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Temporal Patterns in Chlamydia Repeat Testing and Positivity Rates in Massachusetts

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Objective

To evaluate current rates and temporal trends in adherence with national guidelines recommending chlamydia test-of-cure for pregnant females and test-of-reinfection for all patients.

Introduction

Sexually transmitted disease treatment guidelines have incrementally added repeat testing recommendations for *Chlamydia trachomatis* infections over time, including test-of-cure 3 to 4 weeks following completion of treatment for pregnant women and test-of-reinfection for all patients approximately 3 months after infection. However, few studies have investigated adherence to these recommendations and whether the evolution of guidelines have led to changes in repeat testing patterns over time.

Methods

The Electronic medical record Support for Public Health surveillance network (ESPnet) was leveraged to analyze electronic health record data for three independent practice groups serving approximately 20% of the Massachusetts population. We identified all cases with laboratory-confirmed *Chlamydia trachomatis* infections between 2010 and 2015 and evaluated the frequency, timing, and results of subsequent chlamydia tests in the following year.

Results

Between 2010 and 2015, 972 pregnant female cases, 10,309 non-pregnant female cases, and 4,973 male cases had a positive *C. trachomatis* laboratory result. Test-of-cure within 3-5 weeks following an index positive test occurred in 36.8% of pregnant females. Test-of-reinfection within 2-4 months of an index test occurred in 39.2% of pregnant females, 17.9% of non-pregnant females, and 9.0% of males. There were no significant increases in test-of-cure or test-of-reinfection rates over the study period for any groups. Among cases with repeat tests, 15.9% of pregnant females, 14.6% of non-pregnant females, and 16.3% of males had at least one repeat positive result within one year of the index positive result.

Conclusions

Chlamydia test-of-cure and test-of-reinfection rates are low, with no evidence of improvement over time. There are substantial opportunities to improve adherence to chlamydia repeat testing recommendations.

Keywords

communicable disease; Electronic medical record; STD treatment guidelines; chlamydia

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