FALL 2025

SOAP NEWSLETTER

Official Newsletter of the Society for Obstetric Anesthesia and Perinatology

WHAT'S NEW AT SOAP:

PRESIDENT'S MESSAGE

Ron George, MD, FRCPC
President, Society for Obstetric Anesthesia and Perinatology

Dear SOAP Members,

It is an honor to serve you during a period of remarkable momentum for our society. SOAP is entering a new chapter—one grounded in strategic clarity, stronger governance, and an unwavering commitment to our members and mission. Our recent strategic planning process sets priorities that will guide us into the future, and I am excited to share how those priorities are already shaping our work.

Committees and Governance
Our committees remain the heart of SOAP's activity. This fall, we launched our annual **Call for Committee Interest**, an opportunity for members to contribute directly to advancing our mission. With newly defined charters, deliverables, and timelines, committees are becoming more transparent and accountable. We are also developing a **governance toolkit** to clarify roles, support succession planning, and prepare future leaders. This will ensure that SOAP remains nimble, inclusive, and well-prepared for long-term success.

(*cont'd. - President's Message*)

SOAP
Society for Obstetric Anesthesia and Perinatology

Philanthropy and Legacy Giving

The sustainability of SOAP depends on building resources that support research, education, and advocacy. Through our **Endowment Fund and legacy fundraising initiatives**, we are laying the foundation for impact that endures. Recent events like the "Party with a Purpose" benefit demonstrated how collective generosity can translate into meaningful support for SOAP priorities. Every contribution—whether annual giving, targeted campaigns, or planned gifts—helps us ensure that SOAP remains a leader in advancing safe and equitable maternity care.

Member Value and Experience

Our commitment to **member value** is stronger than ever. We are redesigning our educational offerings—such as **SOAP Fundamentals, PEAK (Professional Excellence Advancement Keys)**, and Special Interest Groups—to ensure that they are tailored to your professional needs. These programs reflect one of our core strategic goals: delivering **personalized, data-driven, and clinically relevant content** that supports you at every stage of your career. Our vision is a digital and in-person experience that feels seamless, intuitive, and impactful—much like the "Netflix-style" content model many of you asked for.

Community and Advocacy

SOAP's influence reaches beyond our society. Guided by our new strategic priorities, we are strengthening **community and advocacy efforts**—not only within SOAP but also across the broader maternal health landscape. We are working with other societies, policymakers, and regulators to amplify SOAP's voice in advancing equity, access, and safety. At the same time, our research initiatives are increasingly focused on translation—ensuring that the evidence generated by SOAP members is converted into practical clinical resources that improve outcomes for mothers and babies.

Annual Meeting Transformation

Looking ahead, planning is underway for the **2026 SOAP Annual Meeting in Montreal, Quebec**. This will be a platform for the new vision of what SOAP meetings can be. Guided by our Strategic Directions "Members Experience" priority, we are redesigning the meeting structure to better serve the diverse needs of our community: more interactive formats, targeted programming, and expanded opportunities for mentorship and networking. This transformation is about more than one meeting—it is about ensuring SOAP's flagship events remain at the cutting edge of learning and connection for years to come.

(cont'd. - President's Message)

EDITOR'S NOTE

Kristen L. Fardelmann, MD
Editor, Society for Obstetric Anesthesia and Perinatology Newsletter

Dear Colleagues,

We are delighted for a new season of the SOAP Newsletter. This Fall publication celebrates our history and takes a glimpse at our future, identifying opportunities for personal and professional growth and a framework for leadership and influence. **Dr. Ron George**, our SOAP President, introduces the organization's priorities and establishes an infrastructure for our work moving forward. Of immediate importance, we include the timely release of the **SOAP Statement on Acetaminophen in Pregnancy.**

Drs. Lauren Crosby Zawierucha, Emily Naoum and May Pian-Smith highlight the advances, current challenges, and future directions of our collective knowledge and impact as an obstetric anesthesiology subspecialty. Our voices have tremendous potential to propel our patients, our community and our subspecialty into the future. We need only be involved to make a difference. In this newsletter publication, **Dr. Joy Hawkins** advocates for self-nominated participation in every ASA committee, emphasizing the importance of our obstetric anesthesia expertise. **Dr. Mark Zakowski** provides an update from the **ASA Committee on Obstetric Anesthesia**, leading by example within both SOAP and ASA.

We are thrilled to introduce the new SOAP Newsletter Pro-Con Debate. **Drs. Michelle Simon and Kristen Fardelmann** analyze the benefits of conservative medical management versus prompt epidural blood patch placement for postdural

(cont'd. - Editor's Note)

PRESIDENT'S MESSAGE - CONTINUED

SOAP at ASA 2025

Our society's leadership will also be highly visible at the **ASA Annual Meeting this October**. I am delighted to share that **Dr. Lisa Leffert will deliver the SOAP Gertie Marx Plenary Lecture, "OB Anesthesiologists and Transformation,"** a recognition of the profound influence our subspecialty has on the future of perioperative medicine. In addition, I will moderate the **SOAP President's Panel: "The Obstetric Anesthesia Workforce: Evidence, Equity, and Evolution,"** joined by leaders **Ruth Landau, Mahesh Vaidyanathan,** and **Viken Farajian**. Together, we will examine the challenges and opportunities in building a sustainable and equitable obstetric anesthesia workforce. These sessions underscore SOAP's role as a thought leader and its increasing presence on the national stage.

Looking Ahead

SOAP's strength lies in the passion and commitment of its members. Whether through committee service, philanthropy, participation in educational programs or advocacy, your engagement is what propels us forward. Our strategic priorities—Experience, Community, and Infrastructure—are not abstract statements; they are a living framework guiding everything we do. With them, we are ensuring SOAP is future-ready: member-focused, mission-driven, and globally relevant.

Thank you for being part of this journey. Together, we are not only shaping the future of obstetric anesthesia, we are also transforming the landscape of maternal care.

With gratitude and excitement,

Ron George, MD, FRCPC

President, Society for Obstetric Anesthesia and Perinatology

EDITOR'S NOTE - CONTINUED

puncture headache. Nominations for upcoming pro-con debate content and authors are welcome.

The SOAP Member Value Committee is excited to present **SOAP PEAK** (Professional Excellence and Advancement Keys), our NEW Educational Lecture Series that presents engaging, expert-led sessions for your professional growth. SOAP PEAK is an expansion of the previous SOAP Fall Forum, our organization's professional development series that focused on research, education, quality and leadership for the professional at every phase of their career. Register today for the first virtual session on November 13, 2025: ***Climbing to the top through: quality improvement***. Sessions will be available in perpetuity on the SOAP website for members.

Opportunities abound for the SOAP community to lead through influence at the national and international level. Our SOAP partner, the **Foundation for Anesthesia Education and Research (FAER)**, provides an additional avenue to support of our obstetric anesthesiology and perinatology investigators. We look forward to the future as our members integrate and advocate in new arenas. I hope to connect with many of you at *Anesthesiology 2025*.

Sincerely,

Kristen L. Fardelmann, MD

SOAP STATEMENT ON ACETAMINOPHEN IN PREGNANCY

The Society for Obstetric Anesthesia and Perinatology (SOAP) affirms the importance of protecting maternal and fetal health through safe, effective, and evidence-informed approaches to pain and fever management in pregnancy. As experts in pregnancy and postpartum pain care, anesthesiologists play a central role in ensuring that safe, effective, and evidence-based options are available to pregnant patients.

Acetaminophen is one of the most used medications in pregnancy, with a long history of safety when taken as recommended. Current evidence does not support a causal relationship between acetaminophen use in pregnancy and adverse neurodevelopmental outcomes. In contrast, untreated maternal fever and pain are well-documented threats to maternal and fetal health with associated adverse outcomes. Clinical decision-making should continue to prioritize shared discussions between patients and their healthcare providers.

SOAP has a responsibility to guide families with clarity, balance, and compassion, ensuring that decisions are grounded in the best available science. In alignment with the American College of Obstetricians and Gynecologists (ACOG) and the Society for Maternal-Fetal Medicine (SMFM), SOAP joins our obstetric colleagues in affirming that acetaminophen remains an appropriate and essential option for pregnant patients. Together, we stand in advocating for safe, evidence-based maternal care and for the best outcomes for mothers and babies.

OBSTETRIC ANESTHESIA SAFETY: MILESTONES, CHALLENGES, AND FUTURE DIRECTIONS

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Introduction

Anesthesiology has emerged as a leader in patient safety through innovations in monitoring, education, simulation, and human factors analysis. Obstetric anesthesia specifically has demonstrated a significant reduction in anesthesia-related maternal morbidity and mortality over the last half-century.[1] Anesthesia-related complications are now the least common cause of maternal mortality. However, maternal mortality remains a leading cause of death in women aged 20-44 years, and issues such as increasing patient complexity, and racial and socioeconomic disparities, still pose a threat to maternal safety.[2] This article provides a retrospective on recent progress in obstetric anesthesia and explores ongoing challenges in patient safety.

Milestones

Anesthesia-related maternal mortality decreased significantly with the shift away from general anesthesia and toward contemporary neuraxial techniques.[1]

(cont'd. - Obstetric Anesthesia Safety: Milestones, Challenges, and Future Directions)

Obstetric Anesthesia Safety: Milestones, Challenges, and Future Directions - Continued

Modern labor analgesia emphasizes lower dose local anesthetic concentrations and lower total consumption, reducing the risk of high block, local anesthetic toxicity, and operative vaginal delivery.[3] The introduction of non-cutting needles reduced the risks associated with subarachnoid block (SAB) for surgical anesthesia, while avoiding complications inherent to epidural techniques.[4] Optimizing vasopressor use to treat spinal-induced hypotension and lowering intrathecal opioid doses for postpartum analgesia further reduced adverse effects.[3] That said, neuraxial is not without risk. High block and SAB-associated bradyarrhythmia continue to be leading causes of maternal cardiac arrest.

Morbidity and mortality from aspiration and failed airway management has declined to very low levels. Expanded access to videolaryngoscopy, use of aspiration prophylaxis, publication of difficult airway algorithms, and incorporation of obstetric specific recommendations in airway guidelines, has improved the safety of general anesthesia for pregnant patients.[5]

Obstetric anesthesia as a specialty has also had a key role in addressing non-anesthetic causes of maternal morbidity and mortality. Anesthesia professionals are instrumental in the effective management of hemorrhage, hypertensive crisis, sepsis, venous thromboembolism, and heart failure.[3] Care bundles to address these complications have been shown to be cost-effective in reducing severe maternal morbidity (SMM), even in low resource settings.[6]

Preoperative and pre-procedural checklists and huddles facilitate effective teaming on labor and delivery units and debriefings following critical events allow for mutual learning and the opportunity to address system-level safety challenges.[7] Increased use of simulation has also helped to bolster a culture of safety and has been shown to improve multidisciplinary team performance.[8]

Challenges

Emerging and persisting challenges to maternal safety include increasing patient complexity, maternal mental health conditions, racial disparities in outcomes, and geographic and socioeconomic barriers to care. Risk stratification, ensuring risk-appropriate levels of maternal care, and antenatal planning and optimization are core components of safe obstetric anesthesia, however an emerging challenge is the realization that over half of pregnancy-related deaths occur 7-365 days post-partum.[2] Team-based care should not end at delivery, and anesthesia professionals are well positioned to recognize women at high risk for postpartum decompensation and escalate their care.

Maternal mental health conditions, including self-harm and substance use disorder, are now leading causes of maternal mortality.[2] Recognizing and appropriately intervening with at-risk patients can impact SMM and mortality.

Maternal mortality remains unacceptably high among racial and ethnic minority groups, and this trend persists even in countries where maternity care is free at the point of use.[9] Black women in the United States experience a substantially higher rate of SMM and are overrepresented among maternal deaths.[2] Black women are more likely to die from cardiac and coronary conditions, are less likely to receive care escalation for postpartum hemorrhage, and are less likely to receive an epidural blood patch for post-dural puncture headache.[2,10-11]

Social determinants of health play an ongoing role in maternal morbidity and mortality. Even within high-income countries, there are barriers to accessing safe and comprehensive reproductive health care. Advocacy, workforce planning, and anesthesia training can help to address these inequities in global health care settings.

(cont'd. - Obstetric Anesthesia Safety: Milestones, Challenges, and Future Directions)

Future Directions

Modernization of anesthesia care, increasing patient complexity, and ongoing challenges in healthcare inequity highlight the need for new tools in the safety toolkit of the peripartum physician. Point of care ultrasound, data-driven risk predictive tools, and wearable technology are examples of such tools. A renewed focus on maintaining the standards of care set out by professional associations through implementation of consensus-based protocols may help to advance the specialty from the perspective of patient safety and quality care, especially in high-risk groups.[4]

Conclusion

Most pregnancy-related deaths continue to be preventable, indicating ongoing barriers to care and safety concerns in obstetric anesthesia. Important progress has been made in anesthesia-related patient outcomes, however, there continues to be opportunities for anesthesia professionals to leverage their expertise to help address other threats to maternal well-being. By utilizing evidence-based practice to provide timely care at an appropriate level of acuity, leveraging new technologies in obstetrics and anesthesia, and continuing to foster a culture of safety, anesthesia professionals can help to ensure continued forward progress.

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WHY SHOULD I APPLY FOR AN ASA COMMITTEE APPOINTMENT? BECAUSE THEY NEED YOU!

Joy L. Hawkins, MD, FASA

Joy L. Hawkins, MD, FASA

The ASA committee self-nomination process will open as usual in mid-November and close in January. I'd like to encourage SOAP members to think outside the box and nominate themselves for more opportunities than just the three ASA committees specifically related to obstetric anesthesia, i.e. the ASA Committee on Obstetric Anesthesia, the Educational Track Subcommittee on Obstetric Anesthesia that plans the ASA Annual Meeting, and the Abstract Review Subcommittee on Obstetric Anesthesia and Perinatology that reviews abstracts presented at the ASA Annual Meeting. SOAP is already well-represented on those committees. Instead, I believe that every ASA committee deserves and should have an obstetric anesthesiologist as a member. Many ASA committees make policy recommendations that affect our obstetric patients and/or the labor and delivery (L&D) units where we work, especially our operating rooms, yet few or none of their members work on L&D or have an obstetric anesthesia background.

Let me give you some examples. The mission of the ASA Committee on Equipment and Facilities is "to provide guidance and education to the leadership and members of the American Society of Anesthesiologists regarding the Equipment and Facilities of the specialty of anesthesiology, including the physical structure in which care is provided and any devices used in the course of that practice…" This committee may make recommendations about the physical structure of L&D and the devices used there, however, rarely is there a committee member who specializes in obstetric anesthesia. Are you involved with facilities management or decisions about equipment selection in your department? Could you speak to the needs of L&D on the committee?

Here is a second example. The mission of the ASA Committee on Patient Blood Management is "to educate, advise, and update ASA members on matters of Patient Blood Management and the safe and effective use of blood components." Obstetric anesthesiologists know a thing or two about use of blood products and massive transfusion protocols, yet the membership of this committee is predominantly cardiac and transplant anesthesiologists who are certainly knowledgeable, however, practice in a very different environment with very different patients than SOAP members do. Are you involved with transfusion practices and the Blood Bank at your institution?

A final example is the ASA Committee on Surgical and Procedural Anesthesia. Its mission is "to advance the care of the surgical patient by promoting a team approach to patient management before, during, and after surgical and other procedures requiring anesthesia." Cesarean delivery is the most common surgery performed in the U.S., and pregnant patients often need surgeries or procedures done under anesthesia during their pregnancy, yet there are no practicing obstetric anesthesiologists on this committee. Do you work with the O.R. or perioperative committee in your institution?

There are many other committees that could benefit from our involvement. Many of us have responsibilities outside of L&D in our groups, departments, or institutions. ASA has dozens of committees supporting the many interests of its members, and all these committees need subject matter experts to support their work.

(cont'd. - Why should I apply for an ASA committee appointment? Because they need you!)

Why should I apply for an ASA committee appointment? Because they need you! - Continued

For more information, take a look at the listing of ASA standing committees, the current Chair, and the members: https://www.asahq.org/about-asa/governance-and-committees/asa-committees. The ASA Organizational Chart also lists all committees by their Section. You can find the Organizational Chart in the Member Section of the website under Governance, and committees are listed at the bottom of the page. The mission and composition of all ASA committees can be found in the ASA Administrative Procedures on the website as a PDF: https://www.asahq.org/about-asa/governance-and-committees/asa-committees.

A few caveats……Committee appointments are only made through self-nomination; no one else can nominate you for a position. When you fill out the nomination form, there will be a section asking why you are applying to that particular committee. Emphasize the unique expertise you bring as an obstetric anesthesiologist (especially if you don't see a SOAP member on the current member list) and also include any work you do in your institution or for other organizations that makes you a subject matter expert for the committee's work. You will also be asked to provide the names of 3 colleagues to support your application. Choose colleagues who can recommend you based on your activities that are relevant to the committee's work. ASA committee membership is very competitive. Last year there were 6000 applications for about 2000 committee positions, so if you don't get selected on your first try, apply again. Every ASA committee deserves to have the expertise of an obstetric anesthesiologist and SOAP member!

THE SOAP NEWSLETTER PRO-CON DEBATE SERIES

Kristen L. Fardelmann, MD
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Postdural puncture headache (PDPH) may occur following either intentional or accidental dural puncture (ADP) with neuraxial techniques. Although the definition of PDPH varies, the incidence of dural puncture with epidural placement in obstetric patients has been described at about 1.5% with up to >80% developing PDPH.[1,2] Given the insufficient evidence to support its effectiveness, routine prophylactic EBP is not recommended.[3] However, for patients who develop PDPH, treatment with conservative measures and epidural blood patch (EBP) should be considered. This SOAP Newsletter Pro-Con Debate argues the evidence for prompt placement of an EBP versus conservative medical management prior to EBP once PDPH is diagnosed.

Pro: Prompt consideration for EBP in patients with PDPH

The EBP is considered the "gold standard" for treatment of PDPH in the obstetric population. Compared to conservative therapy, RCTs report statistically significant reductions in pain scores, lower rates of headache within 24 hours, and higher rates of full recovery at 1 week – hence the evidence that IT IS THE GOLD STANDARD.[3]

(cont'd. - The SOAP Newsletter Pro-Con Debate Series)

EBP has been recommended "when PDPH is refractory to conservative treatment and impairs activities of daily living,"[3] although this incremental approach should be exercised with caution.

Symptoms of PDPH frequently described include headache (postural or nonpostural) associated with neck stiffness, auditory or visual disturbances, nausea, vomiting, and dizziness. The severity of symptoms varies and may significantly impair the patient's ability to perform daily activities including care for oneself and the newborn, maternal-newborn bonding, and breastfeeding.[4] Furthermore, symptoms may lead to delayed discharge or readmission and long term-complications.[4-6] Conservative management is meant to provide symptomatic headache relief, although Russell et al. and Uppal et al. point to the lack of robust scientific evidence for the use of conservative therapy.[3,7] The recent publication of the multi-society working group outlined clinical practice guidelines on PDPH recommending the use of multimodal analgesia (NSAIDs and acetaminophen), short-term opioids as needed if NSAIDs and acetaminophen are ineffective, caffeine within the first 24 hours of no more than 900mg per day (200-300mg if breastfeeding), and adequate hydration with low to moderate level of certainty.[3] In addition, they found the greater occipital nerve block may provide short term symptomatic relief, although does not deter the need for EBP in severe cases.[3] The major benefit of these interventions was relief of pain in PDPH, without any significant evidence that their use minimized the ultimate need for an EBP in patients with symptoms.[3]

EBP, first described in 1960,[7] has more than 60 years of clinical use with overall low risk of significant complications.[3] EBP is commonly pursued in patients with PDPH. A ten-year experience of care for obstetric patients in a tertiary care center found EBP was ultimately performed in nearly 60% of patients.[8] The investigators in a more recent cohort of privately insured patients in the US found EBP was a documented intervention in nearly 70% of PDPH cases following vaginal delivery with neuraxial labor analgesia.[9]

Interestingly, many studies have analyzed the optimal timing for EBP and varying results of partial and full recovery between studies exist. Performance of an EBP early (within 24-48 hrs) has been associated with an increased likelihood of the need for an additional EBP.[3] Is there a selection bias that should be considered? Do more severe headaches develop earlier, do they require more than one intervention for significant to full recovery of symptoms, or do they impact the functional efficacy of an EBP?[3] This certainly isn't a valid reason to withhold the therapeutic gold standard treatment for conservative measures, especially for patients with the most severe symptoms. No other treatment option comes close to the effectiveness of an EBP and delaying EBP because of these findings is misguided when severe symptoms are present. Although a graded approach of conservative therapy followed by EBP may be appropriate for some, a prompt EBP should be considered for others.

Risks of major neurologic complications and maternal morbidity are associated with PDPH. A retrospective cohort study of over a million obstetric patients who received neuraxial anesthesia found a rate of PDPH of 0.48% (95% CI 0.47-0.49) and an incidence of cerebral venous sinus thrombosis (CVST) and subdural hematoma (SDH) that was higher for patients with PDPH (3.12 per 1000 neuraxial) compared to patients without (0.16 per 1000).[5] The adjusted odds ratios (aORs) associated with PDPH were found to be 11.39 (95% CI 5.63-23.06) for CVST, 76.72 (32.25-182.50) for SDH, 39.7 (95% CI 13.6-115.5) for bacterial meningitis, 7.7 (95% CI 6.5-9.0) for headache, 4.6 (95% CI 3.3-6.3) for low back pain and 1.9 (95% CI 1.4-2.6) for depression.[5] SDH, believed to be a consequence of traction on the bridging veins with intracranial hypotension, may lead to neurosurgical procedures, permanent disability and even death.[6,10] In a cohort of over 22 million patients following delivery, the adjusted risk difference for association of PDPH and SDH was 130 (95% CI, 90-169; P<0.001) per 100,000.[6] Delayed EBP, defined as any happening in a hospital readmission after PDPH diagnosis, was positively associated with SDH with an aOR of 39 (95% CI 14-108; P<0.001) and adjusted risk difference of 4659 (95% CI 306-9011; P<0.03) per 100,000.[6]

(cont'd. - The SOAP Newsletter Pro-Con Debate Series)

Although the absolute risk is low, this potentially catastrophic outcome should be heavily considered when discussing timing of EBP as waiting for conservative measures to be effective may lead to a worrisome clinical state. Given the common exposure of most patients with PDPH to EBP and the potential for devastating outcomes including death, does early or late EBP cause the least burden?[11] Would an earlier EBP in the setting of PDPH decrease risk?[6]

Patients with intracranial hypotension present varying risk for adverse events and consideration of a prompt EBP is recommended in specific instances. In patients with severe neurologic sequelae, improvements in hearing alterations, optic nerve sheath diameter, and cranial neuropathies have been reported even within an hour of EBP placement.[3] In patients with SDH or subdural hygromas, prompt treatment with an EBP should be considered to minimize reaccumulation of subdural collections following drainage.[3] In patients with intracranial hypotension, especially in the setting of comorbidity such as Marfan Syndrome, impending tonsillar herniation has been prevented with the use of EBP.[12,13]

In recent years, long term consequences of PDPH have been described including chronic headache, backache, neckache, disability, posttraumatic stress disorder and postpartum depression.[4,14,15] In fact, Guglielminotti et al. suggest that PDPH should be an identified risk factor for postpartum depression.[5] Consistent with multiple studies, a prospective observational trial of 99 obstetric patients found the prevalence of disabling headache, a headache that interferes with daily life, was greater for patient with a history of inadvertent dural puncture compared to matched controls at 2 (74% vs. 38%, RR 1.9, 95% CI 1.2-2.9, P=0.006) and 6 months (56% vs 25%, RR 2.1, 95% CI 1.1-4.0, P=0.033).[16] Although EBP was not associated with a significant reduction in the risk of these long-term consequences,[14,15] there is no evidence that conservative therapy reduces long-term morbidity either. Does the timing of an EBP matter?

Logistically, readmission is a nightmare for a postpartum patient with PDPH. Delaying EBP until after discharge while providing conservative treatment may have significant psychosocial consequences. Due to the potential for short- and long-term adverse outcomes, minimization of psychosocial consequences and application of effective treatment is paramount.

Utilization of neuraxial labor analgesia continues to rise in the U.S. with a prevalence in 2022 of nearly 84% in nulliparous patients.[17] Although PDPH rate is relatively rare, the number of patients receiving neuraxial anesthesia for labor and delivery is grand, leading to many being potentially impacted by this significant complication and its associated morbidity. Furthermore, it is not always self-limiting or benign. The evidence suggests that an initial conservative approach for all patients may be harmful with consequences. Symptomatic treatment, the achieved outcome with conservative management, does not lessen the potential for devastating morbidity. Although short term outcomes of symptomatic headache relief are important, they undermine the larger impact of this complication on the relatively young and often healthy obstetric population. The impact of interventions to reduce short and long-term consequences must be investigated and emphasized. Could prompt EBP be part of the solution? “Unproven speculation” that an early EBP may improve outcomes continues to drive this wonder.[18] Potential for risk is present, especially when one fails to provide the Gold Standard EBP when clinically appropriate.

Con: EBP should be delayed until conservative management has been attempted and failed

This pro-con debate aims to provide a comparison of the reasons for delaying the placement of an Epidural Blood Patch (EBP) until the use of conservative measures have been exhausted, drawing from the evidence and insights in the articles reviewed.

(cont'd. - The SOAP Newsletter Pro-Con Debate Series)

According to our review, EBP as the GOLD STANDARD TREATMENT has been recommended "when PDPH is refractory to conservative treatment and impairs activities of daily living."[3]

As mentioned above, PDPH is a known complication after neuraxial procedures that poses a considerable burden on patients and can lead to prolonged hospital stays, impair the quality of life after the birth of a baby, can increase healthcare costs and pose long term sequela for mothers. It is caused by cerebrospinal fluid (CSF) leakage through the dural puncture site, resulting in decreased CSF volume and pressure, which leads to traction on pain-sensitive structures within the cranial cavity.

Candidates for delayed EBP should be identified based on the persistence of PDPH symptoms despite conservative management. After 24 hours of conservative management, the patients with a persistent headache that is affecting the activities to care for the newborn should be consented for EBP. Shared decision making should be offered to all patients, and they should be able to decide if they have a preference for prompt vs delayed EBP placement based on symptoms, pain and social support for caring for their newborn. Patients should always be informed about the potential risks and benefits of the procedure, including the possibility of repeat dural puncture and other complications, that include chronic back pain, chronic headache, nerve damage and need for additional procedures.

The conservative management approach is preferred initially to allow time for the dural defect to start healing spontaneously, thereby potentially avoiding the need for more invasive interventions such as an EBP.

Patients that have early EBP placements, within 24-48 hours, have a higher likelihood of needing a second EBP.[3] Therefore, by using conservative measures and delaying the EBP after this time window, practitioners can reduce the risk of multiple procedures, which can be distressing for patients and may also lead to further complications such as additional dural punctures in subsequent procedures.

Since the diagnosis of PDPH is based on the clinical presentation and temporal association with the dural puncture, by delaying the EBP, clinicians can more accurately assess the persistence and severity of symptoms. About 30-40% of all postpartum patients will develop a headache in the first week after delivery, and over 75% of them will be primary headaches such as migraines or tension headaches; only about 4.7% will have a PDPH.[3,20] Promoting conservative treatments can facilitate a correct diagnosis of PDPH and ruling out other potential causes of headache before proceeding with invasive interventions as the EBP.

Every EBP placement carries risks such as infection, acute and chronic back pain, and neurological complications. By initially adopting conservative measures, healthcare providers can minimize the number of patients that are exposed to these risks by only resorting to EBP when absolutely necessary.

Many hospitals and labor and delivery teams are short-staffed, and conservative management is less resource-intensive compared to performing an EBP. By promoting conservative management, teams allow for the judicious use of medical resources, particularly in settings where access to procedural interventions may be limited.

Some of the conservative therapeutic treatments that can be offered to patients are:

1. **Bed Rest and Hydration**: Bed rest and maintaining adequate hydration are commonly recommended as initial management strategies for PDPH. Bed rest provides symptomatic relief of the headache.

(cont'd. - The SOAP Newsletter Pro-Con Debate Series)

These measures are aimed at reducing CSF leakage, providing symptomatic relief and avoiding dehydration that can worsen PDPH headache; additionally, giving symptomatic relief and providing more time can promote spontaneous healing of the dural defect. Bed rest should not be used as a prophylactic measure before the headache occurs as it does not prevent or reduce the incidence of PDPH. It is important to note that postpartum patients that require bedrest for over 24 hours due to the intensity of the headache should be assessed for thromboprophylaxis and timing of EBP should be done around the appropriate guidelines.[3]

2. **Oral Analgesics**: Nonsteroidal anti-inflammatory drugs (NSAIDs) and acetaminophen are often used to alleviate headache symptoms as part of a multimodal technique and should be offered to all patients. If these are not sufficient, opioids can be added for additional relief.

3. **Caffeine**: Caffeine is known for its vasoconstrictive properties and has been used to manage PDPH. Caffeine has been effective in decreasing symptoms and can be used for up to 24 hours.[21] It can be administered orally or intravenously to provide symptomatic relief. In patients that are breast feeding, it is recommended that the maximum caffeine dose per day is 200-300mg – in non-breastfeeding patients it can be up to 900mg. Significant side-effects can be withdrawal, dehydration, arrhythmias and seizures.

4. **Other Pharmacological Agents**: Agents such as theophylline and gabapentin have been explored for their efficacy in managing PDPH, although evidence supporting their routine use remains inconclusive and cannot be recommended at this time.[3]

Author's Note:

Postpartum headache is common, described in up to 40% of postpartum patients,[19] and PDPH represents about 5% of all causes of headache.[3] A broad differential is warranted, and urgent imaging should be performed if focal neurologic deficits are present, a change in headache symptoms occurs, or persistent headache is present. When PDPH is suspected, evidence to support a specific management strategy or best practice is limited. All management options should be presented to the patient including efficacy and side effects. Although our pro-con debate argues one strategy versus another, a standardized approach for all patients is not recommended. The primary learning points include the importance of shared decision making and adequate follow up for the population of obstetric patients that develop PDPH. Further investigation into the functional recovery and consequences of treatment interventions should be pursued.

Check out the SOAP Infographic for Headache after Childbirth produced by the SOAP Patient Education Subcommittee.

(cont'd. - The SOAP Newsletter Pro-Con Debate Series)

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COMMITTEE ON OBSTETRIC ANESTHESIA

ASA Committee on Obstetric Anesthesia Update

Mark Zakowski, MD, FASA

Chair

Mark Zakowski, MD, FASA

Looking forward to seeing many of you at the ASA Annual Meeting October 11-14, 2025 in San Antonio! The ASA Committee on Obstetric Anesthesia (CObA) will meet in person – ASA members are welcome. We have a robust obstetric anesthesia educational lineup for you, 23 hours total, ranging from cardiac disease, preeclampsia, obstetric difficult airway update, top 10 articles, editors' panel, PDPH, PAS and more! New learning formats include Fireside Chat and Connect, Learn & Continue with follow-up learnings post-meeting. Please join us - I extend an invitation to all of you on behalf of Drs. Don Arnold, ASA President, and our two Texans: Patrick Giam, ASA President-Elect, and Elizabeth Rebello, ASA Annual Meeting Oversite Chair.

ASA CObA statements being presented for approval at the October 15th House of Delegates include **Anesthesia Services Staffing Labor and Delivery** working group *led by Ron George*, **Antenatal Anesthesiology Consultation** working group *led by Rachel Kacmar*, and **Anesthesia Management and Support for External Cephalic Version** working group *led by Kristen Fardelmann*. *The committee has also been advocating for an update of the ASA-SOAP Practice Guideline for Obstetric Anesthesia to start in the next update cycle, which originates in the ASA Committee on Practice Parameters*. The ASA Board of Directors has indicated a preference for shorter statements and this year's CObA statements have been adapted. Note that longer versions will be available on the ASA website under committee resources (requires member login).

These activities meet CObA's mission and ASA's 2025 strategic plan including: Advocate for the highest standard in patient safety and quality of care, expand member awareness of the work being done on their behalf, provide the best opportunities for anesthesiologists to acquire and maintain knowledge and skills associated with the practice of anesthesiology, strengthen the visibility and voice of the specialty as leader in the health care ecosystem, advance ASA's position as medicine's leading resource for anesthesia patient safety and quality and advance collaboration with subspecialty and other anesthesiology-related societies.

I wish to thank the many ASA CObA members for their diligent work, developing statements and delving into the scientific evidence for future potential statements. Many ASA CObA members are participants and leaders at SOAP as well – the two organizations cooperate closely at both the individual and organizational level.

I also serve as Alternate Director from California to the ASA Board of Directors and Vice-Chair Quality Management and Departmental Administration and Chair the Educational Track Subcommittee on Obstetric Anesthesia. I hope to continue to serve all of you as I am running for ASA Assistant Secretary. If you have questions or suggestions, you may contact me via SOAP or ASA.

On a personal note – it's been an honor and a privilege to work with and to encourage such a great community of dedicated, brilliant and hardworking colleagues! We all strive to improve the care and outcomes of pregnant people and their babies not just during labor but also beyond the peripartum period, advancing the practice of obstetric anesthesiology.

This will be my last column as Chair. I am grateful for the support of my Vice-Chair and rising Chair, Rachel Kacmar. The future holds more great statements ahead!

Mahalo!
Mark Zakowski MD FASA

PEAK

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