



Implementation of a Rapid HIV Screening Program in the Emergency Department

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Background

- Guidelines recommend that human immunodeficiency virus (HIV) screening be performed for all patients evaluated for sexually transmitted infections (STIs)
- Current practice in the Brooke Army Medical Center (BAMC) Emergency Department (ED) is to defer HIV screening to Primary Care Managers (PCMs)
 - However, patients may not follow up with PCMs or the PCM may not perform HIV screening at follow-up
- Missed opportunities for HIV screening may delay HIV diagnosis and can result in forward transmission of HIV to additional sex partners

Aim

- To implement rapid HIV testing in the BAMC ED for patients with STI complaints

Methods

- Pre-intervention period (Aug – Oct 2021) included usual practice in the BAMC ED
- Post-intervention period (Dec 2021 – Feb 2022) implemented rapid testing with the Determine™ HIV-1/2 Ag/Ab Combo test
- Patients with *Neisseria gonorrhoea/Chlamydia trachomatis* (GC/CT) tests in the ED were selected to assess HIV screening practices before and after the intervention

Results

Table 1. Demographic and Clinical Characteristics of ED Patients Screened for GC/CT

Characteristics	Pre-intervention (N= 303)	Post-intervention (N= 268)	P-value
Age in years, (median, IQR)	25 (21-33)	26 (22-34)	0.131
Gender, female (%)	216 (71.3)	183 (68.3)	0.435
Active duty (%)	148 (48.8)	144 (53.7)	0.244
STI chief complaint (%)	41 (13.5)	46 (17.2)	0.228
Positive GC/CT	41 (13.5)	29 (10.8)	0.324
GC	10	6	0.780
CT	29	20	1.00
CT and GC	2	3	0.642
Empiric GC/CT treatment (%)	116 (38.3)	92 (34.3)	0.327
HIV screen in ED (%)	13 (4.3)	53* (19.8)	< 0.001
Positive HIV test	0	0	
No HIV screen in ED (%)	290 (95.7)	215 (80.2)	< 0.001
PCM follow-up next 30 days (%)	60 (20.7) (N=290)	73 (34) (N=215)	< 0.001
PCM HIV testing next 30 days (%)	18 (6.2) (N=290)	18 (8.4) (N=215)	0.350

*2 patients were offered HIV testing but declined

Table 2. Characteristics of ED Patients Empirically Treated for GC/CT

Characteristics	Pre-intervention (N=103)	Post-intervention (N=92)	P-value
HIV screen in ED (%)	10 (9.7)	28 (30.4)	< 0.001
STI chief complaint (%)	35 (34)	29 (33)	0.715
HIV screen in ED if STI chief complaint (%)	7 (6.8)	11 (12)	0.213
No HIV screen in ED if STI chief complaint (%)	28 (27.2)	18 (19.6)	0.211
PCM follow-up next 30 days (%)	4 (14.3) (N=28)	4 (22.2) (N=18)	0.693
PCM HIV testing next 30 days (%)	3 (10.7) (N=28)	2 (11.1) (N=18)	1.00

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Education

- ED providers were educated to screen for HIV using the rapid test for patients with STI complaints
 - In-person educational provider brief
 - Periodic email reminders
 - Fliers posted at workstations

Discussion

- Pre-intervention HIV testing not routinely performed in the ED or at PCM follow-up
- Despite empiric treatment for GC/CT low rates of HIV testing and PCM follow-up
- ED screening improved after intervention
 - >4-fold increase overall
 - 3-fold increase among those empirically treated for GC/CT
- HIV testing at time of STI evaluation consistent with current guidelines

Continued Improvement

- Recommend HIV testing for all patient's empirically treated for GC/CT
- Continued education to ED providers
 - Individualized feedback to providers
- Discuss with PCMs about HIV and other STI testing (syphilis, hepatitis B/C, and 3-site GC/CT (rectum, oropharyngeal, and urine) during outpatient follow-up

