

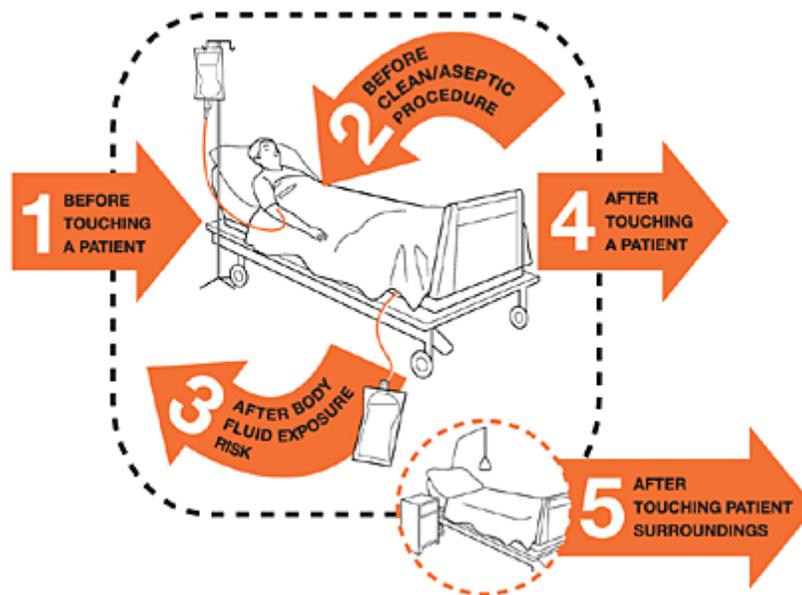
# Influenza Emergency Department Best Practices

## ACEP Public Health & Injury Prevention Committee

### Epidemic Expert Panel

#### Prevention/Public Health

- Annual influenza vaccination is recommended for everyone over the age of 6 months without a contraindication. While the effectiveness of the seasonal influenza vaccine may vary from year to year, vaccination can prevent influenza or at least reduce the severity of illness associated with influenza. Eligible patients should be strongly encouraged to receive the annual influenza vaccination in EDs or other ambulatory care settings able to provide this service.
- Hand hygiene should be conducted at all times by healthcare professionals during the five key moments of patient care as outlined by the World Health Organization:



Based on the 'My 5 moments for Hand Hygiene', URL: <http://www.who.int/gpsc/5may/background/5moments/en/index.html>  
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- Respiratory hygiene and cough etiquette should be encouraged of all patients. Patients should be offered a surgical mask to contain respiratory secretions. When feasible, coughing patients should be separated by at least 3 feet in waiting rooms, hallways, and other common areas.
- In the ED treatment area, patients with suspected influenza should be placed on droplet precautions to prevent transmission of virus to other patients and healthcare professionals.

#### Diagnosis

- A structured approach to clinical diagnosis and testing in the ED during influenza season can expedite diagnosis and appropriate care, particularly during periods of high patient census.
  - o Testing may or may not involve one of the following methods:
    - Rapid influenza molecular assays (e.g., nucleic acid amplification) are highly sensitive and specific for ED diagnosis. Correct technique when obtaining a nasopharyngeal swab for testing maximizes sensitivity and can prevent a false-negative result.
    - Multiplex reverse-transcriptase polymerase chain reaction (RT-PCR) assays capable of identifying multiple respiratory pathogens, including influenza, are often costly.

- Rapid influenza diagnostic tests (antigen detection) have low sensitivity (50-70%) and may not reliably rule out a diagnosis of influenza in the ED.
    - ([https://www.cdc.gov/flu/professionals/diagnosis/clinician\\_guidance\\_ridt.htm](https://www.cdc.gov/flu/professionals/diagnosis/clinician_guidance_ridt.htm))
  - The optimal approach to influenza testing will likely vary for each individual ED based on testing capabilities, work flow, available resources, and ongoing community influenza activity.
    - (<https://www.cdc.gov/flu/professionals/diagnosis/consider-influenza-testing.htm>)
- Influenza testing should be considered in the following situations if the results will influence ED diagnostic testing, treatment, disposition, or assessing risk to contacts :
  - High-risk patients (*eg*, immunocompromised) with influenza-like illness, pneumonia, or non-specific respiratory illness
  - Patients with acute onset of respiratory symptoms (with or without fever) and either an exacerbation of a chronic medical condition (*eg*, asthma, chronic obstructive pulmonary disease, congestive heart failure) or a known complication of influenza such as pneumonia
  - Patients not at high risk for complications of influenza who present with influenza-like illness, pneumonia, or non-specific respiratory illness
- In patients diagnosed with influenza meeting clinical, physiologic, and/or laboratory criteria for the Centers for Medicare and Medicaid Services (CMS) Early Management Bundle for Severe Sepsis/Septic Shock (SEP-1) core measure definition of severe sepsis (*eg*, lactate >2 mmol/L + SIRS criteria + suspected infection) or septic shock (*eg*, severe sepsis with hypoperfusion despite adequate fluid resuscitation or lactate >4 mmol/L), it is important for healthcare professionals to document that the patient’s presentation is specifically due to suspected or confirmed influenza.
  - Patients documented with suspected or confirmed influenza and no concern for bacterial co-infection are excluded from SEP-1 and do not require broad-spectrum antibiotics. However, they should receive fluid resuscitation and other critical care interventions as dictated by the clinical situation.
  - Secondary bacterial pneumonia is a known complication of influenza, particularly in adults 65 years and older. Therefore, additional testing in the ED may be necessary to evaluate for a concurrent bacterial infection. Patients with suspected or confirmed influenza and a bacterial co-infection (*eg*, bacterial pneumonia), are included in SEP-1 and should receive timely bundled sepsis care, including broad-spectrum antibiotics.

## Treatment

- Oral oseltamivir, inhaled zanamavir, intravenous peramivir, and now oral baloxavir are approved by the U.S. Food and Drug Administration to treat influenza.
  - Oral oseltamivir is the recommended antiviral for treating patients with severe, complicated, or progressive illness who are not hospitalized, and for hospitalized patients.

## References

CDC website: <https://www.cdc.gov/flu/professionals/index.htm>

Uyeki TM, Bernstein HH, Bradley JS, et al. Clinical practice guidelines for the Infectious Diseases Society of America: 2018 update on diagnosis, treatment, chemoprophylaxis, and institutional outbreak management of seasonal influenza. *Clin Infect Dis*. 2018 Dec 19. doi: 10.1093/cid/ciy866. [Epub ahead of print]