



COMMONWEALTH of VIRGINIA

Department of Health

P O BOX 2448
RICHMOND, VA 23218

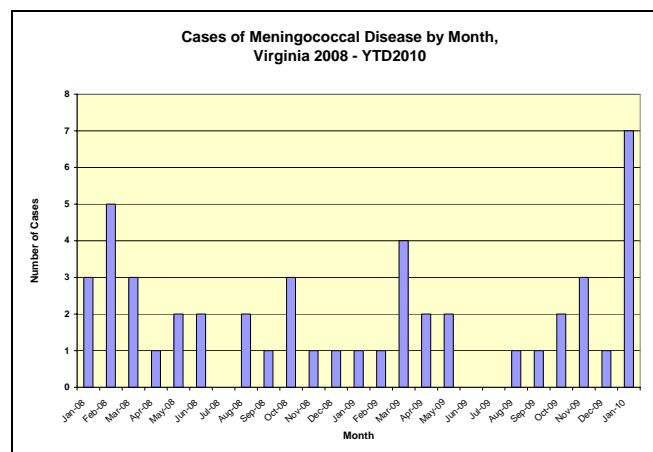
KAREN REMLEY, MD, MBA, FAAP
STATE HEALTH COMMISSIONER

TTY 7-1-1 OR
1-800-828-1120

February 4, 2010

Dear Colleague:

I am writing today to inform you about a recent important infectious disease trend. The Virginia Department of Health (VDH) has detected an increase in meningococcal disease activity in Virginia. During the month of January 2010, seven cases of invasive meningococcal disease were reported to VDH. This is an unusually high number of cases for one month. In 2009, a total of 18 cases were reported for the entire year.



The median age among the seven patients was 31 years (range, <1 year to 75 years). Five patients were males and two were females. These patients resided across Virginia. Two cases resulted in death. Molecular subtyping of four isolates by pulsed-field gel electrophoresis (PFGE) identified three different patterns. The two isolates with an indistinguishable pattern involved two cases who had close contact with each other.

One possible explanation for this unusually high number of reported meningococcal cases relates to the link between meningococcal disease and influenza.^{1,2} Reports of meningococcal outbreaks following influenza outbreaks have been previously described.³ Studies have suggested that the explanation for this association may be a result of immune suppression induced by influenza A or by lowered nasopharyngeal mucosal resistance to meningococcal infection following influenza infection.^{4,5}

¹ Ampofo, K., Bender, J., Sheng, X., et al. Seasonal invasive pneumococcal disease in children: role of preceding respiratory viral infection. *Pediatrics* 2008; 122; 229–37.

² Jansen, A.G., Sanders, E.A., Van Der Ende, A., et al. Invasive pneumococcal and meningococcal disease: association with influenza virus and respiratory syncytial virus activity? *Epidemiol Infect* 2008; 136; 1148–54.

³ Hubert, B., Watier, L., Garnerin, P., et al. Meningococcal disease and influenza-like syndrome: A new approach to an old question. *J Infect Dis* 1992; 166; 542–5.

⁴ Cartwright K, Jones D, Smith A, et al. *Lancet* 1991; 338: 554-7.

⁵ Olcen P, Kellander J, Danielsson D, et al. Epidemiology of *Neisseria meningitidis* prevalence and symptoms from the upper respiratory tract in family members to patients with meningococcal disease. *Scand J Infect Dis* 1981; 13: 105-9.

I ask you to take the following steps:

- **Maintain a high index of suspicion for meningococcal infection**, especially in patients presenting with sudden onset of fever, headache, stiff neck, and photophobia. A petechial rash with pink macules might also be observed. Rapid recognition of the possibility of meningococcal disease and the administration of appropriate antibiotics increases the probability of survival.
- **Immediately notify your local health department by telephone if meningococcal disease is suspected based on clinical findings or laboratory results of gram-negative diplococci or *N. meningitides* from a normally sterile site.** Public health responds to reports of suspect meningococcal disease by rapidly identifying close contacts for whom short-term antibiotics are recommended for prophylaxis. Antibiotic prophylaxis has been shown to effectively eradicate carriage of the organism, thereby preventing disease and reducing transmission to other susceptible hosts. Close contacts are those persons who could have had intimate contact with the patient's oral secretions within the ten days preceding illness onset. The health department also facilitates the local laboratory sending isolates to the Division of Consolidated Laboratory Services for serogroup testing.
- **Encourage your patients to be vaccinated against both H1N1 and seasonal influenza.**
- **Follow recommendations for meningococcal vaccination.** The *Code of Virginia* (Chapter 340 23-7.5) requires that all incoming full-time students, prior to enrollment in any public four-year institution of higher education, be vaccinated against meningococcal disease. The Advisory Committee on Immunization Practices (ACIP) also recommends vaccination for the following persons:
 - children aged 11–18 years;
 - college freshmen living in dormitories;
 - microbiologists who are routinely exposed to meningococcal bacteria;
 - travelers to areas in where meningococcal disease is common;
 - anyone who has a damaged spleen, or whose spleen has been removed; and,
 - anyone who has terminal complement component deficiency (an immune system disorder).

More information about meningococcal vaccination is available at <http://www.cdc.gov/meningitis/vaccine-info.html>.

Thank you in advance for your attention to this serious issue and for your diligence in caring for your patients. You represent crucial members of the team of clinicians around Virginia who strive everyday toward a shared goal of keeping our citizens healthy. With that in mind, I would like to take this opportunity to introduce one of many valuable members of the VDH team, Dr. Keri Hall, VDH's state epidemiologist. You can reach Dr. Hall at Keri.Hall@vdh.virginia.gov or 1-804-864-7901. Together, Dr. Hall and I, as well as the entire staff of VDH, strive to support you in your service to Virginians.

Sincerely,



Karen Remley, MD, MBA, FAAP
State Health Commissioner