

Journal Club: Article Summary

Title/Authors:	<u>Mifepristone Pretreatment for the Medical Management of Early Pregnancy Loss</u> Courtney A. Schreiber, Mitchell D. Creinin, Jessica Atrio, Sarita Sonalkar, Sarah J. Ratcliffe, and Kurt T. Barnhart
Year:	2018
Funding Source:	NICHD
Aim:	Compare the efficacy and safety of the combination of mifepristone and misoprostol with the efficacy of misoprostol alone for the medical management of early pregnancy loss
Study Design:	pragmatic, randomized trial
Population:	300 women with a nonviable intrauterine pregnancy between 5 and 12 completed weeks, recruited at 3 academic centers in the U.S. between May '14 and April '17
Excluded:	<ul style="list-style-type: none"> • Women with an incomplete abortion defined as no gestational sac on US, an open os, or both; • Women with a contraindication to mifepristone or misoprostol; • evidence of a viable or ectopic pregnancy; • Hemoglobin < 9.5; • Clotting defect; • Anticoagulation; • Presence of an IUD; • Unwilling to adhere to protocol; • Age <18
Control group:	misoprostol 800mcg administered PV
Intervention group:	mifepristone 200mg PO followed 24 hours later by misoprostol 800mcg PV
Primary outcome:	Expulsion of gestational sac after one dose of misoprostol by the first follow-up visit and no other treatment
Results:	Expulsion of the gestational sac by the first follow-up visit 1-4 days after misoprostol administration with no additional treatments occurred in 124/148 women (83.8% , 95% CI, 76.8-

	<p>89.3) in the mifepristone pretreatment group and in 100 of 149 women (67.1%; 95% CI, 59.0-74.6) in the misoprostol-alone group (absolute difference in the rate of treatment success, 16.7 percentage points [95% CI, 7.1 to 26.3].</p> <p>Relative risk of GS expulsion, 1.25 [95% CI, 1.09 to 1.43].</p> <p>The NNT needed to pretreat with mifepristone to have one additional outcome of success was 6.</p> <p>Rate of tx success among mifepristone-pretreatment group that did not wait full 24h before taking miso was 79.7% vs 86.9% among those who waited the full 24 hours (p=0.24).</p>
<p>Take-away:</p>	<p>Medical management of miscarriage using mifepristone plus misoprostol increased likelihood of successful expulsion within the first 4 days. Patients were largely satisfied with this regimen. The largest barriers to using mifepristone were the restrictions on ordering and dispensing the medication, and raises the larger question of how to address those restrictions. Providers who cannot obtain mifepristone can continue to manage their patients' miscarriages with misoprostol-only regimens.</p>
<p>Discussion Questions:</p>	<ol style="list-style-type: none"> 1) Was the trial well-designed? 2) Are these results applicable to your patients who present with early pregnancy loss? 3) What is the additional cost of using mifepristone for the medical management of early pregnancy loss and how would that affect your practice? <ol style="list-style-type: none"> a. Is mifepristone accessible in your clinical environments? b. What barriers to access, utilization, and reimbursement may limit incorporating mifepristone into the care of patients with early pregnancy loss? c. Is product labeling of mifepristone or insurance coverage a concern? 4) Would you change your clinical management based on these studies? <ol style="list-style-type: none"> a. Based on this study, would you consider routinely using mifepristone with all your patients with early pregnancy loss? Or would it vary based on the type of miscarriage

	<p>(missed, incomplete, and inevitable), patient characteristic, or gestational age?</p> <p>b.</p> <p>5) What questions remain unsolved after review of this data?</p>
Relevant Commentary	<p>Westhoff C. A Better Medical Regimen for the Management of Miscarriage. N Engl J Med 2018; 378:2232-2233 DOI: 10.1056/NEJMe1803491</p> <p>American College of Obstetricians and Gynecologists Executive Board. Position Statement: Improving Access to Mifepristone for Reproductive Health Indications. June 2018</p>