

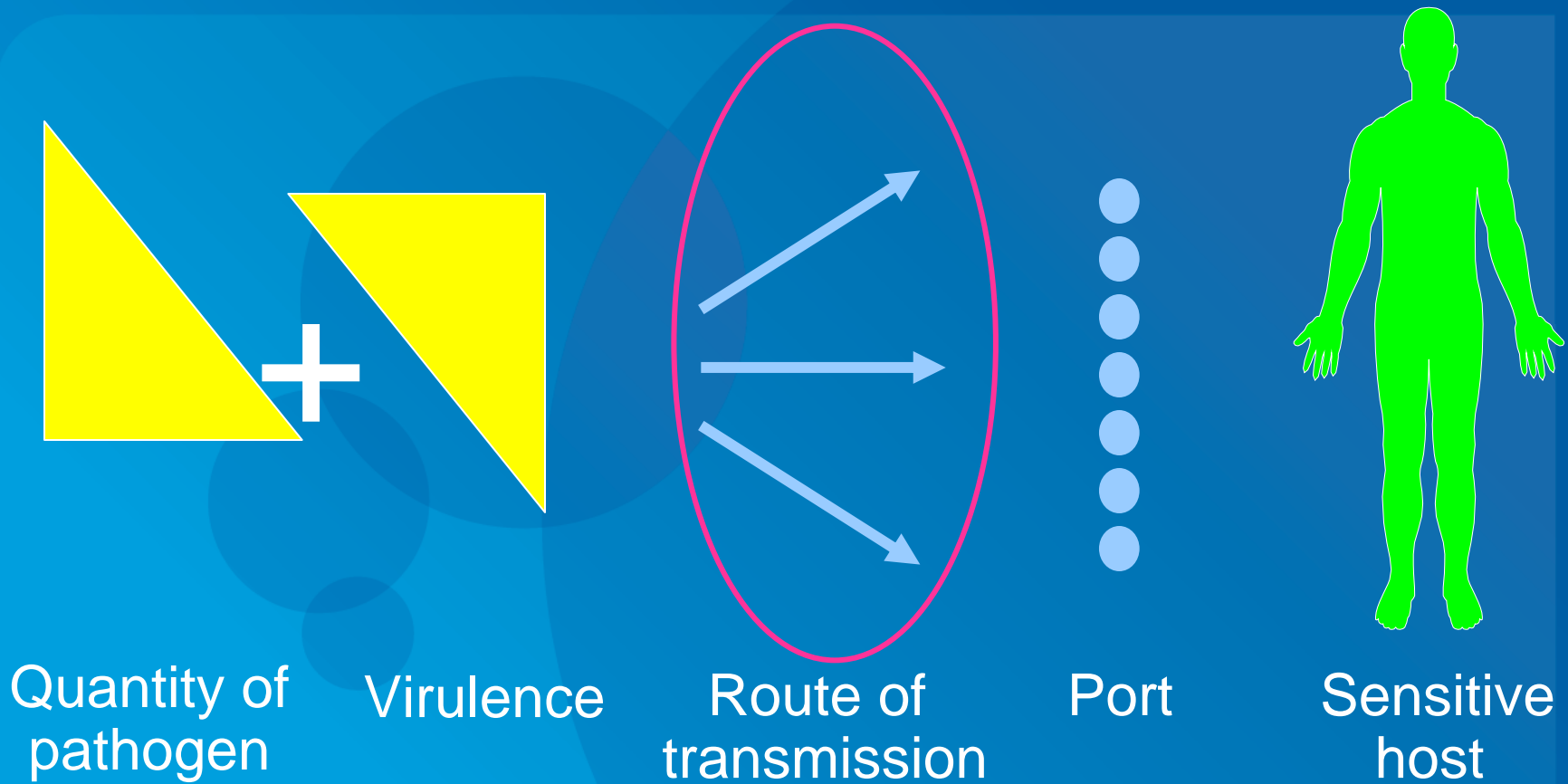
Principles of Infection Control & Personal Protective Equipment



Full Personal Protective Equipment

- Hair cover (Cap)
- Eye wear (goggles)
- Mask
- Gown
- Apron
- Gloves
- Shoe covers

Chain of Infection



Anticipate Exposures

Contact with. . .

- Infected individuals
- Individuals suspected to be infected
- Potentially contaminated substances
- Potentially contaminated surfaces / items
- High-risk procedures
- Corpses
- Animals



Influenza Transmission

Effective Infection Control
Prevents Transmission From. .

- Patients to health care workers
- Patients to patients
- Patients to family members providing care



Virus Transmission

- Extremely contagious and easily transmitted
- Short incubation period
- Infected persons are most contagious during the period of peak symptoms



Incubation & Communicability

- The estimated incubation period is unknown and could range from 1-7 days, and more likely 1-4 days Infection
- Approx 7 days communicability from onset of symptoms
- People are infectious from 24 hours before the onset of symptoms = 8 days + of high infectivity



Contact Transmission Potential

- Influenza virus survival on surfaces at room temperature and moderate humidity
 - Steel and plastic : 24-48 hours
 - Cloth , paper and tissues:8-12 hours
 - Unwashed hands up to 30 min
- Transfer to hands possible after inoculations of:
- Steel :up to 24 hours
- Tissue :up to 15 minutes

Enveloped virus – inactivated by detergents, alcohol, bleach, household disinfectants in 10 minutes..



Principles of Effective Infection Control

- Good hand hygiene
- Cleaning of contaminated surfaces
- Early isolation of suspected cases
- Correct use of personal protective equipment when required
- Seasonal influenza immunisation for high risk



Hand Hygiene

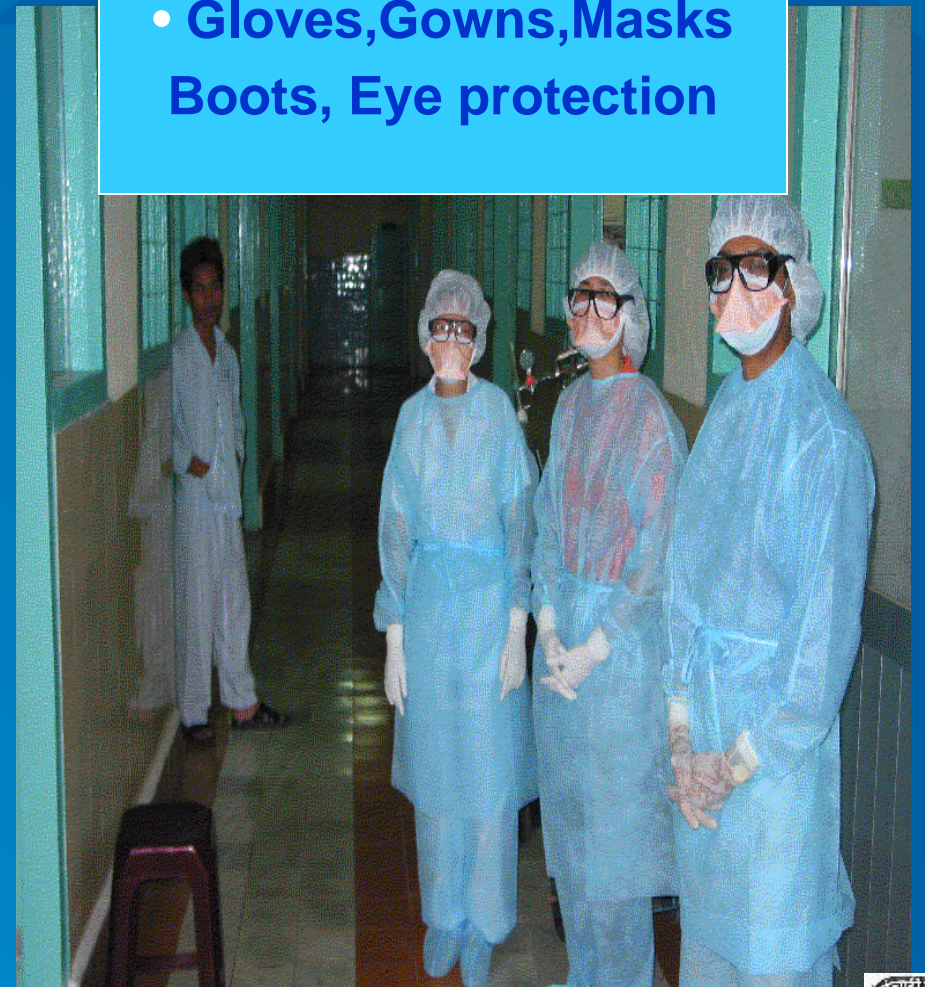
- Hands can be cleaned with soap and water
- Dry with disposable hand towel
- Alternatives used alcohol based hand cleaner (Not effective if hands are visibly soiled – hands must first be cleaned, e.g. use hand wipes)



Personal Protective Equipment (PPE)

- When used properly can protect you from exposure to infectious agents
- Know what type of PPE is necessary for the duties you perform and use it correctly

- **Gloves, Gowns, Masks**
Boots, Eye protection



PPE Supplies

- Maintain adequate, accessible supplies
- Use locally produced PPE when possible
- Creative alternatives
 - Mask: tissue, scarf
 - Boots: plastic bags
 - Gown: laboratory coat, scrubs



Contact Precautions

(Prevent infection through direct or indirect contact with patients or patient care environment)

Taken *in addition to* Standard Precautions

- Limit patient movement
- Isolate or cohort patients
- Gown + gloves for patient / room contact
 - Remove immediately after contact
- Do not touch eyes, nose, mouth with hands
- Avoid contaminating environmental surfaces

Negative Pressure Isolation Room

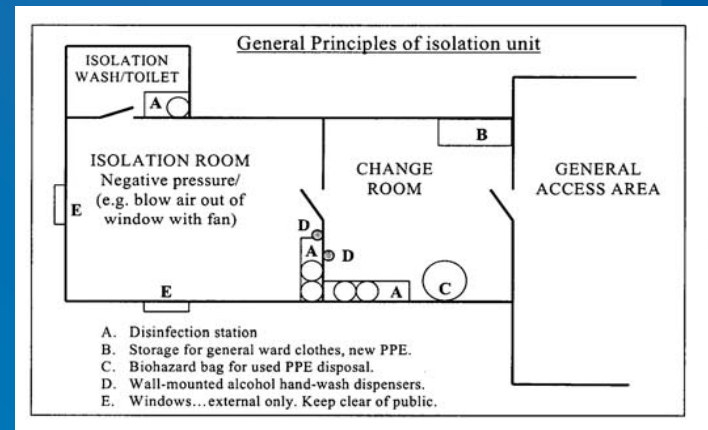
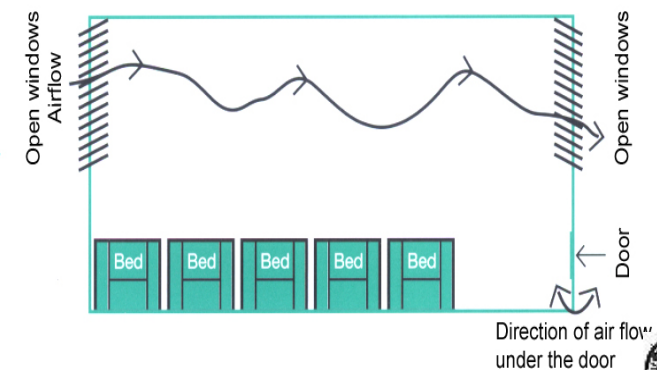


Figure 2. Natural ventilation; free flow of ambient air in and out through open windows.



Isolation of Suspected Cases

- Social distancing principle = more than 1 metre
- Examples of social distancing in general practice
 - Use of masks
 - Seating patients in a different area
 - Keeping patients out of the practice till GP is ready to see them
 - Home visit suspected case



Managing Linens and Laundry in hospital

- Use Standard Precautions
 - Gloves and hand hygiene
 - Gown
 - Mask
- Avoid aerosolization – do not shake
- Fold or roll heavily soiled laundry
 - Remove large amounts of solid waste first
- Place soiled laundry into bag in patient room



Infection Control in the Community



Preventing Transmission in the Community

Stop the spread of germs that make you and others sick!

Cover your Cough



Cover your mouth and nose with a tissue when you cough or sneeze



Clean your Hands

after coughing or sneezing.



or



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- Respiratory etiquette
 - Cover nose / mouth when coughing or sneezing
- Hand washing!



Patients Cared for at Home

- Potential for transmission!
- Must educate family caregivers
- Fever / symptom monitoring
- Infection control measures
 - Hand washing
 - Use of available material as PPE



Patients Cared for at Home

- Handle laundry with gloves; do not shake to prevent aerosolization
- Use disposable or dedicated dishes, utensils
- Decontaminate the home environment
 - Frequent cleaning before disinfection



Decontamination of Dishes and Eating Utensils

- Use disposable items when available
- Wash with detergent and hot water
 - Wear rubber gloves



Precautions for Handling Corpses

- Mortuary staff should use **Full Barrier PPE**
- Anyone handling a corpse infected with avian influenza should be informed

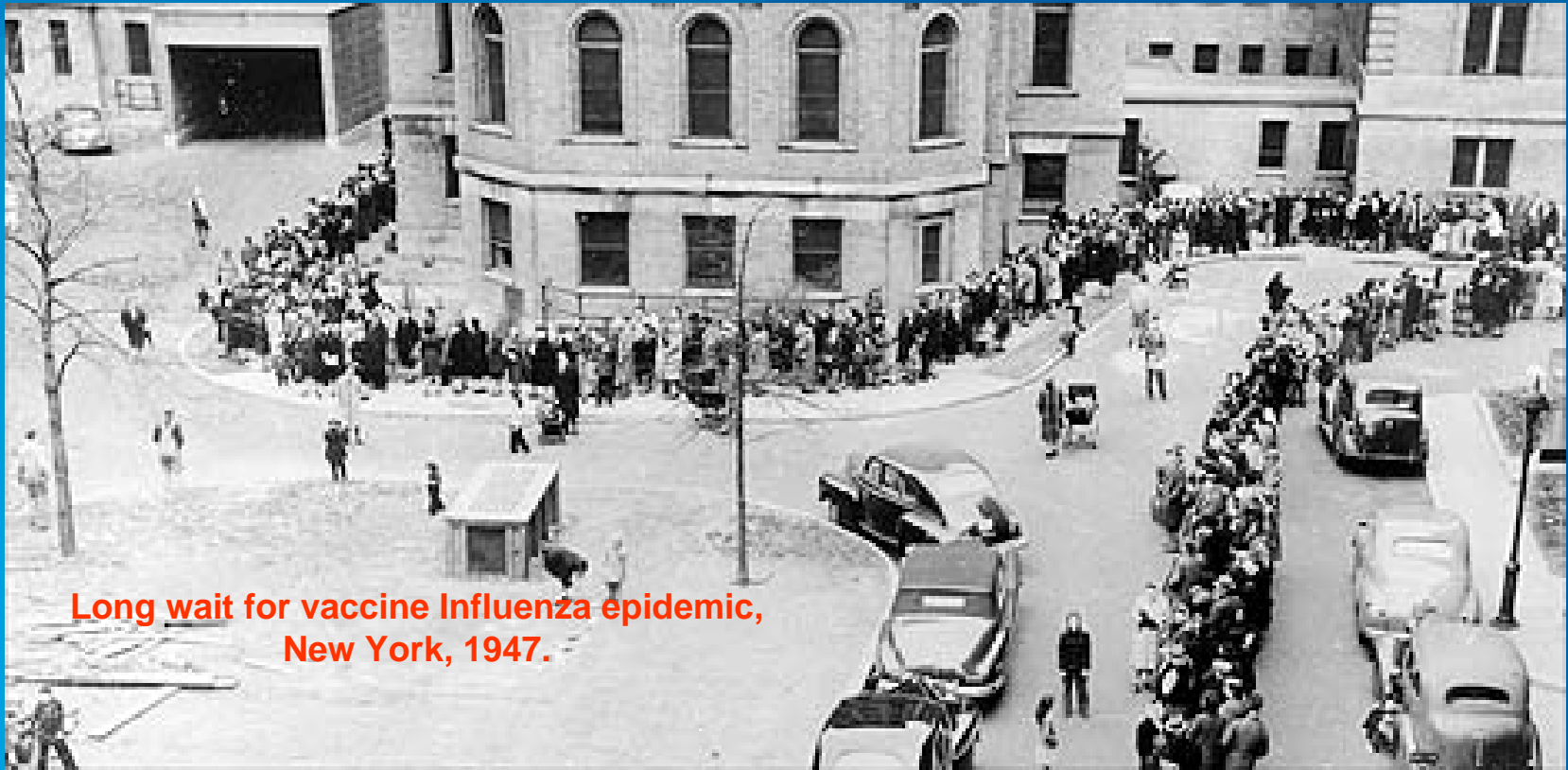


Summary

- **Influenza transmission occurs mainly through respiratory droplets**
 - Contact can be prevented using PPE
 - Virus can be inactivated with infection control procedures
 - Hand washing is key
- **PPE must be donned and removed appropriately to prevent contamination of wearers and environments**
- **Guidelines for using PPE and infection control measures for influenza in humans should be practiced until they are routine**



May Everyone Be Away from Swine Flu



Long wait for vaccine Influenza epidemic,
New York, 1947.

THANK YOU



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