Managing Early Pregnancy Loss:

A Preference-sensitive Decision

Robin Wallace, MD, MAS
Clinical Assistant Professor
Department of Family & Community Medicine
University of Texas Southwestern

University of California
San Francisco

advancing health worldwide™

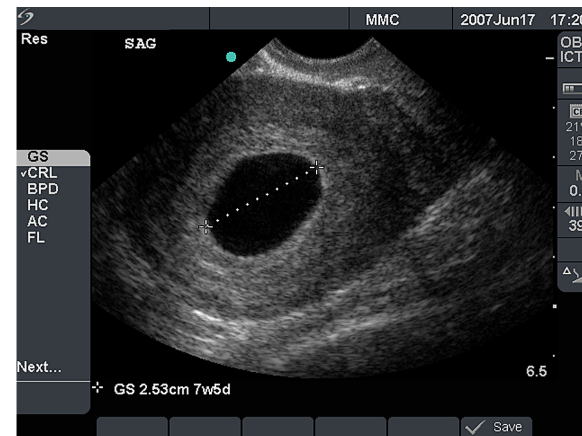
Part 1: EPL Diagnosis and Counseling

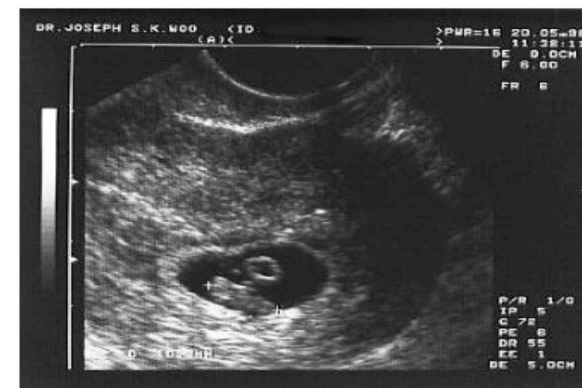
Objectives

1. To apply evidence-based principles to EPL diagnosis
2. To review the evidence for patient preferences for EPL management
3. To apply evidence-based counseling principles for EPL management options

Early Pregnancy Loss (EPL)

- 1 in 4 women will experience EPL in her lifetime
- 15-20% of clinically recognized pregnancies
- Includes all non-viable pregnancies in first trimester = Miscarriage





The fetal Crown-rump length (CRL)
In this case 10.8 cm = 7 weeks 3 days

EPL Presentation

- Urgent or emergency care visit
  - vaginal bleeding
  - abdominal or pelvic pain or cramping
  - passage of pregnancy tissue from the vagina
  - loss of pregnancy-related symptoms
- Incidental clinical finding
  - Bimanual exam inconsistent with LMP
  - Ultrasound suggestive of EPL

Patient Case: Presentation

Maya is a 26 yo G1P0 presenting to the emergency room.

"I'm 2 months pregnant and I'm bleeding! Am I going to lose the baby?"

How do we care for Maya?

EPL Evaluation: Patient-Centered Approach

- Use open-ended questions and allow for silence.
- Inquire about pregnancy intention.
- Address feelings of guilt.
- Keep patient informed throughout the diagnostic process.

EPL Evaluation: Open Communication During Diagnosis

"They **never said the word 'miscarriage,'** I did….I felt like I had to drag it out of them….I said….**what does that mean? What are the next steps?**'"

EPL Evaluation: Exam and Diagnostics

- Physical exam
  - Vital signs
  - Abdominal and pelvic exam
- Ultrasound
  - Transvaginal preferred for diagnosis
- Lab
  - Rh factor
  - Hemoglobin or Hematocrit
  - β-hCG when indicated

Patient Case: H&P

- Maya's sure LMP was 9 weeks ago.
- She had a positive UPT in clinic 2 weeks ago.
- This is a desired pregnancy.
- Her first prenatal care visit is scheduled for next week (she has not had an ultrasound yet this pregnancy).
- Her bleeding is like a "light period" for the past 3 days.
- On exam her cervical os is closed.
- She is Rh-negative.

What can we tell Maya right now?

Bleeding in Early Pregnancy

- Keep the patient informed.
  - Provide reassurance that not all vaginal bleeding & cramping signifies miscarriage, but avoid guarantees that "everything will be all right"…

- What does the bleeding mean?
  - 50% ongoing pregnancy rate with closed cervical os
  - 85% ongoing pregnancy rate with viable IUP on sono
  - 30% of normal pregnancies have vaginal bleeding

EPL – Making the Diagnosis

Clinical diagnosis:

Spontaneous abortion
Vaginal bleeding + IUP, <20 wks
threatened, inevitable, incomplete, complete

Ultrasound diagnosis:

Anembryonic gestation
Gestational sac without embryonic pole

Embryonic demise
Embryo with no cardiac activity

EPL – Making the Diagnosis

1. Ultrasound confirmation
   - anembryonic gestation
   - embryonic or fetal demise
2. Absence of a previously seen IUP on ultrasound
3. Declining β-hCG levels and a clinical history consistent with EPL
4. Tissue confirmation of an expelled gestational sac

β-hCG Utility in EPL Diagnosis

1. Discriminatory Level
   - Serum β-hCG at which a normal IUP can be visualized on ultrasound
   - Transvaginal threshold = 2000 – 3000 mIU/ml
2. Appropriate decline after EPL completion

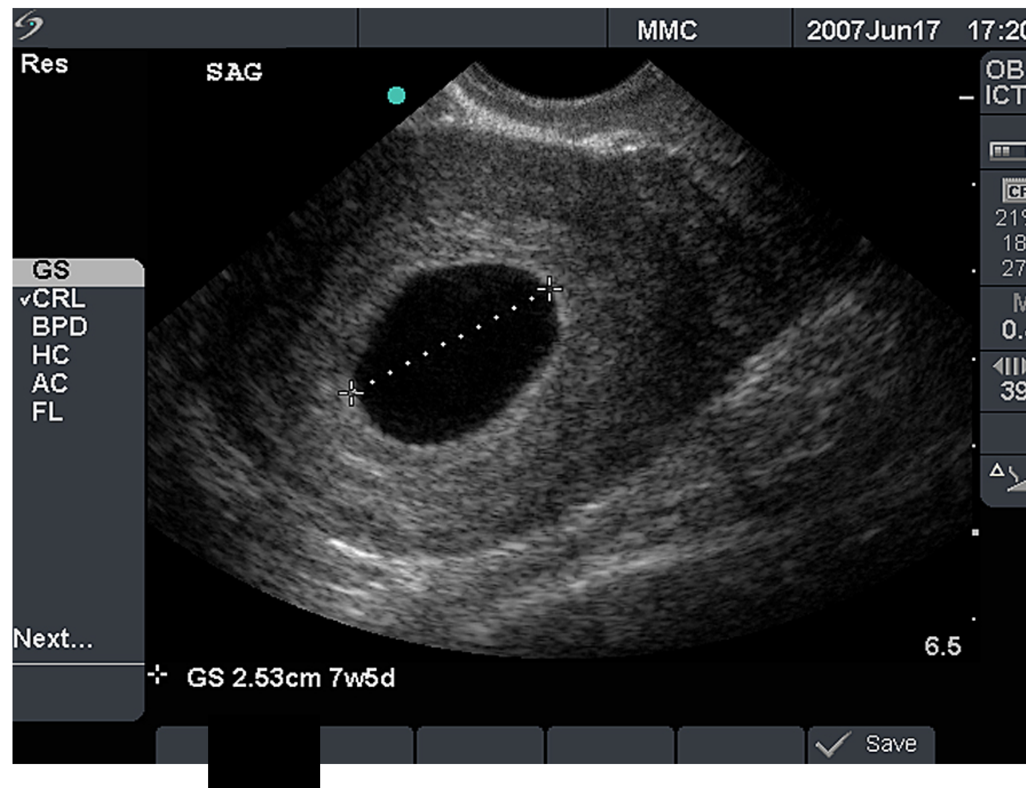
   ~ 50% in 48 hours

Ultrasound Milestones

Normal IUP findings	When should you see it?	Abnormality if landmark is absent
Gestational Sac	Discriminatory Level β-hCG = 2000-3000	Completed EPL Multiple gestation Ectopic pregnancy
Yolk sac	MSD > 13-16 mm	Suspicious for EPL
Fetal pole	MSD ≥ 25mm (≥ 21 mm = 99% certainty)	Anembryonic gestation
Cardiac activity	CRL ≥ 7mm (≥ 5.3 mm = 99% certainty)	Embryonic demise
Interval growth (MSD or CRL)	1 mm/day (over 3-7 days)	Confirmed EPL

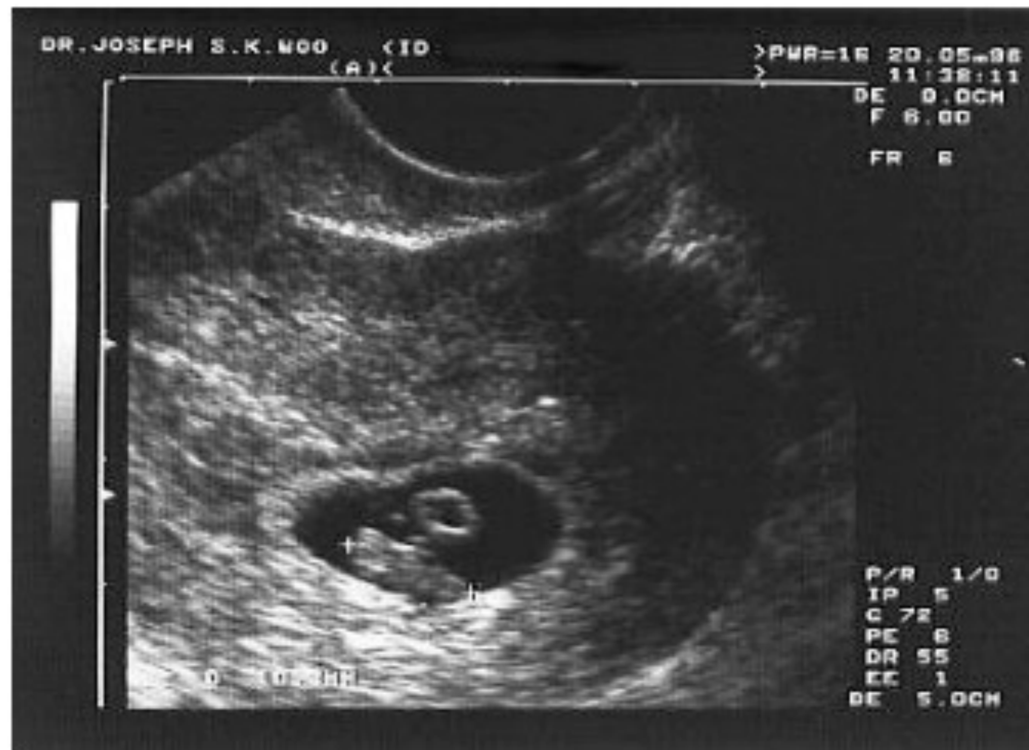
Doubilet, et al, 2013

Anembryonic Gestation



Patient Case: Embryonic Demise

Maya's ultrasound:



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

EPL Management

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

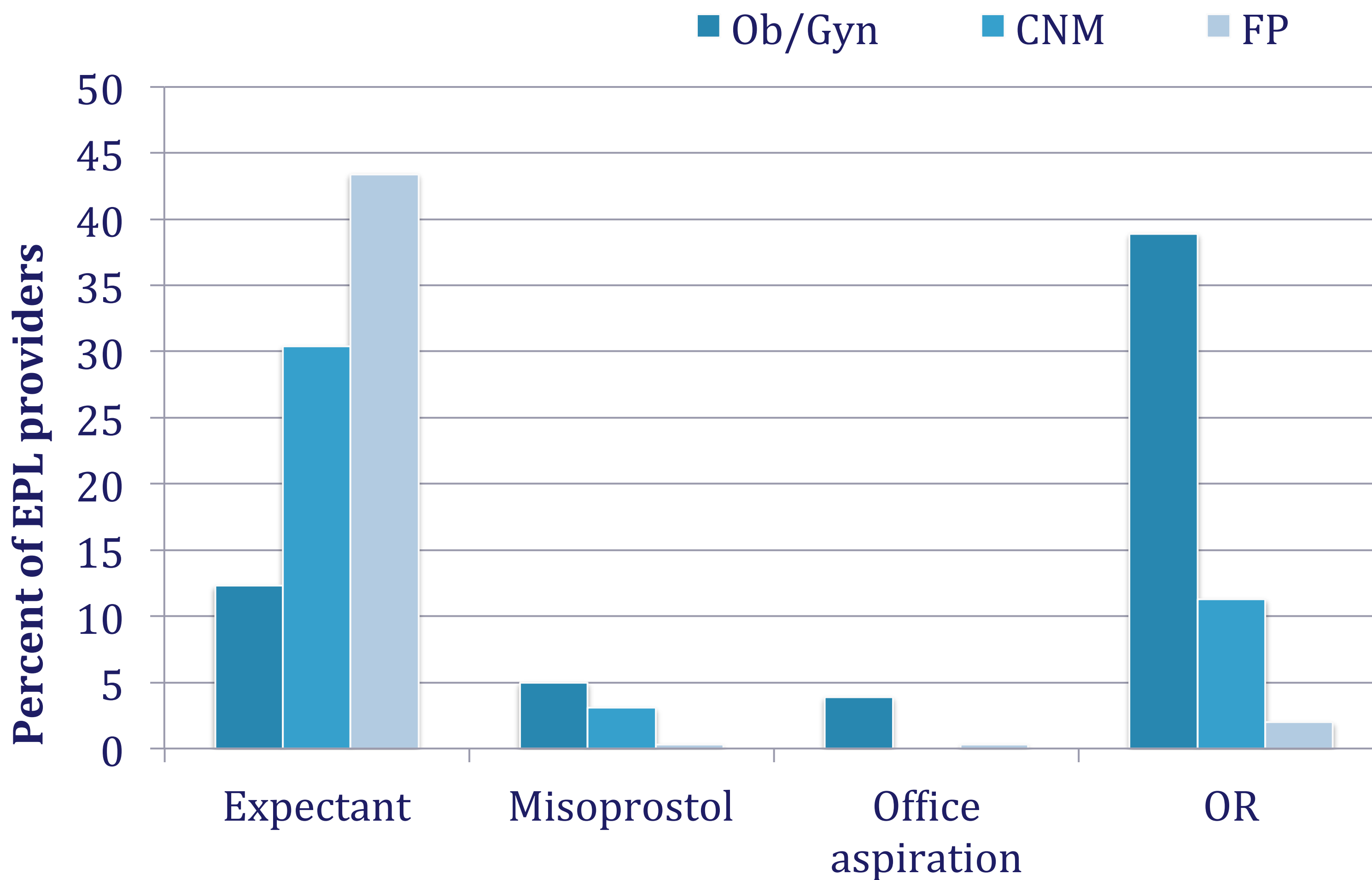
NSFG 2004; Chen 2007; Wieringa-de Waard, 2002; Zhang 2005; Trinder 2006

EPL Management: A Preference-Sensitive Decision

Expectant | Medication | Office-based aspiration | Operating room aspiration

- Best choice for management reflects the woman's values and **preferences**
- Patients have <u>strong</u> and widely <u>divergent</u> preferences
  - Report higher satisfaction when treated according to patient's preference

EPL Management Practices in the U.S.



Adapted from Dalton 2010

EPL Management Options: Patient-centered Counseling

"I think sometimes doctors have you do things or they prescribe things to you that are unnecessary….I like the way it was presented to me…as options, and they were optional, **they weren't necessary or required.**"

EPL Management: Patient Priorities

Pain	Time	Complications
Safety	Bleeding	Privacy
Anesthesia	Past Experience	Finality

Patient Case: Counseling

- Maya was given her diagnosis of embryonic demise as quickly as possible and she is now ready to discuss treatment options.

How do we counsel her about EPL management?

Shared Decision-Making

Information Exchange

Deliberation

Negotiation & Agreement

1. Provider presents all relevant medical information
2. Patient provides information about personal circumstances, values, and priorities
3. Provider also discusses preferences while acknowledging personal values and biases
4. Decision is reached

Patient Treatment Priorities for Miscarriage

Having a miscarriage is extremely difficult for most women. This worksheet is intended to help you and your provider choose a treatment that will make you the most comfortable.

Please circle any of the priorities below that you consider important in managing your miscarriage.

Personal Priorities

- Treatment by your own provider
- Recommendation of treatment from friend or family member
- Provider recommendation of treatment
- Lowest risk of need for other steps
- Family responsibilities/needs
- Most natural process

Time and Cost Priorities

- Shortest time before miscarriage is complete
- Shortest time in the clinic or hospital
- Fastest return to fertility or normalcy
- Fewest number of clinic visits
- Lowest cost of treatment to you

Medications and Procedure-related Factors

- Lowest risk of complications
- Avoid invasive procedure
- Avoid medications with side effects
- Avoid going to sleep in case of a surgical procedure
- Want to be asleep in case of a surgical procedure
- Avoid seeing the pregnancy tissue

Symptoms of Pain and Bleeding

- Least amount of pain possible
- Experience symptoms of bleeding and cramping in private
- Least amount of bleeding

Past Abortion or Miscarriage (if applicable)

- Different treatment from previous
- Similar treatment to previous

Bixby Center for Global Reproductive Health

UCSF University of California San Francisco

EPL Evaluation and Counseling: Summary

- EPL evaluation includes a thorough history with open-ended questions and a pertinent physical exam.
- Transvaginal ultrasound allows precision in EPL diagnosis.
- β-hCG levels are useful when an IUP is not seen on ultrasound.
- Patient-centered care includes counseling that recognizes patient priorities and values to make a treatment decision.