

Chlamydia, Gonorrhea, Syphilis and HIV Screening among Men Presenting with STI-related Complaints at a Community Based Emergency Department in Columbus, Ohio: A 5-year Retrospective Study

Philip Goldstein, MD¹, Ashley Buffomante, MD¹, Cory Hussain, MBBS^{1,4}, Jose A Bazan, D.O.,^{1,3} Kushal Nandam, MD², Julie Combs, DNP², Carol Petke, CNP², Susan L. Koletar, M.D., FIDSA¹, Michael Dick, MD² and Carlos Malvestutto, MD¹

(1) Division of Infectious Diseases, Ohio State University Wexner Medical Center, Columbus, OH, (2) Department of Emergency Medicine, Ohio State University Medical Center, Columbus, OH, (3) Sexual Health Clinic, Columbus Public Health, (4) Department of Biomedical Informatics, Ohio State University Medical Center, Columbus, OH.

Abstract # 72862

The Ohio State University
Wexner Medical Center
410 W. 10th Ave.
Columbus, OH 43210



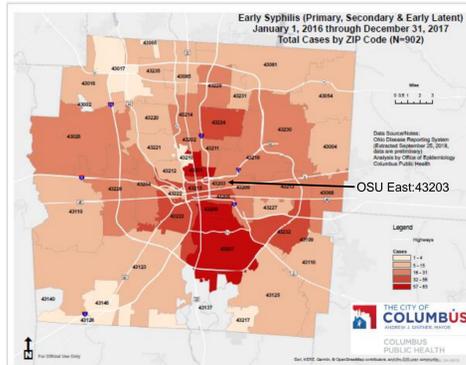
Carlos.Malvestutto@osumc.edu

THE OHIO STATE UNIVERSITY

WEXNER MEDICAL CENTER

BACKGROUND

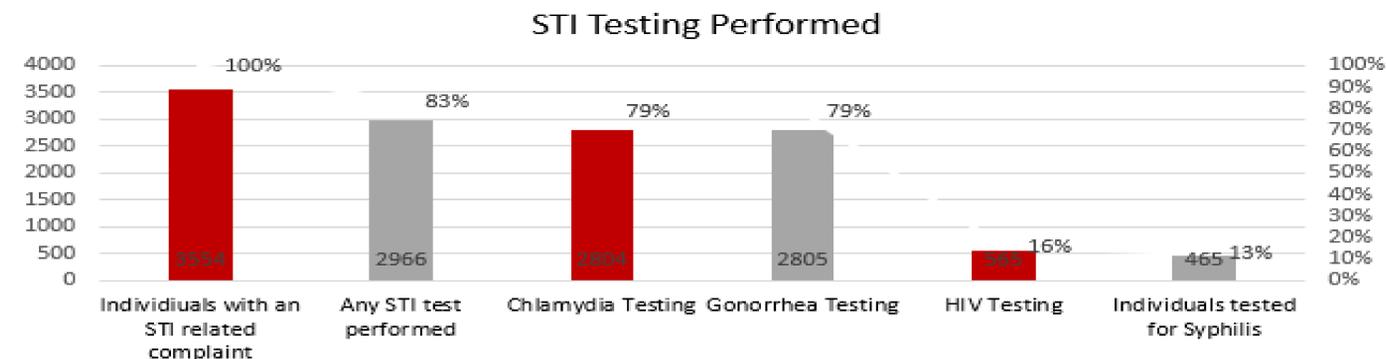
- Sexually transmitted infections (STIs) disproportionately affect individuals living in poor and underserved areas of the United States.
- Emergency Departments (ED) are often the only point of health-care access for these at-risk individuals. As such, the ED often serves a key role in STI screening.
- There are many barriers to HIV testing in the ED, including perceived lack of time, provider discomfort in addressing positive results, concerns about follow-up/linkage to care, and provider lack of knowledge about recommendations regarding HIV testing in high risk populations or misperceptions about a specific individual's risks for HIV.^{1,2,3,4}
- The objective of this study is to review STI screening practices at an urban and community based ED affiliated with a large academic medical center in Columbus, Ohio.
- Columbus is in the midst of a syphilis epidemic with a large proportion of cases coming from the 4 zip codes immediately surrounding the ED in our study. Syphilis testing in the ED is essential to identify and treat cases.



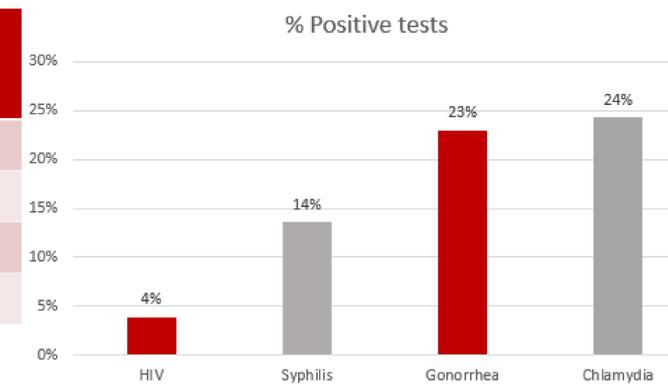
METHODS

- Retrospective review of all ED visits from January 2012 to December 2017.
- We utilized the SlicerDicer tool within Epic to perform our data collection.
- A total of 279,929 patient-visits were analyzed for all patients by 1) exposure to an STI 2) STI-related symptoms (penile discharge or pain; scrotal and testicular pain or swelling)
- Patients <18 and >89 were excluded
- We collected basic demographic characteristics of those who presented to the ED with an STI-related complaint and compared those who underwent STI screening (chlamydia, gonorrhea, syphilis, HIV) to those that did not.

RESULTS



Men With STI related chief complaints n=3554	Any STI testing done 2966 (83%)	No STI testing done 588 (17%)
Race		
Black	2549 (86%)	373 (63%)
White	336 (11%)	180 (31%)
Other	81 (3%)	35 (6%)



Results

- Over a five year period 3,554 individuals presented with an STI related complaint. With 47% of those patients presenting with a complaint of exposure to STI and 53% presenting with an STI related symptom.
- 86% of patients who had STI testing were black, 11% were white
- Of those who underwent testing, 85% were tested for Chlamydia and Gonorrhea, 16.7% were tested for HIV and 13.1% were tested for Syphilis.
- 7.5% of patients presenting with STI related complaints underwent testing for Chlamydia, Gonorrhea, Syphilis and HIV
- Rates of positive tests were 24% for Chlamydia, 23% for Gonorrhea, 14% for Syphilis and 4% for HIV.

Conclusions

- Over a five-year period, three quarters of men who presented with an STI related chief complaint were tested for any STI. Few were tested comprehensively for Chlamydia, Gonorrhea, Syphilis and HIV. Syphilis and HIV screening rates were low overall.
- A large number of HIV and syphilis cases are likely going undiagnosed in the ED due to the lack of comprehensive HIV and STI testing. This is a major missed opportunity given the proportion of high risk individuals who seek care in the ED.
- There is an urgent need to identify and eliminate barriers to syphilis and HIV screening in EDs that serve at-risk populations.

FUTURE DIRECTIONS

- A Working Group of ID and ED Physicians was formed and performed a root cause analysis of the lack of Comprehensive STI testing in the ED.
- A multi-faceted intervention has been designed with plans to launch in November 2018.
- STI order sets for men and women are being designed through our EMR to default to comprehensive STI testing.
- A shared results pool has been designed through our EMR to send all syphilis and HIV test results ordered in the ED to a group of designated ID Physicians.
- Anyone with a new diagnosis of HIV will be referred to our ID clinic to be seen immediately
- Syphilis patients will be reviewed and referred for appropriate treatment
- HIV negative patients will be referred to PrEP clinics
- We will be monitoring testing and outcomes data prospectively and hope to see increased rates of positive testing, increased referrals to PrEP providers and more rapid linkage to care and treatment of HIV.

REFERENCES

- Klein P, Martin I, Quinlivan E, Gay C, Leone P. Missed Opportunities for Concurrent HIV-STD Testing in an Academic Emergency Department. . Public Health Rep. 2014;129(1):12-20
- Alberlaez C, Wright E, et al. Emergency Provider Attitudes and Barriers to Universal HIV Testing in the ED. J Emerg Med. 2012; 42(1):7-14.
- Hecht C, Smith M, et al. A Comparison of Patient and Staff Attitudes About Emergency Department- Based HIV Testing in 2 Urban Hospitals. Ann Emerg Med. 2011; 58(1): 28-32.
- Rizza S, MacGowan R, et al. HIV Screening in the Health Care Setting: Status, Barriers, and Potential Solutions. Mayo Clin Proc. 2012; 87(9):915-924.