

Increasing Access to Emergency Contraception Through Online Prescription Requests

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OBJECTIVE: To describe a pilot program, Plan B Online Prescription Access, to provide easy access to prescriptions for emergency contraception via the Internet.

STUDY DESIGN: We measured electronic prescriptions for Plan B by month over time. Pharmacists faxed patient-generated prescriptions back to the Department of Public Health for confirmation.

RESULTS: Despite no marketing, within the first 18 months of the program, 152

electronic prescriptions were requested by 128 San Francisco female residents for Plan B. Seventy-eight prescriptions were filled (51%) by pharmacists.

CONCLUSION: If correctly marketed, online prescriptions for Plan B have the potential to be an effective means of increasing emergency contraception access in both urban and rural settings across the United States. Further user-acceptability studies are warranted. (J Reprod Med 2009;54:0000–0000)

Keywords: emergency contraception, oral contraceptives, unplanned pregnancy.

In August 2006 the U.S. Food and Drug Adminis-

tration (FDA) announced its decision to make Plan B, an emergency contraception (EC) method, available over the counter to women 18 years of age and over. In 2009 the FDA announced that it would make plan B available to women 17 years of age and over. Plan B remains available by prescription for women age 16 and younger.

Multiple studies have proven the safety and efficacy of EC to prevent pregnancy when taken within 72 hours of unprotected intercourse.¹⁻⁴ With increasing time since unprotected sex, the efficacy of EC is found to decline. For instance, progestin-only EC, also known as Plan B, was found to be 95% effective at preventing expected pregnancy when taken within 24 hours, 85% effective when taken within 25–48 hours and only 58% effective when taken within 49–72 hours.² Increasing access to EC would ensure more timely and effective use of the medication. Mathematical modeling based on population data predicts EC has the potential to prevent 1.7 of the 3.1 million unintended pregnancies that occur in the United States each year and 0.8 of the 1.6 million abortions performed in the United States annually.⁵

We created an easy and accessible method of obtaining a prescription for EC via the Internet.

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Whether EC can fulfill this potential for decreasing unintended pregnancies depends on a woman's ability to easily obtain and use EC within 72 hours. To reduce barriers to obtaining EC, we created an online prescription program for EC called Plan B Online Prescription Access—a unique program developed to increase access to Plan B within the 72-hour window of efficacy. Plan B Online Prescription Access allows San Francisco residents access to a physician-generated computerized prescription for Plan B through the San Francisco Department of Public Health (SFDPH) (<http://www.sfcityclinic.org>) (Figure 1). A woman simply enters her name to obtain a completed prescription (Figure 2). In the first 6 months women were asked to enter their birth dates, but birth dates are no longer recorded by the program.

Users have the option of printing the prescription themselves or electronically faxing the prescription via the Web site directly to an available listing of local pharmacies. With either choice, an additional copy of the prescription is faxed to the Department of Public Health from the system in order to monitor the use and utility of the program. Pharmacists are also requested to fax a copy of the filled prescriptions to the Department of Public Health.

This program allows women to access Plan B easily, via the Internet, without a clinician visit. Using this program, women are able to avoid verbally requesting Plan B from a pharmacist and the associated pharmacist counseling fee.

Methods

Each time a woman uses the program a copy of the prescription is generated. The number of prescriptions, the prescription date and the participant birth date (if available) were used to generate the data for this study.

We compared rates of prescriptions over time and with the number of Plan B prescriptions written at the municipal sexually transmitted diseases clinic, San Francisco City Clinic, during that same period.

The Web site link was established using a company called Internet Sexuality Information Services, Inc. (Oakland, California). All prescriptions faxed back to the SFDPH are encrypted. Each fax costs 10 cents to send. Start-up costs included computer programming and Interfax software (Interfax, Inc., London, U.K.), totaling <\$5,000.

Results

Despite no marketing, within the first 18 months (between January 2007 and June 2008), 152 Plan B prescriptions were requested by 128 San Francisco female residents. Seventy-eight filled prescriptions were faxed to the Department of Public Health by pharmacists (51% of the requested prescriptions).

During the first 8 months birth dates were recorded. During this time, the age range was 15–35, and the median age was 21 years. Thirty-two percent of those users were among women aged 17 and younger. In comparison, 619 EC prescriptions were

The screenshot shows the San Francisco City Clinic website interface. The main heading is "PRESCRIPTION FOR EMERGENCY CONTRACEPTION". The text explains that users can get emergency contraception (Plan B) over-the-counter if they are over 18. It also mentions insurance coverage and a \$10 consult fee for those without insurance. A "MORE INFO ON PLAN B" section lists links for "Not2Late", "Plan B Website-Duramed Pharmaceuticals", and "EC Help-Pharmacy Access". Below this, there is a section titled "FILL IN THE INFORMATION BELOW, THEN CLICK 'GET A PRESCRIPTION'." followed by a form field for "FIRST NAME". The sidebar on the right contains sections for "ASK DR. K." (with a question about HPV), "YOUR PARTNERS" (with a message about STDs), and "GET TESTED" (with a message about prevention).

Figure 1 Online prescription access.

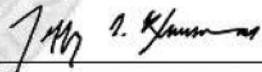
Print Prescription <input type="button" value="PRINT"/>	Fax Prescription Select Pharmacy <input type="button" value="FAX"/>
<p align="center">Dr. Jeffrey D. Klausner STD Prevention and Control Services, San Francisco Department of Public Health 1360 Mission Street, Suite 401, San Francisco, CA 94103 Phone (415) 355-2000 Fax: (415) 554-9636</p> <p>Name: sample sample Today's Date: 8/4/2008 Phone Number: 415-555-5555</p> <p>Rx Plan B, Levonorgestrel 0.75mg Two tablets orally once Dispense # 1 packet</p> <p align="center"> Jeffrey D. Klausner, MD, MPH</p> <p align="center">NOTE TO THE PHARMACIST: Please fax a copy of this prescription AFTER medicine is dispensed to the San Francisco STD Controller, Dr. Jeffrey D. Klausner, at 415-554-9636, to help monitor use of this service. <i>This prescription does not replace the need for a medical examination.</i></p>	

Figure 2 Sample prescription.

written during that same period at the San Francisco City STD Clinic. Of these, only 6% were for woman under the age of 18. Thus, the online program provided an additional 25% above the number of prescriptions that the busy and well-established municipal STD clinic did in the same period. The online program also provided EC to a greater proportion of women under the age of 18.

Discussion

We created an easy and accessible method of obtaining a prescription for EC via the Internet. Online access to Plan B eliminated the requirement of a clinician visit. Even with advance provision of EC, a woman must initially obtain a prescription from a clinician if she is under 17, and she must visit a pharmacist if she is 17 or older. Some might argue requiring a clinician visit encourages women to see a medical professional, providing the opportunity for reproductive health counseling and STD screening. The concept of creating barriers to EC to improve health care maintenance has not been validated. Furthermore, studies have shown EC use is associated with subsequent initiation of a primary

contraceptive method.^{6,7} Women may be more likely to seek health care maintenance and primary contraception as a result of increased attention to reproductive choices. Discussing a patient's contraceptive choices and sexual history may be better suited to a private office than a busy public pharmacy.

One advantage of hosting the program through the Department of Public Health Web site is the link to a sex education question and answer forum (www.askdrk.org). Users can easily access information, and ask questions, about reproductive issues, STDs and appropriate as well as the most effective use of EC.

Limited awareness and high cost have both been cited as barriers to EC use.^{8,9} Although Plan B is sold over the counter, a woman must know about it, request it from a pharmacist and in some settings pay a pharmacist a counseling fee of \$10–15. Private insurance and California public insurance programs cover the cost of the medicine, but without insurance the cost of Plan B is approximately \$40 in California (average \$26 nationwide). Through increasing access to obtaining EC and eliminating the cost

of the pharmacist counseling fee, a large-scale online prescription-generating program such as this one will probably contribute to increased use of EC.

There are several limitations to this study. The lack of demographic information available precluded a more thorough evaluation of the characteristics of the population using the program. Due to privacy concerns, we were unable to contact the women who requested Plan B online prescriptions. We were, therefore, not able to look at variables such as primary method of birth control, rate of unprotected sex, satisfaction with method of access and rates of undesired pregnancy.

The system provides a record of all the requested prescriptions so we have an accurate estimate of the intended use. We also know that around half of the prescriptions were filled because pharmacists faxed copies of the prescriptions to the Department of Public Health. This number, however, probably underestimates the actual number of filled prescriptions, as it is unlikely that all pharmacists faxed the prescriptions to the DPH after filling them. It is also unknown how many of these filled prescriptions were then actually used.

In the future it will be necessary to determine any barriers or facilitators of using this Internet-based prescription access program to increase utilization of emergency contraception. By further understanding who is aware of, and using, the program, new social marketing efforts can also be implemented and evaluated. Last, a more accurate monitoring system should be developed that allows the determination of intended vs. actual use.

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References

1. Task Force on Postovulatory Methods of Fertility Regulation: Randomised controlled trial of levonorgestrel versus the Yuzpe regimen of combined oral contraceptives for emergency contraception. *Lancet* 1998;352:428–433
2. Trussell J, Ellertson C, von Hertzen H, et al: Estimating the effectiveness of emergency contraceptive pills. *Contraception* 2003;67:259–265
3. Espinos JJ, Senosiain R, Aura M, et al: Safety and effectiveness of hormonal postcoital contraception: A prospective study. *Eur J Contracept Reprod Health Care* 1999;4:27–33
4. Yuzpe AA, Lancee WJ: Ethinylestradiol and dl-norgestrel as a postcoital contraceptive. *Fertil Steril* 1977;28:932–936
5. Davidoff F, Trussell J: Plan B and the politics of doubt. *JAMA* 2006;296:1775–1778
6. Jackson RA, Schwarz EB, Freedman L, et al: Advance supply of emergency contraception: Effect on use and usual contraception: A randomized trial. *Obstet Gynecol* 2003;102:8–16
7. Lo SS, Fan SY, Ho PC, et al: Effect of advanced provision of emergency contraception on women's contraceptive behaviour: A randomized controlled trial. *Hum Reprod* 2004;19:2404–2410
8. Moreau C, Bouyer J, Goulard H, et al: The remaining barriers to the use of emergency contraception: Perception of pregnancy risk by women undergoing induced abortions. *Contraception* 2005;71:202–207
9. Sorensen MB, Pedersen BL, Nyrnberg LE: Differences between users and non-users of emergency contraception after a recognized unprotected intercourse. *Contraception* 2000;62:1–3