The Challenges of Implementing The Eras Protocol in Obstetrics and Gynecology

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Abstract: Enhanced recovery after surgery (ERAS) refers to a comprehensive, multidisciplinary, evidence-based perioperative care pathway designed to minimize surgical stress and accelerate postoperative recovery. Initially adopted in colorectal surgery, the ERAS framework has expanded to multiple fields, including obstetrics and gynecology. However, as with any significant shift in clinical practice, there are challenges to be addressed, successfully incorporating ERAS principles into everyday care requires institutions to adjust protocols, restructure care pathways, and involve multiple stakeholders. This review discusses the key barriers to implementing the ERAS protocol in OB/GYN settings and explores potential solutions.

Key Words: ERAS, implementation, barriers, challenges, OBGYN

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Enhanced recovery after surgery (ERAS) refers to a comprehensive, multidisciplinary, evidence-based perioperative care pathway designed to minimize surgical stress and accelerate postoperative recovery.[1] Initially adopted in colorectal surgery, the ERAS framework has expanded to multiple fields—including obstetrics and gynecology (OB/GYN)—with specialty-specific protocols now emerging for cesarean deliveries, gynecologic oncology procedures, and benign gynecologic surgeries.[2,3] However, as with any significant shift in clinical practice, there are challenges to be addressed: successfully incorporating ERAS principles into everyday care requires institutions to adjust protocols, restructure care pathways, and involve multiple stakeholders.[4,5] In OB/GYN specifically, the ERAS Society Handbook underscores the need for careful coordination among surgeons, anesthesiologists, obstetricians, midwives, nurses, nutritionists, and administrators to ensure preoperative optimization (patient education, nutritional support, and minimal fasting), standardized anesthetic and analgesic techniques (opioid-sparing pain control, nausea prophylaxis), and postoperative care elements (early feeding, early mobilization, prompt catheter removal). These measures are aimed at improving patient outcomes and enhancing recovery in women's health surgery.[6] Published ERAS guidelines specific to OB/GYN, such as the ERAS Society consensus for gynecologic oncology and the American College of Obstetricians and Gynecologists (ACOG) Committee Opinion No. 750,[7] underscore that adhering to ERAS elements can improve pain control, shorten length of stay, and reduce complications after both benign and oncologic gynecologic procedures. For example, a systematic review and meta-analysis in gynecologic oncology reported that ERAS protocols reduced hospital length of stay by about 1.6 days on average and decreased overall complication rates by 32%, without increasing readmission or mortality.[8] In addition, ERAS patients also saw significant cost savings (~$2,100 USD per patient) compared with standard care.[8] Harrison et al[9] compared hospital charges before and after ERAS implementation and found the median 30-day surgical and postoperative hospital charges in the ERAS group were 15.6% (95% CI: 5%-24.5%) lower than the pre-ERAS group. Such findings emphasize the promise of ERAS in improving recovery and reducing health care costs in OB/GYN populations. Despite these proven benefits, translating ERAS guidelines into routine OB/GYN practice could be challenging. Many institutions report inconsistent or limited uptake of ERAS pathways.[10] Barriers can arise at multiple levels—from individual clinicians' behavior and patient factors to broader organizational and resource constraints. A recent cross-sectional study from France highlighted that major impediments to ERAS adoption include environmental and resource issues (such as lack of personnel, funding, and coordination) and gaps in knowledge or awareness among providers.[10] This review discusses the key barriers to implementing the ERAS protocol in OB/GYN settings and explores potential solutions. It is crucial to identify the barriers at each specific organization to tailor implementation strategies.

CHALLENGES IN IMPLEMENTATION

Successfully implementing the ERAS pathway/protocol in an OB/GYN department requires more than just following a checklist of interventions; it necessitates changes in culture, coordination, and resource allocation. Below, we detail several major challenges that have been identified as barriers to ERAS implementation in OB/GYN, which are similarly reflected in broader surgical contexts.

Absence of a multidisciplinary approach

Team coordination and role clarity: ERAS is inherently multidisciplinary, involving surgeons, anesthesiologists, nurses, pharmacists, midwives (in obstetric cases), dietitians, physical therapists, and more. A common implementation challenge is the lack of a cohesive team-based approach. When there is no established multidisciplinary collaboration, inconsistencies and gaps may emerge—for instance, anesthesia may adhere to ERAS principles while postoperative nursing care follows traditional routines, or vice versa. Studies have noted that poor communication and collaboration among perioperative team members is a significant barrier to ERAS success.[11] In China, investigators reported that ERAS programs often lacked a unified, well-structured plan across disciplines, and that team members had not fully reached consensus on ERAS

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TABLE 1. Stakeholders in an ERAS Obstetrics and Gynecology Pathway

Surgeons (obstetricians, gynecologists, gynecologic oncologists)
Anesthesiologists
Nurses
Department/Clinic managers, educators and frontline staff representing all areas where the patient is receiving care (primary care; surgeon office; preadmission; admitting unit; day surgery unit; operating room; postanesthetic care unit; postpartum/postoperative care unit; follow-up clinic/office)
System administrators
Department heads
Patients
Pain specialist
Pharmacist
Dietitian
Infection prevention and control
Physiotherapist
Enterostomal therapy nurse
Patient flow coordinator
Additional professionals who may be engaged to assist with implementation and sustainment activities include:
Project managers
Quality improvement specialist
Patient safety department
IT department
Data analysts
Librarian
Internal communications team
Patient education department

practices. This lack of alignment led to unclear responsibilities and overlapping or missed tasks in the ERAS pathway.[12] In essence, the "absence of a multidisciplinary approach" can manifest both as too little involvement (key stakeholders not being included in planning) and as disjointed involvement (multiple stakeholders present but not coordinated).

"Too many cooks in the kitchen" effect: Involving many specialties without clear leadership or role definition can complicate implementation. Diverse perspectives are valuable, but if each discipline has its own priorities or if there is disagreement on protocol details, progress can stall. For example, anesthesiologists might emphasize early mobilization and nonopioid analgesia, while surgeons focus on surgical technique and fast-tracking discharge, and nutritionists on dietary aspects. If these priorities conflict or if no one mediates a common plan, the ERAS pathway may become fragmented. Assigning an ERAS coordinator (often a nurse or clinician) is a key best practice. This is a significant role within the team, usually recognized as its "engine." The ERAS coordinator will assume the day-to-day responsibilities for the ERAS program. This person will serve as the team's linchpin, oversee the pathway implementation, foster communication, and ensure adherence.[4,13] As Stone et al[14] noted in their systematic review, staff resistance, and siloed practices seriously hinder ERAS adoption, underscoring that a "strong multidisciplinary team with good communication" is essential for success. Therefore, simply forming a multidisciplinary team is not enough, it must function cohesively. Table 1 provides a list of potential team members in an ERAS Obstetrics and Gynecology Pathway.

Lack of a regulation committee or formal task force

Leadership and accountability gaps: A successful ERAS program typically benefits from dedicated leadership—often in the form of an ERAS committee, implementation task force, or at least a committed coordinator (ERAS coordinator). A formal committee provides oversight, sets protocols and order sets, monitors compliance, and addresses problems as they arise. Many OB/GYN departments, however, initiate ERAS without establishing such structures, relying instead on informal efforts by interested individuals. This lack of a formal task force can lead to diffusion of responsibility. Without clear accountability, busy clinicians may not feel compelled to change entrenched habits or may assume someone else is managing the ERAS initiative. The literature identifies "lack of unified management" as an obstacle in ERAS rollouts.[15–17] In practical terms, without a steering committee or champion, there may be no mechanism to routinely audit ERAS adherence or outcomes, and no forum to provide feedback to the clinical staff. This makes it difficult to sustain the protocol beyond initial enthusiasm. The literature recommends formalizing roles through committees or task forces so that everyone knows who is responsible for what aspect of ERAS and whom to consult for issues.[18]

Policy support and institutional backing: A related issue is the lack of hospital-level policy or support for ERAS. A formal ERAS committee often needs endorsement and resources from the hospital/institution administration. When such top-down support is missing, departments struggle to enforce the protocol. One report from South Korea highlighted a "lack of policy support" as a barrier, noting that many hospitals had not introduced incentive policies or guidelines to encourage leaders and staff to adopt ERAS.[12] In the absence of institutional mandate or recognition, ERAS may be seen as optional or experimental, rather than the standard of care. Furthermore, without formal status, an ERAS initiative might not receive protected time for staff training or meetings. This challenge is compounded in OB/GYN if there is no cross-department task force; for instance, implementing ERAS for cesarean deliveries might require coordination between the obstetrics unit and the main surgery department, which is hard to achieve without a formal committee bridging those divisions.

Importance of feedback mechanism and structured training: Regular check-ins and feedback loops—such as periodic audits, data-driven reviews, and team debriefings—are critical for sustaining ERAS compliance, and for promptly identifying areas for improvement.[19] Debriefing sessions allow multidisciplinary teams to reflect on clinical events, identify areas for improvement, and reinforce best practices. For instance, a study demonstrated that adding in-person debriefings to electronic feedback significantly improved serious game scores among anesthesiology residents managing emergent cesarean deliveries, emphasizing the educational benefits of debriefing practices.[20] Equally important is continuous education through ERAS workshops and structured training programs, which ensure that all staff are well-versed in the pathway's elements and implementation procedures.[19,21] Expert surveys further emphasize that providing resources for ongoing staff training and regular compliance feedback are among the most vital measures to sustain a successful ERAS program long term.[22] By investing in these feedback and education cycles, OB/GYN departments can embed a culture of continuous quality improvement that upholds ERAS principles and optimizes patient outcomes.

Importance of auditing: Evidence suggests that active auditing improves compliance more effectively than passive implementation.[2,23,24] To optimize adherence and patient outcomes, clinicians are encouraged to use auditing tools such as the ERAS Interactive Audit System (EIAS) (http://erassociety.org/interactive-audit/)[25] or any other system. Successful ERAS implementation requires ongoing auditing and reinforcement. A study in gynecologic oncology showed that compliance monitoring helped sustain ERAS adherence, leading to improved patient outcomes. These findings emphasize the necessity of dedicated ERAS coordinators and structured institutional policies to drive adherence.[26] The implementation and evaluation of ERAS protocols align closely with the well-established Plan-Do-Study-Act (PDSA) quality improvement model. Figure 1 represents this aligment, describing the PDSA cycle along with the core components of ERAS implementation. Continuous iterations of the PDSA cycle are essential for the successful implementation and long-term sustainability of the ERAS pathway.

Time and effort demands in a busy health care environment

Workload and time constraints: Implementing ERAS protocols adds additional tasks and coordination to the perioperative workflow. In a busy OB/GYN service—often juggling scheduled gynecologic surgeries, emergency obstetric cases, and high patient volumes—finding the time and energy to design, test, and refine a new protocol is a major hurdle. Clinicians frequently cite lack of time as a barrier to ERAS adoption.[27] Nurses and physicians already operating at full capacity may find it impractical to attend ERAS committee meetings, perform extra documentation for ERAS elements, or follow-up on compliance data. Moreover, developing, implementing, and evaluating an ERAS pathway is a substantial time investment, underscoring the need for realistic expectations and consistent communication among stakeholders. According to Pearsall and McLeod,[28] fully integrating ERAS pathways into patient management can take more than 5 years. Multiple studies conducted within ERAS pathways have further highlighted this concern: patients observed that the high workload of health care professionals often left them extremely busy, occasionally leading to delays or missed care tasks.[29–31]

Competing priorities and burnout: OB/GYN clinicians experience some of the highest burnout rates in medicine, ranging from 40% to 75%.[32] This burnout often leads to exhaustion and cynicism, reducing clinicians' capacity and motivation to implement new protocols like ERAS. Burned-out providers are more likely to resist additional tasks and may struggle with quality improvement efforts, largely due to staffing shortages and high workloads. A recent narrative review of ERAS in gynecologic surgery found that lack of manpower (ie, insufficient personnel) and limited resources are major barriers to ERAS implementation.[33] Nurses have also reported frustration at the lack of time to follow ERAS guidelines or to address compliance issues when patient loads are heavy. As one article notes, nurses are increasingly "leaving the bedside…victims of stress, burnout, exhausting work conditions," which worsens staffing shortages and makes it even harder to consistently implement ERAS changes.[34] Without adjustments, the added workload related to the implementation of the ERAS pathway can lead to fatigue and frustration. However, with proper support, a structured ERAS program can enhance efficiency and potentially create a "more rewarding, less stressful working environment."[34]

Funding and sponsorship challenges

Financial resources for implementation: Establishing an ERAS program often requires upfront investment. Costs may include staff training sessions, hiring an ERAS coordinator and data manager, updating patient education materials, and sometimes purchasing adjunct resources (such as specific pain control devices or nutritional

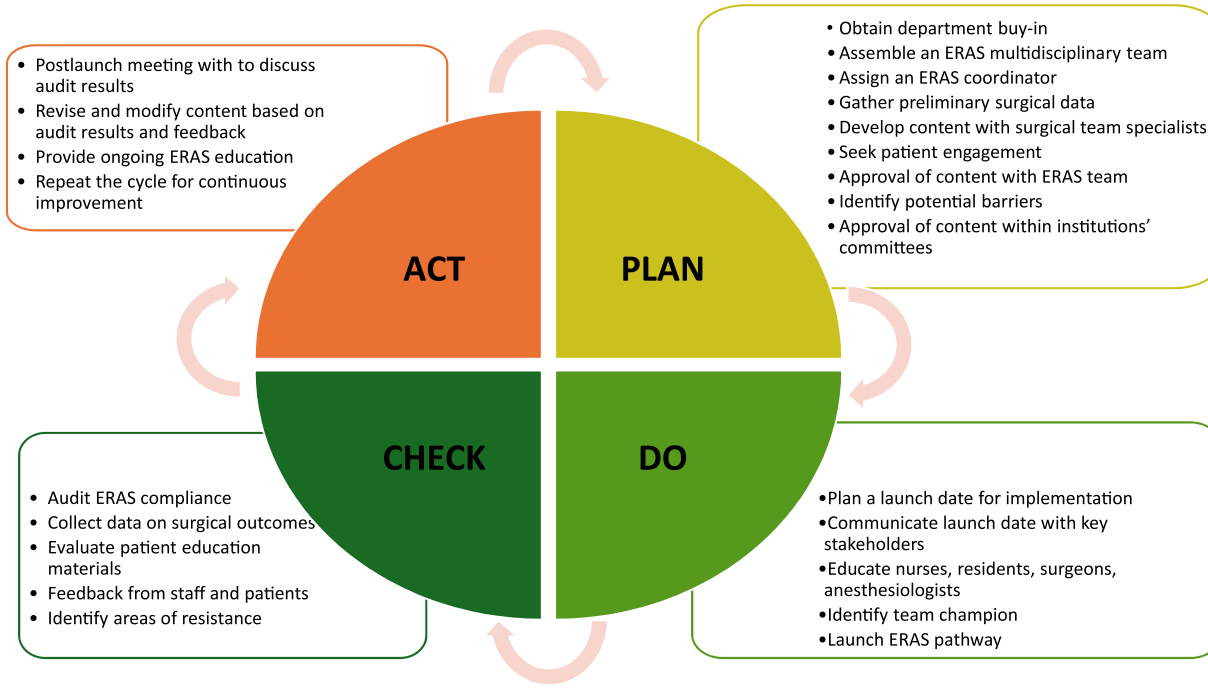

FIGURE 1. PDAS cycle for ERAS implementation full color online

supplements). In many health care settings, departments have limited budgets, and allocating funds for a new initiative like ERAS can be difficult without clear financial support. A shortage of financial resources has been identified as a structural barrier to ERAS.[35] In France, a survey of providers found that "lack of funding" was among the top-cited reasons for not practicing ERAS routinely.[10] Hospitals may be reluctant to sponsor ERAS programs unless they are convinced of a return on investment. This can create a Catch-22 situation: the benefits of ERAS (eg, cost savings from shorter length of stay) often accrue after successful implementation, but securing funding is needed to implement ERAS in the first place. A nonrandomized Canadian prospective study of over 500 patients undergoing gynecologic oncology surgery found that increasing ERAS compliance from 56% to 77% led to a 31.4% reduction in adjusted length of stay and cost savings of $952 per patient.[24] A study across 6 Albertan hospitals found cost savings of $2806 to $5898 per patient,[36] while a financial analysis at Johns Hopkins Hospital demonstrated net savings of ~$400,000.[37] Also, a cohort study at MD Anderson Cancer Center comparing pre-ERAS and ERAS groups in patients undergoing open surgery for suspected gynecologic malignancy found a 15.6% reduction in median hospital charges.[9] This further indicates that implementing ERAS protocols in gynecologic oncology has been associated with significant cost reductions and enhanced health care delivery, highlighting the financial benefits of adopting such programs.

Lack of sponsorship or external support: While ERAS programs can sometimes secure external grants or industry sponsorships, these opportunities are less common in quality improvement compared with disease-specific initiatives, such as cancer trials. A 2023 narrative review in Clinical and Experimental Obstetrics and Gynecology highlighted that one of the main barriers to ERAS adoption in gynecologic surgery is the lack of support from institutions and scarce financial resources.[33] Without external sponsorship, the financial burden falls entirely on hospital administrations, forcing some departments to rely on volunteerism or uncompensated additional duties, which is not sustainable. An international review of ERAS in cesarean deliveries emphasizes that increased government funding and resource allocation would facilitate wider ERAS implementation, ensuring hospitals have the infrastructure and training needed to follow ERAS guidelines.[38] Moreover, a multicenter qualitative study found a "funding gap" between government allocations and actual hospital needs, leading to insufficient financial support from both government and hospital administrations for ERAS.[12]

Resistance to change and a lack of unified belief in ERAS

Clinicians resistance: A critical barrier to ERAS implementation in OB/GYN is the resistance to change and skepticism among clinicians and patients alike. Health care providers often grow comfortable with established routines, and the standardized nature of ERAS protocols can be perceived as disruptive.[14,16,39] In gynecologic surgery, "clinicians' resistance to change" has been cited as the most frequent and challenging obstacle.[33] If key clinicians do not fully believe in the ERAS protocol's benefits or are skeptical about its evidence base, their lukewarm engagement can impede implementation. For example, some OB/GYN surgeons question whether ERAS offers any advantage for minimally invasive surgery (MIS), doubting its impact on fast-track recovery. However, despite the minimally invasive nature of some surgeries, same-day discharge rates were only 30% highlighting the need for ERAS pathways to significantly enhance recovery efficiency.[40] A recent review found that an ERAS MIS protocol in gynecologic oncology improved the rates of same date discharge from a baseline of ~30% to 50% to 70%, depending on the extent of measures in place patient education, standardized orders, prioritizing surgery earlier in the day, early Foley removal, reduction of opioids, and prophylactic antiemetics.[41] Also, the benefits of ERAS implementation will extend beyond hospital discharge. An example is the reduction in opioids prescriptions at discharge. It is well known that multimodal analgesia and reduction in opioid prescribing practices has been a mainstay of ERAS programs. This is significant in the context of the ongoing opioid crisis. There is growing awareness of the implications of opioid over-prescribing to long-term use, with 6% of new persistent opioid use attributed to postsurgical exposure. ERAS implementation plays a critical role in mitigating this public health concern by promoting tailored prescribing practices.[42,43] The resistance doubt can be contagious—if respected senior staff voice reservations, others might also hesitate to change practice. As a result, compliance with ERAS protocols varies widely: one surgeon might rigorously follow ERAS guidelines while another deviates frequently, leading to mixed results that further erode confidence in the program. For example, surgeons may resist early feeding after surgery, nurses may be hesitant to remove catheters early, and even patients might push back on early mobilization.[34] Another challenge to ERAS implementation is provider hesitation regarding pain control without routine opioid use. However, studies show that opioid-free recovery is feasible in gynecologic surgery, with factors such as patient age and smoking status predicting opioid-free discharge, supporting the use of individualized pain management strategies.[44] Resistance may also stem from a knowledge gap. Surveys in France, for example, indicated that lack of awareness or understanding of ERAS was a major barrier, second only to resource limitations.[10] Additional causes of resistance include fear of the unknown (eg, concern that early feeding could lead to complications), perceived threats to clinical autonomy, or the belief that standardized protocols are overly rigid.[45] In OB/GYN, skepticism may be particularly apparent in cesarean deliveries, where clinicians might question the safety of early ambulation for postpartum patients. Overcoming this resistance requires addressing underlying fears, building trust in the evidence, and demonstrating that change is both feasible and beneficial.

Patient resistance: While much of ERAS implementation focuses on health care providers, patient cooperation is also essential.[29] Some ERAS elements require patients to actively participate—such as eating soon after surgery, ambulating early, or managing pain with nonopioid methods. If patients are not on board, they may refuse or resist these components. A common challenge is that patients (and their families) may hold preconceived notions of what postoperative care should look like, often based on traditional practices or anecdotal experiences. Patient resistance can also stem from inadequate explanation and preparation.[46] A patient-focused review noted that patients often felt they were just told what to do without being given sufficient information or rationale.[29] Some patients did not even realize they were enrolled in an ERAS program, which left them confused about the care steps and anxious about

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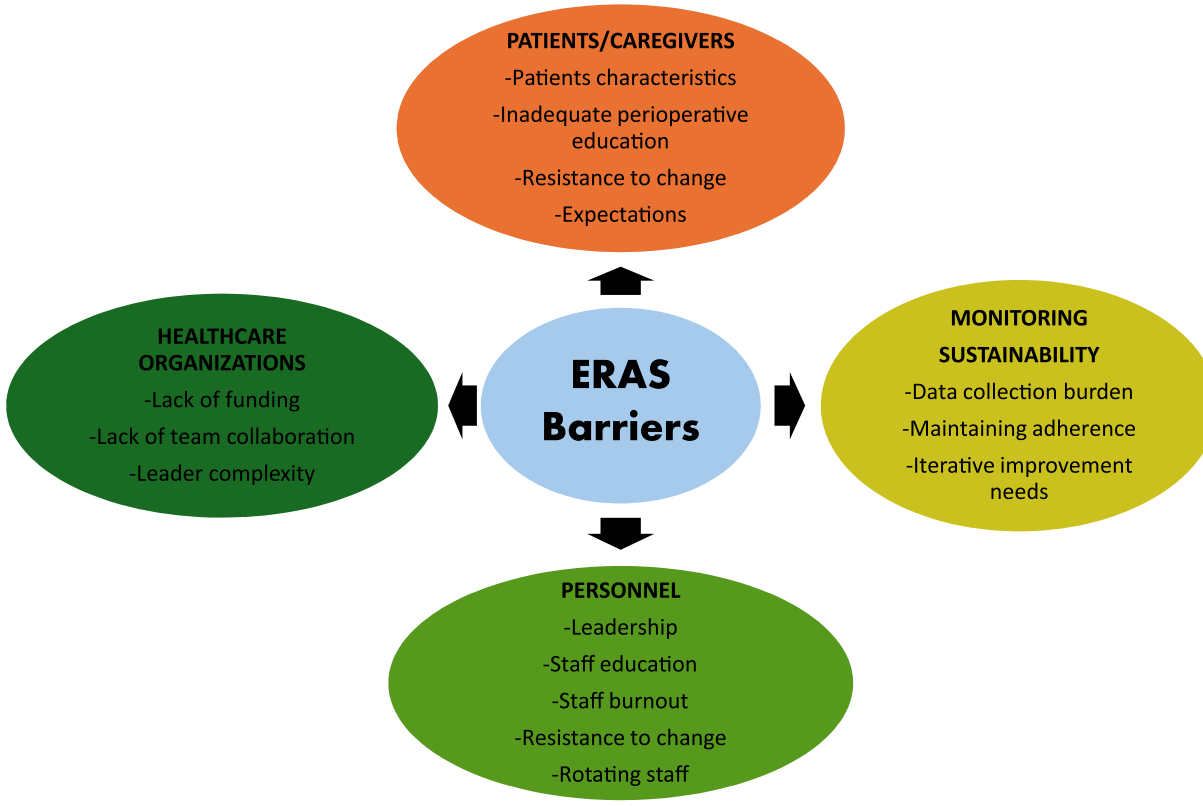

FIGURE 2. Barriers for ERAS pathway implementation full color online

their recovery.[29] In OB/GYN, there may be additional layers of patient preference—for example, a mother recovering from a cesarean might prioritize bonding with her newborn and thus resist early mobilization if she fears it will cause pain and hamper breastfeeding. One review on ERAS for cesarean delivery recommended thorough preoperative counseling (including internet-accessible or take-home educational materials) to familiarize obstetric patients with ERAS concepts and benefits.[3] Overcoming patient resistance involves bringing patients in as partners in ERAS. This starts with preoperative education[2]— explaining to patients what ERAS is and why each element is beneficial. Providing easy-to-understand pamphlets or videos about the ERAS pathway in OB/GYN (for example, a video for patients scheduled for a hysterectomy explaining the recovery process) can set expectations correctly.[7] Tailoring the education to patient demographics and cultural backgrounds (using translators, culturally appropriate materials) will further improve receptivity. It is also important to incorporate patient preferences where possible—a patient-centered approach might mean adjusting certain protocol details to accommodate reasonable requests, so long as the core principles are maintained. For instance, if a patient is very uncomfortable with early oral intake due to nausea, ensuring aggressive antiemetic use and starting with clear liquids might ease their acceptance rather than forcing solid food immediately. Some hospitals have had success using patient testimonials—having former ERAS patients share their positive experiences with new patients can overcome the fear of the unknown.

CONCLUSION

The implementation of ERAS protocols in OB/GYN offers a powerful opportunity to enhance patient recovery and clinical outcomes,[47] but overcoming implementation challenges requires concerted effort and strategy. The success of the ERAS pathway implementation and sustainability rests with the creation of an effective team who incorporates knowledge translation, change and project management, and quality improvement tools and processes. The team must involve impacted clinicians, stakeholders and engaged sponsorship and provide regular communication of activities and progress towards goals. Communication and education regarding order set adoption should be provided to all relevant care providers, with guidance for clinical judgment and appropriateness.

In this review, we highlighted several common barriers from the lack of multidisciplinary coordination and formal leadership to resource limitations, cultural resistance, and patient-related factors, that can impede the adoption of ERAS in Obstetrics and Gynecology practices (Fig. 2). Importantly, these challenges are interrelated; for example, insufficient leadership can exacerbate issues of team communication and vision, just as inadequate education can fuel resistance to change among both staff and patients. Patience and persistence are needed, early obstacles or slow progress should not be mistaken for failure but rather viewed as part of the learning curve in practice transformation. Future efforts could focus on research into the most effective implementation strategies specific to OB/GYN (for instance, how to integrate ERAS seamlessly

into the unique workflow of Labor and Delivery units or gynecologic oncology clinics). Sharing lessons learned across institutions, through ERAS society forums or publications, will continue to be invaluable, as it allows others to anticipate and address barriers proactively.

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