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Medication Abortion: A Sample Protocol for Increasing Access During a Pandemic and Beyond

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1 COMMENTARY

- 2 No-Test Medication Abortion: A Sample Protocol for Increasing Access During
- 3 a Pandemic and Beyond
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1. INTRODUCTION

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- 43 The COVID-19 pandemic is acutely threatening access to essential health
- 44 services, including abortion.[1] Across all fields of medicine, changes in
- 45 practice models are occurring rapidly. For patients seeking abortion, urgent
- 46 modifications of current protocols are needed to ensure that patients can
- 47 continue to obtain this time-sensitive treatment while limiting transmission
- 48 of infection by maintaining distance between and among patients and
- 49 providers. Remote delivery of care, which has recently been endorsed by
- 50 local, state, and federal authorities as a key epidemic control measure,[2]
- 51 will be indispensable to accommodate patients and staff who are navigating
- 52 quarantines, stay-at-home directives, lack of transportation, new family or
- 53 work obligations, or other unavoidable circumstances that impede their
- 54 ability to go in in person to a health facility.
- 55 Fortunately, medication abortion (MA) using mifepristone and misoprostol
- 56 can address many of these challenges. At present, MA typically entails a visit
- 57 to a clinician or facility that provides abortion where an ultrasound or pelvic
- 58 examination and often blood tests are performed to evaluate eligibility
- 59 before pills are dispensed. Many abortion providers require a follow-up
- 60 ultrasound or blood test after treatment to confirm abortion completion.
- 61 However, research and experience have demonstrated that these tests,
- 62 which inherently involve physical contact between patient and health care
- 63 worker, are usually unnecessary for safe and effective MA.[3-7] Indeed, over
- 64 the past 15 years, international organizations have provided mifepristone
- and misoprostol by mail to tens of thousands of patients screened only by
- 66 history.[8-11] A prospective study conducted in 2015-2016 in the United
- 67 States, Mexico, and Moldova provided 406 MAs without screening ultrasound
- or pelvic examination.[12] No serious adverse events were reported that
- 69 resulted from the omission of the tests, and participants were highly
- 70 satisfied.

- 71 To assist abortion providers with the current crisis, we present a sample
- 72 protocol (Figure 1) for providing a "no-test" MA that includes
- 73 recommendations for patient selection, Rh status evaluation and
- 74 management, the treatment regimen, and follow-up. Although FDA-imposed
- 75 restrictions on mifepristone dispensing may require patients to present to
- 76 the abortion provider or facility to obtain the drug,[13] this protocol would
- 77 enable every other part of the MA process to be implemented without any in-
- 78 person encounter. The protocol is intended to serve as a guidance; abortion
- 79 providers should use clinical judgment when adapting it for their practice
- 80 settings and patient populations. Below we summarize the data that we
- 81 considered in developing this protocol and our rationales for and comments
- 82 on selected provisions.

83 2. PATIENT SELECTION

- 84 The three key goals of clinical evaluation before MA are (1) to confirm that
- 85 the gestational age (GA) is within accepted limits for effective and safe
- 86 outpatient treatment, (2) to exclude ectopic pregnancy, and (3) to establish
- 87 that the patient has no other contraindications to MA.
- 88 The sample no-test MA protocol specifies an upper GA limit of 77 days as
- 89 estimated from the first day of the last menstrual period (LMP). The LMP-
- 90 based GA should be ≤77 days on the day of mifepristone ingestion, which
- 91 may be later than the day the drug is dispensed if the patient plans to take
- 92 the pills home for later use or if the medication is mailed or dispensed to a
- 93 patient intermediary. The patient should be certain within one week of the
- 94 LMP onset date.
- 95 We chose a 77-day limit because recent data have indicated that outpatient
- 96 MA is safe and effective through that GA[14,15] and because this limit is
- 97 consistent with current guidelines of the National Abortion Federation[16]
- 98 and Planned Parenthood Federation of America (personal communication,
- 99 Gillian Dean, MD, MPH, Planned Parenthood Federation of America). We note,
- 100 though, that 2014 guidelines issued by the American College of Obstetricians

101 and Gynecologists (ACOG) and the Society for Family Planning[17] as well as 102 the mifepristone label approved by the US Food and Drug Administration in 103 2016 specify a 70-day limit. In response to the pandemic, ACOG has recently issued a statement acknowledging that LMP-based gestational dating without 104 ultrasound is acceptable, although no specific GA limit was specified.[18] 105 Regardless of the precise GA limit selected, use of the no-test approach will 106 inevitably result in treatment of some fraction of patients whose true GAs 107 exceed 77 days. Data from studies that compared LMP-based GA estimates 108 109 to ultrasound-based estimates suggest that this fraction tends to be higher in 110 patient populations that include more patients with advanced GA[19,20] and that it may be reduced by decreasing the LMP-based GA cutoff.[19] 111 Reassuringly, the largest study, which was conducted in the United States in 112 2005-2007,[21] found that only 31 (1%) of 3,012 MA patients who were 113 certain that their LMPs had started ≤77 days prior had GAs >77 days by 114 115 ultrasound examination. Furthermore, international studies that included nearly two thousand patients treated with mifepristone and one or more 116 misoprostol doses at 13-24 weeks of gestation reported efficacy and safety 117 similar to that expected in earlier gestation: >93% of patients aborted 118 119 without further intervention, 0.7-4% required transfusion, and no patient 120 required hysterectomy or died.[22] Therefore, we expect that serious adverse health consequences of GA underestimation based on LMP will be 121 rare. Nevertheless, clinicians using the no-test approach to MA should have a 122 plan for managing or referring patients who may need a second trimester 123 procedure to complete the abortion. 124 125 When assessing GA, providers may incorporate other historical information reported by the patient that, for simplicity, we do not mention in the sample 126 127 protocol but that may indicate that the GA is greater than the proposed limit. For example, a patient who reports a positive pregnancy test >7 weeks 128 129 before presentation is unlikely to have a GA of ≤77 days. The sample protocol does not exclude patients who report menstrual irregularity or 130

- recent use of hormonal contraceptives. Although these conditions may signal ovulatory dysfunction, we expect that they would more likely lead to
- 122 average impation of CA than to underectimation, which is the primary conce
- 133 overestimation of GA than to underestimation, which is the primary concern
- 134 for MA eligibility, and excluding patients with these conditions may therefore
- 135 unnecessarily limit access by eligible patients.
- 136 MA with mifepristone and misoprostol is contraindicated in patients with
- 137 ectopic pregnancy not because the drugs are dangerous for such patients
- 138 but because the regimen is not a proven treatment for this condition. The
- 139 sample no-test protocol excludes patients with significant symptoms of or
- 140 risk factors for ectopic pregnancy; recent vaginal bleeding or pelvic pain,
- 141 prior permanent contraception, prior ectopic pregnancy, or intrauterine
- device in place at conception.[23,24] We do not exclude patients who report
- 143 prior pelvic inflammatory disease because unconfirmed diagnoses of this
- 144 condition are associated with only a mildly increased risk.[24] We recognize
- that the listed criteria will not identify every patient with ectopic pregnancy;
- an estimated half of all patients with this condition have no risk factors.[25]
- 147 However, published and emerging data suggest that the incidence of ectopic
- 148 pregnancy among patients seeking MA is very low, <1%.[26,27] Moreover,
- substantial data[28-32] and current clinical MA guidelines[16,33] support
- 150 treatment of patients in whom ectopic pregnancy has not been definitively
- 151 excluded because the condition can be detected and managed afterwards.
- 152 Thus, this aspect of the protocol is consistent with the standard of care.
- 153 The medical contraindications in the sample protocol are those listed in the
- 154 FDA-approved mifepristone label. Patient history is sufficient for assessing
- 155 these conditions.
- 156 3. RH TYPING AND OTHER PRE-TREATMENT LABORATORY TESTING
- 157 Recent research has suggested that the risk of Rh sensitization after early
- abortion is negligible.[34-36] Consequently, the National Abortion Federation
- has concluded that forgoing Rh typing and administration of anti-D
- 160 immunoglobulin is reasonable for Rh-negative patients having aspiration

161 abortion before 56 days of gestation and may be considered for all patients having MA at less than 70 days.[16,37] The sample protocol is consistent 162 with this conclusion. In addition, it specifies that testing is unnecessary for 163 patients who can report a Rh-positive blood type or who are certain that they 164 want no future children after the planned abortion. Any patient may opt out 165 166 of Rh typing; the recent statement from ACOG notes that Rh testing and RhD immunoglobulin administration should not be a barrier to the provision of 167 medication abortion.[18] 168 Hemoglobin/hematocrit and other laboratory tests are not routinely needed 169 170 before first-trimester abortion but may be performed as indicated by medical history and patient symptoms.[16] 171 4. TREATMENT REGIMEN 172 173 The sample protocol specifies that patients should receive a standard regimen of mifepristone 200 mg orally and misoprostol 800 mcg vaginally or 174 buccally.[16] In addition, each patient should be provided with an extra dose 175 176 of misoprostol 800 mcg. Those with estimated GA >63 days should be instructed to take this second misoprostol dose 4 hours after the first to 177 178 improve effectiveness.[16,38] Patients with estimated GA <63 days may be instructed to take the second dose if no bleeding occurs within the first 24 179 hours after the first dose or to retain it for use if recommended by the 180 provider. Alternatively, all patients may be told to take two misoprostol 181 doses 4 hours apart. Although this specific regimen has not been studied, 182 trials of repeated doses of misoprostol in the first and second trimester 183 suggest that it will be safe.[39-43] 184 5. SCHEDULED FOLLOW-UP 185 186 The primary goals of follow-up are to confirm absence of continuing pregnancy, to detect ectopic pregnancies not diagnosed before treatment, 187 and to identify complications that need evaluation and treatment. To 188

accomplish these goals, the sample protocol relies on patient symptoms and

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190 high sensitivity urine pregnancy tests (HSPTs) that the patient performs at 191 home. This strategy has been validated in several studies, [44,45] is consistent with current MA guidelines for follow-up of patients who have 192 documented intrauterine pregnancies,[16,17] and is increasingly used by MA 193 providers. 194 The sample instruction sheet (Figure 2), which includes a list of symptoms 195 that may need in-person evaluation, is derived from studies of symptoms 196 used to assess outcomes in MA patients with intrauterine pregnancies 197 documented by ultrasound[44-47] and from experience in managing patients 198 199 with ectopic pregnancies. The instruction sheet directs patients to contact the abortion provider if specified symptoms occur or the HSPT result is 200 positive. Research has shown that patients can safely use these tools on 201 202 their own to recognize when follow-up is needed, [48,49] and indeed patient-203 controlled follow-up is widely used for MA follow-up by provider organizations 204 in multiple European countries.[50-52] However, the sample no-test protocol recommends a planned follow-up contact with the provider one week after 205 dispensing the abortifacient medications to confirm absence of symptoms of 206 207 ongoing or undiagnosed ectopic pregnancy or other potential complications. 208 This contact may be conducted by videoconference, telephone, patient 209 portal, email, text, or other telehealth modalities.[53,54] 210 MA failures are often detectable based on symptoms alone.[6,44,47-49] Nevertheless, the sample no-test protocol recommends a HSPT 4 weeks after 211 misoprostol use to confirm pregnancy termination. Available data indicate 212 213 that 5-25% of HSPTs performed about a month after MA treatment produce 214 positive results, nearly all of which are "false positives" in patients who no 215 longer have viable pregnancies.[44,45] Therefore, the sample protocol recommends that two HSPTs be provided initially to each patient. The 216 patient should be instructed to call the provider if the result of the initial 4-217 218 week test is positive. If the patient is asymptomatic, a repeat test one week later may be appropriate. If the patient has symptoms of ongoing or ectopic 219

- 220 pregnancy or the second HSPT result is positive, further evaluation is 221 indicated. The specific procedures for this evaluation should address the 222 patient's individual clinical situation and may include ultrasound, serial serum HCG levels, additional urine pregnancy testing, or aspiration and 223 tissue examination. 224 Patients receiving a no-test MA may remain at risk for having ectopic 225 pregnancy until a negative HSPT result is obtained. Therefore, vigilant 226 attention on the part of both provider and patients to symptoms such as 227 increased pelvic or abdominal pain, continued vaginal bleeding, or dizziness 228 229 is imperative. 6. COUNSELING 230 Patients requesting a no-test MA should receive standard pre-abortion 231 232 counseling about pregnancy options, the risks and benefits of MA, expected results, side effects, and warning signs. In addition, each patient should be 233 explicitly informed that LMP-based dating may underestimate GA, in which 234 235 case efficacy may be lower than expected, bleeding and cramping may be heavier, and, rarely, fetal tissue may be visible. Moreover, patients should 236 237 understand that without ultrasound, ectopic pregnancy will not be definitively excluded before treatment. To increase the chance of abortion 238 success and reduce the time to diagnosis of ectopic pregnancy or MA 239 complications, patients should be advised to diligently follow all instructions 240 provided. However, patients should also be advised that serious adverse 241 242 events of no-test abortion are expected to be rare and that side effects of MA can often be managed remotely. To avoid unnecessary infectious exposure 243 during a pandemic as well as excess cost and inconvenience, patients should 244 contact the abortion provider before seeking in-person care. 245 246 7. CONCLUSION
- 247 Although the COVID-19 crisis prompted the development of this sample
- 248 protocol, we recognize that the pandemic is only one of many longstanding,

- 249 serious impediments to abortion access in the United States. Omitting
- 250 unnecessary use of ultrasound, examination, and laboratory tests before MA
- 251 can reduce barriers to this essential service by decreasing cost and
- 252 enhancing convenience and comfort. The no-test approach can enable
- 253 provision of abortion in new venues and by new categories of providers, and
- 254 it can facilitate new service delivery models, such as synchronous or
- asynchronous telehealth, stationary or mobile "mini-clinics", pill pick-up
- arrangements, or dispensing via lockboxes or, potentially, by mail.[7,54] If
- 257 the no-test strategy results in earlier treatment, it may increase MA success
- rates.[14,43,55] Details of the no-test MA protocol will certainly need to be
- revised as new evidence emerges, but we anticipate that this approach to
- 260 providing the service will continue to be beneficial for both patients and
- abortion providers even after the current epidemic resolves.
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Figure 1. Sample Protocol for No-Test Medication Abortion

441 442 **PURPOSE**

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443 To enable safe and effective provision of medication abortion without a mandatory pretreatment ultrasound, pelvic examination or laboratory tests when medically appropriate, given that these tests may be significant barriers to access and, in the setting of a pandemic, may increase transmission of infection to patients and health care workers.

CRITERIA

- Pregnancy confirmed by patient report of urine or serum test or prior ultrasound
- Last menstrual period started ≤77 days before anticipated date of mifepristone ingestion
- Certain of last menstrual period onset date ± 1 week
- None of the following symptoms or risk factors for ectopic pregnancy:
 - o Vaginal bleeding or spotting within the past week
 - o Unilateral pelvic pain or significant bilateral pelvic pain within the past week
 - o Prior ectopic pregnancy
 - o Prior permanent contraception or other tubal surgery
 - o IUD in uterus at conception or currently
- None of the following contraindications to medication abortion, assessed by history:
 - o Hemorrhagic disorder or concurrent anticoagulant therapy
 - o Chronic adrenal failure
 - o Concurrent long-term systemic corticosteroid therapy
 - o Inherited porphyria
 - o Allergy to mifepristone, misoprostol, or other prostaglandin
- No strong preference for pre-treatment ultrasound, pelvic examination or laboratory tests

RH TYPING AND ADMINISTRATION OF ANTI-D IMMUNOGLOBULIN

- Not needed if the gestational age on the anticipated mifepristone ingestion date will be <70 days or if the patient reports positive Rh type, wants no future children, or declines anti-D immunoglobulin.
- Should be considered for women not meeting above criteria

TREATMENT

Provide the following:

- Mifepristone 200 mg orally
- Misoprostol 800 mcg x 2
- Analgesics, antiemetics per health facility protocol
- Patient instruction sheet and health facility emergency contact information
- Two high sensitivity pregnancy tests (HSPTs)

The patient should take mifepristone 200 mg orally followed by misoprostol 800 mcg buccally or vaginally 24-48 hours later. Patients with estimated GA >63 days should take a second dose of misoprostol 800 mcg 4 hours after the first. Patients with estimated GA ≤63 days should take the second dose if no bleeding occurs within the first 24 hours after the first misoprostol dose or if instructed to take it by a clinician. Review the instruction sheet with the patient.

FOLLOW-UP

- 1. Plan a follow-up contact with the patient one week after dispensing treatment.
- 2. If the patient reports indicators of continuing or ectopic pregnancy (e.g., any of the symptoms on the instruction sheet), evaluate with ultrasound or serum HCGs.
- 489 3. Otherwise, instruct the patient to perform the first HSPT 4 weeks after taking misoprostol 490 (not earlier) and to contact the abortion provider if the result is positive.
- 491 4. If the patient has indicators of continuing or ectopic pregnancy, evaluate with ultrasound or 492 serum HCGs
- 493 5. If the first HSPT result is positive but the patient has no such indicators, instruct the patient 494 to perform the second HSPT in 1 week.

495 6. If second HSPT result is also positive, evaluate with ultrasound, serum HCGs, additional urine testing, or uterine aspiration.

497 498	Figure 2. Sample Instructions for Patients Receiving No-Test Abortion
499	1. Call your abortion provider if:
500	☐ You vomit within the first 30 minutes after taking mifepristone.
501 502	☐ You have a fever of 100.4°F or higher more than 24 hours after you take the misoprostol.
503	\square One week after taking misoprostol, you have any of the following:
504	o You have not had cramping and bleeding heavier than a period.
505	o Your bleeding is not getting lighter.
506	 You do not feel that you passed the pregnancy.
507 508	 Your pregnancy symptoms (such as nausea and breast tenderness) are not resolving.
509	\square At any time, you have any of the following:
510 511	 An increase in pain/cramps or bleeding more than 24 hours after taking misoprostol.
512 513	 Severe pain or cramps that don't get better with pain medicine, rest, or heating pads.
514 515	 Enough bleeding to soak 2 maxi pads an hour for more than 2 hours.
516	o Dizziness or vomiting lasting more than 2 hours.
517	o Weakness, nausea, or diarrhea lasting more than 24 hours.
518 519 520 521	 Perform one urine pregnancy test <u>4 weeks</u> after taking misoprostol (not earlier). Call your abortion provider if the result is positive or invalid. Use the second test if instructed to do so by your abortion provider.
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