Dear Colleagues:

As the leaves change colors and the temperatures drop, I hope you were able to take some time to enjoy fall activities around New York State. As health care providers, we are always prepared to see more respiratory infections around this time of year, but this month I need to alert you to unusual increases in two contagious diseases – measles and enterovirus D68. I am also going to share information about a concerning rise in e-cigarette use among young people and what we can do about it.

**Measles:** Some of you may be aware of the measles outbreak overseas. As I write this, there are currently 40 confirmed measles cases in Rockland County and 11 confirmed cases in Kings County (Brooklyn). Due to the outbreak, Kings and Rockland County healthcare providers should remember to:

- Offer MMR vaccine at the earliest opportunity to all eligible patients 12 months and older who have no evidence of measles immunity, as defined below.
- Offer a second dose of MMR vaccine to eligible patients aged 1-3 years who have previously received one dose. The second dose must be a minimum of 28 days after the first dose.
- Consider offering an MMR vaccine to all infants 6-11 months of age without contraindications. This dose will not count toward the routine two-dose schedule. A child will need to be revaccinated at 12-15 months of age, and again at 4-6 years of age, for a total of 3 doses.

Complete information on MMR vaccine recommendations can be found here: [http://www.cdc.gov/mmwr/pdf/rr/rr6204.pdf](http://www.cdc.gov/mmwr/pdf/rr/rr6204.pdf). Providers should remain vigilant for patients who present with fever and rash. Please contact your local health department with any suspect case.

**Acute Flaccid Myelitis:** Acute flaccid myelitis (AFM) is a rare but serious condition that affects the nervous system, specifically the grey matter of the spinal cord, causing hypotonia and hyporeflexia. AFM can be difficult to diagnose because it shares many of the same symptoms as other neurologic diseases, including transverse myelitis and Guillain-Barre syndrome. From August 2014 through September 2018, a total of 386 cases of AFM have been reported in the U.S., with most cases having occurred in children.

Earlier this month, CDC reported a nationwide increase in cases of AFM, encouraging reporting and investigation of potential cases to try to determine a cause for the condition. This illness has increased in incidence primarily in the autumn months of 2014, 2016, and now again in 2018.

Possible causes of AFM may include viruses, environmental toxins, and genetic disorders. Certain viruses that can cause similar neurologic conditions include poliovirus and non-polio enteroviruses, West Nile virus (WNV) and other flaviviruses (specifically Japanese

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encephalitis virus and Saint Louis encephalitis virus), and adenoviruses. But to date, no one pathogen has been consistently detected in patients who are suffering from AFM. Likewise, it is not known who is at higher risk, and why, for developing AFM. Some patients diagnosed with AFM have recovered quickly, and some continue to have weakness and require ongoing care.

Since CDC and state health departments are still investigating potential causes of AFM, neither CDC nor the Department recommend any one treatment. However, an expert panel convened by CDC developed "Interim Considerations for Clinical Management of Patients" to assist health professionals caring for patients. For assistance with management and investigation of potential cases of AFM, please report suspected cases to the local health department where your patient resides, and we will provide guidance on collecting appropriate specimens for testing and provide further details on clinical management.

As of October 30, nine suspected cases of AFM have been reported to the Department, and one additional reports needing further investigation. No cases have been confirmed by CDC.

**Enterovirus D68 (EV-D68):** CDC continues to investigate whether there is an association between AFM and EV-D68. Enteroviruses are common causes of illness in summer and fall, and several different viruses in this group typically circulate in different years. The Department has recently detected an increase in enterovirus D68 (EV-D68) activity in the State and it is important that providers have the most current information on the virus.

EV-D68 can cause mild to severe respiratory illness, or no symptoms at all. Mild symptoms may include rhinorrhea, sneezing, cough and myalgia. Severe symptoms may include wheezing and respiratory distress. EV-D68 can be found in an infected person's respiratory secretions. Similar to many other contagious diseases, this virus likely spreads from person to person through coughing, sneezing, or touching contaminated surfaces. It is believed that, in general, infants, children, and teenagers are most likely to get infected and become ill secondary to decreased immunity from previous exposures to enteroviruses. Children with asthma may have a higher risk for severe respiratory illness caused by EV-D68 infection. Adults can get infected with enteroviruses, but they are more likely to have minimal or no symptoms.

There is no specific treatment, including antivirals, currently available for people with EV-D68. Patients who are hospitalized with severe respiratory compromise may need ICU care. Health care professionals in health care settings should be vigilant about preventing the spread of EV-D68. Infection control precautions should include Standard, Contact, and Droplet Precautions.

The Department's Wadsworth Center Laboratory can perform tests to differentiate among different enteroviruses, but this is only recommended if (a) the patient has already tested positive for enterovirus and (b) has severe illness that has resulted in hospitalization. Please contact your local health department if you have patients that meet these criteria.

**E-cigarettes:** Adolescent e-cigarette use is more than the latest teen fad; the U.S. Food and Drug Administration (FDA) recently declared it an epidemic. In New York, e-cigarettes and similar vapor products are the most commonly used form of tobacco by youth. E-cigarette use doubled among high school students in New York between 2014 and 2016, from 10.5 percent to 20.6 percent.
A major draw to e-cigarette use by youth are the more than 15,000 available e-liquid flavors, many of which are candy- and fruit-flavored. Most e-liquids contain highly-addictive nicotine, which can impair adolescent and young adult brain development, leading to lower impulse control, mood disorders, disruptions in attention and learning, and increased risk for addiction to other drugs. E-cigarette aerosol is not harmless water vapor, but rather contains toxic chemicals and ultrafine particles that can interfere with lung and cardiovascular function. E-cigarettes, like all tobacco products, are unsafe.

The most popular e-cigarette brand among youth is JUUL, which resembles a common USB flash drive. JUUL use is so ubiquitous among adolescents that "JUULing" has become synonymous with vaping. JUUL e-cigarettes emit an almost odorless aerosol, are small, and can be used discreetly virtually anywhere; many schools report students are using them on campus in bathrooms and even in classrooms. JUUL e-liquid is contained in small pods, and may contain the nicotine equivalent of a pack of cigarettes.

Although the cigarette smoking prevalence among New York youth is at a record low of 4.3 percent, studies show that e-cigarette use is associated with both 1) intention to smoke cigarettes and 2) subsequent cigarette smoking among youth and young adults. And, while some adults may try to quit cigarette smoking by using e-cigarettes, the FDA has not approved them as a cessation product, and many adults end up using both products. As physicians, you have a major role in helping your patients quit tobacco. Research shows that half of all smokers who try to quit are motivated by their health care provider's recommendation. Your recommendation is strengthened when you prescribe FDA-approved medication and counseling: two methods scientifically proven to work. New York Medicaid covers all seven FDA-approved cessation medications, and most insurance plans and Medicare cover some products. To learn more about medications, as well as tips on counseling, resources, and other ways to support your patients, please visit https://talktoyourpatients.health.ny.gov/.

If you missed my October 3rd Commissioner's Medical Grand Rounds Series on the Integration of Primary Care and Behavioral Health, you can still watch it (and obtain CMEs) by going to the grand rounds page on our website. Although registration is not yet open, mark December 14th on your calendars for my next Grand Rounds, which will address Alzheimer's Disease and other forms of dementia.

As always, thank you for the care that you provide to all New Yorkers and your attention to these critical matters.

Sincerely,
Howard A. Zucker, M.D., J.D.