

# Medical Abortion: What Physicians Need to Know

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## ABSTRACT

While there is heated disagreement in the U.S. about whether elective induced abortion should be legally permitted, presumably all would agree that if abortion is allowed, it should be performed in such a way as to optimize safety for the woman obtaining the abortion. Recent trends affecting the provision of medical abortions demonstrate that the woman's safety may no longer be a priority to many abortion advocates. Medical abortions are consistently documented to have four times the complication rates of surgical procedures, yet abortion providers are increasingly encouraging women to choose this option. Vocal abortion advocates are aggressively using the court systems and pro-choice media sources to advocate for removal of safety restrictions on abortions. They have also begun to advocate for illegal use of mifepristone and misoprostol when restrictions are in place, despite the demonstrated increase in adverse events that occur when these medications are used without close medical supervision. Biased studies performed by those who profit from abortion provision seek to downplay the common nature of complications. A review of the history of mifepristone's FDA approval demonstrates that abortion provision is subject to different standards from other medical interventions.

## History of Medical Abortion

While the total number of abortions is declining in the U.S., the number of medical abortions is increasing.<sup>1</sup> In 2004, only 14 percent of abortions were performed medically, but currently 39 percent of abortions in the U.S. are induced by medication.<sup>2</sup>

There are many reasons to expect this rise to continue, including its lucrative nature, the dwindling numbers of physician abortionists,<sup>3,4</sup> and the rise of laws placing restrictions on surgical abortions. Given the expected increase in prevalence, it is important for physicians to be aware of the health risks associated with these medications.

A medical abortion is usually induced with provision of two medications. Mifepristone (Mifeprex or RU486) blocks progesterone receptors to cut off hormonal support for the pregnancy, which results in disruption of the implantation site and fetal death. Misoprostol (Cytotec) is taken 24-48 hours later to induce contractions to expel the pregnancy tissue.<sup>5</sup>

The Food and Drug Administration (FDA) approved mifepristone for U.S. distribution in 2000 in accordance with a risk evaluation mitigation strategy (REMS). This is a safety strategy applied to medications that have a known or potential

serious risk associated with them.<sup>6</sup> Under this strategy, the risk of complications such as ruptured ectopic pregnancies, hemorrhage, infection, and retained pregnancy tissue, which require surgery in as many as one in 20 women,<sup>7,8</sup> could be minimized. To decrease the likelihood of these negative effects, mifepristone was only approved up to 49 days' gestational age, the provider was registered after specific training, it was only to be dispensed in certain healthcare settings, and the patients were to be informed of the risk of serious side effects. Mifepristone abortion providers were to be able to accurately determine the gestational age, confirm an intrauterine location of the pregnancy, and intervene surgically if the abortion was unsuccessful or a complication resulted. Alternatively, the abortionist could have an agreement with another doctor and facility capable of providing this care. Complication reporting was mandated, as was a 14-day follow-up visit for the woman.<sup>9</sup>

Finally, a black-box warning was assigned. "If mifepristone/misoprostol results in incomplete abortion, surgical intervention may be necessary. Prescribers should determine in advance and give clear instructions whom to call and what to do in case of emergency. Medical abortion is contraindicated if there is no access to medical facilities for emergency services."<sup>10</sup>

Many physicians and patients alike may be unaware that complications occur four times more frequently from medical as compared to surgical abortions.<sup>11</sup> The average woman bleeds for nine to 16 days, and eight percent will bleed longer than a month. One percent will require hospitalization, one percent will have ongoing viable pregnancies (it will fail to kill the fetus), and surgery for incomplete abortion will be required in three to eight percent of cases. If a pregnancy continues to birth, teratogenic effects such as clubfoot, cranial nerve anomalies, and limb abnormalities related to misoprostol are sometimes seen.<sup>12</sup> The side effects of cramping, vaginal bleeding, hemorrhage, nausea, weakness, fever/chills, vomiting, headache, diarrhea, and dizziness occur in almost all women.<sup>13</sup>

Within a few years of mifepristone's approval, new safety information was released based on thousands of complications reported to the Adverse Event Reporting System (FAERS).<sup>14</sup> To date, 24 deaths have been reported, many from an unusual *Clostridium sordellii* sepsis<sup>15</sup> or from ruptured ectopic pregnancies, because mifepristone has no effect on a pregnancy that is not implanted in the uterus. A previously healthy 21-year-old woman died of a heart attack.<sup>9</sup> A new black-box warning was generated: "Watch for atypical presentation of infection, prolonged heavy bleeding, ensure the patient knows who to call and to alert the ER of mifepristone use if she presents there."<sup>10</sup>

Despite the high reported complication rates, a supplemental application was approved by the FDA in 2016, which loosened these restrictions. The use was extended until 70 days' gestational age, despite very few studies and much higher failure rates in higher gestational ages.<sup>16</sup> There was modification of the dose, timing, and route of administration.<sup>17</sup> It was no longer required to report a complication unless it resulted in a woman's death, nor was it required to have a follow-up visit.<sup>9</sup>

### Studies of Medical Abortion Safety

There are some studies performed by researchers employed by the abortion industry and their ideological colleagues that imply that abortion is extremely safe for women. In 2018, the National Academy of Sciences, Engineering, and Medicine (NAS) published a book: *The Safety and Quality of Abortion Care in the U.S.*, which made this assertion and has been widely referenced. The researchers' bias is immediately apparent, because the study was commissioned and funded by six outspoken abortion advocacy organizations: David and Lucile Packard Foundation, Grove Foundation, JPB Foundation, Tara Health Foundation, William and Flora Hewlett Foundation, and Susan Thompson Buffett Foundation (STB), which alone has been estimated to have donated \$1.2 billion to pro-abortion organizations.<sup>18</sup> These researchers performed an extensive literature review but excluded an extraordinary number of studies for perceived defects. Not surprisingly, by primarily using studies performed by fellow abortion advocates, they concluded that serious complications or long-term physical or mental health effects are virtually nonexistent. In fact, they reported that abortion is so safe that the only deterrent to its safety is legislative restrictions enacted by the states that may prevent a woman from accessing an abortion immediately, "creating barriers to safe and effective care."

These researchers concluded that abortions can be performed safely in an office-based setting or by telemedicine without the need for hospital admitting privileges. No special equipment or emergency arrangements are required for a medical abortion. It does not need to be performed by physicians; it can safely be performed by trained certified nurse midwives, nurse practitioners, and physician assistants. They reported that abortion has no long-term adverse effects, and it specifically does not increase the risk of pre-term delivery, mental health disorders, or breast cancer. However, when one examines the research studies they used for their conclusions, the poor quality of the literature regarding long-term complications becomes apparent. For many questions, there were very few or no studies that met their stringent criteria, and they disqualified many studies due to perceived study defects. Thus, in all cases, there were less than five studies on which they based their definitive conclusion of "no long-term impact."<sup>19,20</sup>

A closer look at some of the large studies the NAS referenced show they also contain many flaws. One study reported a very small percentage of emergency room visits for abortion complications, but ignored the reality that documentation

specifying medical abortion complications is very difficult in the ICD-10 system.<sup>21</sup> Another study documented a very low incidence of serious abortion complications by reviewing Planned Parenthood's database, ignoring the facts that most abortionists do not maintain hospital admitting privileges or care for their own case complications. Thus, serious events would be unlikely to be documented in their clinic records.<sup>22,23</sup> Finally, another study reported that 99.6 percent of medical abortions were successful, although 2.1 percent required surgical aspiration. The need for surgery, by definition, would indicate the medical abortions were unsuccessful.<sup>24</sup>

Immediate complications from surgical abortions usually occur due to a surgical misadventure such as cervical dilation creating a false passage, instrumental uterine perforation, or incomplete evacuation of pregnancy tissue. The immediate complications of medical abortions are commonly attributed to hemorrhage or infection from incomplete uterine evacuation and retained pregnancy tissue. But recent research suggests that mifepristone itself may also cause complications of infection and mental health issues through direct pharmacologic effects. Mifepristone also blocks glucocorticoid receptors, which may contribute to an impaired inflammatory response, increasing the risk of infection.<sup>25</sup> In addition, it releases inflammatory cytokines that have been implicated in causing depression. In a rat model, the mifepristone termination group had significantly decreased body weight, food intake, locomotor-related activity, and sucrose consumption, which are all animal proxies for depression and anxiety.<sup>26</sup>

Less biased studies available internationally give a far different picture of the safety of medical abortions. Epidemiologic studies in Finland are of better quality than those in the U.S. because single-payer healthcare and meticulous medical record-keeping ensure that all pregnancies and all medical events are accurately recorded. A study of more than 42,000 women receiving abortions at less than 7 weeks' gestational age documented that adverse events occurred in one in five women who had medical abortions, and almost six percent required surgery. The rate of complications was four times higher in medical than in surgical abortions.<sup>27</sup> Another Finnish study of 18,000 women found an eight percent rate of surgery for medical abortion failures in the first trimester, and an almost 40 percent surgery rate in the second trimester.<sup>28</sup> Finally, a meta-analysis of all available mifepristone/misoprostol studies worldwide, including more than 47,000 women, found a 4.8 percent treatment failure rate, and 1.1 percent continuing pregnancies.<sup>29</sup>

### Data Limitations of Abortion Complication and Abortion-Related Maternal Mortality Rates

When considering the safety of abortion in the U.S., it is important to realize that there are many data limitations affecting the accuracy of these statistics. Due to privacy concerns and non-insurance payment for most abortions, there is no accurate central database that tracks this procedure. As reported earlier, recent studies documenting apparent low

complication rates have been performed by high-volume abortionists and do not reflect the quality of all abortion providers in the U.S. The data regarding abortion-related maternal mortality is even more compromised. A widely reported study asserted that abortion is 14 times safer than childbirth by using four disparate and difficult-to-calculate numbers, with non-comparable denominators. Abortion-related deaths were compared to the number of legal abortions. Maternal deaths were compared to the number of live births.<sup>30</sup> Only live births can be accurately measured due to mandated birth certificates. Yet, only two-thirds of maternal deaths occur in association with a live birth.<sup>31</sup>

It is well documented in the U.S. that at least half of maternal deaths are not reported as pregnancy-related on death certificates.<sup>32,33</sup> Mortality from events in the first half of pregnancy, which are unable to be linked to a birth certificate, are even more difficult to detect, but reliable records-linkage studies from Finland document that 94 percent of abortion-related deaths are not documented as such on the maternal death certificate.<sup>34</sup> This is particularly true for mental health-related deaths that occur remote from the end of the pregnancy.<sup>35</sup> Maternal mortality encompasses all deaths occurring while a woman is pregnant, and within a year after the pregnancy ends. The authors of this misleading study are vocal abortion advocates who knew how limited the Centers for Disease Control and Prevention (CDC) data was, since it was drawn primarily from death certificates, because one of the authors was the former Chief of the CDC Abortion-Surveillance Branch.<sup>36</sup> Clearly, this study was performed for propaganda purposes.

In the U.S., we don't even know accurately the number of abortions that occur. The estimated number of abortions is only voluntarily reported to the CDC by state health departments. In 2017 the states reported 638,169 abortions, but several states, including the state with the largest number (California), do not report any data.<sup>37</sup> By comparison, in 2017 the Guttmacher Institute, which receives its information directly from the abortion providers, reported 926,000 abortions.<sup>38</sup>

Only 28 states require abortion providers to report their complications, but there is rarely an enforced penalty for noncompliance. Only 12 states require other physicians, coroners, or emergency rooms to report abortion-related complications or deaths for investigation, and frequently these other physicians or facilities are unaware of the reporting requirements.<sup>39</sup>

Multiple epidemiologic studies demonstrate that a woman is more likely to remain alive one year following term childbirth than following abortion.<sup>40,41</sup> Finnish studies show that following an abortion, a woman was two to three times as likely to die within a year,<sup>42,43</sup> six times as likely to commit suicide,<sup>44</sup> four times as likely to die from an accident,<sup>45</sup> and 14 times as likely to be murdered. Danish studies and California Medicaid studies demonstrate similar findings.<sup>46-48</sup> It appears that a term birth is protective by reducing risk-taking behavior, whereas an abortion may lead to increased social disruption and increased risk-taking behavior, increasing the likelihood of death within a year.

## Abortion Advocacy and the FDA

It is instructive to examine the circumstances in which mifepristone was approved, as they illustrate the ways in which abortion provision is held to a standard different from other medical procedures in the U.S. In an unprecedented move, then-President Bill Clinton wrote the French manufacturer, Roussel Uclaf, asking them to file a new drug application with the FDA. When they were hesitant to do so due to legal concerns, the UN Population Council gave manufacturing permission to a company created for this specific purpose, Danco.<sup>49</sup>

The FDA failed to follow its own rules on numerous occasions in order to approve this drug. A new drug must have at least two randomized, blind placebo-controlled trials documenting its safety and efficacy, but the submitted trials had no placebo groups.<sup>5</sup> Mifepristone was approved under a special category, "Subpart H: Accelerated Approval Regulations," which are intended for serious/life-threatening illnesses such as advanced cancer and HIV.<sup>50</sup> Also, the FDA based approval on the combined action of the mifepristone with misoprostol, because mifepristone does a poor job of completely evacuating the uterus on its own. They mandated the unapproved use of misoprostol over the objections of its manufacturer, Searle.<sup>51</sup> The FDA is required to test a drug in a pediatric population but waived this requirement without explanation despite adolescent women comprising one-fourth to one-third of its users.<sup>52</sup> Finally, the approved regimen does not mimic clinical trial conditions, as it lacked a required ultrasound and dispensing by an experienced surgeon who had nearby hospital admitting privileges.<sup>53</sup>

Recently, we have seen abortion advocates change their strategy. Whereas once they claimed they wanted abortion to be "safe, legal and rare," now they favor immediate access and convenience for all women experiencing unintended pregnancies, regardless of whether it might be more dangerous for a woman, or whether the law prohibits it. Recent recommendations illustrate this troubling trend, as there have been coordinated efforts to promote the use of medical abortions more widely.<sup>54</sup> Abortion advocates have stated that state-level restrictions on abortion procedures place barriers to access for women who desire abortion, and they warn that women will resort to unsafe illegal procedures if they cannot readily access an abortion.<sup>55</sup> Conversely, they then recommend that women pursue medical abortions illegally if they encounter barriers.<sup>56-58</sup>

In 2017, the American Civil Liberties Union (ACLU) sued the FDA for removal of the Risk Evaluation Mitigation Strategy (REMS).<sup>59</sup> They pursued this action so that even physicians who are not abortion providers can prescribe medical abortions. If this lawsuit succeeds, all physicians will be pressured to prescribe, and all pharmacists will be pressured to distribute abortion drugs, even if it violates their conscience.<sup>60</sup>

There are efforts underway to force taxpayer payment of abortion, even though surveys consistently demonstrate that most Americans oppose such actions. This could be accomplished in several ways: through repeal of the Hyde



Amendment, which prohibits federal funding of abortion,<sup>61</sup> increasing state Medicaid provision of abortion beyond the 15 states that will currently pay for this eugenic action,<sup>62</sup> and legislative mandates for university health systems to provide abortion pills to students.<sup>63</sup>

Although a physical examination and ultrasound<sup>64</sup> are standard care when evaluating a woman seeking abortion, and counseling can best be performed in a face-to-face interview, telemedicine is also being promoted to women, especially those who live remote from an abortion clinic. This will clearly decrease the safety of medical abortion for rural women if there is limited access to emergency services.<sup>65</sup> One survey of abortion providers found that one in three had seen women experience complications from self-managed medical abortion, and only half felt it was safe.<sup>66</sup> Nonetheless, a clinical trial of telemedicine provision by Gynuity is continuing in the U.S.<sup>67</sup>

Mail-order provision of abortion pills is also sought by abortion advocates.<sup>68</sup> A study on obtaining abortion pills from international distributors found that no prescription or clinical information was required, the pills averaged two weeks to arrive, analysis of the medications obtained demonstrated that some misoprostol pills contained only 15 percent of the advertised amount of medication, often the packages arrived damaged, and no instructions were contained in any of the packages. Nonetheless, these pro-choice researchers concluded that it was “feasible” for women to obtain medical abortion pills online.<sup>69</sup>

Because of the restrictions that govern mifepristone prescriptions, sometimes abortion advocates will recommend that women obtain the second abortion pill component only, because it is more readily available. Misoprostol is also used to treat ulcers, so it can be prescribed by any physician. It is easily obtained over the counter in nearby countries such as Mexico. But misoprostol alone is a very poor abortifacient. Studies consistently demonstrate that one in four women will have a failed abortion that requires surgical completion with the use of misoprostol alone.<sup>70-72</sup>

Finally, we see promotion of so-called “menstrual regulation.”<sup>73</sup> This refers to providing the abortion pill to women who report a late period without first ruling out pregnancy. This euphemism allows women to procure an abortion while avoiding the “stigma” of abortion.

There are many potential negative consequences to these recommendations, which ultimately demonstrate abortion advocates’ disregard for the health of women. For example, underestimation of gestational age may result in higher likelihood of failed abortion. Undetected ectopic pregnancies may rupture, leading to life-threatening hemorrhages. Rh-negative women may not receive prophylactic Rhogam, resulting in isoimmunization in future pregnancies. Potential for misuse and coercion is high when there is no way to verify who is consuming the medication and whether she is doing so willingly. Sex traffickers, incestuous abusers, and coercive boyfriends will all welcome more easily available medical abortion. Catastrophic complications can occur, and emergency care may not be readily available in remote areas.

## Conclusion

Physicians who seek to advocate for their female patient’s best interests should become aware that medical abortion results in complications far more often than its proponents acknowledge.

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