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Quality-Improvement Strategies for Safe Reduction of Primary Cesarean Birth

This Committee Statement was developed by the American College of Obstetricians and Gynecologists' Quality and Safety Initiatives Delegation in collaboration with Niraj Chavan, MD, Allison A. Eubanks, MD, Arthur Ollendorff, MD, Stephanie Radke, MD, and Paula White, MD.

The nulliparous, term, singleton, vertex (NTSV) cesarean birth rate is a metric that may be used to evaluate obstetric care and compare performance across similar hospitals and regions. Safe reduction of primary cesarean birth prevents the need for future cesarean births and associated maternal morbidity risk. Quality-improvement methodologies such as optimizing culture of care; practice environment; data collection and monitoring, including monitoring of data by race and ethnicity; and proactive management and planning for known and unanticipated drivers of cesarean birth may safely reduce NTSV cesarean birth rates. Obstetrician–gynecologists should engage with patients in informed decision making, informed consent, and birth preference conversations, particularly related to induction of labor and cesarean birth, to support equitable and respectful obstetric care and outcomes related to NTSV cesarean birth.

SUMMARY OF RECOMMENDATIONS AND CONCLUSIONS

- **Safe and equitable reduction of nulliparous, term, singleton, vertex cesarean birth should be a primary consideration in all settings providing high-quality obstetric care. This can be accomplished through quality-improvement initiatives.**
- **Reducing the rate of nulliparous, term, singleton, vertex cesarean birth through quality-improvement initiatives requires fostering a transparent safety culture that emphasizes continuous improvement, engages health care teams with a solid understanding of physiologic birth processes, and is driven by reliable data.**
- **Known risk factors and possible unforeseen issues in labor that may be drivers of cesarean birth, such as fetal positioning or fetal heart rate abnormalities, should be planned for and actively addressed in care during labor management and clinical workflows using specific evidence-based guidelines.**

- **Practice environments should be optimized to support reduction of nulliparous, term, singleton, vertex cesarean birth, including access to required resources such as clinician and nurse staffing, equipment, and training. These optimized environments should be supported by policies and reimbursement strategies.**
- **Patients should be supported through informed decision making for all aspects of labor management, including the incorporation of interventions undertaken during labor induction and during cesarean birth.**

BACKGROUND

Nulliparous, term, singleton, vertex (NTSV) cesarean birth rate is a critical measure in obstetric care, focusing on patients experiencing the first birth of a single fetus, at full term, in a cephalic-first presentation. Measurement of NTSV cesarean birth rates, focusing on lower-risk births, provides a standardized way to evaluate cesarean birth rates and compare performance across similar hospitals and regions, aiming to trend and support safe reduction in the rate of primary cesarean birth.

Overall, the NTSV cesarean birth rate in the United States is approximately 25.6% (1). This metric is being monitored internationally and nationwide by different groups, including the World Health Organization and the Healthy People initiative, that aim to reduce the NTSV cesarean birth rate to 23.6% in the published 2030 objectives (1–3). Although no singular NTSV rate can be noted as appropriate for all settings of care, the variable rate of NTSV cesarean birth internationally and across the United States demonstrates that variations in practice may provide all settings of care an opportunity to improve these rates by implementing best practices (2, 4–6). A study in 2020 of more than 99,000 NTSV births showed an NTSV cesarean birth rate range of 18.5–84.6% (7). This variation was not reduced after risk adjustment and also was observed within geographic regions and neonatal intensive care levels and among physicians at the same facility (7).

Research consistently demonstrates that targeted quality-improvement (QI) interventions can effectively reduce NTSV cesarean birth rates (8–11). Studies in states such as California, Maryland, and Iowa have shown significant success in implementing QI initiatives, such as the Alliance for Innovation on Maternal Health's (AIM) Safe Reduction of Primary Cesarean Birth patient safety bundle, that prioritize the incorporation of evidence-based practices in labor management (10, 12, 13). For example, the California Maternal Quality Care Collaborative implemented a statewide initiative that led to a substantial reduction in NTSV cesarean birth rates across participating hospitals (12). Similarly, the Iowa Maternal Quality Care Collaborative reported notable decreases in cesarean birth rates through the adoption of standardized labor-management protocols and clinician-education programs (13). These interventions emphasize the importance of systematic approaches and continuous monitoring to achieve and sustain lower cesarean birth rates.

As evidenced by states such as California, Maryland, and Iowa, the implementation of patient safety bundles specifically designed for labor and delivery has been a pivotal strategy in reducing NTSV cesarean birth rates (10, 12, 13). Safety bundles, such as the AIM bundles, typically include a set of evidence-informed practices that, when performed collectively and reliably, improve patient outcomes. The American College of Obstetricians and Gynecologists (ACOG) advocates for the use of safety bundles to enhance labor management and support vaginal births (14). Key components often include standardized guidelines for labor progression, the use of labor-support techniques, and protocols for the management of labor dystocia. By integrating these practices into routine care, hospitals can create a safer and more supportive environment for vaginal births, ultimately reducing the need for cesarean birth. **Safe and equitable reduction of nulliparous, term, singleton, vertex cesarean birth should be a primary consideration in all settings providing high-quality obstetric care. This can be accomplished through quality-improvement initiatives.**

Addressing equity in NTSV cesarean birth rates is crucial, because significant disparities exist across different racial and socioeconomic groups. Notably, Black women in the United States experience higher cesarean birth rates compared with their White counterparts, a discrepancy that is reflective of systemic inequities rather than inherent clinical or physiologic differences (4). Modern data indicate that these disparities are related to nonpatient factors such as publicly funded compared with private hospital settings, underscoring the need for targeted interventions to ensure equitable care (6). This trend is also seen in a worldwide setting, where the disparities continue to be greater based on resources of the facility rather than patient population (5).

Cesarean birth, when indicated, plays a crucial role in ensuring maternal and neonatal safety but also is associated with higher risks of maternal morbidity and mortality compared with vaginal births (14). The most common indication for cesarean birth is prior cesarean birth. Complications such as infection, hemorrhage, and thromboembolism are more common with cesarean birth, and the risk increases with each subsequent cesarean (14, 15).

The Joint Commission has crafted a specific metric focused on evaluating cesarean birth rates among lower-risk individuals, such as those who deliver at term with a singleton fetus in vertex position. This is part of the core perinatal care set of metrics (labeled as "PC-02"), which has additional exclusions for placenta previa and active herpes infections. The rationale for developing this as a quality metric stems from the large amount of variability across hospitals in this proportion of cesarean births, understanding that this reflects an opportunity for intervention, standardization, and enhancement of obstetric care delivery in a risk-appropriate manner (7).

Reducing NTSV cesarean birth is not only a matter of clinical safety but also affects appropriate health care resource utilization and costs (16). The financial burden associated with cesarean births includes longer hospital stays and increased need for postoperative care (16). A focus on promoting safe vaginal birth through evidence-based practices and QI strategies to safely reduce a patient's first cesarean birth leads to a higher proportion of neonates born vaginally, thereby leading to enhanced patient safety, decreased maternal operative morbidity, and decreased costs of care and may have far-reaching population health benefits while maintaining neonatal safety.

RECOMMENDATIONS

Culture of Care

One of the most important outcomes of focused QI projects is to foster a culture of care that defines the attitudes and behaviors of everyone who is participating in a patient's care. For NTSV cesarean birth reduction, labor and delivery unit culture is a critical contributing factor to success in both making any necessary changes and sustaining gains that are made (17). Common themes seen in organizations and labor units that are successful in implementing QI interventions include true engagement with patients and the entire care team, a shared model of the unit's goals and processes, and open dialogue of any potential barriers (18). Creating a culture foundationally committed to equity and antiracism is also essential to QI interventions. Addressing unit culture is a key element to achieving and sustaining safe and high-quality patient care. **Reducing the rate of nulliparous, term, singleton, vertex cesarean birth through quality-improvement initiatives requires fostering a transparent safety culture that emphasizes continuous improvement, engages health care teams with a solid understanding of physiologic birth processes, and is driven by reliable data.**

A common observation of statewide perinatal quality collaboratives and regional QI teams is that the most effective hospital units in creating QI change have a strong commitment to quality from hospital administration and obstetric care clinicians (19). Identifying and developing champions who advocate for positive change in each unit can be a powerful mechanism to both engage the entire team and acquire critical information on practical aspects of the possible changes to be made (20). Unit champions can help identify ways for the voices of patients and families to be included in all stages of a QI project's lifecycle (21, 22).

Patient safety bundles, checklists, and care pathways are powerful tools to help foster process improvement (14). Labor and delivery units have developed checklists to aid in the diagnosis of failed labor induction, arrest of labor in the first stage, and arrested labor in the second stage. These approaches ensure that all members of the care team use the same definitions and discuss similar interventions, both with each other and with patients and their support networks. Checklists also can minimize unnecessary variation and help promote health equity (23). The AIM bundle for safe reduction of primary cesarean birth uses a structure of elements of best practice, organized by the 5R's of Readiness; Recognition and Prevention; Response; Reporting and Systems Learning; and Respectful, Equitable, and Supportive Care to guide this process (24). This structure can help break down a complicated process into more manageable pieces and help prioritize which aspects of care should be addressed and in what timeframe.

Accessing available resources to support vaginal birth is critical in QI related to safe reduction of cesarean birth and begins with a culture of patient-centered care and recognizing that the goal as a team is to provide safe care that meets the needs of the patient. Units that have strong nurse-to-nurse support and education allow for evidence-based interventions to be deployed (25). Pain-management options, use of remote monitoring or intermittent auscultation to allow for greater movement in labor, options of labor and pushing positions, and the integration of labor doulas can be areas to address (26).

Structured communication practices within a unit, such as patient-centered care huddles, may reduce anxiety and interventions for indeterminate or category II fetal heart rate (FHR) tracings and support teamwork and patient safety (27–30). Ensuring patient-inclusive, bidirectional communication promotes optimal engagement of patients and their support networks and can better inform patients' expectations. These processes may promote better understanding of the common nature of indeterminate tracings, variations in the labor process, and the interventions available to correct them while reinforcing that this process does not imply fetal compromise or impending need for cesarean birth.

Culture of care may be supported and reinforced by the collection and internal reporting of data. Total

cesarean birth rates and NTSV cesarean birth rates at individual hospital facilities have been reported publicly since the early 2000s (31). Hospitals may also internally report their data by individual physician or group practice as a means of accountability and reflection. Less commonly seen is disaggregation of NTSV and total cesarean birth rate by race, ethnicity, language, insurance type, or other important demographic factors. Striving for equitable care includes using available data to recognize whether certain outcomes vary for a particular group of patients (32). This allows members of the QI team to identify possible causes and, ideally, to close quality gaps affecting patients with specific identities or demographic factors that may affect care and outcomes.

Strategies to address identified disparities and inequities include implicit bias training for staff, the implementation of culturally responsive care practices, and focused efforts to engage and support historically marginalized communities in prenatal and perinatal care (33). By prioritizing concepts of equity, NTSV cesarean birth rates may be equitably reduced, thereby improving overall maternal health outcomes.

Quality-Improvement Approaches

Effective QI efforts are focused on key principles of improvement science, including thorough data collection and evaluation of NTSV birth trends over time. Understanding variation and identifying baseline NTSV cesarean birth rates may assist in developing SMARTIE (specific, measurable, achievable, relevant, time-bound, inclusive, and equitable) goals focused on reduction of NTSV cesarean birth rates. Creating SMARTIE goals may guide targeted development and implementation of QI methodology (14).

Hospital units that seek to reduce NTSV cesarean birth rates should invest in developing the necessary infrastructure to perform case reviews and targeted chart audits of NTSV cesarean births and use principles of audit, feedback, and peer review to delve deeper into patient-, clinician-, and unit-level as well as hospital- and health system-level drivers of NTSV cesarean birth. Identifying drivers of NTSV cesarean birth rates will assist a team in recognizing areas for improvement. This may be supported by collection of QI data by leveraging information captured in the electronic medical record (EMR) system related to cesarean births and other areas of effect on maternal and neonatal health, such as:

- Calculating the NTSV cesarean birth rates disaggregated by race, ethnicity, language, and other social and structural drivers of health, as relevant, as well as the NTSV cesarean birth rates for patients undergoing induction of labor or in the case of elective inductions beyond 39 weeks of gestation or both.
- Developing metrics to track induction of labor and appropriate use of cervical ripening agents and clinically appropriate administration of pharmacologic agents for induction (34, 35).
- Developing and implementing appropriate metrics and balancing measures, including those focused on maternal and newborn outcomes resulting from changes in labor-management strategies, with disaggregation by race and ethnicity due to known disparities in rates of cesarean birth.

Additional data collection to consider includes clinician-level NTSV cesarean birth rates as well as nursing-level NTSV cesarean birth rates, with an emphasis on understanding the effects of such nuanced evaluations on the overall hospital- and unit-level NTSV cesarean birth rate. The goal of such exercises is to understand variations in care delivery and practice, with a focus on identifying positive and negative outliers and adherence to a standardized approach wherever feasible. Similar measurement strategies also can be developed and monitored for structure and process measures related to NTSV QI to better understand drivers of NTSV cesarean birth on a patient and unit level (Table 1) (36).

Development of a data infrastructure to support QI methodology on a routine and enduring basis, particularly with integration of EMR to minimize administrative burden, is key when evaluating an outcome of interest such as the NTSV cesarean birth rate. Quality improvement requires a multipronged, multilevel approach to interventions and periodic follow-through and monitoring to ensure sustainability and requires consistent data access and analysis to do so.

Practice Environment

Several components of the clinical practice environment may affect cesarean birth rates overall, but more specifically in the context of NTSV cesarean birth rates. **Practice environments should be optimized to support reduction of nulliparous, term, singleton, vertex cesarean birth, including access to required resources such as clinician and nurse staffing, equipment, and training. These optimized environments should be supported by policies and reimbursement strategies.**

With increasing clinician shortages that have affected obstetric units across the country, achieving adequate physician, midwife, and nurse staffing for birthing units remains a challenge, particularly in rural areas (37). Availability of staffing by obstetric and midwifery care clinicians affects cesarean birth rates, and increased staffing is associated with lower cesarean birth rates (38). This change in rate related to staffing is thought to be the result of clinical circumstances that potentially foster a tendency to move care toward cesarean birth

Table 1. Suggested Measurement Strategies to Evaluate Nulliparous, Term, Singleton, Vertex Cesarean Birth Rate-Reduction Quality-Improvement Initiatives	
Category	Description
Structure	Development and active review of unit policies and procedures to support vaginal birth Establishment of labor-support huddles Development of education and resources for patients and support networks in understanding indicators related to cesarean birth
Process	Clinician training uptake for forceps- and vacuum-assisted operative vaginal birth Health care team training for interpretation and management of FHR tracings Team training for performing interdisciplinary safety huddles for patients requiring NTSV cesarean birth Adherence to unit-based policies and protocols for oxytocin administration and management of labor dystocia Adoption of respectful and equitable care and open communication as it pertains to the decision to proceed with IOL or NTSV cesarean birth or both Appropriate clinical documentation as it pertains to the clinical management, rationale, and health care professional–driven discussion around NTSV cesarean birth
Outcome	NTSV cesarean birth rate Failed induction rate in patients with NTSV pregnancies
Balancing	Neonatal Apgar scores Unanticipated NICU admission
FHR, fetal heart rate; NTSV, nulliparous, term, singleton, vertex; IOL, induction of labor; NICU, neonatal intensive care unit.	

rather than an initial attempt at intrauterine resuscitation or expectant labor management.

It often is assumed that decision making surrounding vaginal and cesarean birth is strongly influenced by generalized reimbursement disparities between the two procedures. However, little evidence exists to support this claim, and a scoping review of financial incentives and related regulatory and legislative factors intended to reduce cesarean birth rates was inconclusive on this relationship (39). Additionally, a study of care by Canadian physicians providing obstetric care examined the transition from fee-for-service–based payment to salary-based payment and noted that an increase in cesarean births was not associated with financial reimbursement (40).

The geographic location of a delivery hospital and referral patterns for the management of complex maternal medical or obstetric comorbidities are additional factors to consider in both NTSV cesarean birth rate calculation and the practice environment. In the case of rural and critical-access hospitals in limited-resource settings, as well as hospitals of transfer, prevalent referral patterns and practices surrounding maternal transfer and hospital-to-hospital transport may call for an evaluation of such practices' effects on NTSV birth rates. Calculation of NTSV cesarean birth rates in these settings' metric may require analysis to gauge the effects of risk-adjusted and risk-appropriate care. Hospitals and birthing units, in general, benefit from an in-depth evaluation of their practice environments, with a specific emphasis on identifying resource gaps and crafting solutions to address barriers that may affect NTSV cesarean birth rates.

Known and Unanticipated Drivers of Primary Cesarean Birth

Known risk factors and possible unforeseen issues in labor that may be drivers of cesarean birth, such as fetal positioning or fetal heart rate abnormalities, should be planned for and actively addressed in care during labor management and clinical workflows using specific evidence-based guidelines (41). Teams working to reduce primary cesarean birth may do so by addressing the factors that influence these drivers, as well as other leading causes of NTSV cesarean birth, through QI methodologies.

Labor Progress and Diagnosis of Labor Arrest

- Obstetric clinicians should remain informed of current definitions and management recommendations for labor arrest to avoid over- or underutilizing appropriate cesarean birth (35). By incorporating these current recommendations into unit-based policies and

procedures, the care team may have shared definitions and understanding of labor progress expectations and disruptions to safely support the birth process (42).

- Comfort of the birthing patient through various methodologies, including pharmacologic and nonpharmacologic methods such as continuous labor support, is a key element for implementing these strategies to prevent or mitigate labor dystocia.
- See ACOG Clinical Practice Guideline Number 8, *First and Second Stage Labor Management* (https://www.acog.org/clinical/clinical-guidance/clinical-practice-guideline/articles/2024/01/first-and-second-stage-labor-management), and ACOG Committee Opinion 766, *Approaches to Limit Intervention During Labor and Birth* (https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2019/02/approaches-to-limit-intervention-during-labor-and-birth), for further guidance and information.

Abnormal or Indeterminate Fetal Heart Rate Evaluation

- Given the known variation in the interpretation and management of FHR tracings, a standardized approach is a logical goal for interventions to safely reduce the cesarean birth rate.
- Unit-adopted clinical algorithms (43) and other standardized tools for management of category II FHR tracings, which may or may not require intervention, allow teams to communicate and intervene in a rapid manner (44).
- Obstetric units should implement electronic fetal monitoring (EFM) continuing education and certification for staff and obstetric clinicians using *Eunice Kennedy Shriver* National Institute of Child Health and Human Development nomenclature (45). Currently, data suggesting that EFM certification is an effective strategy to improve neonatal outcomes or reduce cesarean birth rates or both are lacking. Due to the high variability in FHR tracing interpretation (45), this can be an objective measure toward ensuring that members of the obstetric care team possess the knowledge base to accurately interpret intrapartum FHR tracings, as well as promoting the use of standard terminology among the team members.
- Regularly occurring interdisciplinary FHR tracing reviews should be used as an informal way for obstetric care teams to discuss indeterminate and other tracings, review associated outcomes, and build consensus for management options.
- See ACOG Practice Bulletin 116, *Management of Intrapartum Fetal Heart Rate Tracings* (https://www.acog.org/clinical/clinical-guidance/practice-bulletin/articles/2010/11/management-of-intrapartum-fetal-heart-rate-tracings), and ACOG Practice Bulletin 106, *Intrapartum Fetal Heart Rate Monitoring: Nomenclature, Interpretation, and General Management Principles* (https://www.acog.org/clinical/clinical-guidance/practice-bulletin/articles/2009/07/intrapartum-fetal-heart-rate-monitoring-nomenclature-interpretation-and-general-management-principles), for further guidance and information.

Addressing Clinical Drivers of Primary Cesarean Birth

Fetal Position

- Breech presentation is estimated to complicate 3–4% of term pregnancies, and cesarean births are performed for a high number of breech presentations (46). External cephalic version should be offered whenever possible for patients who desire vaginal delivery of a vertex-presenting fetus and have no contraindications.
- Frequent position changes in labor can be employed to increase the comfort of the laboring patient and may contribute to optimal fetal positioning (35).
- Physicians and midwifery care clinicians providing obstetric care should have ready access to skills training and maintenance in fetal-positioning maneuvers, including manual rotation of the fetal head, to support the need for these interventions.
- All health care team members should be trained in labor support and comfort measures, including maternal positioning for comfort and optimal fetal position.
- See ACOG Clinical Practice Guideline Number 8, *First and Second Stage Labor Management* (https://www.acog.org/clinical/clinical-guidance/clinical-practice-guideline/articles/2024/01/first-and-second-stage-labor-management), and ACOG Practice Bulletin 221, *External Cephalic Version* (https://www.acog.org/clinical/clinical-guidance/practice-bulletin/articles/2020/05/external-cephalic-version), for further guidance and information.

Elective Induction of Labor

- Data from a large, multicenter trial on elective induction of labor for low-risk nulliparous patients that demonstrated similar or decreased cesarean birth rates and similar or higher rates of perinatal morbidity, such as hemorrhage and infection, have led to an increase in elective labor induction at 39 weeks of gestation in this population (47–50).
- Factors such as resource availability, staffing considerations, and patient throughput of labor and delivery units due to prolonged induction and patient desires and preferences should be considered when

implementing non–medically indicated inductions in all clinical settings (51, 52).

- Physicians and midwifery care clinicians providing obstetric care should collaboratively discuss and counsel patients on the risks and benefits of elective induction of labor compared with expectant management at term. This should include a discussion about the patient's birthing preferences (53).
- See ACOG Practice Bulletin 107, *Induction of Labor* (https://www.acog.org/clinical/clinical-guidance/practice-bulletin/articles/2009/08/induction-of-labor), and ACOG Clinical Practice Update, Management of Full-Term Nulliparous Individuals Without a Medical Indication for Delivery (https://journals.lww.com/greenjournal/abstract/2025/01000/management_of_full_term_nulliparous_individuals.30.aspx), for guidance and information.

Suspected Fetal Macrosomia

- Ultrasonography for estimated fetal weight in the third trimester is noted to be imprecise; therefore, individualized, patient-centered counseling regarding the risks and benefits of vaginal and cesarean birth in cases of suspected macrosomia should be undertaken based on relevant clinical considerations (54, 55).
- See ACOG Practice Bulletin 216, *Macrosomia* (https://www.acog.org/clinical/clinical-guidance/practice-bulletin/articles/2020/01/macrosomia), and Committee Opinion 762, *Prepregnancy Counseling* (https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2019/01/prepregnancy-counseling), for guidance and information.

Weight Gain During Pregnancy

- Evidence suggests that people who gain more weight than recommended by the Institute of Medicine guidelines have an increased risk of cesarean birth and other adverse outcomes (56, 57).
- Clinicians should engage patients in empathetic and open-minded discussions regarding patients' perceptions and goals for gestational weight gain to cocreate a plan of care.
- See ACOG Committee Opinion 548, *Weight Gain in Pregnancy* (https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2013/01/weight-gain-during-pregnancy), for guidance and information.

Herpes Simplex Virus

- Cesarean birth is not indicated for individuals with a history of genital herpes simplex virus (HSV); however, it is indicated if a patient is experiencing genital lesions or prodromal symptoms at delivery and in cases of primary or nonprimary first-episode genital HSV infection in the third trimester of pregnancy (58). Administration of antiviral medications in the third trimester as preventative care for the reoccurrence of HSV in patients with a known history of infection should be the primary consideration for the reduction of NTSV cesarean birth related to HSV infection.
- See ACOG Practice Bulletin 220, *Management of Genital Herpes in Pregnancy* (https://www.acog.org/clinical/clinical-guidance/practice-bulletin/articles/2020/05/management-of-genital-herpes-in-pregnancy), for guidance and information.

Summary of QI Strategies to Address Known and Unanticipated Drivers of Primary Cesarean Birth

Educational interventions and solutions to address drivers of NTSV cesarean birth are multifactorial and based on identified gaps and specific needs of a care setting. These QI interventions may include clinician training for operative vaginal delivery skills, simulation training for the obstetric care team for managing obstetric emergencies and labor dystocia, and health care team education as it pertains to maternal positioning during labor and during active pushing in the second stage, as well as labor-support techniques.

Other interventions health care professionals may consider that address drivers of NTSV cesarean birth identified through data collection in their facilities include developing policies and protocols pertaining to optimized staffing, oxytocin administration, provision of labor analgesia, and developing best practice alerts or similar systems in the EMR that would necessitate the timely evaluation and appropriate management of intrapartum labor abnormalities or disruptions.

Respectful Care in Labor and Birth

Patients should be supported through informed decision making for all aspects of labor management, including the incorporation of interventions undertaken during labor induction and during cesarean birth. Informed consent and shared decision making are both important concepts in respectful obstetric care that pertain to clinicians and patients discussing treatment plans; however, these concepts are distinct and should not be used interchangeably.

Informed consent is the process of providing patients with necessary and relevant information to make decisions about their medical care. Informed consent is both a legal and ethical requirement before treatments can be performed. Meeting the ethical obligations of informed consent requires that a health care clinician, "…gives the patient adequate, accurate, and understandable information and requires that the patient has the ability to understand and reason through this

information and is free to ask questions and to make an intentional and voluntary choice, which may include refusal of care or treatment" (59). Ideally, such conversations should take place prenatally as part of routine prenatal care and include planning related to cervical ripening strategies and other components of care (60). See ACOG Committee Opinion 819, *Informed Consent and Shared Decision Making in Obstetrics and Gynecology* (https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2021/02/informed-consent-and-shared-decision-making-in-obstetrics-and-gynecology), ACOG Practice Bulletin 107, *Induction of Labor* (https://www.acog.org/clinical/clinical-guidance/practice-bulletin/articles/2009/08/induction-of-labor), and the *Guidelines for Perinatal Care, Eighth Edition* (https://www.acog.org/clinical/journals-and-publications/ebook/guidelines-for-perinatal-care), for guidance and additional information.

Shared decision making is a patient-centered approach to the informed-consent process. This approach considers treatment options in the context of the patient's preferences, values, and beliefs. Models and commentary to guide clinicians through the shared decision-making process have been described (61–64). The concept of *shared* decision making implies that the clinician has a voice or a vote in the decisions made by a patient about their body and their health care. A better description may be "informed choices," where the role of the health care clinician is to provide reasonable, evidence-based information with which the patient will make decisions (61). In practice, this may differ very little from shared decision-making models, but the nomenclature more clearly places the patient as the key decision maker about their health.

Care decisions throughout pregnancy, labor, and childbirth should be approached through the framework of shared decision making or informed choices to ensure that the patient's values, beliefs, and preferences are guiding treatment plans (62).

Frameworks to guide this type of discussion, such as the Agency for Healthcare Research and Quality's SHARE Approach to shared decision making, may support effective and meaningful patient and clinician engagement (63). For patients undergoing labor induction, either elective or medically indicated, the SHARE framework, as an example, can be applied to develop a plan for the cervical ripening process: inviting engagement; reviewing options, including risks and benefits of each; discussing patient values and preferences; determining a plan; and evaluating the decision (65).

Situations that arise during spontaneous or induced labor, such as equivocal EFM patterns or slow labor progress, can be approached in the same way. Each instance of engaging in shared decision making should foster increased trust and communication between the patient and the clinician, facilitating open conversations and maintaining a patient-centered approach to birth care.

Birth Preferences

The concept of the "birth plan" has arisen among pregnant people as a strategy to protect themselves against overmedicalization of the birth process, whether actual or perceived (64). A key strategy that the obstetrician and midwife can employ is to engage patients in conversation about their birth preferences early and often throughout the course of prenatal care (65). This includes exploring their expectations, cultural norms, values, and beliefs as related to labor and childbirth. The term *birth preferences* may be more appropriate to use in these discussions, because it alludes to the possibility of situations arising that are undesired but must be addressed.

A clinician, practice, or health care system should consider making or using a template or worksheet for patients to document their birth preferences, which can be an opportunity to identify any preferences that reflect substandard or unsafe care and engage in conversation (66–68). The birth preferences document should be approached as a tool for discussion rather than a contractual agreement with the patient. If any standards of care are declined by the patient, this should be reflected in an informed consent document. Regardless of the approach, engaging in these conversations during prenatal care, rather than during labor, will minimize points of conflict and harmful delays in necessary care (67).

CONCLUSION

The NTSV cesarean birth rate for any given birthing unit or delivery hospital is undeniably influenced by the practice environment in that unit, with personnel and staffing being key aspects of that environment. This influence means that targeted QI strategies to optimize the practice environment, education and resource provision of personnel and staffing, and other focused activities may bring about measurable change in NTSV cesarean birth rates.

Use of Language

ACOG recognizes and supports the gender diversity of all patients who seek obstetric and gynecologic care. In original portions of this document, authors seek to use gender-inclusive language or gender-neutral language. When describing research findings, this document uses gender terminology reported by investigators. To review ACOG's policy on inclusive language, see https://www.acog.org/clinical-information/policy-and-position-statements/statements-of-policy/2022/inclusive-language.

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CONFLICT OF INTEREST STATEMENT

All ACOG committee members and authors have submitted a conflict of interest disclosure statement related to this published product. Any potential conflicts have been considered and managed in accordance with ACOG's Conflict of Interest Disclosure Policy. The ACOG policies can be found on acog.org. For products jointly developed with other organizations, conflict of interest disclosures by representatives of the other organizations are addressed by those organizations. The American College of Obstetricians and Gynecologists has neither solicited nor accepted any commercial involvement in the development of the content of this published product.

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American College of Obstetricians and Gynecologists
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