

## WEBVTT

1

00:00:00.130 --> 00:00:03.000

- This module will focus  
on medication management

2

00:00:03.000 --> 00:00:04.728

of early pregnancy loss.

3

00:00:04.728 --> 00:00:08.020

Our aims here are to detail the efficacy

4

00:00:08.020 --> 00:00:09.740

of various treatment regimens

5

00:00:09.740 --> 00:00:12.170

and describe an evidence-based protocol

6

00:00:12.170 --> 00:00:14.080

for mifepristone and misoprostol

7

00:00:14.080 --> 00:00:16.224

to complete the miscarriage.

8

00:00:16.224 --> 00:00:19.190

We will cover evidence  
that this combined regimen

9

00:00:19.190 --> 00:00:20.887

is the most cost-effective one,

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00:00:20.887 --> 00:00:24.107

despite the higher cost of mifepristone.

11

00:00:24.107 --> 00:00:27.100

And we will also discuss considerations

12

00:00:27.100 --> 00:00:30.740

for integrating this care  
into your clinical practice.

13

00:00:30.740 --> 00:00:34.070  
Use of medications to expel  
a non-viable pregnancy

14

00:00:34.070 --> 00:00:36.410  
is just one of four options

15

00:00:36.410 --> 00:00:38.900  
available to the  
clinically stable patient.

16

00:00:38.900 --> 00:00:43.000  
Evaluation of patients  
for safe at-home EPL care

17

00:00:43.000 --> 00:00:45.530  
and the use of a shared  
decision-making model

18

00:00:45.530 --> 00:00:47.610  
to choose treatment  
are discussed in detail

19

00:00:47.610 --> 00:00:48.930  
in separate modules.

20

00:00:48.930 --> 00:00:50.995  
Research has consistently shown

21

00:00:50.995 --> 00:00:54.150  
that patients are most  
satisfied with their treatment

22

00:00:54.150 --> 00:00:57.303  
when they can choose the type  
of management they prefer.

23

00:00:57.303 --> 00:00:58.821

And a large number

24

00:00:58.821 --> 00:01:01.963

do have a preference for  
medication management.

25

00:01:03.044 --> 00:01:06.750

A recent multi-site randomized  
control trial in the US,

26

00:01:06.750 --> 00:01:07.836

the PreFair study,

27

00:01:07.836 --> 00:01:10.460

established that the  
most effective regimen

28

00:01:10.460 --> 00:01:12.640

for medication management of EPL

29

00:01:12.640 --> 00:01:14.923

includes pre-treatment with mifepristone,

30

00:01:14.923 --> 00:01:17.684

followed by use of misoprostol.

31

00:01:17.684 --> 00:01:20.210

This combination was shown to be safe

32

00:01:20.210 --> 00:01:23.234

and more successful in  
achieving timely completion

33

00:01:23.234 --> 00:01:25.638

and avoiding an aspiration procedure

34

00:01:25.638 --> 00:01:29.332

than protocols that use  
misoprostol alone for EPL care.

35

00:01:29.332 --> 00:01:32.210

Misoprostol is the prostaglandin analog

36

00:01:32.210 --> 00:01:35.379

most commonly used for  
miscarriage treatment.

37

00:01:35.379 --> 00:01:39.640

It stimulates uterine contractions  
and softens the cervix

38

00:01:39.640 --> 00:01:42.123

for expulsion of the pregnancy tissue.

39

00:01:42.123 --> 00:01:45.960

It is very inexpensive and  
stable at room temperature,

40

00:01:45.960 --> 00:01:48.320

this makes it simple to keep it stocked

41

00:01:48.320 --> 00:01:50.781

and dispense to patients for at-home use.

42

00:01:50.781 --> 00:01:53.840

Misoprostol is also more readily available

43

00:01:53.840 --> 00:01:55.692

in many settings than mifepristone

44

00:01:55.692 --> 00:01:58.550

and can be used alone for EPL treatment

45

00:01:58.550 --> 00:02:00.489

when mifepristone is not accessible.

46

00:02:00.489 --> 00:02:04.110

Mifepristone acts as a  
competitive antagonist

47

00:02:04.110 --> 00:02:08.112

to both progesterone and  
glucocorticoid receptors.

48

00:02:08.112 --> 00:02:11.430

These effects enhance the  
activity of prostaglandins

49

00:02:11.430 --> 00:02:13.531

on the myometrium and the cervix,

50

00:02:13.531 --> 00:02:16.789

rendering the misoprostol more effective.

51

00:02:16.789 --> 00:02:20.297

While mifepristone remains  
highly regulated in the US

52

00:02:20.297 --> 00:02:21.730

in that it requires

53

00:02:21.730 --> 00:02:25.370

a Risk Evaluation and  
Mitigation Strategy, or REMS,

54

00:02:25.370 --> 00:02:28.740

and it is priced higher than misoprostol,

55

00:02:28.740 --> 00:02:31.800

currently at a cost of \$54 per pill,

56

00:02:31.800 --> 00:02:35.598

an economic evaluation  
alongside the PreFaiR trial

57

00:02:35.598 --> 00:02:40.350  
demonstrated it is highly cost  
effective to add mifepristone

58

00:02:40.350 --> 00:02:43.629  
to a regimen of misoprostol  
for EPL management.

59

00:02:43.629 --> 00:02:46.900  
Only six patients need  
to take mifepristone

60

00:02:46.900 --> 00:02:50.232  
in order to gain one  
more treatment success,

61

00:02:50.232 --> 00:02:53.320  
yielding a low number needed to treat

62

00:02:53.320 --> 00:02:55.210  
compared to misoprostol alone.

63

00:02:55.210 --> 00:02:57.970  
The PreFaiR trial randomized 300 patients

64

00:02:57.970 --> 00:03:00.851  
with an ultrasound diagnosis  
of non-viable pregnancy

65

00:03:00.851 --> 00:03:04.225  
between five and 12  
completed weeks gestation,

66

00:03:04.225 --> 00:03:06.760  
to either mifepristone pre-treatment

67

00:03:06.760 --> 00:03:11.246  
followed by misoprostol or  
misoprostol alone for treatment.

68

00:03:11.246 --> 00:03:14.853

The primary outcome to  
define treatment success

69

00:03:14.853 --> 00:03:18.865

was gestational sac expulsion  
at the first follow-up visit,

70

00:03:18.865 --> 00:03:22.294

which was scheduled for one  
day after misoprostol use,

71

00:03:22.294 --> 00:03:24.650

and then, no additional interventions

72

00:03:24.650 --> 00:03:26.830

within the 30-day study period.

73

00:03:26.830 --> 00:03:28.770

There were only three participants

74

00:03:28.770 --> 00:03:31.310

not included in the analysis  
for the first follow-up.

75

00:03:31.310 --> 00:03:34.940

This table shows the higher  
success rate of mifepristone

76

00:03:34.940 --> 00:03:38.710

in combination with misoprostol  
over misoprostol alone,

77

00:03:38.710 --> 00:03:43.710

84% compared to 67%, at  
the first follow-up visit.

78

00:03:44.649 --> 00:03:48.190

Participants without success  
were then given the option

79

00:03:48.190 --> 00:03:50.610  
of either expectant  
care or an intervention,

80

00:03:50.610 --> 00:03:53.291  
with additional misoprostol or aspiration,

81

00:03:53.291 --> 00:03:57.513  
before the second follow-up  
visit at day eight.

82

00:03:57.513 --> 00:04:01.539  
Overall, aspiration  
was utilized by only 9%

83

00:04:01.539 --> 00:04:03.180  
in the mifepristone group,

84

00:04:03.180 --> 00:04:07.488  
compared to 24% in the  
misoprostol-only group.

85

00:04:07.488 --> 00:04:10.050  
Side effect rates were similar,

86

00:04:10.050 --> 00:04:12.790  
with only vomiting  
significantly more common

87

00:04:12.790 --> 00:04:13.973  
in the mifepristone group.

88

00:04:13.973 --> 00:04:16.350  
Mifepristone pre-treatment was not studied

89

00:04:16.350 --> 00:04:17.980

for incomplete miscarriages,

90

00:04:17.980 --> 00:04:21.248  
as misoprostol alone has a high efficacy.

91

00:04:21.248 --> 00:04:25.180  
Prior research has established  
that incomplete miscarriages

92

00:04:25.180 --> 00:04:29.030  
respond well to either  
400 micrograms sublingual

93

00:04:29.030 --> 00:04:33.354  
or 600 micrograms oral misoprostol.

94

00:04:33.354 --> 00:04:38.354  
The PreFairR study regimen is  
200 milligrams of mifepristone

95

00:04:38.663 --> 00:04:43.103  
given 24 hours prior to 800 micrograms

96

00:04:43.103 --> 00:04:45.256  
of vaginal misoprostol.

97

00:04:45.256 --> 00:04:49.058  
This regimen is now regarded  
as the most effective,

98

00:04:49.058 --> 00:04:52.749  
evidence-based regimen for  
all other types of EPL,

99

00:04:52.749 --> 00:04:57.749  
namely anembryonic gestations  
and embryonic or fetal demise.

100

00:04:57.771 --> 00:05:01.870

Importantly, this study did not find any differences

101

00:05:01.870 --> 00:05:03.998  
in success by type of EPL.

102

00:05:03.998 --> 00:05:06.760  
When using a misoprostol only regimen,

103

00:05:06.760 --> 00:05:10.010  
the initial dose of 800  
micrograms vaginally

104

00:05:10.010 --> 00:05:12.672  
can be repeated one to two days later.

105

00:05:12.672 --> 00:05:15.168  
When mifepristone is not available,

106

00:05:15.168 --> 00:05:19.020  
two doses of misoprostol  
can increase success rates.

107

00:05:19.020 --> 00:05:21.960  
Notably, recent research  
around medication abortion

108

00:05:21.960 --> 00:05:23.570  
for gestations over nine weeks

109

00:05:23.570 --> 00:05:25.720  
can be applied and should be considered

110

00:05:25.720 --> 00:05:27.189  
for EPL treatment also.

111

00:05:27.189 --> 00:05:30.880  
Evidence supports an increase  
in successful abortion

112  
00:05:30.880 --> 00:05:33.803  
after the standard  
mifepristone/misoprostol regimen

113  
00:05:33.803 --> 00:05:37.510  
when a second dose of  
misoprostol is routinely given

114  
00:05:37.510 --> 00:05:39.720  
four hours after the first.

115  
00:05:39.720 --> 00:05:41.510  
There are important considerations

116  
00:05:41.510 --> 00:05:43.760  
prior to implementing  
medication management

117  
00:05:43.760 --> 00:05:45.441  
into your practice.

118  
00:05:45.441 --> 00:05:47.814  
These questions include,

119  
00:05:47.814 --> 00:05:51.120  
will you dispense misoprostol  
directly from your clinic

120  
00:05:51.120 --> 00:05:52.880  
or write a prescription?

121  
00:05:52.880 --> 00:05:56.130  
Fortunately, misoprostol is  
widely available in pharmacies,

122  
00:05:56.130 --> 00:05:59.267  
but due to its association  
with induced abortion,

123

00:05:59.267 --> 00:06:01.530

it's recommended to clearly indicate

124

00:06:01.530 --> 00:06:03.420

that it is for miscarriage treatment

125

00:06:03.420 --> 00:06:05.160

to avoid potential obstruction

126

00:06:05.160 --> 00:06:06.970

of the prescription being filled.

127

00:06:06.970 --> 00:06:09.170

Will you register as a REMS provider

128

00:06:09.170 --> 00:06:11.704

to dispense mifepristone from your clinic?

129

00:06:11.704 --> 00:06:16.181

This can be an intimidating  
but not insurmountable barrier.

130

00:06:16.181 --> 00:06:18.535

To become certified with the FDA

131

00:06:18.535 --> 00:06:21.600

to dispense mifepristone  
from your own office,

132

00:06:21.600 --> 00:06:24.053

you must meet certain qualifications,

133

00:06:24.053 --> 00:06:26.730

complete a one-time prescriber agreement,

134

00:06:26.730 --> 00:06:30.729

oversee all mifepristone

dispensing under your certificate,

135

00:06:30.729 --> 00:06:33.609

and have patients sign an agreement form before use.

136

00:06:33.609 --> 00:06:36.116

ACOG and reproductive health advocates

137

00:06:36.116 --> 00:06:39.719

are calling on the FDA to remove the REMS designation,

138

00:06:39.719 --> 00:06:43.590

which would greatly benefit access for all pregnant people

139

00:06:43.590 --> 00:06:47.030

to comprehensive and highly effective miscarriage care.

140

00:06:47.030 --> 00:06:50.690

Do your patients have access to a 24-hour call service,

141

00:06:50.690 --> 00:06:53.749

should they be alarmed by any symptoms or side effects?

142

00:06:53.749 --> 00:06:56.450

Having a reliable clinician to reach

143

00:06:56.450 --> 00:06:58.240

can often alleviate concerns

144

00:06:58.240 --> 00:07:01.470

and prevent unnecessary emergency room visits.

145

00:07:01.470 --> 00:07:04.140

What is the backup plan  
for uterine aspiration,

146

00:07:04.140 --> 00:07:06.310

should the miscarriage be incomplete

147

00:07:06.310 --> 00:07:08.803

or an emergent need arise?

148

00:07:08.803 --> 00:07:12.640

Not having the option of an  
in-office uterine aspiration

149

00:07:12.640 --> 00:07:15.972

should not be a barrier to  
offering medication management,

150

00:07:15.972 --> 00:07:19.100

but it is wise to establish relationships

151

00:07:19.100 --> 00:07:21.210

with local hospitals or providers

152

00:07:21.210 --> 00:07:24.652

who can offer an aspiration if needed.

153

00:07:24.652 --> 00:07:27.960

Complications or need  
for emergent aspirations

154

00:07:27.960 --> 00:07:29.284

are rare events.

155

00:07:29.284 --> 00:07:32.320

Follow-up and confirming  
completion of the miscarriage

156

00:07:32.320 --> 00:07:35.064

are discussed in the  
at-home management module.

157

00:07:35.064 --> 00:07:38.420  
One of the greatest advantages  
of using mifepristone

158

00:07:38.420 --> 00:07:40.472  
in addition to misoprostol for EPL

159

00:07:40.472 --> 00:07:44.598  
is the reduced need for repeated  
follow-ups or aspiration.

160

00:07:44.598 --> 00:07:46.540  
Mifepristone pre-treatment

161

00:07:46.540 --> 00:07:49.660  
was found to be more cost-effective  
than misoprostol alone

162

00:07:49.660 --> 00:07:51.852  
due to this superior efficacy,

163

00:07:51.852 --> 00:07:55.850  
even up to a cost of \$293 per pill

164

00:07:55.850 --> 00:07:57.739  
in a sensitivity analysis.

165

00:07:57.739 --> 00:08:01.480  
The researchers performing  
the economic evaluation

166

00:08:01.480 --> 00:08:03.520  
determined that adding mifepristone

167

00:08:03.520 --> 00:08:05.580  
was a "good value for patients"

168

00:08:05.580 --> 00:08:09.289  
from both the healthcare sector  
and societal perspectives,

169

00:08:09.289 --> 00:08:13.040  
which did include taking into  
account costs of childcare,

170

00:08:13.040 --> 00:08:15.538  
transportation and lost productivity

171

00:08:15.538 --> 00:08:18.470  
due to ongoing EPL-related care.

172

00:08:18.470 --> 00:08:21.950  
Integration of either medication protocol

173

00:08:21.950 --> 00:08:23.701  
for miscarriage management

174

00:08:23.701 --> 00:08:27.034  
expands access for patients  
choosing this option

175

00:08:27.034 --> 00:08:29.140  
and is essential to offering

176

00:08:29.140 --> 00:08:33.010  
a truly comprehensive  
approach to EPL care.

177

00:08:33.010 --> 00:08:36.502  
Addition of mifepristone  
increases efficacy,

178

00:08:36.502 --> 00:08:39.057  
thereby reducing need for follow-up

179

00:08:39.057 --> 00:08:42.986  
or additional interventions,  
and is cost effective,

180

00:08:42.986 --> 00:08:44.730  
significant benefits

181

00:08:44.730 --> 00:08:48.193  
which favor widespread  
practice integration.