assigned crew: _____		Second uniform availability _____
Inspected	Element to be Assessed	Findings
<input type="checkbox"/>	No. checklist completions in previous week	
<input type="checkbox"/>	No. days and nights vehicle in use in previous week	
<input type="checkbox"/>	No. crews assigned in previous week	
<input type="checkbox"/>	Date of last Deep Clean: / /	
<input type="checkbox"/>	Check cab (cleanliness, no residues)	
<input type="checkbox"/>	Vehicle controls (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	MDT screen (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Seatbelts (incl. clasp buttons) (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	radios (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Door handles (int/external) (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Hand hygiene accessible	<input type="checkbox"/> Yes <input type="checkbox"/> No
Check patient compartment and equipment		
<input type="checkbox"/>	Gloves (4 sizes) available	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Gowns available	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	N95 Respirators available	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Surgical masks available	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Goggles and face shields available	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Consumables in date	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Consumables within stock levels	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Railings (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Monitor carry handle (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Monitor cables (BP cuff, cables) (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Assessment equipment (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Work benches (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Treat seat (including seatbelt) (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Wall suction (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Sharps container (below fill line)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	stretcher surfaces (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Stretcher seatbelts (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Cupboard/Drawer handles (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	Hand hygiene accessible	<input type="checkbox"/> Yes <input type="checkbox"/> No
Check patient compartment cleaning utility		
<input type="checkbox"/>	Interior surfaces incl. ceiling (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	interior windows (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	cab floor (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/>	patient compartment floor (clean, no residues)	<input type="checkbox"/> Yes <input type="checkbox"/> No

Conclusion:

- Paramedics are aware structural issues inhibit their practices.
- Development of a checklist and an audit tool will allow enhanced auditing.
- ACTAS is now committed to improving fleet cleaning.
- Improvements to the electronic platforms used for communication with paramedics are essential to enhance access to accurate and up-to-date information concerning IP&C.
- Investments in these areas, however, must be matched with a determination to measure compliance