

ISSUE BRIEF, JULY 2020

Abortion Pill "Reversal": Where's the Evidence?

Since 2015, legislators in at least twenty states have introduced bills that would require clinicians to inform patients during pre-abortion counseling that the abortion pill can be "reversed" if the patient were to change their mind after taking it. This is despite the fact that there is no rigorous evidence documenting the safety and effectiveness of "reversal" treatment. So-called abortion "reversal" bills have been passed into law and implemented in six states as of 2020: Arkansas, Idaho, Kentucky, Nebraska, South Dakota, and Utah.

What is abortion pill "reversal"?

Abortion pill "reversal" is an experimental treatment developed by Dr. George Delgado that involves administering repeated doses of progesterone after a patient has taken mifepristone in order to attempt to stop the abortion process.^{1,2} Mifepristone is the first of two drugs used for medication abortion: it works to block progesterone, known as the "pregnancy hormone," which causes the pregnancy to detach from the uterine lining. The unproven hypothesis behind abortion pill "reversal" is that the progesterone will counteract the effect of the mifepristone. Even if the concept of "reversal" is biologically plausible, rigorous testing of the protocol should be required in order to determine whether it is effective and safe.

Is abortion pill "reversal" effective? Is it safe?

Mifepristone taken by itself is not a very effective abortifacient on its own. The published data are limited, but the one study that looked at

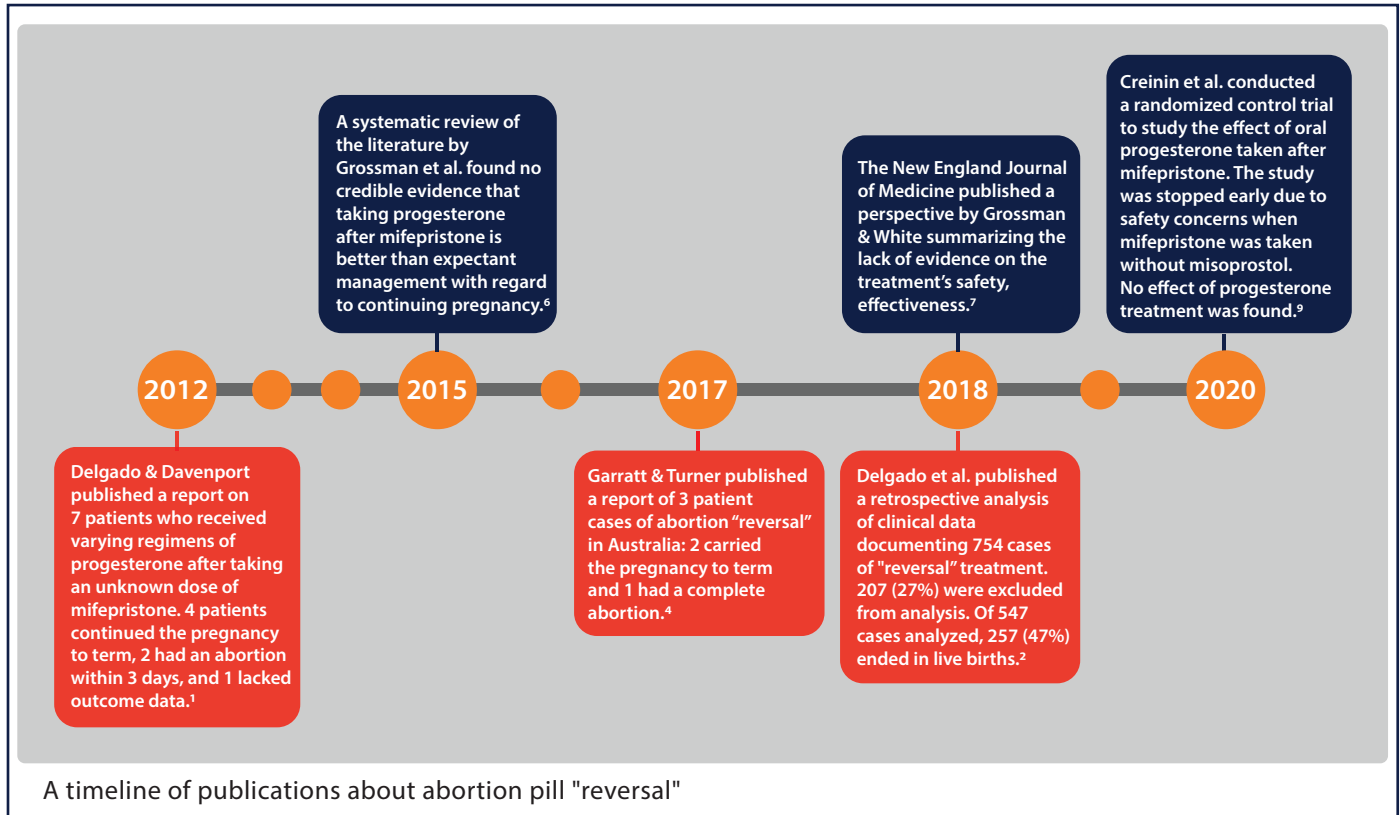
mifepristone 200 mg taken alone found that 23% of patients had a continuing pregnancy 7 days later.³ This study included patients pregnant only through 49 days' or 7 weeks' gestation. There is no evidence that progesterone treatment increases the chance of the pregnancy continuing, and a recent study raises concerns about its safety.

The initial reports on "reversal" included three case series, each of which had significant limitations.^{1,2,4} None of the reports includes a comparison group or appropriate oversight by an ethics committee. Some patients in these case series had an ultrasound before receiving treatment, and only those with continuing pregnancies were given progesterone. Patients with a continuing pregnancy 1-2 days after mifepristone are much more likely to have a pregnancy that continues to term, so this pre-selection of patients inflates the success rate of "reversal" treatment.⁵ In addition, the largest of these case series included 754 patients who received progesterone but reported outcomes

What is medication abortion?

Medication abortion (also known as the abortion pill) is an FDA-approved method that is safe, effective and preferred by many patients seeking an early abortion up to 10 weeks in pregnancy. Medication abortion involves two drugs, mifepristone and misoprostol, usually taken 24 to 48 hours apart. The mifepristone blocks the pregnancy hormone, progesterone, and the misoprostol causes the uterus to expel the pregnancy. As of 2017, medication abortions account for approximately 60% of all eligible abortions in the United States.

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only for 543 patients (72%).² Safety data were not systematically collected and reported on in these case series.

A systematic review of literature on the topic concluded in 2015 that there is no credible evidence that abortion "reversal" improves the chances of continuing pregnancy.⁶ A report that reanalyzed data from the case series in 2018 found no significant difference in continuing pregnancy after progesterone treatment compared to expectant management after mifepristone alone.⁷ In 2019, a commentary looking at previous reviews and case series underscored the lack of evidence around "reversal" and called for quality research on the treatment.⁸

An IRB-approved randomized controlled trial designed to study the effectiveness of progesterone to prevent medication abortion after mifepristone was launched in 2019.⁹ Though the randomized control trial's study design was far more rigorous than the previous case series, it was stopped early

due to safety concerns after three participants experienced hemorrhage requiring ambulance transport to the hospital. With 12 participants, the sample size was not sufficient to draw conclusions about the safety or effectiveness of "reversal" treatment. However, the findings raise concerns that patients who take mifepristone and do not complete the medication abortion regimen with misoprostol may be at risk of heavy bleeding.

The American College of Obstetricians and Gynecologists (ACOG) does not support the use of progesterone to "stop" a medication abortion due to the lack of scientific evidence. In order to test clinical effectiveness and safety of an abortion pill "reversal" protocol, a larger randomized clinical trial is needed. Rigorous testing of a clinical protocol should occur with results demonstrating its safety and efficacy before states consider laws that mandate counseling about that protocol. The US Food and Drug Administration (FDA) has not evaluated the treatment.

Do patients change their mind after starting medication abortion?

State policies that require clinicians to counsel on abortion pill "reversal" assume that patients who seek medication abortion are unsure of their decision to have an abortion. Research from ANSIRH shows that this is false.¹⁰ In the days after an abortion, the overwhelming majority of women report that it was the right decision,¹¹ and five years later, almost all women (99%) said it was the right decision.¹² Only 0.004% of patients who took mifepristone between 2000 and 2012 ended up deciding to continue their pregnancies.⁶ States do not typically require clinicians to inform patients that they can reverse other common medical procedures, such as a vasectomy or tubal ligation – so why is it necessary for medication abortion?

Although patients changing their mind about abortion is rare, clinicians should appropriately counsel patients and provide care if they decide they no longer wish to continue the medication abortion process after taking mifepristone. Patients should be counseled about the possible outcomes if they decide not to take misoprostol which could include: complete abortion, incomplete abortion, continuing pregnancy, heavy bleeding, and/or need to seek emergency care. Patients should be counseled that there are no medications or treatments known to improve the chances of continuing the pregnancy at this time.¹³

Does information about abortion "reversal" affect patients' decision-making?

"They made it clear that they had to say [abortion reversal] was possible, but also made it clear that medically it would be a bad decision. It did not affect the way I felt about my decision."

–Arkansas medication abortion patient

In Arkansas, following the passage of an abortion "reversal" bill in 2015, clinicians must counsel all medication abortion patients about the possibility to "reverse the effects of the abortion if the pregnant woman changes her mind." In 2017 and 2018, we conducted a survey with abortion patients recruited at a clinic in Arkansas to explore their perspectives on services. Among 16 patients who had undergone a medication abortion in Arkansas since the "reversal" law was implemented, only one woman reported that the counseling "somewhat" changed the way she felt about her decision to have an abortion. Nevertheless, she completed her medication abortion, said she would recommend it to others, and indicated that if she needed a future abortion she would "definitely" choose it. These limited data suggest that mandated "reversal" counseling has little effect on patients' decision-making around abortion. Instead, laws requiring "reversal" counseling likely serve more to burden providers and confuse patients than to assist those seeking abortion care. If laws mandating information about abortion "reversal" continue to proliferate and are not overturned, more research is needed on patients' perspectives.

State legislative efforts

Twenty states, including six states in the past year, have introduced abortion "reversal" bills since 2015 and six states (Arkansas, Idaho, Kentucky, Nebraska, South Dakota, and Utah) have implemented abortion "reversal" laws — all before evidence has been established on the effectiveness of the treatment. The California Board of Registered Nursing historically approved a course on the procedure for continuing education credit — meaning nurses in the state can choose to learn about the unproven protocol alongside legitimate topics. However, their ability to offer this credit stopped due to the lack of evidence supporting the safety of the practice.

Other states have successfully warded off the adoption of mandated counseling on abortion

"reversal." In Arizona, Planned Parenthood challenged a law in federal court, and the law was later repealed by the legislature. Bills introduced in California, Colorado, Georgia, and North Carolina failed to pass, and the Indiana Senate stopped a bill that had been passed by the House. Reversal laws passed in Kansas and Wisconsin were vetoed by their governors, and laws passed in North Dakota and Oklahoma were temporarily enjoined by courts while legislation proceeds. When legislatures examine the treatment from a scientific perspective, its shortcomings become clear. After the Louisiana Department of Health conducted an investigation into the effectiveness of "reversal" at the state legislature's request, they concluded that "there is insufficient evidence to suggest that there is a sound method to reverse a medication-induced abortion."¹⁴ In Nebraska, a new bill was introduced to eliminate the required "reversal" language since the randomized control trial was stopped early due to safety concerns, but it did not pass. Rigorous evidence demonstrating the safety and effectiveness of abortion "reversal" is essential before clinicians in any state should be required to counsel their patients about the treatment.

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