

# PERFECT-USE PREGNANCY RATES WITH VAGINAL PH REGULATOR: EFFICACY RESULTS FROM AMPOWER

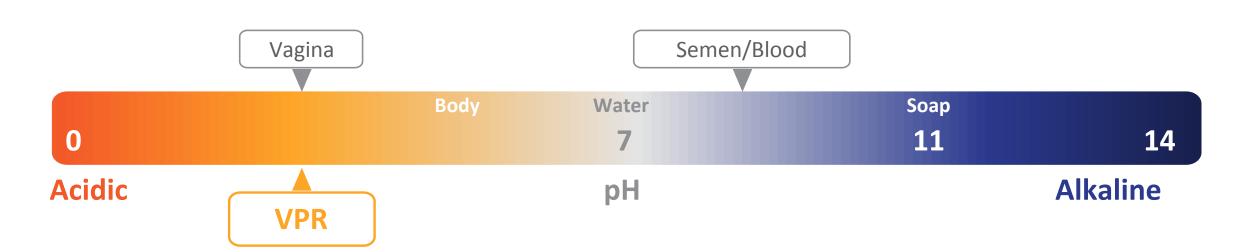
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#### INTRODUCTION

- The investigational vaginal pH regulator (VPR™) was developed as a novel, non-hormonal, woman-controlled, water-based, surfactant-free vaginal gel for the prevention of pregnancy and sexually transmitted infections<sup>1,2</sup>
- VPR has acid-buffering properties and is able to maintain the acidic vaginal environment (pH 3.5-4.5) even in the presence of alkaline semen¹ (Figure 1)
- VPR is designed to form a barrier layer over the vaginal and cervical surfaces

Figure 1. VPR Has Unique Acid-buffering Properties and Can Maintain the Acidic Vaginal Environment



VPR, vaginal pH regulator.

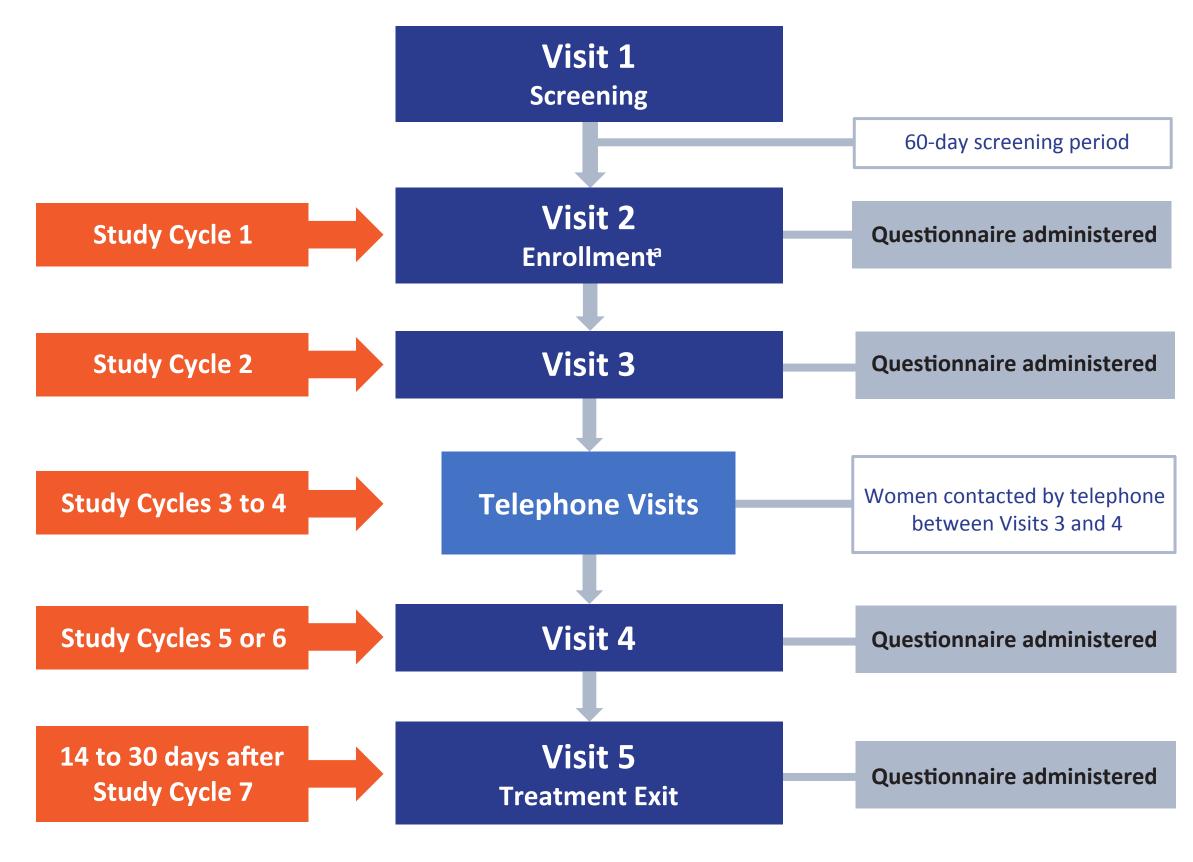
## AIM

 To present the efficacy results in the efficacy evaluable (EE; "perfect-use") study population with VPR

#### METHODS

- AMPOWER (NCT03243305) was a single-arm, open-label, confirmatory trial conducted at 112 US sites (**Figure 2**)
- Women were instructed to administer a single prefilled applicator of study drug intravaginally before each episode of intercourse

Figure 2. AMPOWER Study Design



<sup>a</sup>The cycle during which enrollment occurred was considered cycle 0. The woman's 7 Study Cycle was cycles 0 to 6 if the time from enrollment to the woman's next menstrual period was ≥21 days. If the time from enrollment to the woman's next menstrual period was <21 days, the woman's 7 Study Cycles were cycles 1 to 7.

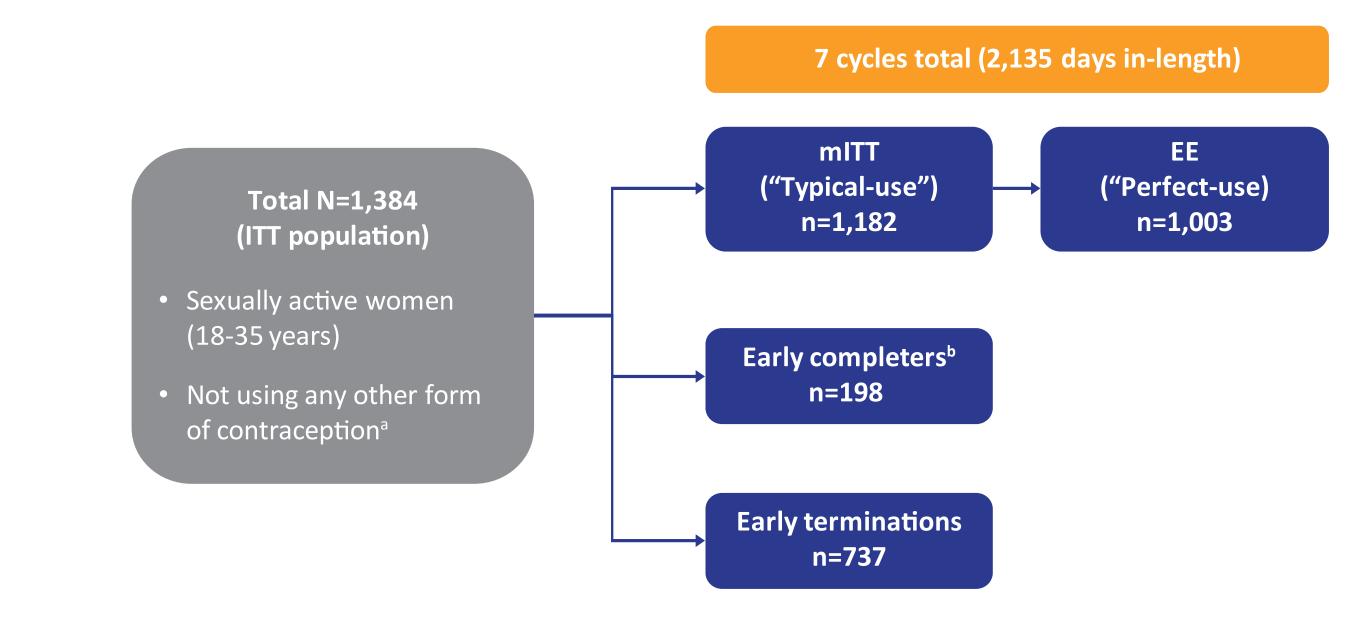
- To determine efficacy, all evaluable cycles had to meet rigorous criteria, including:
- 21-35 day cycle
- No backup or emergency contraception
- ≥1 recorded act of vaginal intercourse
- All enrolled women were considered part of the intent-to-treat (ITT) population, and women in the ITT population using VPR at least once were included in the safety population

- For inclusion in the typical-use efficacy analyses (modified intent-to-treat [mITT] subset of the ITT population), women must also have:
  - Had ≥1 cycle without any backup or emergency contraception, or
  - Become pregnant with a conception date between enrollment and <8 days after final VPR use</li>
- For inclusion in the EE ("perfect-use") efficacy:
  - Study cycles had to meet all aforementioned criteria, and
  - VPR must have been used consistently and correctly for every act of intercourse in that cycle as documented in the eDiaries
- To more accurately evaluate efficacy, additional sensitivity analyses were performed to remove factors that confounded efficacy assessment by:
- Expanding cycle lengths to include 21-42 day cycles, and
- Removing subjects with incomplete washout of previous hormonal contraceptive and removing pregnancies from cycles with inconsistent eDiary reporting in which no sexual activity with product use was reported ± 7 days from the estimated date of conception

#### RESULTS

- AMPOWER enrolled a total of 1,384 women (Figure 3):
- 1,182 were included in the mITT population (had a least one cycle that was considered evaluable for the mITT analysis)
- 1,003 were included in the EE population (had at least one cycle that was considered evaluable for the EE analysis)

Figure 3. Patient Disposition



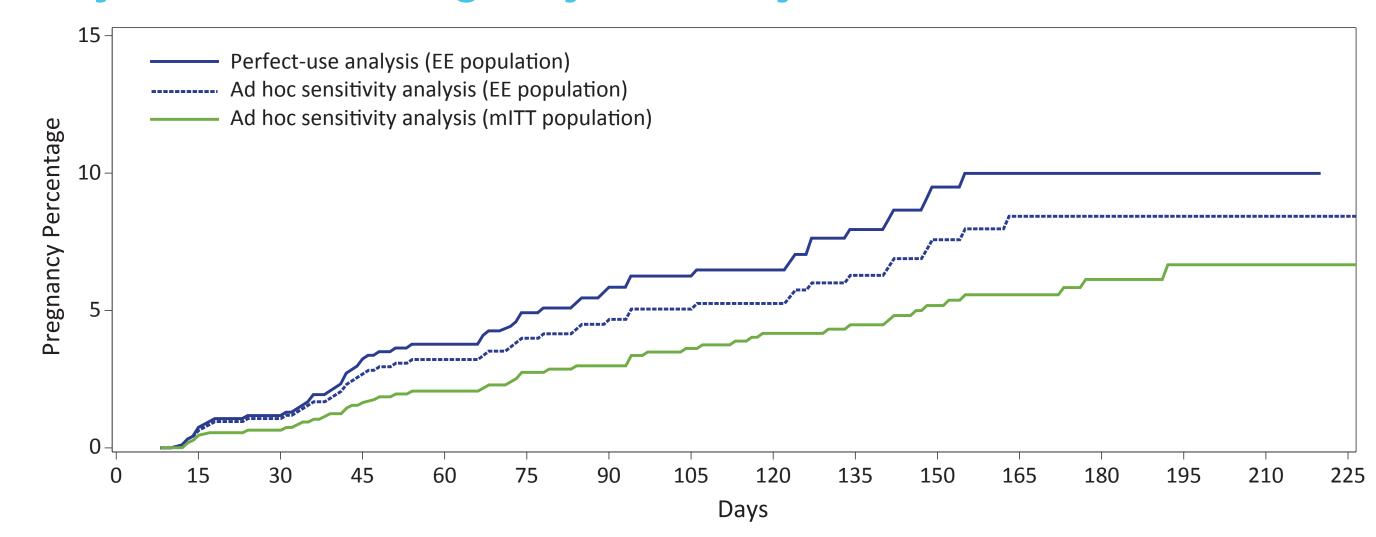
<sup>a</sup>Except for use of emergency contraception, as indicated.

bThere were 198 "early completers" who had completed ≥6 study cycles but were among 252 women inadvertently scheduled for their final study visit before study end.

EE, efficacy evaluable; ITT, intent-to-treat; mITT, modified intent to treat.

- In the EE population (n=1,003), the 7-cycle cumulative pregnancy percentage was 9.99% (95% CI 7.17%, 12.81%) (**Figure 4**)
- In the expanded cycle length EE population without protocol deviations, the 7-cycle cumulative pregnancy percentage ranged from 6.67% (95% CI 4.61%, 8.73%) including all evaluable cycles to 8.44% (95% CI 5.90%, 10.98%) including only perfect-use cycles (**Table 1**)

Figure 4. 7-cycle Cumulative Pregnancy Probability With Perfect Use



EE, efficacy evaluable; mITT, modified intent to treat.

Table 1. Ad Hoc Sensitivity Analyses of 7-cycle Cumulative Pregnancy Percentage With Perfect Use

Analyses	Population	Pregnancies <sup>a</sup>	Cumulative pregnancy percentage, %	95% CI for pregnancy percentage, %		
Ad hoc sensitivity analyses _ with perfect-use	EE n=1,003	49	8.44	5.90, 10.98		
	mITT n=1,182	49	6.67	4.61, 8.73		

<sup>a</sup>Excludes women who had a pregnancy detected after being enrolled but the pregnancy was determined to have started before enrollment date. Women with cycles with backup emergency contraception are excluded unless they became pregnant while in the study.

EE, efficacy-evaluable; mITT, modified intent-to-treat.

Taking into account all potentially ovulatory cycles, including those where backup contraception was used, where no intercourse occurred, and with cycle lengths between 21-42 days, the 7-cycle cumulative pregnancy percentage for typical- and perfect-use was 11.31% and 6.68%, respectively, which would closely represent "real-world" efficacy rates (**Table 2**)

Table 2. 7-cycle Cumulative Pregnancy Percentages and Perfect-use Analysis Representing "Real-world" Use

Analyses	Population	Pregnancies	Cumulative pregnancy percentage, %	95% CI for pregnancy percentage, %
Typical-use	mITT n=1,182	100	11.31	8.92, 13.70
Perfect-use	mITT n=1,182	56	6.68	4.87, 8.49

Includes cycles with backup contraception, no intercourse, and cycle lengths between 21-42 days.

#### CONCLUSIONS/IMPLICATIONS

- There are multiple ways that efficacy can be measured
- Contraception clinical trials for FDA approval are not designed to accurately evaluate "real-world" use of the method due to stringent criteria for defining "evaluable" cycles
- Using multiple sensitivity analyses to determine perfect-use efficacy, women's 7-cycle cumulative pregnancy percentage ranged from 6.67% to 9.99% with VPR
- When allowing analyses parameters with fewer restrictions to represent "real-world" contraceptive use, the perfect-use efficacy rate is 6.68% with VPR

## REFERENCES

- 1. Garg S, et al. *Contraception*. 2001;64:67-75.
- 2. Bayer LL, et al. Contraception. 2014;90:11-18.
- 3. Thomas MA, et al. ASRM 2019. Abstract O-23.

### ACKNOWLEDGEMENTS

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#### DISCLOSURE

BTC: Research, Evofem Biosciences, Inc.

KC: Employee, Evofem Biosciences, Inc.

CD: Employee, Health Decisions, which received funding from Evofem Biosciences, Inc. to help conduct this study.

BH: Employee, Evofem Biosciences, Inc.

<sup>&</sup>lt;sup>a</sup>Excludes women who had a pregnancy detected after being enrolled but the pregnancy was determined to have started before enrollment date. mITT, modified intent-to-treat.