

Patient Perspectives and Testing Uptake with Abbreviated versus Standard Pre-test HIV Counseling in the Prenatal Setting: A Randomized-Controlled, Non-inferiority Trial

Deborah Cohan, MD, MPH¹, Elvira Gomez, MPH¹, Edwin Charlebois, MPH, PhD²

University of California San Francisco: ¹Department of Obstetrics and Gynecology; ²Department of Medicine, Division of Prevention Science



Abstract

Objective

To compare the acceptability of standard versus abbreviated HIV pre-test counseling strategies among a sample of low-income, urban, ethnically diverse prenatal patients.

Methods

This study was a randomized-controlled, non-inferiority trial of abbreviated versus standard pre-test HIV counseling among English- and Spanish-speaking pregnant women. All participants received either abbreviated or standard nurse-performed pre-test counseling at the initial prenatal visit. After the nurse-performed counseling, blinded study staff administered the low-literacy O'Connor Decisional Conflict Scale (DCS). Upon the patients' return for a follow-up visit, within 2-4 weeks, the study staff administered a second satisfaction survey following HIV test result disclosure.

Results

This final intention-to-treat analysis is based on 278 women enrolled -- 134 (48.2%) in the abbreviated arm (AA) and 144 (51.8%) in the standard arm (SA). Women in the 2 groups were similar at baseline, with no statistically significant differences in age, race/ethnicity, primary language, or provider type. There was no significant difference in the proportion of women with low decisional conflict (71.6% in AA vs. 76.4% in SA, $p=0.37$), and the observed difference did not exceed the non-inferiority margins. Likewise, women in the 2 arms expressed similar overall satisfaction with their decision to test for HIV (97.8% in AA vs. 99.3% in SA, $p=0.28$). However, women in AA had significantly lower mean knowledge scores (78.4% correct) compared to women in SA (83.7% correct, $p<0.01$). Overall testing uptake was very high (97.5%) and did not differ significantly between the 2 groups (98.5% in AA vs. 96.5% in SA, $p=0.29$). Lastly, the 2 groups did not differ significantly at the time of their follow-up visit with regard to satisfaction with disclosure or decision to take or not take the test.

Conclusions

This study suggests that streamlining the pre-test counseling process, while associated with lower knowledge, does not compromise patient decision making or satisfaction regarding HIV testing.

Background

- In the US, an unacceptably high percentage of pregnant women do not undergo prenatal HIV testing.
- Several observational studies have found increased uptake of prenatal HIV testing with streamlined pre-test counseling.
- A retrospective chart review of pregnant women accessing prenatal care at SFGH Women's Health Clinic (WHC) showed that due to the change in standard of care at SFGH, from a dedicated HIV counseling and testing service (HAPS) to provider-performed counseling and testing, prenatal HIV testing uptake at SFGH increased from 52% in 2003 to 93% in April 2006.
- The Centers for Disease Control has advocated for streamlined pre-test HIV counseling and testing.
- There have been few studies to assess patient perspectives on and testing uptake associated with abbreviated pre-test counseling.



Funding:
NIH-K23DA016174
Pfizer Investigator-initiated grant

Methods

- Setting:** San Francisco General Hospital (SFGH) is the public hospital of the City and County of San Francisco and is affiliated with the University of California, San Francisco.
- Design:** This study was a randomized-controlled, non-inferiority trial of abbreviated versus standard nurse-performed pre-test HIV counseling among English- and Spanish-speaking pregnant women.
- Primary outcome:** Decisional conflict score (dichotomized ≤ 25 , >25)
- Additional outcomes:** Decisional conflict score (continuous), satisfaction with decision to test/not test, basic HIV knowledge, and testing uptake.
- Study procedures:** Prenatal nurses conducted either abbreviated or standard HIV pre-test counseling. (See scripts below.) Following the initial prenatal visit with the nurse, blinded study staff administered the low-literacy O'Connor Decisional Conflict Scale (DCS) and a structured questionnaire assessing basic HIV knowledge. Upon the patients' return for a follow-up visit, within 2-4 weeks, study staff administered a second satisfaction survey following HIV test result disclosure by the medical provider. (See Figure 1.)
- Analysis:** Differences were evaluated between the study arms in the proportion of women with low decisional conflict (DCS score ≤ 25), mean knowledge scores, proportion of women reporting overall satisfaction with their decision regarding HIV testing, and uptake of HIV testing using Chi-square or Student's t-tests as appropriate. P-value less than 0.05 was considered statistically significant.

Abbreviated Pre-test Counseling Script

We do the following tests on all pregnant women as part of routine prenatal care:

- Blood type and blood count
- Gonorrhea, chlamydia, syphilis, hepatitis B, tuberculosis, and HIV (Human Immunodeficiency Virus)
- Verification of vaccination against Rubella (German measles)
- Blood sugar
- Urine testing for infection
- Pap smear

We will perform an HIV test on you during pregnancy unless you refuse the test. Do you have any questions?

Standard Pre-test Counseling Script

We recommend that all pregnant women get tested for HIV (Human Immunodeficiency Virus) during pregnancy. We do an HIV test as part of routine prenatal care. We will perform an HIV test on you during pregnancy unless you refuse the test.

HIV is the virus that causes AIDS. People with HIV can pass it to others even if they look and feel healthy. A person with HIV can pass the virus through sex without a condom or sharing needles. A mother with HIV can pass the virus to her baby during pregnancy, childbirth, or breastfeeding. A mother with HIV can take medicine during pregnancy and childbirth to lower the chance of passing the virus to her baby. This medicine can also help HIV-infected women stay healthy and live longer.

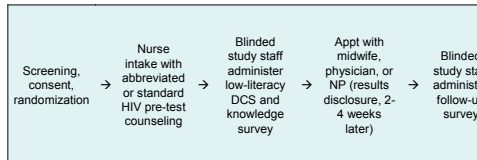
We check for HIV with a blood test. It can take up to 3 months after getting the virus for someone's blood to show HIV.

*A **NEGATIVE** test means that either you do not have HIV, or you may have gotten HIV recently and the virus has not shown up yet on the test. *A **POSITIVE** test means that you have HIV, and your medical provider will offer you

treatment options. HIV testing is voluntary and confidential. You will still get regular prenatal care even without the test, but we strongly recommend that you get tested. No one but the providers caring for you will see your results.

We report all positive HIV test results to the Department of Public Health. The results are always kept private and confidential. Do you have any questions?

Figure 1. Study flow



Results

- 278 women enrolled in the trial, 134 randomized to the abbreviated arm and 144 randomized to the standard arm.
- Women in the 2 groups were similar at baseline, with no statistically significant differences in age, race/ethnicity, primary language, or provider type.
- There was no significant difference in the proportion of women with low decisional conflict (71.6% in AA vs. 76.4% in SA, $p=0.37$), and the observed difference did not exceed the non-inferiority margins.
- Likewise, women in the 2 arms expressed similar overall satisfaction with their decision to test for HIV (97.8% in AA vs. 99.3% in SA, $p=0.28$).
- However, women in AA had significantly lower mean knowledge scores (78.4% correct) compared to women in SA (83.7% correct, $p<0.01$).
- Overall testing uptake was very high (97.5%) and did not differ significantly between the 2 groups (98.5% in AA vs. 96.5% in SA, $p=0.29$).
- Lastly, the 2 groups did not differ significantly at the time of their follow-up visit with regards to satisfaction with disclosure or decision to take or not take test.

Table 1. Participant characteristics (n=278)

	Abbreviated (n=134)	Standard (n=144)	p-value
Mean age (SD), years	26.39 (5.3)	26.99 (6.1)	0.38
Ethnicity, No. (%)			
White	8 (6.0)	16 (11.1)	0.13
Black	23 (17.2)	19 (13.2)	0.36
Hispanic/Latina	84 (62.7)	98 (68.1)	0.35
Asian/Pacific Islander	18 (13.4)	11 (7.6)	0.11
Mixed/Other	1 (0.7)	0 (0)	0.23
Primary Language, No. (%)			
English	62 (46.3)	63 (43.8)	0.67
Spanish	72 (53.7)	81 (56.3)	0.67
Provider Type, No. (%)			
Midwife	82 (61.2)	96 (66.7)	0.34
Nurse Practitioner	13 (9.7)	10 (6.9)	0.4
Physician	39 (29.1)	38 (26.4)	0.61

Table 2. Decisional conflict, satisfaction, knowledge, and testing uptake

	Abbreviated n=134 (48.2)	Standard n=144 (51.8)	p-value
Decisional Conflict Score (mean, SD)	19.9 (21.0)	16.0 (17.4)	0.09
Decisional Conflict Score, No. (%)			
Low (≤ 25)	96 (71.6)	110 (76.4)	0.37
High (>25)	38 (28.4)	34 (23.6)	0.37
Satisfaction w/decision to test/not test, No. (%)	131 (97.8)	143 (99.3)	0.28
Knowledge Score (mean, SD)	78.4 (15.5)	83.7 (13.2)	<0.01
Testing Uptake, No. (%)	132 (98.5)	139 (96.5)	0.29

Table 3. Satisfaction with disclosure, decision, comfort waiting for results*

	Abbreviated n=121 (90.3)	Standard n=125 (86.8)	p-value
Satisfied w/how results given	121 (100.0)	121 (99.2)	0.32
Glad tested/not tested	121 (100.0)	124 (99.2)	0.32
Regret taking/not taking test	1 (0.8)	1 (0.8)	0.98
Comfortable waiting for results	111 (91.7)	111 (91.0)	0.84
Know about HIV/AIDS as much as you want	90 (74.4)	97 (77.6)	0.55
Questions answered	118 (97.5)	116 (95.1)	0.31

* Loss to follow-up between nurse visit and medical f/u visit: 13 women (9.7%) in abbreviated arm; 19 (13.2%) in the standard arm.

Conclusions

- This study suggests that streamlining the pre-test counseling process, while associated with lower knowledge, does not compromise patient decision making or satisfaction regarding HIV testing.
- While knowledge scores were statistically significantly lower among women randomized to the abbreviated study arm, knowledge scores were overall high among women in both arms of the trial, and the difference seen between the 2 groups is likely of limited clinical significance.
- While there were no differences seen in testing uptake in our study, universal, abbreviated pre-test counseling will likely be easier to systematically implement in the prenatal setting and may be associated with increased HIV testing uptake on a population level.

Contact:
Deborah Cohan, MD, MPH
415-206-3658
cohand@obgyn.ucsf.edu