

INFECTION CONTROL

Brenda Fry, ACP
May 2009

- **Brenda Fry**
 - **Certified Infection Control Nurse**
 - **Safety consultant**
 - **PPE program Specialist**

NO!

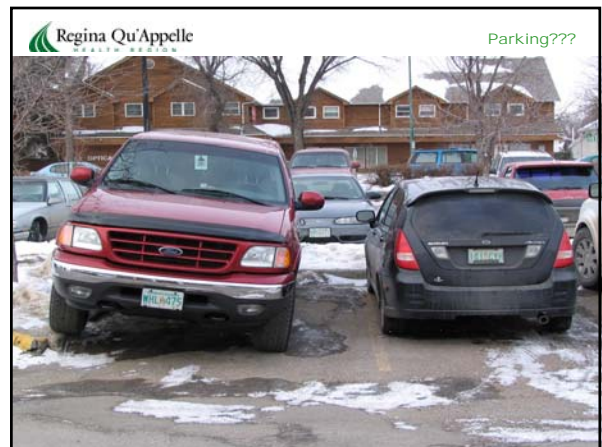
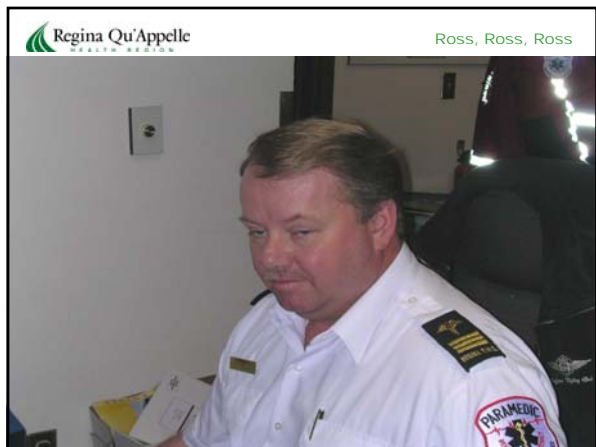
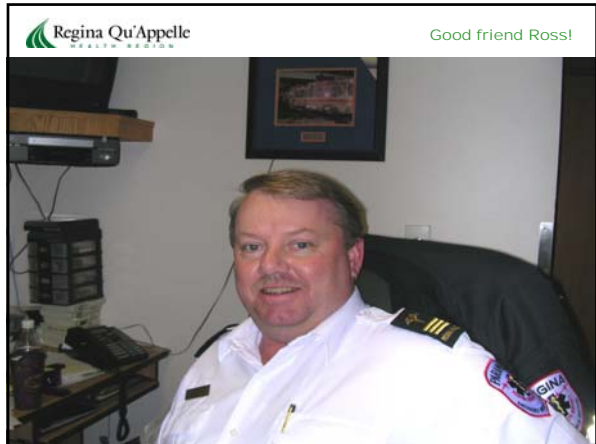


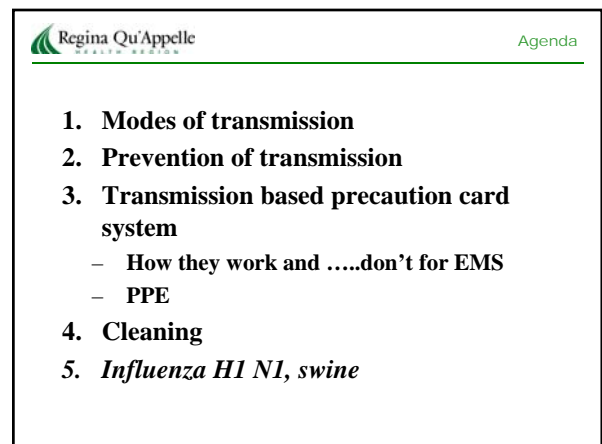
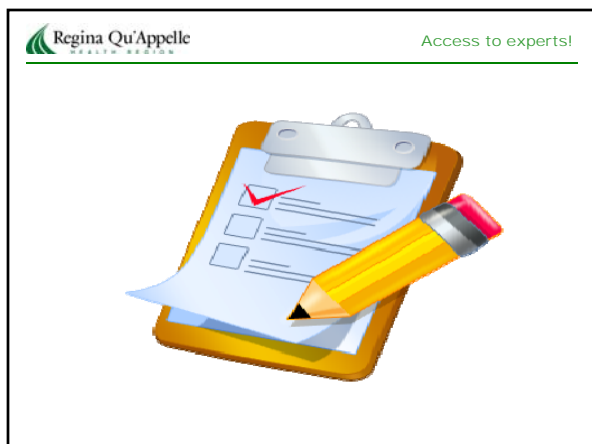
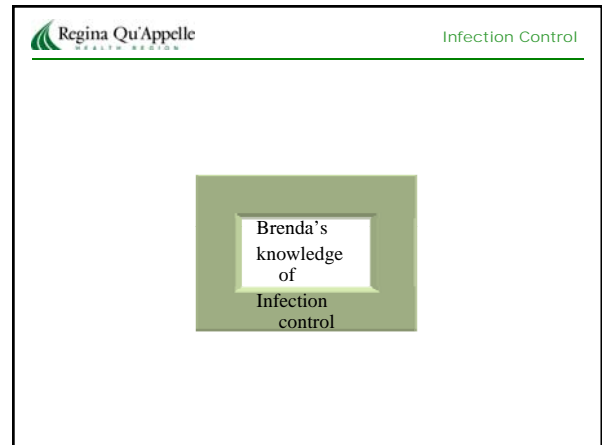
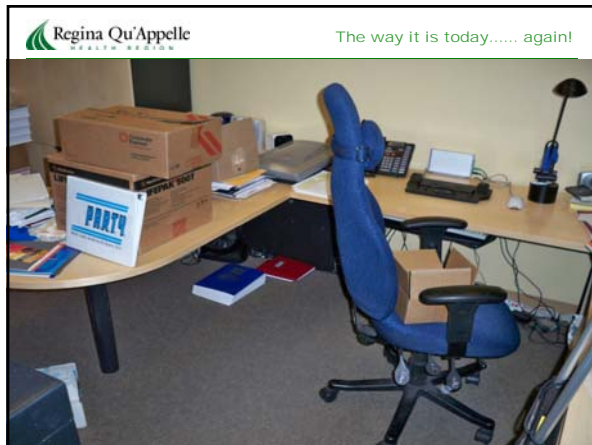
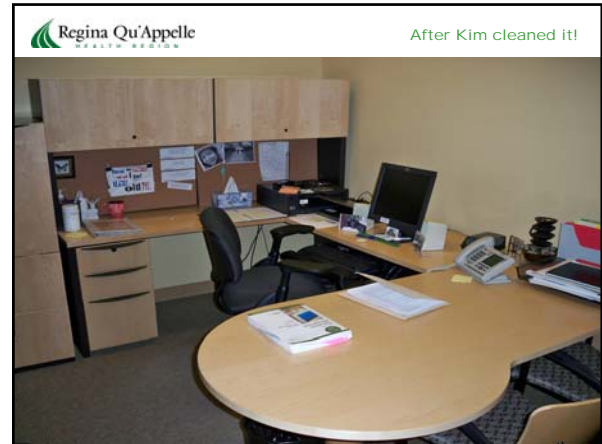
DO NOT CALL 911

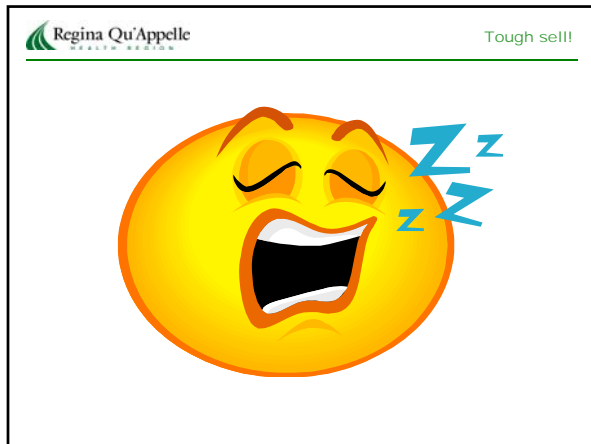


Who put me in this situation ?

Roast him!







- Regina Qu'Appelle HEALTH SERVICES Modes of transmission
1. **Contact**
 - Direct – hand to hand contact (shaking hands)
 - Indirect – touching objects (door handle)
 2. **Droplet**
 3. **Airborne**
 4. **Vector (west nile virus)**

- Regina Qu'Appelle HEALTH SERVICES Principles of Transmission Droplet vs.. Airborne
- | <u>DROPLET</u> | <u>AIRBORNE</u> |
|---|--|
| <ul style="list-style-type: none"> • <u>Large particle droplets</u> ≥ 5 microns are generated by the patient during coughing, sneezing and talking. • Can not be dispersed greater than 1metre (3 feet) from source. • Requires private room (or 1 metre between patients) • Surgical mask. | <ul style="list-style-type: none"> • Droplet nuclei are <u>small-particle</u> residue of evaporated droplets ≤ 5 microns is size. • Can be widely dispersed on air currents. • Requires Negative Pressure room • PFR 95 respirator |

- Regina Qu'Appelle HEALTH SERVICES Prevention of Transmission
1. **Universal Precautions**
 - Use with every patient all the time.
 - Protective eye wear
 - Nitrile gloves
 - PPE pertinent to the call
 - Prep patient (mask, blanket)
 2. **Transmission Based Precautions**
 - Use for specific patients depending on organism/disease.



- Regina Qu'Appelle HEALTH SERVICES Hand washing - 7 Steps
-
- 1 Remove rings and other jewelry
 - 2 Turn on water and wet hands
 - 3 Apply soap
 - 4 Friction to all surfaces for minimum 15 seconds
 - 5 Rinse well under running water
 - 6 Pat hands dry with clean paper towel
 - 7 Turn taps off with a dry paper towel
- USE LOTION FREQUENTLY!**

- Regina Qu'Appelle HEALTH SERVICES Precaution cards
- | | |
|---|--|
| <ul style="list-style-type: none"> • Colored precaution cards <ul style="list-style-type: none"> - Green, purple, pink, blue, orange & peach - Precaution instructions in print & picture - Placed on patient's door by infection control expert or RN - Master manual in each department | <ol style="list-style-type: none"> 1. Airborne 2. Droplet 3. Contact 4. Airborne & contact 5. Droplet & contact 6. Special |
|---|--|

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How to use cards


- Note color of card
- Note picture
- Read instructions
 - note "transport"
- Prepare unit & patient

N95 respirator
Requires fit testing

"wear surgical mask when working within 1 meter of patient"

12 Steps for Removal of Contaminated PPE
GOWN, MASK, RESPIRATOR, PROTECTIVE EYEWEAR, GLOVES





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Protection provided by a Mask v/s Respirator Mask

- Mask**
 - large particle aerosols (droplets) that are transmitted by close contact and generally travel only short distances (1 meter or 3 feet). (droplet precautions)
- Respirator Mask**
 - small particle aerosols (droplet nuclei) that remain suspended in the air and thus travel longer distances. (airborne precautions)

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EMS communication center

- Crews will be dispatched with precaution identified by **hospital/nursing home staff**
- Patient can be "positive" and not using precautions in current environment (ie. long term vs. acute care)
- Changes (upgrades) when entering acute care**
- Additional information *may* be added via pager ie MRSA, VRE, hepatitis, HIV etc.
- As always, *unknown* → *universal precautions*, upgrade as necessary

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Common myths about MRSA

- MYTH:** Most health care workers have MRSA, so precautions aren't necessary anyway
- FACT:** Studies show it is very rare for health care workers to colonize with MRSA. However they can carry it on their hands and give to patients.

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MRSA

- Colonized** means that the germ is in or on your body but is not making you sick. If you are colonized with MRSA you may not need to be treated.
- Infected** means the germ is making you sick. This germ may cause infections in your urine, blood, wounds etc.

- **MYTH:** *MRSA is not hard to treat and is not harmful to patients*
- **FACT:** *An infection caused by MRSA is serious. MRSA increases the length of hospitalization and the acuity of illness. MRSA requires stronger antibiotics – patients develop VRE, for which there is no treatment!*

- **MYTH:** Precautions in the community are not necessary, so precautions in the hospital are not necessary either.
- **FACT:** A healthy MRSA positive patient does not readily shed the MRSA. A hospitalized, acutely ill MRSA positive patient will shed the bacteria easily. Health people are at a low risk of getting MRSA. Acutely ill patients are at a much greater risk.

- **MYTH:** *Other hospitals are not isolating their MRSA positive patients, so we shouldn't either.*
- **FACT:** *The CDC has stated best practice is to screen and isolate in hospital patients who are MRSA positive. Contact and droplet precautions greatly decrease transmission to others.*

• Cleaning requires the same PPE as precaution

- **Droplet & contact**
 - Protect yourself
 - Clean first
 - Apply disinfectant, ambient temp, 3 feet rule
 - Wet – kill time
 - Dispose of wipes gloves etc. in garbage not available to the public
 - Doff PPE – 12 step

- **Airborne**
 - Air unit out for 30 minutes
 - Protect yourself
 - Nitrile gloves, gown, goggles, N95
 - Clean – appropriate sealed trash
 - Disinfect – kill time, ambient temp
 - Air unit out (30 min before and after)
 - Dispose of garbage in appropriate trash, seal
 - Doff PPE – 12 step, proper laundry

- **Recommended by infection control for EMS**
 - Accel TB wipes
 - Virox 5
- **We don't spray - foam or dunk, inhalation concerns**
 - Clean first
 - Ambient temperature

- **Comm. center – cc SOB, fever >38 & travel or contact within 7 – 14 days with somebody that's been to Mexico**
- **Airborne precaution ?**
- **Droplet & contact ?**

- **ILI – influenza like illness**
- **SRI – severe respiratory illness**
- **Less emphasis on travel history, more emphasis on contact history**

EMS Communications Centre receives call or paramedic assess a patient as meeting case definition:

1. Fever
 2. Respiratory Symptoms (ie coughing)
 3. Flu symptoms:
 - Sore throat
 - Bone/muscle aches
 - Sweating
 - Headache
 4. **History**
 - Sustained Contact with a ILI/SRI symptomatic person within last 7 days
 - Recent travel (within previous 7 days)
- Any of the above 3, plus history move to airborne precautions

- **If primary assessment is abnormal radio patch to ED**
- **Ensure ED is aware of precautions**
- **Clean and disinfect**

