Patterns of Adolescent Women Diagnosed with a Sexually Transmitted Infection in an Emergency Department and the Impact of Improved Contact

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Background: There is a national epidemic of sexually transmitted infections (STIs) among adolescents. Cincinnati is ranked in the top third of cities for Chlamydia cases per capita, and STI prevalence in the Emergency Department (ED) of Cincinnati Children's Hospital Medical Center (CCHMC) is 5-10 fold higher than national rates. Strategies to address STI diagnosis, treatment and follow up care in our ED are expected to have a significant impact on disease prevention and our community's STI epidemic.

Objective: To understand the ED utilization patterns for adolescent females who are tested for STIs in the ED and to determine if post-visit contact in the ED impacts recidivism (repeat visits) or repeat infection rates.

Methods: This was a retrospective review of a dataset generated by a quality improvement project aimed at improving patient contact for those with positive STI results in the ED. All female patients ages 14-21 who were tested for STIs in the CCHMC ED between January and October 2009 were included. Descriptive statistics were used to illustrate ED utilization patterns. Chi-squared and logistic regression analyses were used to determine the associations of post-visit contact, race, age, and treatment status with rates of recidivism and repeat STIs.

Results: Of 922 women with STI testing at their initial ED visit, 216 (23%) were positive. The overall return visit rate was 34%. The return rate with STI testing was 15%. Out of 141 patients with repeat ED visits for STI testing, 76% had one repeat visit and 24% had ≥ 2 visits. We successfully contacted 61% of patients with a positive STI result. Black race and initial positive tests were predictors of a repeat positive STI test. Contacted females were less likely to have a follow up visit with an STI test ($p=0.05$) than those not contacted. Controlling for race and age, successful contact was associated with a decreased likelihood of repeat STI testing (OR= 0.44, CI= 0.20-0.98).

Conclusion: Successful contact appears to decrease repeat ED visits with STI testing among adolescent females in the ED, however, does not appear to decrease the rate of repeat positive STIs. The high positive STI rate and excessive ED utilization among this population illustrates the scope of the problem and the need for further study.

Acknowledgements: This study was supported by NIH grant T35 DK 60444.