Contraception 100 (2019) 351–353

Contents lists available at ScienceDirect

Contraception

journal homepage: www.elsevier.com/locate/con

Commentary

# Telemedicine for medication abortion

Ushma D. Upadhyay *, Daniel Grossman

*Advancing New Standards in Reproductive Health (ANSIRH), Bixby Center for Global Reproductive Health, Department of Obstetrics, Gynecology and Reproductive Sciences, University of California, San Francisco, Oakland, California*

ARTICLE INFO

*Article history:*
Received 27 June 2019
Received in revised form 13 July 2019
Accepted 15 July 2019

*Keywords:*
Abortion
Telemedicine
Food and Drug Administration (FDA)
Medication abortion

## 1. Introduction

Many people throughout the United States (U.S.) face financial, transportation, legal and other barriers to reaching an abortion facility. Access to abortion care is geographically inequitable. We have 27 abortion deserts, defined as major cities with no provider within 100 miles, mostly in the Midwest and South [1]. Traveling long distances for care poses challenges beyond extra time in transit, particularly for patients with low incomes. Longer travel distance means increased costs for gas or public transit fare, hotel, loss of wages from time off work, as well as childcare. These numerous barriers to accessing timely care could be mitigated with direct-to-patient telemedicine, with distribution of medications through the mail.

In this issue, Raymond et al. [2] published long-awaited results from Gynuity's Telabortion study. This study is pioneering as the first published evidence of the feasibility and acceptability of a direct-to-patient model of telemedicine for abortion in the U.S. The findings are encouraging. The service was feasible, and among those with follow-up data, 94% had a complete abortion with no intervention needed, an effectiveness similar to in-clinic dispensing of medication abortion [3]. The findings are also similar to a report describing a similar direct-to-patient telemedicine service in Australia [4].

At 77%, the percentage of participants who provided follow-up data leaves questions regarding outcomes among those lost; however, this loss to follow-up is comparable to those of other telemedicine studies for abortion (with follow-up rates of 62%–79%) [4–8]. Follow-up among abortion patients is impacted by stigma, which can deter participants from remaining in contact with providers after the procedure. Future studies should prioritize higher follow-up, perhaps experimenting with new technologies to improve final contact with participants such an SMS, Snapchat or WhatsApp. Employing these contact methods would require patient consent and care that protected health information remains private.

## 2. Research shows that telemedicine for abortion is safe

While other research has demonstrated the safety of clinic-to-clinic telemedicine for medication abortion [9], this study offers a glimpse at safety outcomes for the direct-to-patient telemedicine model. Among the 217 study participants with follow-up data, 2 had major adverse events. With standard in-clinic dispensing of medication abortion, such events are extremely rare, occurring in 0.3%–0.7% of patients [10,11]. While much larger samples are needed to establish equivalence in safety to in-clinic dispensing with confidence, these data are promising. A total of 7% made abortion-related emergency department (ED) visits, which is slightly higher than the 4% rate found in two previous studies of abortion-related ED visits after medication abortion in California using 2009–2010 [10] and 2011–2012 data [12]. About half of the post-telemedicine visits to the ED received observation care only, which is similar to the rate found in an analysis of abortion-related ED visits nationally [13], suggesting that ED visits are not a useful indicator of abortion safety.

The promise of telemedicine to alleviate geographic disparities in abortion access is limited by several legal hurdles. These barriers are generally political in nature and not supported by medical science. Currently, 17 states prohibit telemedicine for abortion, with some laws requiring the clinician to be in the same room as the patient [14]. The mifepristone Risk Evaluation and Mitigation Strategy (REMS) program imposed by the FDA governs the locations where mifepristone can be dispensed, stating that it must be "dispensed to patients only in certain healthcare settings, specifically clinics, medical offices and hospitals, by or under the supervision of a certified prescriber" [15]. The REMS prohibits

☆ Declaration of interest statement: The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

* Corresponding author.
*E-mail address:* ushma.upadhyay@ucsf.edu (U.D. Upadhyay).

https://doi.org/10.1016/j.contraception.2019.07.005

mail-order pharmacy dispensing, although it may allow clinicians to mail mifepristone directly to patients. Regardless, there is no medical justification for the mifepristone REMS, and it is long past time for it to be removed [16].

## 3. Telemedicine is well-liked by patients and could help patients obtain an abortion sooner

Individuals who chose telemedicine in Gynuity's Telabortion study reported high levels of satisfaction and acceptability. Given the substantial barriers to obtaining an in-clinic abortion, telemedicine offers patients an array of potential benefits. Individuals report interest in telemedicine models for greater privacy and convenience [17,18]. It also could allow individuals to avoid appointment wait times and have their abortion sooner.

Longer travel distances, which increase costs and logistical difficulties, can push pregnant people past the gestation at which they are eligible for medication abortion [19,20]. In Texas, second-trimester abortion increased after several abortion restrictions were imposed, including limitations on medication abortion, which led to obstacles accessing care earlier in pregnancy [21]. Evidence from a clinic-to-clinic telemedicine study provides some evidence that it may enable patients to get an abortion earlier in pregnancy — patients obtaining an abortion in the 2 years after the service was introduced in Iowa had a significantly higher odds of obtaining a first-trimester abortion compared to the 2 years before the program was introduced [22]. Thus, the use of telemedicine could allow earlier use of medication abortion thereby potentially reducing incomplete abortion rates, which rise with increasing gestation [23,24]. Further research is needed to assess this.

## 4. Reducing clinical tests could enhance patient-centered care

Of note, among the 433 individuals who were screened for Gynuity's Telabortion model, 38% declined the evaluation or did not keep their appointment and thus did not participate in the study. Among those who gave reasons, about half had concerns about logistics or the time involved. Additionally, recruitment was slow, requiring 32 months to enroll 248 patients. Taken together, this suggests that the requirement that patients obtain a preabortion ultrasound and other tests may have dissuaded interest in obtaining care through this model. With a median of 9 days from the initial screening to ingestion of mifepristone, telemedicine for abortion could be more efficient by relying on menstrual history to date pregnancies for those who are certain of their last menstrual period and have no risk factors for ectopic pregnancy. Research comparing certain last menstrual period to ultrasound dating demonstrates such an approach is 98% accurate for identifying patients within the eligible gestational limit for medication abortion [25]. Based on this study finding and others [26,27], individuals with regular menstrual cycles and low risk for ectopic pregnancy who are 8 weeks or less based on reported last menstrual period can have a medication abortion without ultrasound [28].

Indeed, evidence is mounting in support of demedicalized models of telemedicine for abortion care. In a "no touch" study done in U.S., Moldova and Mexico where gestational age was determined based on menstrual history alone without an ultrasound or pelvic exam, the success rate (95%) and severe adverse event rate (0.8%) were comparable to published rates using a "hands on" approach using ultrasound [29]. Accordingly, the American College of Obstetricians and Gynecologists guidelines specify that gestational age can be confirmed by either clinical evaluation or ultrasound [30]. In addition, the National Abortion Federation's Clinical Policies Committee recently issued a recommendation that providers forego Rh testing and anti-D immunoglobulin for women having any type of induced abortion before 8 weeks [31]. Of course, some telemedicine patients will need to be referred for additional screening, an ultrasound or other tests, but for many patients, screening and review of medical history may be sufficient.

Given that financial costs are one of the most commonly cited barriers to obtaining care [32–34], overall, costs of a telemedicine abortion would be lower if such tests were not required at all. Without an ultrasound, ectopic pregnancies (occurring among 1%–2% of pregnancies) are less likely to be detected. After being informed of this risk and potential symptoms to look out for, patients could decide for themselves whether they want to obtain an ultrasound. Future research is needed to test the feasibility, safety and acceptability of a direct-to-patient telemedicine model without in-person tests in the U.S.

Telemedicine can contribute to patient-centered care by offering an additional choice of service delivery that meets patient needs for convenience and confidentiality. The benefits of telemedicine may improve quality of care as defined by the National Academies of Sciences, Engineering and Medicine [35] by improving safety, patient centeredness, timeliness and geographic equity and by reducing costs, currently a major barrier to access. It is our hope that Gynuity's telemedicine model will continue and expand to new states and that new telemedicine models that further reduce the obstacles to care can be tested to demonstrate the safety and effectiveness of this approach as a means of expanding access to abortion care. We expect that data from such studies will continue to clearly demonstrate the safety and effectiveness of telemedicine abortion, providing additional evidence that the REMS and telemedicine bans are medically unjustified.

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