## **Managing Early Pregnancy Loss:**

A Preference-sensitive Decision

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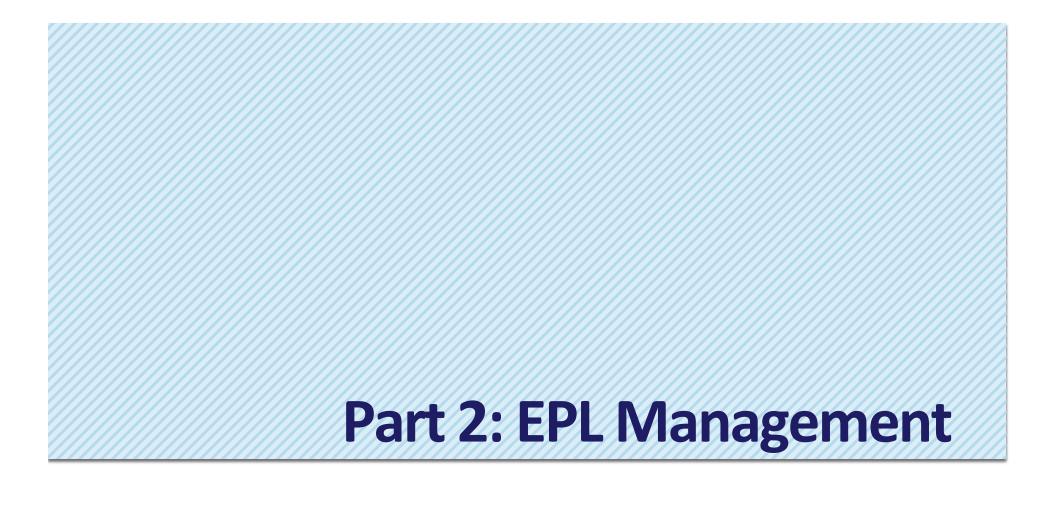
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### Objectives

- To describe and discuss the four evidence-based management options for early pregnancy loss (EPL)
- 2. To review guidelines for implementation of comprehensive EPL care in an office setting





### **EPL Management Options**

- Four options for the clinically stable patient
  - 1. Aspiration w/ general/deep sedation (**operating room**)
  - 2. Aspiration w/ local/moderate sedation (office-based)
  - Medication (misoprostol +/- mifepristone)
  - 4. Expectant care
- All methods are effective, with equivalent safety and patient acceptability = clinical equipoise





## EPL Management: Patient-centered Care



- Choosing management is a preference-sensitive decision
- Comprehensive management options can be offered in a typical primary care or outpatient setting





# Early Pregnancy Loss (EPL) Management Principles

- Clinical checklist for outpatient care options
  - Clear diagnosis
  - Patient is stable
  - Access to phone & emergency care
  - Pain control options available
  - Anticipatory guidance for bleeding, S/Sx infection
  - Reliable follow-up





### Patient Case: Embryonic Demise

- Maya's sure LMP was 9 weeks ago
- She presented to ER with bleeding like a "light period" for the past 3 days
- This was a desired pregnancy
- TV ultrasound diagnosed an embryonic demise



CRL = 10.8mm, EGA = 7 weeks + 3 days





### Patient Case: Management

### How do we manage Maya?

 Use shared decision-making approach to choose best management option that aligns with her priorities and preferences.

• Step 1: Provide information about each option.

Information Exchange

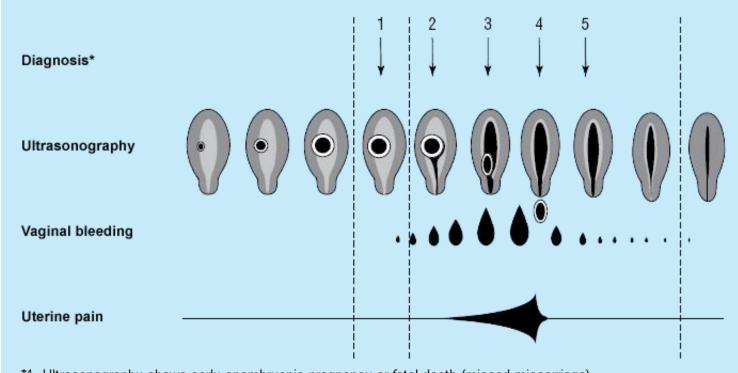
Deliberation

Negotiation & Agreement





## EPL – Natural History



- \*1. Ultrasonography shows early anembryonic pregnancy or fetal death (missed miscarriage)
- 2. Vaginal bleeding occurs (threatened miscarriage)
- 3. Open cervical os (inevitable miscarriage)
- 4. Miscarriage (products of conception are expelled, and cramps and bleeding soon subside)
- 5. Ultrasonography may show uterine contents decidua, blood, and some villi





### **Expectant Management**

- "Watchful waiting"
- Proven safety up to 8 weeks
- Type of EPL affects expected efficacy
- Highly acceptable to patients with realistic expectations about:
  - Duration
  - Discomfort
  - Potential "D&C"(uterine aspiration)





# EPL Management: Candid Counseling & Realistic Expectations

"The doctor said that a natural miscarriage will come when you least expect it, at the wrong place, at the wrong time, and that's exactly what happened to me...[she] told me things that an actual person that went through it would tell you."





### **Expectant Management**

### **Advantages**

- Non-invasive
- Body naturally expels nonviable pregnancy
- Avoids anesthesia and surgery risks
- Allows for patient privacy and continuity of care

### **Disadvantages**

- Unpredictable outcome and timescale
- Process can last days to weeks
- Can have prolonged bleeding and cramping
- Despite waiting, may still need uterine aspiration





### **Expectant Management**

### **Contraindications**

- Uncertain diagnosis
- Suspected gestational trophoblastic disease
- Indicated karyotyping
- Severe hemorrhage or pain
- Infection
- IUD in place

Same contraindications for medication management





## Medication Management

- Use of medications for active management of EPL
- Misoprostol
  - Stimulates uterine contractions & softens cervix
  - Inexpensive, easy storage
- Mifepristone
  - Anti-progestin used for pregnancy termination
  - Current research does not support routine use in nonviable pregnancies





## Medication Management

### **Advantages**

- More predictable and higher success rates than expectant care
- Highly cost-effective
- Non-invasive
- Avoids anesthesia and surgery risks
- Allows for patient privacy and continuity of care

### **Disadvantages**

- Increased need for analgesics and pain control
- May cause heavier or longer bleeding
- May cause short-term gastrointestinal and other side effects
- May still need uterine aspiration





## Misoprostol for EPL

| Incomplete miscarriage | 400 mcg sublingually (SL) - or - 600 mcg orally (PO)                                      |
|------------------------|---|
| All other types of EPL | 800 mcg vaginally (PV) with optional repeat dose 24-48 hours later if no initial response |







## Out-of-office EPL Management: Anticipated Success Rates

|  | <b>Expectant Management</b> |            |            | <b>Medication Management</b> |                       |
|--|-----------------------------|------------|------------|------------------------------|-----------------------|
|  | Day 7 (%)                   | Day 14 (%) | Day 46 (%) | After single dose (%)        | After second dose (%) |
| Incomplete miscarriage   | 50                          | 70-85      | 90         | 96                           |                       |
| Other EPL:<br>embryonic<br>demise,<br>anembryonic<br>gestation | 25-30                       | 35-60      | 65-75      | 71                           | 84                    |
|  |                             |            |            |                              |                       |





# Medications for Symptoms and Side Effects

| Cramping                                       | Ibuprofen 600 mg Q6 hrs <u>or</u> 800 mg Q8 hrs (or other NSAID) |
|--|--|
| Severe cramping pain not relieved by ibuprofen | Hydrocodone/APAP 5/500 or 5/325 Q 4-6 hrs prn                    |
| Nausea/vomiting                                | Promethazine 25 mg Q 4-6 hrs prn <u>or</u> other anti-emetic     |





# Medication Management: Practice Integration

- Evaluation
  - Exam, lab, or sono?
- Medications
  - Dispensed in clinic or Rx?
- 24 hour call service
- Back-up plan for aspiration
  - Emergent vs. non-urgent
- Follow-up plan





## Typical Follow-Up

- Phone contact
  - Call patient 1-2 days after first misoprostol dose to assess need for second dose
- In-person visit
  - 1-2 weeks after choosing expectant or medication management:
    - Confirm completion sono or lab work
    - If not complete alternate treatments or watchful waiting?





## Aspiration for EPL

Historically done in operating room under general anesthesia

- Terminology:
  - Surgical "D&C"
  - Suction curettage with MUA or EVA
- 97-100% success









### **Operating Room Aspiration**

### **Advantages**

- Can be asleep
- Predictable
- Offers fastest resolution of miscarriage
- Reduced duration of bleeding
- Low risk (<5%) of needing further treatment

### **Disadvantages**

- Rare risks associated with invasive procedure and general anesthesia
- More cost than officebased procedures
- More time and physical exams than office-based procedures
- May be more bleeding complications under general anesthesia than in office-based procedures





## Office-based Aspiration

### **Advantages**

- Pain control with local plus oral or IV meds
- Predictable
- Offers fastest resolution of miscarriage
- Reduced duration of bleeding
- Low risk (<5%) of needing further treatment



### Disadvantages

- Rare risks of invasive procedure
- Less pain control options in some settings

### **Compared to OR management:**

- May allow improved patient access and continuity of care
- Improved privacy
- Less patient and staff time
- Resource and cost savings





## Patient Case: Information Exchange

- Chance of success for embryonic demise:
  - Expectant: 1 week (30%)

2 weeks (60%)

6 weeks (75%)

- Misoprostol: 1 week (84%)
- Aspiration (office or OR): 97-100%
- Maya prioritizes a quick resolution to her miscarriage but would like to avoid having a procedure





### Patient Case: Management

- Maya chose to use misoprostol at home
- She placed the pills vaginally and began having cramping and bleeding 2 hours later
- Her heavy bleeding lasted 4 hours, and she noticed one particularly large clot, that may have had tissue in it
- She still has some light bleeding at her follow-up appointment, 7 days later

How do we confirm success of treatment?





## Vaginal Ultrasound





"Treat the patient, not the ultrasound..."





### EPL Management: Follow-up

- Use both history and exam to confirm completion
  - B-hCG drop >50% or negative UPT
  - Vaginal ultrasound (absence of gestational sac)
  - Tissue confirmation after aspiration
- Address fertility
  - Contraception vs prenatal vitamins
- Offer grief counseling follow-up or referrals





### **EPL Management: Summary**

- Four treatment approaches are safe and acceptable for EPL care: expectant, medication, and uterine aspiration in an office or operating room setting.
- Choice of EPL management is a preferencesensitive decision.
- Primary care providers are capable of comprehensive in-office EPL management.







### managing early pregnancy loss





Managing Early Pregnancy Loss is an educational initiative incorporating a videobased curriculum with online resources to support an evidence-based and patientcentered approach to miscarriage management.



#### Welcome to Managing Early Pregnancy Loss



Read more here about the curriculum before you begin. Items marked with an \* are required for CME credit.



#### **Evaluation and Diagnosis of Early Pregnancy Loss\***

The first chapter reviews a methodical approach to evaluate patients who present with symptoms of or concerns for EPL. Diagnostic guidelines for use of ultrasound and laboratory markers are



#### Clinical Scenario #1: Patient-centered Counseling in EPL Evaluation

During a visit with a patient who has been experiencing bleeding, the exam is concerning for possible early pregnancy loss. This video first demonstrates common mistakes in provider communication, followed by recommendations for a patient-centered counseling approach. With shared decision-making techniques this patient chooses expectant management.



**Evaluation and Diagnosis Quiz** 





The course was created by:

innovating education in reproductive health

#### Contents

- 1 Welcome to Managing Early Pregnancy Loss
- 2 Evaluation and Diagnosis of Early Pregnancy Loss\*
- 3 Counseling for EPL Management Options\*
- 4 Expectant and Medication Management for EPL\*
- 5 Uterine Aspiration for EPL\*
- 6 Practice Integration of EPL Services\*

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Support



Explore the EPL resource page and link to an online learning module:

www.earlypregnancylossresources.org



