Fairfax County Health Department

Provider News

Spring 2019

A Newsletter for Healthcare Providers in Fairfax County, Virginia

Using the Predominant Circulating Influenza Strain to Predict Severity of Flu Seasons

While the activity and severity of the influenza season fluctuates from year to year, the predominant circulating influenza strain is one of the best severity predictors of an upcoming influenza season. Analysis of influenza surveillance data reveals that H3N2 predominant seasons have been associated with more severe illness and higher mortality. This is particularly true among the elderly and minor populations, when compared to non-pandemic H1N1 or B predominant seasons. The Centers for Disease Control and Prevention reports that from 1976-2007, an average of 28,909 people died from flu during H3N2 seasons, while an average of 10,648 died during non-H3N2 seasons in the United States. Data from Fairfax Health District from the last five influenza seasons support this finding. As seen in the below table, a significantly higher proportion of Emergency Department visits were for influenza-like illness and more weeks of elevated influenza activity were experienced during influenza seasons with an H3N2 predominate circulating strain. By monitoring influenza surveillance data in your practice, we hope to change the common phrase of "the flu is bad this year" to "the flu is going to be bad this year." This education may help us convince patients to receive the influenza vaccine before flu season is in full swing.

Influenza Season	Predominant Strain	Weekly peak proportion of influenza-like illness visits in EDs	# of weeks during influenza season that activity was twice national baseline level
2013-2014	H1N1	5.0	4
2014-2015	H3N2	13.3	8
2015-2016	H1N1	6.5	6
2016-2017	H3N2	9.1	15
2017-2018	H3N2	13.7	13

Communicable Disease Case Surveillance

Healthcare providers practicing in Virginia, by law, must report diagnoses or suspected diagnoses of the infections, diseases, and conditions specified on the Virginia Reportable Disease List. Outbreaks are not limited to diseases on the reportable disease list and suspected outbreaks of any disease should be reported to FCHD. Outbreak reporting enables the Health Department to contribute its expertise in preventing further cases and take action, if needed, to protect the public. When a person/outbreak is reported with a confirmed or suspected reportable disease, FCHD staff will, as appropriate:

- Review records and interview the patient to identify risk factors for infection and detect potential outbreaks.
- Provide infection control guidance to clinicians, facilities, and infected individuals.
- Identify exposed individuals and provide guidance regarding disease prevention, including recommendations for the administration of prophylaxis.

What reportable conditions did we see more of in 2018? (Compared to 2013-2017 five-year average number of cases)

Reportable Condition	% Increase in 2018
West Nile Virus	200%
Streptococcal Disease, Toxic Shock	125%
Legionellosis	91%
Cryptosporidiosis	69%
Streptococcal disease, Group A Invasive	44%
Salmonellosis	39%
Hepatitis A	25%

Reported Fairfax Health District Outbreaks by Causative Agent, 2019

Causative Agent	Jan-Mar 2019 Outbreaks
Influenza	12
Norovirus	2
Lead Exposure	1
Suspected Viral Gastroenteritis	5
Influenza Like Illness	4
Total	**24**

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