



Practitioners' Perceptions and Prescription Practices of DoxyPEP for STI Prevention

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Disclosures

- Jill Blumenthal has received research funding from Gilead to UCSD
- Douglas Krakower is an investigator on research funded by grants from Gilead, Merck to his institution; personal funds from UpToDate and Medscape; and travel support from PrEP4All to attend conference on national PrEP plan
- Kenneth Mayer's institution has received unrestricted research grants from Gilead, ViiV and Merck, and he has served on Scientific Advisory Boards for all 3 companies; he also writes about PrEP for Up-to-Date.
- All other contributors have no disclosures



Background

- Nationally over 2.4 million cases of syphilis, chlamydia, and gonorrhea (CDC, 2023)
- Doxycycline as post-exposure prophylaxis (doxyPEP) found to be effective in gay, bisexual, and other MSM and transgender women, >70% for syphilis and chlamydia¹ and ~12-50% for gonorrhea^{2,3}
- Unclear what the adoption rate is in at-risk populations
 - Study of MSM showed low uptake compared to all people that received counseling and a prescription⁴
- Similar to early adoption of HIV PrEP, there may be issues preventing adoption at the practitioner level (e.g., knowledge gaps, prescription concerns, etc.)



Objectives and Hypotheses

- **Objective 1:** Understand the knowledge, practices, and perceptions of doxyPEP prescriptions among practitioners
 - **Hypothesis 1:** HIV/ID practitioners will have higher doxyPEP knowledge, favor, and prescription
- **Objective 2:** Identify facilitators and barriers to doxyPEP prescription and identify opportunities to increase appropriate prescription
 - **Hypothesis 2:** Limited data, concern for antimicrobial resistance, and changes in patient risk behaviors will be the greatest barriers to doxyPEP prescription



Survey Methods

- Data was collected using an electronic survey (Qualtrics) administered to healthcare practitioners in the International Antiviral Society–USA (IAS-USA) network
- 27 multiple choice and free response questions: 10 demographics, 6 experience, 4 knowledge, 5 perceptions, and 2 willingness to prescribe
- Inclusion criteria: communicate in English, attended an IAS-USA conference within the last three years, and treated more than one patient for STIs within the last year
- Survey open for four weeks (October – November 2024)
- The first 50 individuals received \$15 payment for survey completion

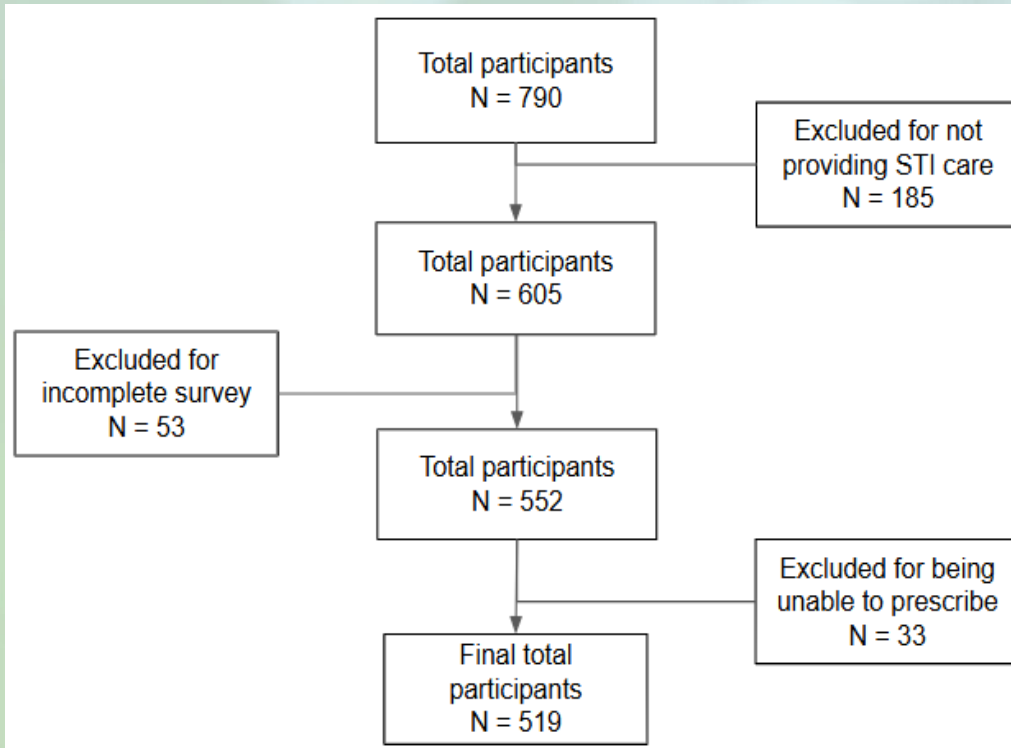
Data analysis

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- Descriptive statistics were used for demographics, experience, and primary and additional motivators and concerns
- DoxyPEP knowledge was defined by correct answers to 4 knowledge questions; favor by agreement with positive statements regarding doxyPEP; future prescription by practitioners being 'very likely' to prescribe
- Binary outcomes tested were:
 - (1) perfect knowledge score
 - (2) favorable opinions of doxyPEP
 - (3) current doxyPEP prescription
 - (4) future doxyPEP prescription
- Multiple variable regression was used to determine significant associations between each outcome and the practitioners' demographics, their perceptions about doxyPEP and their prescribing behaviors

Study Participants and Demographics



Participant characteristics	HIV/ID (n=366)	Non-HIV/ID (n=153)	All (n =519)
Mean ± SD age, years	49.2 ± 11.3	50.5 ± 13.8	49.6 ± 12.1
Sex: Female	202 (55%)	79 (52%)	281 (54%)
Race			
Asian or Asian American	50 (14%)	19 (12%)	69 (13%)
Black or African American	28 (8%)	9 (6%)	37 (7%)
White or European	255 (70%)	113 (74%)	368 (71%)
Hispanic ethnicity	48 (13%)	9 (6%)	57 (11%)
Region			
Northeast	80 (22%)	46 (30%)	126 (24%)
Southeast	72 (20%)	21 (14%)	93 (18%)
Midwest	48 (13%)	15 (10%)	63 (12%)
West	45 (12%)	41 (27%)	86 (17%)
Not in U.S.	99 (27%)	16 (10%)	115 (22%)
Healthcare role			
Physician	261 (71%)	91 (59%)	352 (68%)
NP/PA	78 (21%)	53 (35%)	131 (25%)
Pharmacist	27 (7%)	9 (6%)	36 (7%)
Healthcare setting			
Academic Clinic/Medical Center	202 (55%)	28 (18%)	230 (44%)
Community Health	72 (20%)	72 (47%)	144 (28%)
County/Public health Clinic	52 (14%)	20 (13%)	72 (14%)
Years of practice >15	181 (49%)	74 (48%)	255 (49%)

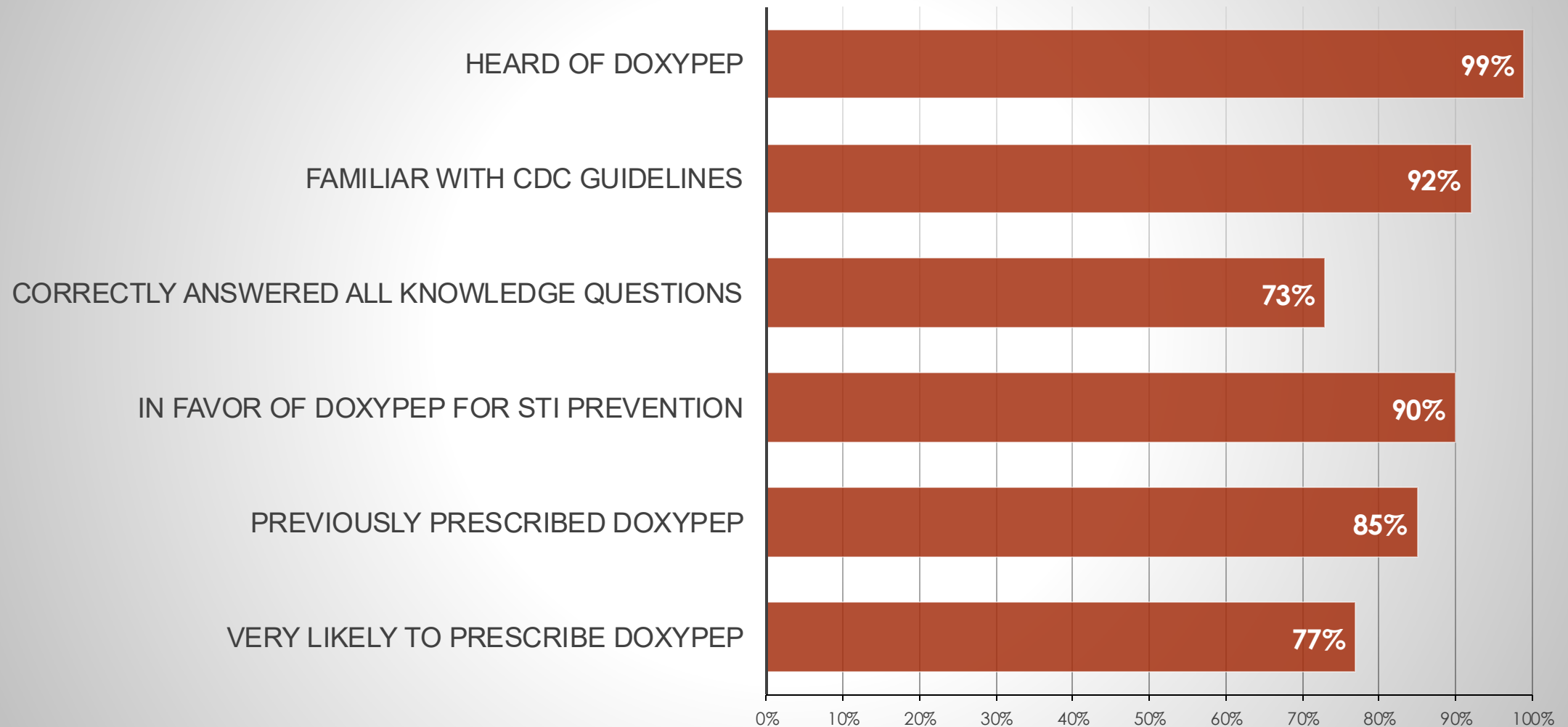
NP: Nurse Practitioner; PA: Physician Assistant

Descriptive Results

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Survey results

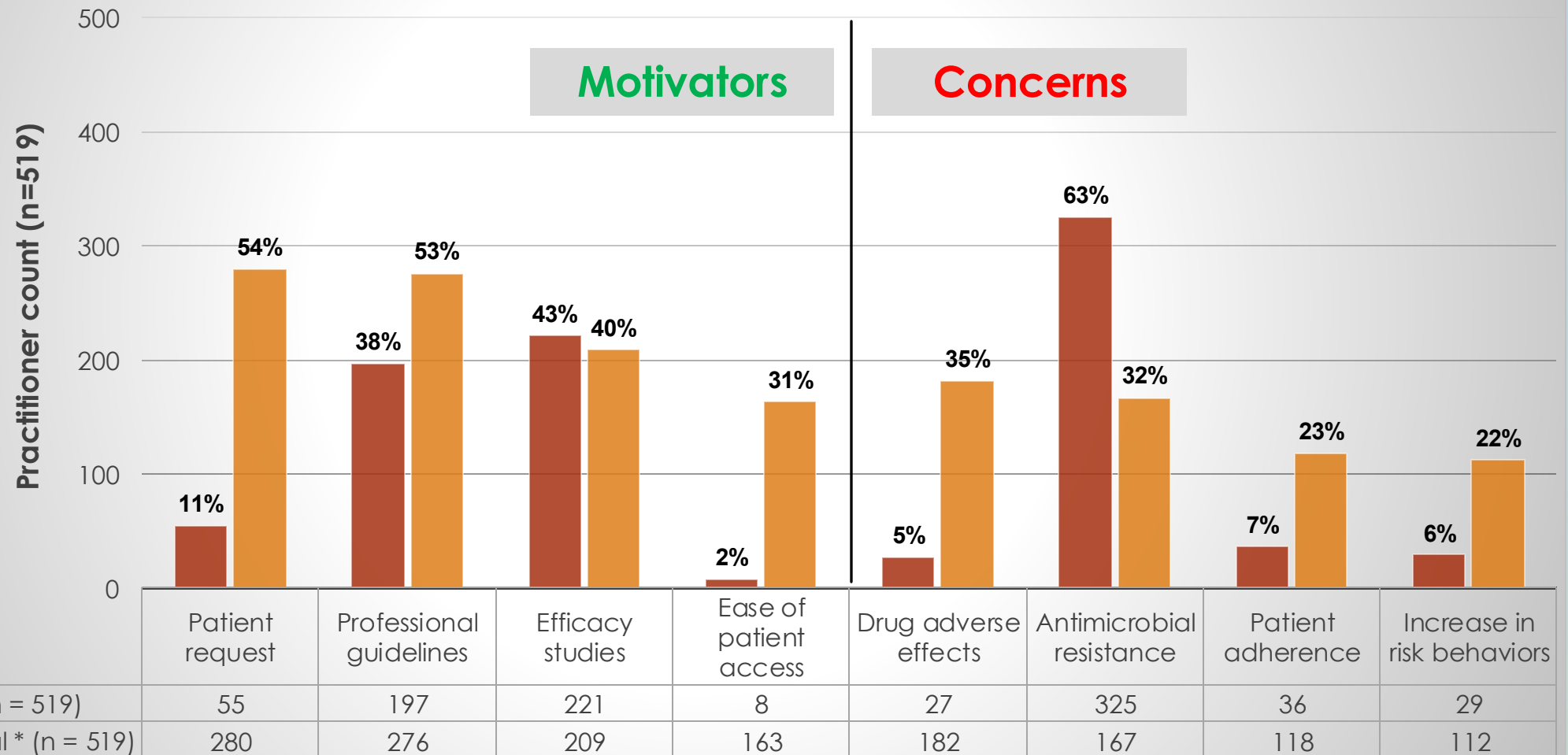


Motivators and Concerns

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Factors affecting doxyPEP prescription



*Practitioners could select multiple additional motivators and concerns

Multivariable Logistic Regression

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Perfect knowledge score		Favorable opinions	
Variable	OR (95%CI)	Variable	OR (95%CI)
Age ≥50 years	0.61 (0.40-0.92)	Age ≥50 years	0.41 (0.20-0.82)
Current prescription	5.13 (2.87-9.34)	Current prescription	1.98 (0.93-4.17)
Future prescription	1.04 (0.60-1.76)	Future prescription	10.77 (5.09-24.10)
		Motivated by efficacy studies	3.52 (1.53-9.16)
		Concerned by increase in patient risk behavior	0.73 (0.35-1.56)
Current Prescription		Future prescription	
Variable	OR (95%CI)	Variable	OR (95%CI)
Practitioner sex: Male	2.03 (1.08-3.94)	Healthcare role: Pharmacist	0.79 (0.04-0.45)
Practice setting: Community Health Center	1.55 (0.69-3.72)	Healthcare role: Physician (MD or DO)	0.55 (0.27-2.51)
Perfect knowledge score	5.01 (2.73-9.38)	Practice setting: Community Health Center	2.30 (1.12-4.97)
Favorable opinions	2.44 (1.04-5.73)	Perfect knowledge score	1.19 (0.64-2.16)
Future prescription	10.80 (5.66-21.19)	Favorable opinions	11.34 (5.01-27.35)
Motivated by efficacy studies	0.65 (0.26-1.57)	Current prescription	10.98 (5.61-22.24)
Motivated by professional guidelines	0.49 (0.21-1.11)	Motivated by efficacy studies	2.17 (1.22-3.94)
		Concerned by antimicrobial resistance	0.29 (0.15-0.53)
		Concerned about increase in patient risk behaviors	0.80 (0.44-1.47)



Limitations

- IAS-USA practitioners are a knowledgeable cohort may be early adopters of doxyPEP
- Practitioners familiar with and knowledgeable about doxyPEP may have favorable opinions towards doxyPEP and may be more likely to respond to the survey
- We could not determine if the lack of association between specialization and the outcomes was because these practitioners shared similar opinions or because they were members of the same experienced practitioner network

Conclusions and Future Directions

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- Practitioners responding to this survey were highly knowledgeable and favorable towards doxyPEP as a method of bacterial STI prevention
- No direct associations between HIV/ID specialization and the outcomes
- Primarily motivated to prescribe based on favorable efficacy studies and professional guidelines, with concerns about the emergence of antimicrobial resistance
- Knowledge and efficacy studies as well as favorable perceptions may be associated with prescription practices
- Efforts to increase prescription should focus primarily on targeting non-networked practitioners and using early adopters to help disseminate information/best practices