INTRODUCTION

Patients with first-trimester vaginal bleeding and early pregnancy loss commonly present to the emergency department (ED). The ED management of first-trimester vaginal bleeding has a clear and consistent evaluation with a well-defined decision tree for disposition.\(^1,2\) For emergency medicine residents, the medical management of early pregnancy loss is commonly covered in residency curricula,\(^1,2\) but providing compassionate care for patients and partners experiencing pregnancy loss in the ED environment can be quite challenging and is difficult to teach formally. Although I had been involved in caring for patients with pregnancy loss regularly throughout residency, my appreciation of the nuanced nature of this encounter was markedly changed after I had personal experience with it from the patient perspective.

At the end of my intern year, my wife and I were ecstatic to find out she was pregnant. Then she experienced a miscarriage. I still remember hearing phrases shared with my wife, including “I don’t see any cardiac activity” and “It looks like you are having a miscarriage.” Both phrases were blunt and with a perceived lack of awareness about their weight. Admittedly, I have almost certainly used similar phrases in clinical care, but this was perceived much differently when through the lens of a patient or partner. I also specifically remember the short and rushed sharing of bad news as our physician stood on the opposite side of the room cleaning the ultrasonography machine after it showed no cardiac activity. At that moment, I was struck by how different and emotionally charged interactions in the ED as a patient or family member can be, even if such interactions are commonplace for emergency clinicians.

The unexpected news of pregnancy loss can be devastating to patients and has been demonstrated to be associated with depression and anxiety up to 1 year after pregnancy loss.\(^3\) A positive patient-physician interaction at pregnancy loss has been well documented to reduce the risk of such negative outcomes.\(^4,6\) The objective of this review is to summarize the epidemiology and patient experience of early pregnancy loss in the ED, and to propose a practical framework for emergency medicine residents learning how to provide compassionate care for patients experiencing pregnancy loss in the ED.

BACKGROUND AND EPIDEMIOLOGY

Approximately one quarter of all pregnancies result in first-trimester vaginal bleeding,\(^7\) accounting for an estimated 500,000 ED visits annually,\(^8\) and commonly before the first prenatal visit.\(^4\) Overall, 1 in 5 pregnancies results in early pregnancy loss, also known as a miscarriage or spontaneous abortion.\(^4,9\) The most well-documented risk factor of early pregnancy loss is chromosomal abnormality, followed by advanced maternal age and history of pregnancy loss.\(^9\) Patients presenting to the ED for early pregnancy loss are more likely to be younger and underinsured compared with those seeking care at outpatient clinics.\(^4\)

PATIENT EXPERIENCE IN THE ED

Among all comers to the ED who are subsequently discharged home, patients value understanding their illness or disease process, receiving reassurance and symptom relief, and having a clear plan for care after discharge.\(^10\) However, the patient experience of early pregnancy loss is different from other ED presentations and thus has different factors that are important to consider. Most notably, women with early pregnancy loss are more likely to be younger, with fewer comorbidities, and often do not identify themselves as “patients,” but rather as pregnant women experiencing loss and a significant life event.\(^11-13\) Patients experiencing early pregnancy loss often want family or partners present for any information sharing,
symptom management, and treatment decisions. Additionally, prior studies have suggested that the patient experience of early pregnancy loss in the ED setting differs from that in the ambulatory setting. Work by Miller et al demonstrated that among patients with early pregnancy loss evaluated in either ambulatory obstetrics clinics or EDs, patients cared for in EDs described lack of clarity regarding diagnosis, perceived inefficiency, and variable sensitivity and compassion of staff. Similarly, patient experiences in EDs have been poor when patients do not think their loss was adequately acknowledged by the emergency clinician. Emond et al proposed categorizing the physical, cognitive, and emotional needs of patients with early pregnancy loss, which can be used as a helpful construct when one thinks about the special care needed for this patient population in the ED.

Physical Needs
The physical space and demands of the ED may often not foster the optimal environment for caring for patients with early pregnancy loss. In the majority of cases, patients with early pregnancy loss have normal vital signs and lower Emergency Severity Index scores, which can inadvertently place them in less private ED care environments. Although ED rooming is complex, patients experiencing pregnancy loss particularly value having physical space that is private and comfortable for them and their partners, as well as space where clinicians are able to sit and do not appear rushed. Additionally, patients value accessibility to restrooms and, if possible, the option of being provided a bedside commode if in a private room.

Emotional Needs
Patients repeatedly state the importance of a perceived recognition from the clinician of the significance of the event of pregnancy loss, as well as demonstration of empathy. Additionally, the language and terms used surrounding pregnancy loss and miscarriage are commonly misunderstood and may carry stigma, particularly “abortion” and “fetal parts.” For example, when a patient with a diagnosis of “spontaneous abortion” is discharged, it is important to explicitly define this as a medical diagnosis. Furthermore, the emergency clinician should address any guilt that the patient may have and dispel fears that the pregnancy loss may have been influenced by patient actions.

Cognitive Needs
The cognitive needs and information sharing can be divided into what is known and unknown about potential early pregnancy loss at the ED evaluation, as well as what to expect after returning home. It is important to have a clear and simple explanation of what causes early pregnancy loss and how common it is, and to clarify any common misconceptions, including the false belief that patient actions caused early pregnancy loss or that there are implications for future pregnancies. Equally important is sharing such information in a manner that does not devalue or depersonalize how such news affects an individual patient. If the patient is definitively experiencing early pregnancy loss, she should be informed of the management options—expectant management, medical management, and surgical management—even if not all of these options are immediately available in the ED environment. Approximately 70% of women choosing expectant management will have had a completed miscarriage or pregnancy loss within 2 weeks. Verbal and written discharge instructions should outline return precautions, as well as what patients might expect in regard to pain, blood loss, passage of clots, and passage of products of conception. Patients should be encouraged to return to the ED if experiencing bleeding that is saturating 1 to 2 pads per hour for more than 2 hours, experiencing symptoms associated with blood loss anemia (lightheadedness, syncope, chest pain, or shortness of breath), experiencing worsening pain, or developing fevers. Unless the patient has experienced recurrent early pregnancy loss requiring genetic testing, bringing passed fetal tissue to a follow-up clinic appointment does not usually influence management, but such decisions should be discussed with her primary obstetrician. The Figure summarizes key points to consider in each domain when caring for patients with early pregnancy loss. Further resources for generating discharge instructions, as well as patient resources related to coping with early pregnancy loss, are available on the TEAMM Project Web site.

A PROPOSED METHOD OF SHARING NEWS OF PREGNANCY LOSS: “ASK, TELL, ASK”
Sharing news of early pregnancy loss in the ED should be approached in a manner similar to that of sharing other forms of bad news, including a new malignancy diagnosis or a death notification. Multiple methods have been described on how to best share bad news, including the commonly described mnemonic “Setting, Perception, Invitation, Knowledge, Emotions, and Summary.” Although this frequently taught mnemonic shares many of
the features already discussed, and thus likely can be applied to sharing news of early pregnancy loss, it can be difficult to recall during a busy ED shift. In addition to incorporating the physical, cognitive, and emotional needs as outlined above, an alternative approach to sharing news of early pregnancy loss can be to apply the “ask, tell, ask” method described by Back et al. 23 First, to better understand the patients’ and partners’ comprehension of their current symptoms, one might ask a series of questions in a nonthreatening manner regarding patients’ experience with prior pregnancies and specifically whether they have experienced complications with any prior pregnancies. Next, the emergency clinician should share information in easily understandable terminology about the causes of potential pregnancy loss, and explicitly tell the patient what she can expect in the days to weeks on returning home and during outpatient follow-up. Last, the patient can then be asked to summarize what was discussed to check for understanding, as well as to provide ample opportunities to ask further questions. Such an approach also attempts to address previously described targets for improvement in providing patient-centered care in pregnancy loss, including providing understandable information, providing emotional support, involving the significant other, and ensuring continuity of care and follow-up. 13

Using the proposed ask, tell, ask approach as outlined earlier provides an initial first step for residents caring for pregnancy loss in the ED. Increasing evidence in the obstetrics literature suggests that use of simulation training specific to pregnancy loss has been associated with decreased grief among patients and improved patient-perceived attitude of the physician. 24,25 Emergency medicine training programs have widely incorporated simulation-based training and specifically have had success in implementing simulation-based or role-playing interventions with sharing other forms of bad news in the ED. 26,27 Given this, including pregnancy loss simulation training may be a feasible goal in equipping resident trainees who commonly care for patients experiencing early pregnancy loss. Furthermore, consideration of interdepartmental conferences with emergency medicine and obstetrics and gynecology residencies, as well as formal interprofessional training programs, is available. One example is the University of Washington’s Training, Education, and Advocacy in Miscarriage Management project, which is a multidisciplinary training program aimed at equipping health care teams to integrate evidence-based, patient-centered early pregnancy loss services in the ED and outpatient setting. 20

**IMPLICATIONS FOR RESIDENT EDUCATION**

Sharing the bad news of early pregnancy loss is difficult and requires practice to become proficient.

**CONCLUSION**

Patients experiencing early pregnancy loss or miscarriage commonly present to the ED when they first have...
symptoms. The patient-physician interaction at disclosing the potential for early pregnancy loss has been consistently associated with long-term negative psychological outcomes and anxiety surrounding future pregnancies. After I had a negative personal experience of early pregnancy loss disclosure as a partner and spouse, I realized that providing evidence-based and patient-centered care in such a challenging encounter is a skill warranting formal training. Emergency clinicians should have a systematic approach with emphasis on the unique physical, emotional, and cognitive needs of patients with early pregnancy loss, and incorporation of simulation-based training in residencies may be a first step in equipping new emergency physicians.

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**REFERENCES**