Comparison of Vaginal Misoprostol and Oral Misoprostol for promoting Cervical Ripening and Inducing labor

Aurelle Ndongo

Julie Vu
Kennesaw State University

Abby Smith
Kennesaw State University

Alice Han
Kennesaw State University

Callie Greathouse
Kennesaw State University

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Undergraduate Student(s): Callie Greathouse, Alice Han, Abby Smith, Aurelle Ndongo, Julie Vu
Research Mentor(s): Doreen Wagner

Background: Labor induction is the stimulation of the uterus to contract before labor begins to have a vaginal birth through the use of medications. Labor induction in the later stages of pregnancy is used to prevent complications when the mother or baby is at risk. Medications such as misoprostol (Cytotec) are used in inductions for cervical ripening to allow smoother dilation. Ripening the cervix is a method used to help soften and thin out the cervix to facilitate childbirth. The benefit of using misoprostol is that it can be administered several routes including oral, vaginal, sublingual and buccal. Induction of labor is a life-saving intervention that can reduce adverse outcomes.

Purpose: This systematic literature review aims to determine the most effective route of administration of misoprostol to successfully induce labor in term pregnant women.

Methods: The PRISMA flow diagram was followed to obtain results. A literature search was conducted using resources including PubMed and EBSCO Information Services as well as specific internet searches. Filters were applied to limit retrievals to only randomized control trials, controlled clinical trials, and experimental studies. Other inclusion criteria were the administration of oral misoprostol, vaginal misoprostol, buccal misoprostol, or sublingual misoprostol, a non-scarred uterus, gestational weeks ≥ 37, English language, and healthcare data from the year 2017 to present. The Johns Hopkins Evidence-Based Practice Model was used for an appraisal process to select twenty articles to be used in our review. Preliminary results suggest the vaginal route is more effective than oral misoprostol in performing successful labor inductions in the shortest amount of time.

Results: Final results will be presented at the symposium