

ROAR ED-SANE: A Retrospective Observational Assessment Review of an Emergency Department Sexual Assault Nurse Examiner (ED-SANE) Program's Adherence to CDC Guidelines for Sexually Transmitted Infections

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BACKGROUND

- Sexual assault survivors are at increased risk for sexually transmitted infections (STI)¹
- Sexual Assault Nurse Examiner (SANE) programs facilitate STI testing, treatment, and follow-up²
- Variable institutional prescribing compared to Centers for Disease Control and Prevention (CDC) guidelines (Table 1)⁵⁻⁷
 - Particularly with Human Immunodeficiency Virus (HIV) nonoccupational postexposure prophylaxis (nPEP) prescribing^{3,4}
- Low attendance of follow-up appointments² and low adherence to treatments requiring >1 dose, especially nPEP for HIV:
 - 86.7% start nPEP when indicated but as few as 27.4% complete treatment⁸
- Lack of gap analysis identifying where in prescribing practices or in follow-up scheduling targeted improvements could be made

OBJECTIVE

Assess adherence of medication prescribing and follow-up scheduling practices to current CDC guidelines (2015 or 2021) during initial encounter

METHODS

STUDY DESIGN

Single-center, retrospective, observational, descriptive assessment

POPULATION

Pediatric or adult patient with a chief complaint of sexual assault presenting to emergency department under ED-SANE program at Mayo Clinic Health System La Crosse, WI from January 2018 through December 2021

ADHERENCE DEFINITION

Providing guideline directed treatment when indicated AND not providing treatment when not indicated

TABLE 1: STI CDC GUIDELINE TREATMENT

Condition	Adult		Child
	2015	2021	2015 and 2021
Chlamydia	Azithromycin 1 g PO once	Doxycycline 100 mg PO BID for 7 days	
Gonorrhea	Ceftriaxone 250 mg IM once	Ceftriaxone 500 mg IM or 1 g if ≥150 kg once	
Trichomoniasis	Metronidazole 2 g PO once	Metronidazole 500 mg PO BID for 7 days	
HIV (nPEP)	3-7 DS, rest of 28 DS at follow-up	28 DS or 3-7 DS, rest of 28 DS as prescription	3-7 DS, rest of 28 DS at follow-up
HPV (vaccine)	Female 9-26 y.o, male 9-21 y.o	9-26 y.o	≥9 y.o
HepB	Booster, vaccine +/- HBIG		
Pregnancy	Emergency contraception		

Table 1: Treatment recommendation changes from 2015 to 2021 CDC guidelines. HIV (human immunodeficiency virus), nPEP (non-occupational postexposure prophylaxis), HepB (hepatitis B virus), HPV (human papillomavirus), PO (by mouth), IM (intramuscular), DS (day supply), HBIG (hepatitis B immune globulin), BID (twice daily), y.o (years old)

TABLE 2: ADHERENCE RATES TO GUIDELINES

	N	Percentage	95% CI
HIV	39	53.4%	41.4 – 65.2%
Trichomoniasis	62	68.1%	57.5 – 77.5%
Hepatitis B	69	69%	59 – 77.9%
Chlamydia	78	85.7%	76.8 – 92.2%
HPV	88	86.3%	78 – 92.3%
Gonorrhea	83	91.2%	83.4 – 96.1%
Emergency Contraception	102	99%	94.7 – 100%

Table 2: Adherence rates of prescribing practices to CDC guidelines current during encounter. HIV (human immunodeficiency virus), nPEP (non-occupational postexposure prophylaxis), HPV (human papillomavirus)

FIGURE 1: FOLLOW-UP APPOINTMENTS

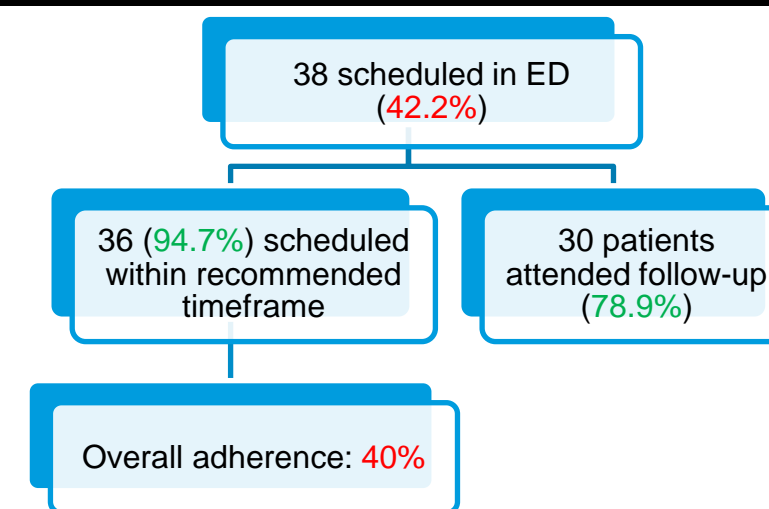


Figure 1: Breakdown of follow-up appointments scheduled and patient attendance. Evaluation of overall adherence included scheduling of appointment and scheduling within CDC guideline recommended timeframe. ED (Emergency Department)

FIGURE 2: HIV PROPHYLAXIS

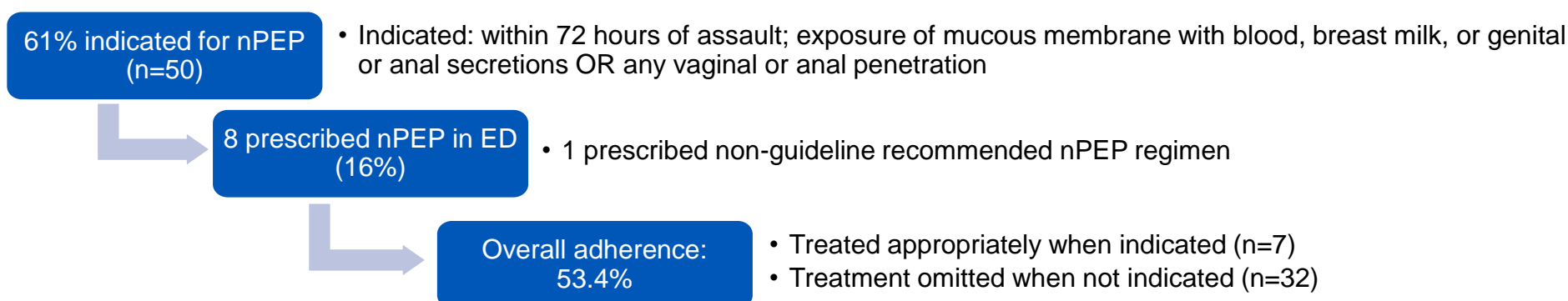


Figure 2: Breakdown of nPEP prescribing practices. HIV (human immunodeficiency virus), nPEP (non-occupational postexposure prophylaxis)

RESULTS

Baseline Characteristics (N=103)

- Average age: 24 years (SD 9.7)
- White (88.7%), female (96.1%)
- 82.5% presented within 3 days of assault

Adherent to CDC Guidelines ≤70%

- HIV (53.4%)
- Trichomoniasis (68.1%)
- Hepatitis B (69%)

Follow-up Scheduling

- 40% adherent to scheduling within guideline recommended timeframe

DISCUSSION AND LIMITATIONS

DISCUSSION

- Prescribing for chlamydia, gonorrhea, HPV, and emergency contraceptive all >80% adherent to guidelines (Table 2)
- No vaccinations ordered or administered
- Patient attendance of follow-up higher than expected (Figure 1)
- Gaps identified:
 - Vaccinations for hepatitis B and HPV
 - Prescribing for HIV (Figure 2) and trichomoniasis
 - Scheduling of follow-up prior to patient discharge

LIMITATIONS

- Follow-up at outside facility was difficult to assess
- Difficulty assessing patients who do not remember events
- Limited to patients presenting to ED in Mayo Clinic Health System La Crosse, WI

REFERENCES

