The Effect of a Treatment Protocol on Correct STD Prophylaxis for Complainants of Acute Sexual Assault

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Background

Approximately 26% of women sexually assaulted in the U.S. will be diagnosed with one or more sexually transmitted disease (STD). Trichomoniasis, gonorrhea, and chlamydia are preventable in victims who seek healthcare following sexual assault. Optimizing the health outcomes of victims of sexual assault includes STD prevention.

Performance Improvement (PI) Project:
In 2011 a gap in care for sexual assault victims was identified by the leadership team of the Forensic Department of a regional hospital in Virginia. The forensic examiners evaluate patients who present to the emergency department with a chief complaint of sexual assault. A performance improvement project was initiated.

CDC's Guidelines for Sexual Assault
(MMWR, 2002, 2006, 2010)

1. Prevent sexually transmitted disease (STD) and the spread of infection by standardizing care of the sexual assault victim in seminal fluid exposure (oral, vaginal, anal).
   a) Routinely provide antimicrobial regimen against trichomonas, gonorrhea, and chlamydia (Figure 1) to victims of sexual assault.
   b) Perform an individualized risk assessment, provide and explain options, plan follow-up care.
   c) Individualize care to include consideration of the psychological effects of healthcare decisions.

Figure 1

Prophylactic Antibiotic Regimen (CDC, 2010)

Chlamydia:
□ Azithromycin 1 Gram orally in a single dose or
□ Doxycycline 100 mg. orally twice a day for 7 days

Gonorrhea:
□ *Ceftriaxone 250mg IM or
□ Cefixime 400 mg orally in a single dose (check availability)
(* If severe penicillin allergy: Azithromycin 2 Gram)

Trichomonas:
□ Metronidazole 2 Grams orally in a single dose

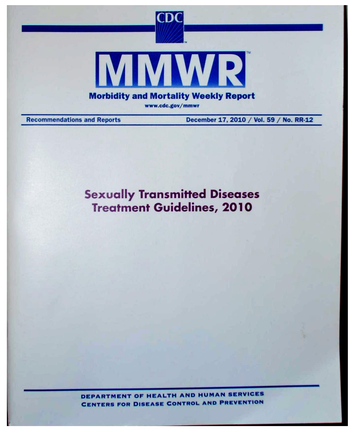
Methods

A literature review was conducted. National guidelines exist; the CDC has written recommendations pertaining to STDs for adult and adolescent victims of sexual assault (MMWR, 2010). Prophylaxis of STD's in emergency department settings range from 40-77% (Gilles, et al., 2010; Merchant, et al., 2008). There is a gap in the literature related to improving this specific area of practice. In other patient populations protocols are described as effective in standardizing care and eliminating variations in processes (ACOG, 2012).

Practice Change
A protocol was developed based on the CDC's Sexually Transmitted Diseases Treatment Guidelines (MMWR, 2010). The protocol included standing orders for STD laboratory testing and recommendations on STD prophylaxis care and treatment. Following organizational approval for use in the emergency department, staff were educated and the protocol was implemented into practice (February 2012).

- Peer review of forensic records over the12-month period following protocol use demonstrated a consistent pattern of compliance with the CDC's recommended guidelines prompting a more formal review.

Retrospective Chart Review
A retrospective chart review was performed to measure the effectiveness of the protocol in bridging the identified healthcare gap for female sexual assault victims seen by a forensic examiner in the emergency department. Antibiotics offered before implementation of the protocol were compared to those offered after the implementation of the prophylaxis protocol. The review included records of 153 patients seen between January 2009 and August 2013.



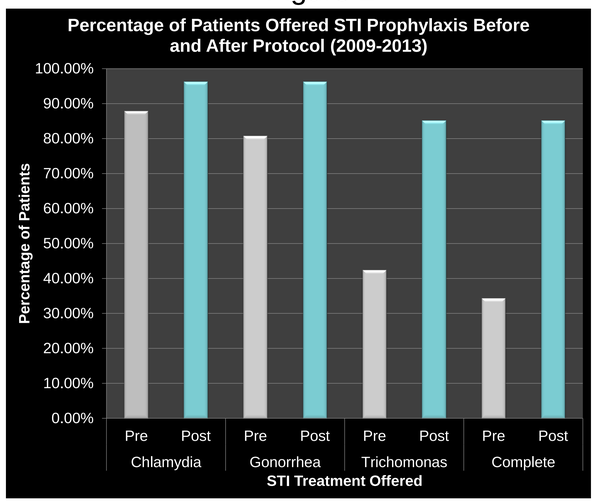
Results

The Fisher Exact test was applied to analyze the number of patients given correct prophylaxis before and after the start of the protocol (Figure 2).

A rise in the percentage of patient's accessing prophylactic therapy from the protocol resulted in the 4 categories analyzed (Figure 2):

87.8 to 96.3 (chlamydia)
80.0 to 96.3 (gonorrhea)
42.4 to 85.2 (trichomonas)
34.3 to 85.2 (complete coverage; antibiotic regimen)

Figure 2



Conclusions

The evaluation showed the protocol as effective in overcoming identified barriers experienced by both patients and providers in accessing evidence-based post sexual assault preventive care. Condensing published recommendations from the CDC's report into a practice protocol helped standardize care, and led to a significant rise in appropriate STD prophylaxis.

The plan is to review and revise the protocol annually. Changes will also be made to reflect revisions in the CDC's recommendations. Data collection and evaluation will remain on-going.

We conclude that the presence of a sexual assault protocol is highly effective in terms of providing safe, timely, and evidence-based care, and a simple and inexpensive practice tool. A sexual assault protocol offers an effective way to standardize sexual assault care in emergency departments or other settings where victims are most likely to seek healthcare.

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