Update on Molecular Diagnostics: Pertussis

TOPA Diagnostics is pleased to announce the availability of rapid molecular diagnostic testing for Bordetella pertussis.

Currently, we are experiencing an epidemic of pertussis. According to the CA Department of Health, between January 1st and June 10th of this year, 3458 cases of pertussis have been reported in California (94 cases in Ventura County). Pertussis cases have been reported for all age groups, with peak ages of less than one year and 10-17 years.

Clinically, the spectrum of disease varies with age and immunization status. Immunized patients may present with less severe symptoms. Infants may present with atypical symptoms, and are at risk for severe disease.

Diagnosis of pertussis is based on identification of the causative organism, Bordetella pertussis. Traditional culture methods have been largely replaced by more rapid and accurate nucleic acid amplification tests (NAAT). Rapid NAAT testing has an analytical turnaround time of one hour, and is more sensitive than culture.

Rapid diagnosis is beneficial, to initiate appropriate antibiotic treatment in infected patients, and to avoid inappropriate treatment in un-infected patients.

For optimum sensitivity, nasopharyngeal swab samples should be obtained within the first two weeks of symptoms, before initiation of antibiotic treatment. Specimens obtained later in the course of the disease will have lower sensitivity, but PCR testing remains useful up to four weeks following onset of symptoms, and up to five days following initiation of antibiotic therapy.

TOPA Diagnostics utilizes the Illumigene NAAT assay, based on loop-mediated isothermal amplification technology. STAT pick-up and testing are available, with phone or fax results, generally within one hour of specimen receipt in the lab.

For additional information, please call:
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