


Infection Control in Paramedic Services
Jennifer Amyotte, City of Sudbury Paramedic Services
Webber Training Teleclass



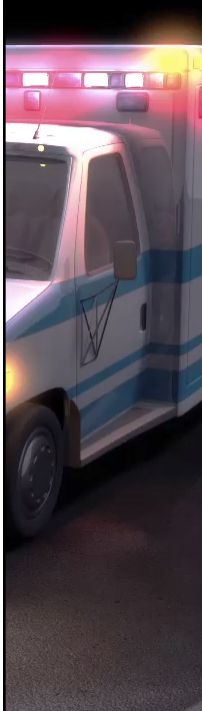
**Infection Control in
Paramedic Services**

Jennifer Amyotte
Commander of Community Paramedicine & Professional Standards
City of Greater Sudbury Paramedic Services



Hosted by Greg Bruce
County of Simcoe Paramedic Services


www.webbertraining.com October 26, 2017



Disclosure

I disclose, I have no potential or direct conflict of interest.


This presentation contains my observations, knowledge and does not necessarily reflect the opinions of my employer the City of Greater Sudbury Paramedic Services.



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Overview

- Challenges
- Paramedic Knowledge
- Research
- Point of Care Risk Assessment
- Personal Protective Equipment
- Moving Forward
- Questions
- References



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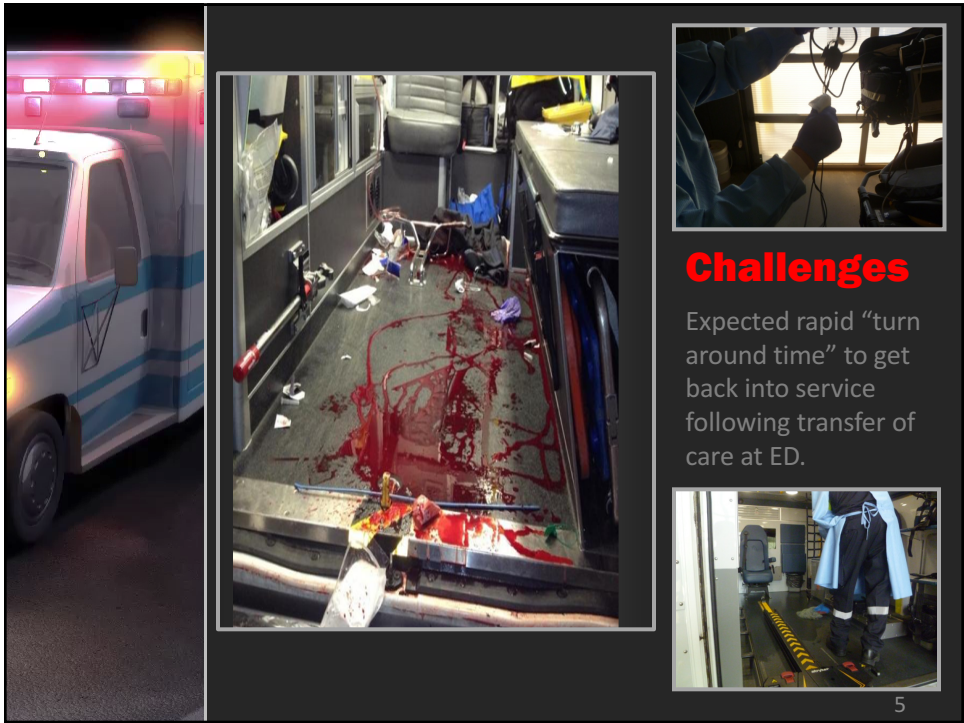


Challenges



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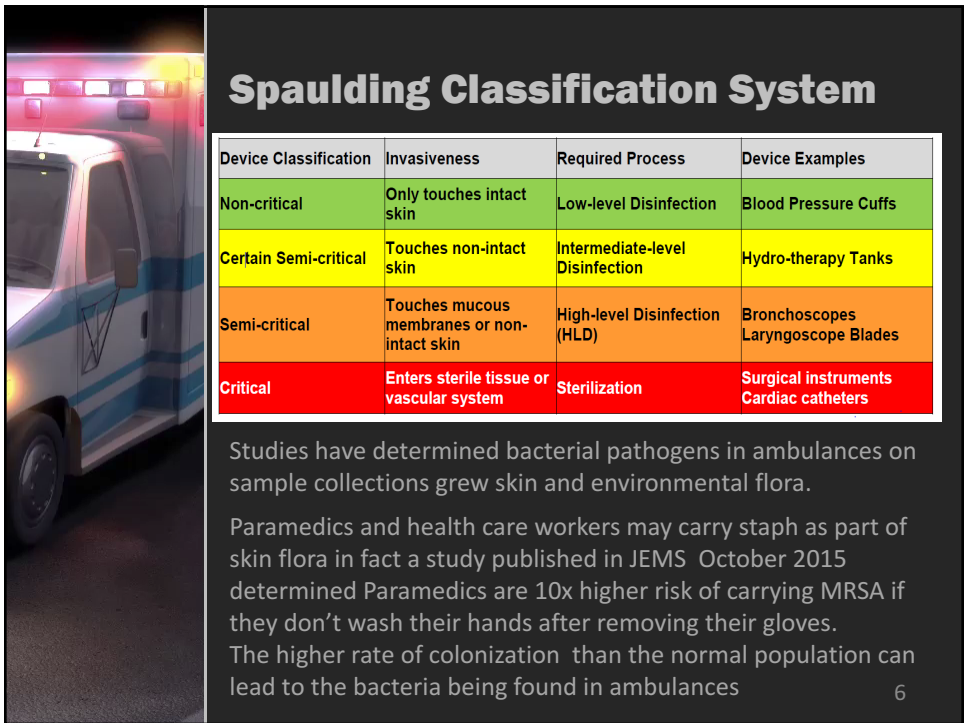
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Challenges

Expected rapid “turn around time” to get back into service following transfer of care at ED.

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Spaulding Classification System

Device Classification	Invasiveness	Required Process	Device Examples
Non-critical	Only touches intact skin	Low-level Disinfection	Blood Pressure Cuffs
Certain Semi-critical	Touches non-intact skin	Intermediate-level Disinfection	Hydro-therapy Tanks
Semi-critical	Touches mucous membranes or non-intact skin	High-level Disinfection (HLD)	Bronchoscopes Laryngoscope Blades
Critical	Enters sterile tissue or vascular system	Sterilization	Surgical instruments Cardiac catheters

Studies have determined bacterial pathogens in ambulances on sample collections grew skin and environmental flora.


Paramedics and health care workers may carry staph as part of skin flora in fact a study published in JEMS October 2015 determined Paramedics are 10x higher risk of carrying MRSA if they don't wash their hands after removing their gloves. The higher rate of colonization than the normal population can lead to the bacteria being found in ambulances

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Cleaning Process

- Established process/policy
- Checklist, cards for reference
- Proper product
- Clean to dirty
- Use PPE as required
- No spray bottles
- Ensure wet contact time as per product requirements



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Paramedic Knowledge

Canada : formal in College,

In Ontario approx. 4-6 hrs brief education based on National Occupational Competency Profile (NOCP) for Paramedics

Service Providers:

Limited time to provide ongoing training, varied depending on the service, operational demand and current focus ie Ebola, H1N1, SARS

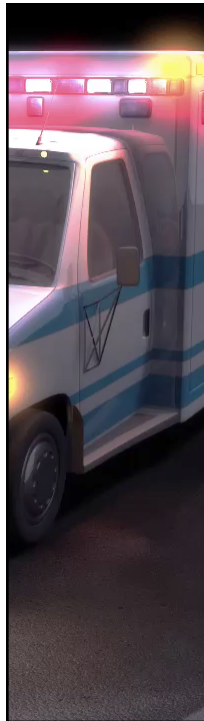
Ontario mandatory: “Designated Officers”

IPAC CANADA

Very few services have “Infection Control Practitioners” or staff members Certified in Infection Control “CIC”

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Research

Australian Journal of Paramedicine (2017)

Nigel Barr, Mark Holmes, Anne Roiko, William Lord

Stated relatively little research about transmission of pathogens in pre-hospital setting.

Concludes that the mobile paramedic environment presents unique challenges to provide recommended IPC practices, and targeted research into staff compliance is required to identify barriers and enablers to increase the uptake of IPC practices.

Reports suggest paramedics have limited understanding of infectious disease that may demonstrate poor compliance with infection prevention and control protocols when caring for patients.

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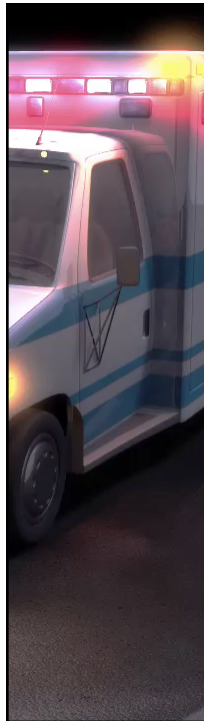
EMS Provider Compliance with Infection Control Recommendations is Suboptimal

- Study done in USA.
- Published in Prehospital Emergency Care 2014
- Observational study in large ED
- 423 EMS deliveries observed
- 899 providers
- Use of gloves in 512 (56.9%)
- Hand washing observed in 250 (27.8%)
- Equipment disinfections 31.6 %
- Most commonly disinfected item was the stretcher

Determination IPAC practice suboptimal and strategies must be developed to improve compliance with established recognized guidelines

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Aseptic procedure always possible in Paramedic Practice?

Aseptic/no touch

Best practice IV
palpate vein, HH, clean the site, let skin dry 30 seconds, prepare equipment, HH, don gloves, DO NOT REPALPATE VEIN, insert cannula, secure with sterile op site,

Emergency situations

situation requiring may prevent all steps being taken.

In the UK medics notify staff so cannula can be replaced ASAP (within 24 hrs)

Emergency Intubation in the field with aspiration prior or during procedure increases risk of VAP. Highest in Trauma patients. American Study 2015

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Point of Care Risk Assessment

Purpose: to assess and reduce risk of transmission of microorganisms and determine appropriate actions/precautions possible PPE requires to provide safe interaction with patient and/or environment : **WHAT IS MY PURPOSE/TASK?**

- Done as approaching patient – look for possible risks of exposure to blood, body fluids, excretions, secretions, mucous membranes, non intact skin.
- **Perform hand hygiene before touching patient or donning gloves if required**
- Verbal ARI risk tool as required - new cough/SOB, chills/ feel feverish, travel history
- Look for rashes, hx diarrhea, vomiting, draining wounds/cellulitis

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Point of Care Risk Assessment

- Determine if require contact and/or droplet precautions - fluid splash, respiratory secretions
- Don a gown if uniform is likely to become contaminated during direct patient care or from environment
- **Ensure to perform hand hygiene**
- Ensure to pre- notify receiving facility if transporting patient with suspected communicable disease



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PPE



- Designed to go over scrubs, can present a challenge to medics
- Used as a barrier to assist in preventing exposure
- Must be readily accessible
- Must be appropriate size
- Should be put on just before interaction with patient based on point of care risk assessment and/or signage knowledge (ie. transfer)
- Selection of PPE depends on mode of transmission

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PPE

- When interaction with patient is concluded , PPE should be removed and discarded appropriately
- Contaminated PPE must NEVER be worn in driver's cab
- Regular education and review of donning and doffing of PPE must be provided
- Fit testing of Respirators required, paramedics must be trained in use
- Gowns/coveralls – consider fluid resistant
- Eye protection- personal issue and/or disposable



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Gloves

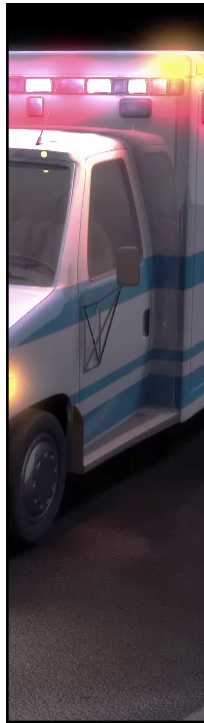


- Paramedics often wear gloves for a “whole call” only changing if ripped or visibly soiled
- **DO NOT** wear gloves for routine health care activities in which contact is limited to intact skin of patient
- **Wear gloves** when it is anticipated that the hands will be in contact with mucous membranes, non-intact skin, tissue, blood, body fluids, secretions, excretions, or equipment environmental surfaces contaminated with the above

GLOVES ARE NOT REQUIRED ON EVERY CALL

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PPE Enhanced Precautions



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Moving Forward

- Canadian Paramedic Services Standards Report 2014 – Identified IPAC as one of the top 5 priority areas as a strategic recommendation for the path forward
- Review your program with Infection Control Standards – IPAC has one for Canada also an Audit toolkit for Prehospital for members
- Immunization Protocols for all first responders starting with Paramedics
- Further the education of paramedics and increase number of Infection Control Professionals in services
- Increase network of Paramedic ICPs , Canada , USA– potential of Prehospital Interest Group globally
- If you do not have service expertise seek assistance from IPAC Canada, Local Hospital ICPs, Public Health

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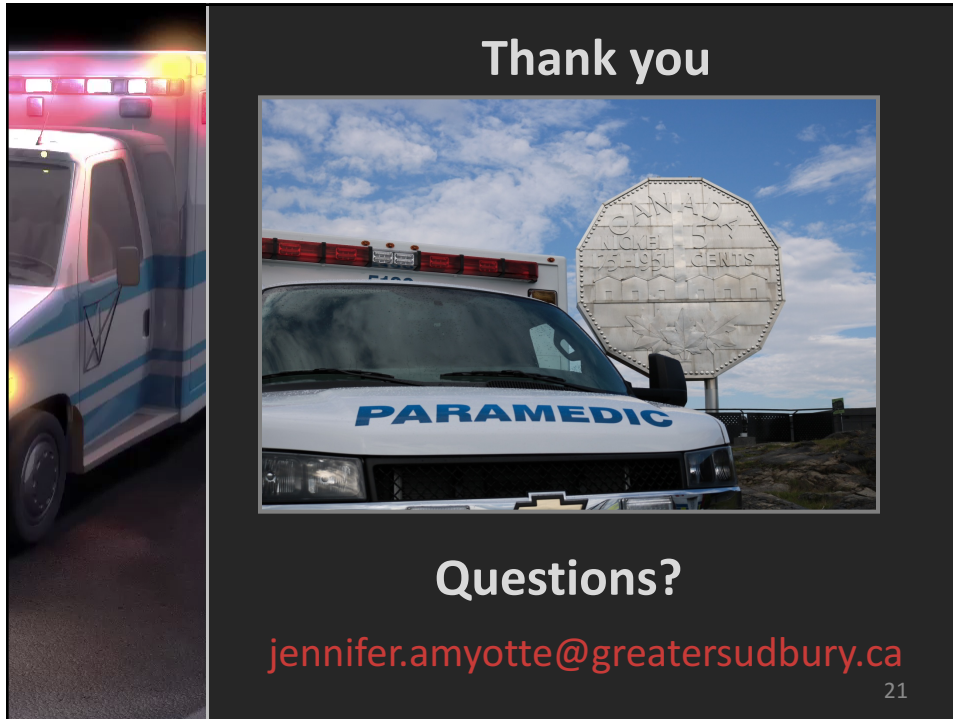


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Thank you



Questions?

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October 31, 2017	<p><i>(FREE European Teleclass)</i></p> <p>INFECTON PREVENTION CHALLENGES AMONG HOSPITALIZED CHILDREN AND NEONATES IN AFRICA</p> <p>Speaker: Prof. Dr Angela Dramowski, Stellenbosch University, Cape Town</p>
November 9, 2017	<p>CLEANING THE GREY ZONES OF HOSPITALS: LESSONS FROM A COMMUNITY-BASED TEACHING HOSPITAL</p> <p>Speaker: Prof. Makeda Semret, McGill University, Montreal</p>
November 13, 2017	<p><i>(FREE ... WHO Teleclass)</i></p> <p>FACING THE THREAT OF CARBAPENEM-RESISTANT ORGANISM SPREAD: THE NEW WHO INFECTION PREVENTION AND CONTROL GUIDELINES</p> <p>Speaker: Professor Lindsay Grayson, University of Melbourne, Australia</p> <p><i>Sponsored by the World Health Organization Infection Control Global Unit (www.who.int/infection-prevention/en)</i></p>
November 20, 2017	<p><i>(FREE South Pacific Teleclass - Broadcast live from the 2017 ACIPC conference)</i></p> <p>THE PROBLEM WITH EVIDENCE: THE THORNY RELATIONSHIP OF INFECTION CONTROL AND EVIDENCE-BASED PRACTICE</p> <p>Speaker: Prof. Frank Bowden, Australian National University Medical School</p> <p>Broadcast live from the 2017 conference of the Australasian College of Infection Prevention and Control</p>

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