



Counseling women with early pregnancy failure: Utilizing evidence, preserving preference

Robin R. Wallace^{a,*}, Suzan Goodman^b, Lori R. Freedman^c, Vanessa K. Dalton^d, Lisa H. Harris^e

^a University of California, San Francisco, Department of Family and Community Medicine, Department of Obstetrics, Gynecology, and Reproductive Sciences, 1001 Potrero Avenue, Ward 6D, San Francisco, CA 94110, USA

^b University of California, San Francisco, Department of Family and Community Medicine, San Francisco, CA, USA

^c University of California, San Francisco, Department of Obstetrics, Gynecology, and Reproductive Sciences, San Francisco, CA, USA

^d University of Michigan, Department of Obstetrics and Gynecology, Ann Arbor, MI, USA

^e University of Michigan, Department of Obstetrics and Gynecology, Department of Women's Studies, Ann Arbor, MI, USA

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ABSTRACT

Objectives: To apply principles of shared decision-making to EPF management counseling. To present a patient treatment priority checklist developed from review of available literature on patient priorities for EPF management.

Methods: Review of evidence for patient preferences; personal, emotional, physical and clinical factors that may influence patient priorities for EPF management; and the clinical factors, resources, and provider bias that may influence current practice.

Results: Women have strong and diverse preferences for EPF management and report higher satisfaction when treated according to these preferences. However, estimates of actual treatment patterns suggest that current practice does not reflect the evidence for safety and acceptability of all options, or patient preferences. Multiple practice barriers and biases exist that may be influencing provider counseling about options for EPF management.

Conclusion: Choosing management for EPF is a preference-sensitive decision. A patient-centered approach to EPF management should incorporate counseling about all treatment options.

Practice implications: Providers can integrate a counseling model into EPF management practice that utilizes principles of shared decision-making and an organized method for eliciting patient preferences, priorities, and concerns about treatment options.

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1. Introduction

Early pregnancy failure (EPF) is a common occurrence, affecting approximately one in four women during her reproductive years [1,2]. EPF includes all first trimester pregnancy loss, embryonic or fetal demise, and non-viability [3]. As women and providers often use “miscarriage” to refer to this experience, we will use both terms interchangeably.

Beginning in the 1800s, EPF was managed primarily by surgical uterine evacuation. Treatment in the controlled environment of an operating room was prudent in the era preceding ultrasound, blood products and antibiotics, as it minimized both overall risk and complications of hemorrhage and infection [3–5]. However once these medical advancements became readily available,

providers appropriately began to consider and offer other kinds of management.

In the past two decades, many primary care providers began offering women expectant management – suggesting patients wait for the pregnancy to pass on its own [6,7]. Large scale trials subsequently documented the safety of this alternative to surgical treatment [8,9]. Next, providers began to apply aspiration to EPF management in ambulatory and emergency department settings, utilizing safety and efficacy data from other reproductive health arenas [10,11]. Outpatient EPF management options also expanded to include medical management with misoprostol [12,13]. Through clinical studies, all four treatment options were established as safe and effective treatments for EPF: (1) aspiration in the operating room, (2) aspiration in the office, (3) medical management with misoprostol, and (4) expectant management [8,14–16].

Trial data reveal that patients have strong preferences for the way in which EPF is managed, and report higher satisfaction when treated according to these preferences [16–18]. However, options can seem bewildering to patients, in particular because treatment

* Corresponding author. Tel.: +1 415 476 6717; fax: +1 415 206 3112.
E-mail address: wallacer@fcm.ucsf.edu (R.R. Wallace).

decisions can occur in the context of complex emotions that may include shock, disappointment and grief, but also sometimes relief, if the pregnancy was undesired [18,19]. Providers accustomed to one management strategy over others may also struggle to expand their discussion of EPF options and care with patients.

In this article, we will review the evidence for the preference-sensitive nature of miscarriage management and propose the shared decision-making model as an appropriate counseling framework for helping patients make treatment decisions.

2. Methods

To contextualize decision-making in miscarriage management, we begin with a review of common clinical presentations and emotions reported in the literature to be associated with EPF. To understand how women and their providers make decisions about miscarriage management, we reviewed all recent literature on safety and efficacy of each treatment, as well as patient preference data collected during treatment trials. Treatment options are described in terms of advantages, disadvantages, and relative efficacy based on data from clinical trials and expert guidelines. All published trials to date which utilize patient preference measures are reviewed and included to inform development of a counseling tool based on patient treatment priorities.

To establish a framework for the shared decision-making model, we present patient preference data in relation to current provider practices in miscarriage management. We then apply the shared decision-making model to comparable preference-sensitive decisions in women's health [20]. To enhance practical application of the model, we offer a patient treatment priority checklist, based on factors reported to be significant to patient satisfaction in the literature, and a summary of counseling techniques, described by experts in the field.

3. Early pregnancy failure

3.1. Presentation and common emotions associated with EPF

The way that miscarriage is diagnosed and managed is somewhat dependent on how and where a woman presents and seeks care. Women may be symptomatic or asymptomatic, and may or may not already have a pregnancy care provider. Sometimes the EPF diagnosis is first made when a woman presents to an emergency room with pain or bleeding; she may not have previously known she

was pregnant. However, sometimes the diagnosis is made in the course of routine prenatal care, as an incidental finding by a provider or on ultrasound.

How a woman feels about miscarriage is affected by whether the pregnancy was planned or desired. Discovery of the pregnancy may arrive simultaneous to news of the loss, and thus can stir up numerous and sometimes competing emotions in women as well as providers. In a planned or desired pregnancy, feelings around miscarriage may range from denial to sadness to guilt, particularly if the patient believes she somehow caused the loss. In an unintended pregnancy, feelings may include relief that the pregnancy will not continue. Providers must recognize that EPF for women with an unintended pregnancy may be a qualitatively different experience than for those who want to be pregnant. Above all, by finding out what the failed pregnancy means to each individual, the provider can more meaningfully begin the process of counseling about treatment choices.

The woman's partner may also want to participate in counseling or assume support roles during the process of miscarriage. The feelings described by partners are typical of the grief and bereavement process [21,22]. In one study, many partners felt marginalized and wanted more time for discussion with doctors. Although these men felt support services for their partner were adequate, they thought more support services for male partners should be provided [21]. It may be appropriate to explicitly state that the partner is welcome to attend and participate in each consultation, according to the patient's wishes.

Table 1 provides additional counseling points that providers may find helpful in supporting women with EPF.

3.2. A preference-sensitive decision

For a clinically stable woman, expectant, medical, and surgical management in either an office or operating room, are all medically reasonable options. In the case of clinical equipoise, choosing management is a preference-sensitive decision. A well-recognized example of this is lumpectomy vs. mastectomy for early stage breast cancer. For this clinical scenario and for EPF management, the best choice depends on how the patient values perceived advantages and disadvantages of various treatment options [23]. However, EPF research demonstrates one half of women would change their management decision given a physician's recommendation [24]. For many preference-sensitive scenarios, applications of shared decision-making and other tools,

Table 1

Counseling practice points for early pregnancy failure

- Consider remaining silent after providing initial results or information, allowing the woman to process and experience her emotions. Follow-up with open-ended questions and active listening
- Determine if the pregnancy is desired, as this will be important in helping a woman arrive at emotional resolution and a plan
- Normalize emotions by making reference to the way others might feel in a similar situation
- Validate feelings rather than trying to change them
- Avoid opinions about what patients "should" do, being aware of the boundaries between professional responsibilities and personal beliefs
- Whenever possible, encourage the woman to seek emotional support from others
- While waiting for results of an evaluation, provide reassurance that not all bleeding or cramping signifies a miscarriage, while avoiding guarantees that "everything will be all right"
- Assure that you will be available to her through the process, and answer questions as they arise
- Use neutral responses whenever possible, for example:
 - That is a question a lot of women wonder about
 - I'm glad you asked that question
 - That is a difficult question for me to answer.
 - Tell me more about what is concerning you
 - Is that what you were asking me?
 - Do you want to ask me more about that?
 - It is expected that you'll have mixed feelings about this
 - Some other women I have spoken with have experienced ____
 - How would that work for you?

Adapted from Dehlendorf [43] and Singer [61].

such as decision aids, have been used in order to improve a patient's ability to assess medical evidence and to identify her own priorities for decision making [25,26].

In a similar fashion, we examine options for EPF management through this lens. All four treatment options have similar profiles for safety, subsequent conception, and patient acceptability [7,8,12,14–17,27–30]. Surgical management has very high success rates while aggregate efficacy data from clinical trials show wide ranges of treatment success for both expectant and medical management [7,8,12,14,15,27–29,31–34]. This is due in part to variable measures of “success” and strict experimental protocols that may utilize aspiration more quickly than observed in actual practice [35,36]. Notably, Zhang et al. applied a protocol that included both a second dose of misoprostol and a less stringent cutoff for endometrial thickness as a marker for completion, and found an 84% success rate for misoprostol [14]. Similarly, providers who practice longer waiting periods for completion with expectant or medical management may discover the higher efficacy data are more accurate for their patients.

3.3. Expectant management

Expectant management allows for “watchful waiting” of the natural process of miscarriage. A miscarriage allowed to proceed on its own can take days and up to eight weeks to complete, and definitions of success vary by the interval when intervention is recommended [37]. Among women who were counseled for realistic expectations about duration, discomfort, and potential

need for later intervention, the acceptability is no different than for medical or aspiration management [9,27].

3.4. Medical management

Medical management offers patients an alternative to expectant management with a more predictable time to completion and overall cost savings [38]. Medical management of EPF commonly uses misoprostol alone, which acts to stimulate uterine contractions and soften the cervix, and has been shown to be effective, safe, and acceptable to patients [12,33,39,40]. Surgical management may still be necessary if the miscarriage does not occur spontaneously [15,37,41].

3.5. Office-based and operating room surgical management

Surgical management has historically taken place in hospital operating rooms under general anesthesia, but growing evidence supports the feasibility, acceptability [16], and cost-effectiveness [16,38,42] of aspiration in office settings. Manual and electric vacuum aspiration devices can be used in both settings, and either procedure can be undertaken in the office with local anesthesia plus oral analgesics and/or intravenous sedation, with a short recovery time. Office procedures generally require a shorter patient visit and may allow more timely care than scheduling or referring for an operating room aspiration.

Table 2 includes a summary of trial data and references detailing advantages, disadvantages, and reported efficacy of all management options [43].

Table 2
Summary comparison between expectant, medical, and aspiration management for early pregnancy failure.

	Advantages	Disadvantages	Relative efficacy ^a
Expectant management	<ul style="list-style-type: none"> • Non-invasive • Body naturally expels non-viable pregnancy • Avoids anesthesia and surgery risks • Allows for patient privacy and continuity of care 	<ul style="list-style-type: none"> • Unpredictable outcome and timescale • Process can last days to weeks • Can have prolonged bleeding and cramping • Despite waiting, may still need uterine aspiration 	<ul style="list-style-type: none"> • <i>Embryonic demise or anembryonic pregnancy</i>: 16–75% Ankum et al. [4]; Luise [32]; Bagratee [27] • <i>Incomplete abortion</i>: 82–96% Gronlund [29]; Blohm [9], Bagratee [27]
Medical management (with misoprostol)	<ul style="list-style-type: none"> • Non-invasive • Safe • Can be highly effective • Avoids anesthesia and surgery risks • Highly cost-effective • Allows for patient privacy and continuity of care 	<ul style="list-style-type: none"> • May cause heavier or longer bleeding • May cause short-term gastrointestinal and other side effects • May still need uterine aspiration 	<ul style="list-style-type: none"> • <i>Embryonic demise or anembryonic pregnancy</i>: 77–89% Herabutya [13]; Demetroulis [33]; Bagratee [26]; Zhang [14]; Ngoc [39] • <i>Incomplete abortion</i>: 61–100% Pang [40]; Moodliar [31]; Weeks [34]; Bagratee [26]
Office-based aspiration management	<ul style="list-style-type: none"> • Predictable • Offers fastest resolution of miscarriage • Reduced duration of bleeding than expectant or medical • Low risk (<5%) of needing further treatment • Pain control with local plus oral or IV meds • Compared to OR management: <ul style="list-style-type: none"> – May allow improved patient access and continuity of care – Improved privacy – Less patient and staff time – Resource and cost savings 	<ul style="list-style-type: none"> • Rare risks of invasive procedure • Less pain control options in some settings 	<ul style="list-style-type: none"> • 95–100% Milingos [28]
Operating room (Or) Aspiration Management	<ul style="list-style-type: none"> • Predictable • Offers fast resolution of miscarriage • Reduced duration of bleeding than expectant or medical • Low risk (<5%) of needing further treatment • Can be asleep 	<ul style="list-style-type: none"> • More cost than office-based procedures • More time and physical exams than office-based procedures • Rare risks associated with invasive procedure and general anesthesia • May be more bleeding complications under general anesthesia than in office-based procedures 	<ul style="list-style-type: none"> • 95–100% Demetroulis [33]; Gronlund [29], Trinder [15]

^a Relative efficacy for expectant and medical management varies based on protocol endpoints. Adapted from Dehlendorf [43].

4. Patient preferences and provider practices

4.1. Patient preferences

Many patients have strong preferences for their choice of EPF management, and report higher satisfaction when treated according to these preferences [16–18]. Unexpectedly high numbers of eligible women refused randomization and thus prolonged recruitment for the Miscarriage Treatment (MIST) trial, the largest of several trials that established evidence for expanded management options [15]. Wieringa-de Waard et al. altered their study design in a trial of expectant vs. surgical management to allow choice among women with strong treatment preferences who constituted 70% of eligible participants [8]. Both of these examples speak strongly to the preference-sensitive nature of EPF care.

Coincident with increasing awareness of patient-centered healthcare models, women's health advocates criticized the overall process of EPF care and lamented patient experiences of distress associated with physical aspects of miscarriage management [19,44,45]. Though studies show that most women report general satisfaction with care, nevertheless patients express discontent with providers that treated their miscarriage as mundane and thus conveyed a lack of urgency or insensitivity towards their condition [44,46]. Dissatisfaction with information dissemination, emotional support, timing of management, and follow-up or aftercare are also frequently reported patient concerns [44,46]. During the experience of miscarriage, many women are struggling with a perceived loss of reproductive control, and limited choice in how the miscarriage is managed may exacerbate this distress. Honoring a woman's preference for management may be a step towards reinstating her sense of control over the situation.

The success of management is dependent on a number of factors which should be taken into consideration when counseling women with miscarriage. Patient preference will depend upon individual circumstances, expectations, and awareness of the advantages and disadvantages of each management option. Drawing upon qualitative interviews from the MIST trial, Smith et al. describe a widely divergent set of preferences expressed by women and succinctly state, "there is clearly no 'one best way' to treat miscarriage that suits all individuals" [18]. However, studies show that when extensive counseling is used women may prefer expectant to surgical management with uptake rates as high as 70% [24,37]. When surgical aspiration is indicated or preferred, the majority of women elect an office-based procedure over one in the operating room under general anesthesia [16]. Supporting a woman in her preferred management also can result in improved quality-of-life scores and mental health scores [17]. Therefore, counseling is an essential part of the whole process, and must help the patient make an informed decision in an often emotional setting.

Three recent studies illuminate women's priorities when given options between expectant, medical, and surgical management [18,47] or between operating room and office-based surgical management [16]. All three studies report women's high prioritization of both pain-related factors and "time" of the process, (in the hospital, to get home, or to achieve a sense of "finality"). Women additionally prioritize the number of days of bleeding, and the overall safety or risk of complications requiring additional steps [18,47]. The study evaluating preferences for operating room vs. office-based surgical management found the amount of pain experienced in the office was acceptable to patients, and pain scores were not directly associated with satisfaction. However, the difference between expected pain level and experienced pain level was negatively associated with satisfaction, suggesting the importance of appropriate preparatory counseling and availability

of pain control options. This study also found that women choosing office-based management scored "privacy," "avoiding going to sleep," and "previous experience" significantly higher than the operating room group [16].

It is important to recognize that the similarities between care for miscarriage and care for pregnancy termination can also influence the way treatment options are perceived by patients. Many women will share these experiences, as current rates show at least one half of American women will have an unintended pregnancy and one third will have an abortion during their reproductive years [48]. In the MIST trial, in-depth interviews demonstrated that some women favored medical and expectant management because surgical management seemed too "similar to abortion," in part because they had lingering hope that the fetus was still alive [18,49]. For example, a woman who preferred not to have surgical management said "I was relieved that it had miscarried naturally... the thought of having it killed on purpose, that's how I would have seen [an aspiration]" [18]. This was not the case for all women however. Others were equally uncomfortable with the concept of carrying something 'dead' inside their body and much preferred surgical intervention to the alternative of waiting. EPF patients who liken an aspiration to abortion may prefer using medical management when intervention is needed. In some cases, acknowledging the similarities and differences of pregnancy termination and miscarriage overtly during counseling for EPF could help undo the unnecessary compartmentalization of the two.

Despite strong preferences, many patients continue to make choices according to the physician's recommendation [16,24]. Therefore, provider treatment patterns and preferences are crucial to understanding patient satisfaction with miscarriage care.

4.2. Provider practices

Estimates of actual treatment patterns demonstrate that current practice reflects neither the evidence for safety and acceptability of all options, nor patient preference [16]. Past estimates of practice confirm expectant and operating room surgical management dominate recent treatment patterns in Europe and Canada [50,51]. A recent survey of U.S. providers reports on practices and attitudes towards EPF management since establishment that all four treatment options are medically appropriate [52]. Responses reinforce that surgically trained providers prefer uterine aspiration and conduct it primarily in an operating room; nearly 80% of obstetrician/gynecologists reported no use of office-based aspiration. Family physicians and nurse midwives in this survey still largely prefer and utilize expectant management or refer out for aspiration.

These practices are influenced by many factors including procedural training, understanding of evidence-based safety and efficacy data, system resources, and staff buy-in [52], but fail to reflect what is known about patient preferences. Low utilization of medical management is associated with provider perceptions that misoprostol may not be safe or preferred by patients for EPF care [52]. Family physicians also report a lack of surgical back-up or staff support as barriers to using medical management [52].

Office-based aspirations also remain a small proportion of all surgically managed EPF. Reported barriers to office management include space constraints, lack of nursing or staff support, and lack of training [52]. Upholding clinical divisions between care for EPF and pregnancy termination may limit exposure and skill training in office-based uterine aspiration [5]. Though cost-effectiveness analyses support use of office-based aspiration over operating room management, some providers may be hesitant to undertake system changes and forego reimbursement for operating room procedures [16,42].

Furthermore, despite evidence that outpatient uterine aspiration is well-tolerated for other reproductive healthcare indications, many providers assume patients wish to have a painless, asleep procedure for EPF management [52]. This bias has been noted in the literature previously as shaping provider practice [5]. Providers aware of their own bias can respect patient preferences by including an open discussion of all options, even options that may not reflect their personal choice, or what they are prepared to provide.

In recent years, clinician training in family planning has steadily increased within obstetrics and primary care fields [53–55]. This may result in a cohort of providers that is more familiar with talking frankly about women's complicated feelings around pregnancy, and has more training in providing office-based aspiration and medical intervention for EPF patients.

5. Shared decision-making in EPF care

The gap between patient preferences and clinical practices in EPF management resonates with patterns seen in other preference-sensitive clinical scenarios. We suggest that in order to reconcile this mismatch between patient experience of miscarriage and provider approach to management, a new model for communication surrounding EPF treatment is needed. Some strategies for counseling patients surrounding the grief and distress with pregnancy loss have been offered previously [22,44,56], but a structured approach to decision-making is not present in the literature. In many medical arenas, shared decision-making is increasingly used to foster patient autonomy and applied in preference-sensitive clinical encounters [20,57–59]. Though such a model has yet to be applied explicitly to EPF management, advocates of patient-centered care have called for it [4,18,60].

Charles et al. outline a model for shared decision-making that operates through three primary components: (1) information exchange; (2) deliberation; and (3) negotiation about and agreement to implement a treatment decision [20]. The provider presents all medical information necessary to make the decision, the patient provides information about her personal circumstances, values, and priorities, and finally the provider also discusses personal preferences for treatment while acknowledging the values and bias that influence this choice.

We apply the model of shared decision-making to EPF care by utilizing evidence about patient priorities. This counseling framework aims to increase patients' knowledge, autonomy and control of treatment decisions [20], and may ameliorate patient's feelings of helplessness that can accompany both the experience of miscarriage and the task of facing a medical treatment decision [44]. The shared decision-making model requires a two-way exchange of information that includes sharing of values by both the provider and patient, in order to arrive at a treatment decision [20]. Negotiation may be more effective if the provider assumes a role of "healthy detachment" [61]. Singer et al. describes this as an examination of personal preference or bias to establish self-awareness and allow for a non-judgmental and non-directive discussion of management options. Providers can begin the process in advance by acknowledging that their training, available resources, and perceptions of patient preferences may influence how they present options to patients [61,62].

The integration of shared decision-making into EPF counseling is fluid in nature and will develop according to individual style. We suggest beginning with a review of all management options, including anticipated advantages, disadvantages, and outcomes, as referenced in Table 2. Next, we encourage providers to elicit patient priorities and preferences through use of a checklist, described below and found in Fig. 1. The provider can then disclose recommendations for treatments according to clinical discretion

and evaluation of the patient's priorities. Finally, after an opportunity for the patient to consider all factors or to discuss them within her support network, a joint negotiation and agreement to a treatment plan can be reached.

5.1. Evaluating patient treatment priorities

Uncovering patient preferences for treatment can be challenging in the context of miscarriage. To create a patient treatment priority tool, we used the findings of three studies on women's priorities for miscarriage management to elucidate central themes reported. We then grouped these themes according to type (personal, emotional, and physical factors), and phrased each factor so it could be given a value by the patient as being: (a) not important, (b) somewhat important, or (c) very important, in her decision about miscarriage management options. The resulting patient treatment priority checklist is presented in Fig. 1, which can be used by patients to rank factors identified by the women in these studies.

Some patients will be comfortable self-administering a checklist, while others may prefer or require the assistance of the provider to review it. Future work will include further testing of this checklist and developing a validated decision aid for EPF management care.

6. Further counseling considerations

6.1. Providing options when choices are limited

When all EPF treatment options are not immediately available, it is prudent for providers to acknowledge such limitations, be informed about the availability of other management options, and provide timely referrals based on patient preference. Primary care providers accustomed to offering expectant management can identify back-up for medical and aspiration (both office-based and operating room) management. Emergency department (ED) providers can keep a referral resource list for patients, though there is also strong precedent for incorporation of aspiration management for incomplete miscarriage into ED practice [10,63].

Even providers with limited options can utilize the shared decision-making framework by incorporating referral processes in the information exchange. Some providers may discover that patients can have priorities both centered on care continuity, such as treatment by primary care provider or timeliness to completion, and factors characteristic of options they cannot directly provide. This discrepancy may encourage further exploration of how to expand EPF management within individual practices.

In spite of the best intentions, providers may not be able to readily overcome local standards and barriers in order to respond to the evidence in offering all therapeutic options. In fact, data indicate that providing evidence to providers alone is not enough to change medical practice [64,65]. Health care quality models show that training to implement systems change has greater effect than individual efforts at evidence-based innovation [66]. While increased training of all women's health providers in EPF management options is a first step, it is important to consider further actions to integrate new practices effectively. As an example, one hospital clinic collaborated with a local abortion clinic when working towards incorporation of office-based aspiration into their practice. For the first time, hospital staff accustomed to operating room procedures were able to observe that vacuum aspiration could be performed in an awake patient in a comfortable and humane way [5]. Like any new service, introducing office-based aspiration or medical management may be aided by steps such as building staff buy-in to align goals, providing staff training and piloting of the new service, setting

Patient Treatment Priority Checklist for Early Pregnancy Failure

Please consider the following factors and rate their level of importance in making a decision about how to manage your miscarriage.

TREATMENT PRIORITY	Not Important	Somewhat Important	Most Important
Personal Factors			
Maximize privacy			
Treatment by your own doctor			
If you have had a miscarriage or pregnancy termination before, want same treatment as previously experienced (may leave blank if n/a)			
Recommendation of treatment from friend / family			
Emotional Factors			
Most “natural” intervention			
Do not want to see the pregnancy tissue (or the “baby”)			
Physical Factors			
Least pain			
Shortest time before miscarriage is complete			
Shortest time in the clinic / hospital			
Want to experience symptoms of bleeding and cramping at home			
Fewest days of bleeding after treatment			
Lowest cost of treatment to you			
Lowest risk of complications			
Lowest risk of need for other steps			
Want to avoid drugs			
Want to avoid going to sleep			
Want to be asleep			
Do not want to see blood			
Other Factors (please list):			

Checklist based on treatment priorities evaluated by Dalton [16], Smith [18], Petrou [47].

Fig. 1. Patient treatment priority checklist for early pregnancy failure.

clear performance indicators to follow (such as patient satisfaction, time, or cost), and communicating effectively about the results to reinforce changes [67].

6.2. Providing follow-up to EPF management

For all providers, whether the shared decision-making model is new or routine, we recommend a follow-up assessment with each patient to gauge management success according to individual preferences and values. During follow-up, providers also can evaluate health-related quality of life (HRQL) factors related to miscarriage management, such as limitations on social or role activities due to physical or emotional problems [17,68]. This

assessment should be made systematically, regardless of the method of treatment, to evaluate the decision-making process within individual practices and patient populations. The evaluation can incorporate a review of the patient treatment priority tool to look for preference patterns among patients or to compare patient rankings of priorities before and after the miscarriage. This may be particularly helpful for providers in becoming familiar with and adjusting how they use the checklist.

Follow-up counseling has been shown to reduce the incidence of adverse psychological outcomes following EPF management. In a randomized control trial over a 12-month period following EPF management, women receiving intensive “caring-based counseling” compared to standard counseling showed better

emotional well-being scores, although these improved with time in both groups [68].

In addition to offering such follow-up, it may be helpful for women who are particularly bereaved to counsel about anniversary phenomena, to role-play how she might discuss the loss with family and friends, or to help her prepare for future events such as the birth of a friend's baby.

7. Discussion and conclusion

7.1. Discussion

There are four reasonable strategies for treatment of EPF: expectant management, medical management, uterine aspiration in the office, and aspiration in an operating room. In rare instances in which women present with unstable vital signs, dramatic infection or hemorrhage, or serious underlying illness, operating room management may be the only prudent option. However there is strong evidence for the safety and efficacy of all four treatment options in the vast majority of circumstances.

This makes EPF the ideal condition in which patient preference should prevail in management decisions. There is good evidence that women have strong and varied preferences, and greater satisfaction when treated according to these preferences. Many women do prefer office-based aspiration and medical management, the two strategies most recently added to traditional approaches of expectant and operating room aspiration. It appears that many providers, however, do not offer women the full range of safe, effective options available.

Reasons for lack of offering all options are complex, and may include provider training, skills and comfort of support staff, the difficulty of making institutional changes, and patient–provider communication, including the time pressures on busy clinicians. It may be difficult for individual providers to overcome local standards and barriers, which is why systems change is also needed to increase patients' access to comprehensive management for EPF.

Patient–provider communication may be the easiest barrier to change, and therefore this article offers a model for improved communication – shared decision-making – as well as a patient decision-making tool to assist in EPF management. Shared decision-making may not suit all patients [69] or all providers [70]. However, this model allows for equal exchange of information, creating a partnership and balance of power during the intimate and personal experience of miscarriage. It suggests a context for presenting the evidence on EPF management options, and an organized method to elicit patient priorities and concerns about management. With shared decision-making, providers also are encouraged to examine and to be transparent about their own values and the factors that influence the services they offer to women with EPF. Ultimately, fostering a woman's agency during miscarriage and its management can be a great source of empowerment for her.

7.2. Conclusion

Women experiencing EPF are unique in their clinical presentation, their emotional experience, and their priorities for management. The choice of management is a highly preference-sensitive decision and we encourage providers to discuss all options with their patients, even if they are unable to provide all services directly.

7.3. Practice implications

A patient-centered approach to EPF management incorporates evidence for treatment options and patient preferences. Providers

of EPF treatment should inventory their own practice to determine the barriers to offering women with EPF the full range of treatments deemed safe and efficacious.

To the extent to which communication with patients and concomitant time pressures influence treatment recommendations, a shared-decision-making framework and decision tool may help serve women better. The patient treatment priority checklist presented here may aid providers in integration of this method into clinical practice.

These are initial strategies to implement change in current practice to improve EPF management for women. Additional barriers to comprehensive EPF care should be identified and targeted.

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