

CDC Updates Guidance to Detect Novel Coronavirus Infections

The Centers for Disease Control and Prevention (CDC) has offered additional guidance for clinicians who may suspect a patient is infected with a novel coronavirus that now is known as Middle East respiratory syndrome coronavirus (MERS-CoV).

The first human infections were reported in September 2012. As of June 7, the World Health Organization had received reports of 55 confirmed cases, including 31 deaths. All were linked directly or indirectly to 1 of 4 countries: Saudi Arabia, Qatar, Jordan, and the United Arab Emirates. No cases have yet been reported in the United States.

Individuals who develop severe acute lower respiratory illness within 14 days, rather than the previously advised 10 days, after traveling in the Arabian Peninsula or neighboring countries should be evaluated for MERS-CoV according to current guidelines (<http://tinyurl.com/peggk4>).

To increase the likelihood of detecting MERS-CoV, the CDC recommends collecting specimens from different sites—a nasopharyngeal swab as well as lower respiratory tract specimens such as sputum, bronchoalveolar lavage, bronchial wash, or tracheal aspirate.

Respiratory, blood, and stool specimens are being tested for MERS-CoV at the CDC with an assay approved on June 5

by the US Food and Drug Administration for emergency use (<http://tinyurl.com/ou8t32g>).

Cancer-Causing Infections Decline After HPV Vaccine Introduced

Despite low immunization rates, infections with human papillomavirus (HPV) strains that are associated with cervical cancer have declined markedly among adolescent girls since 2006, when HPV vaccination was introduced.

Investigators led by Lauri Markowitz, MD, of the Centers for Disease Control and Prevention (CDC), analyzed HPV prevalence data from 2003 to 2006, before vaccination began, and afterward, from 2007 to 2010. They based prevalence determinations on 4150 cervicovaginal swab samples collected from girls and women aged 14 to 59 years during the earlier time period and 4253 samples taken after HPV vaccination was introduced.

The data collection was part of the National Health and Nutrition Examination Surveys, which use standardized interviews, physical examinations, and laboratory tests to assess the health and nutritional status of US children and adults.

Markowitz and her colleagues found that the prevalence of 4 HPV strains targeted by 2 currently marketed vaccines



decreased in 14- to 19-year-old females by 56%, from 11.5% before immunization began to 5.1% during the later data collection period.

"This is exactly the age group [in which] we would expect to first see an impact based on who's getting vaccinated in the United States," Markowitz said during a telebriefing on the study, which was published in June (Markowitz LE et al. *J Infect Dis*. doi: 10.1093/infdis/jit192 [published online June 19, 2013]). Vaccination is recommended for girls when they're 11 or 12 years old and women up to age 26 years if they haven't already been vaccinated. Boys also should be vaccinated at age 11 or 12 years and men up to age 21 years.

The study showed no HPV infection decreases in other age groups and didn't include data for boys or young men. Even though the decreased prevalence was in the age group they expected, Markowitz said she and her colleagues found a surprise in the data.

"The decrease was greater than we thought... based on 3-dose coverage in the United States," she said.

Human papillomavirus vaccination is increasing in the United States, but a 2010 national survey showed that only 49% of girls aged 13 to 17 years had received at least 1 dose of vaccine and 32% had received all 3 recommended doses (CDC. *MMWR Morb Mortal Wkly Rep*. 2011;60[33]:1117-1123).

CDC Director Tom Frieden, MD, MPH, said the results were striking. "They should be a wake-up call that we need to increase vaccination rates because we can protect the next generation of adolescents and girls against cancer caused by HPV." (<http://tinyurl.com/po6xy6z>).

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