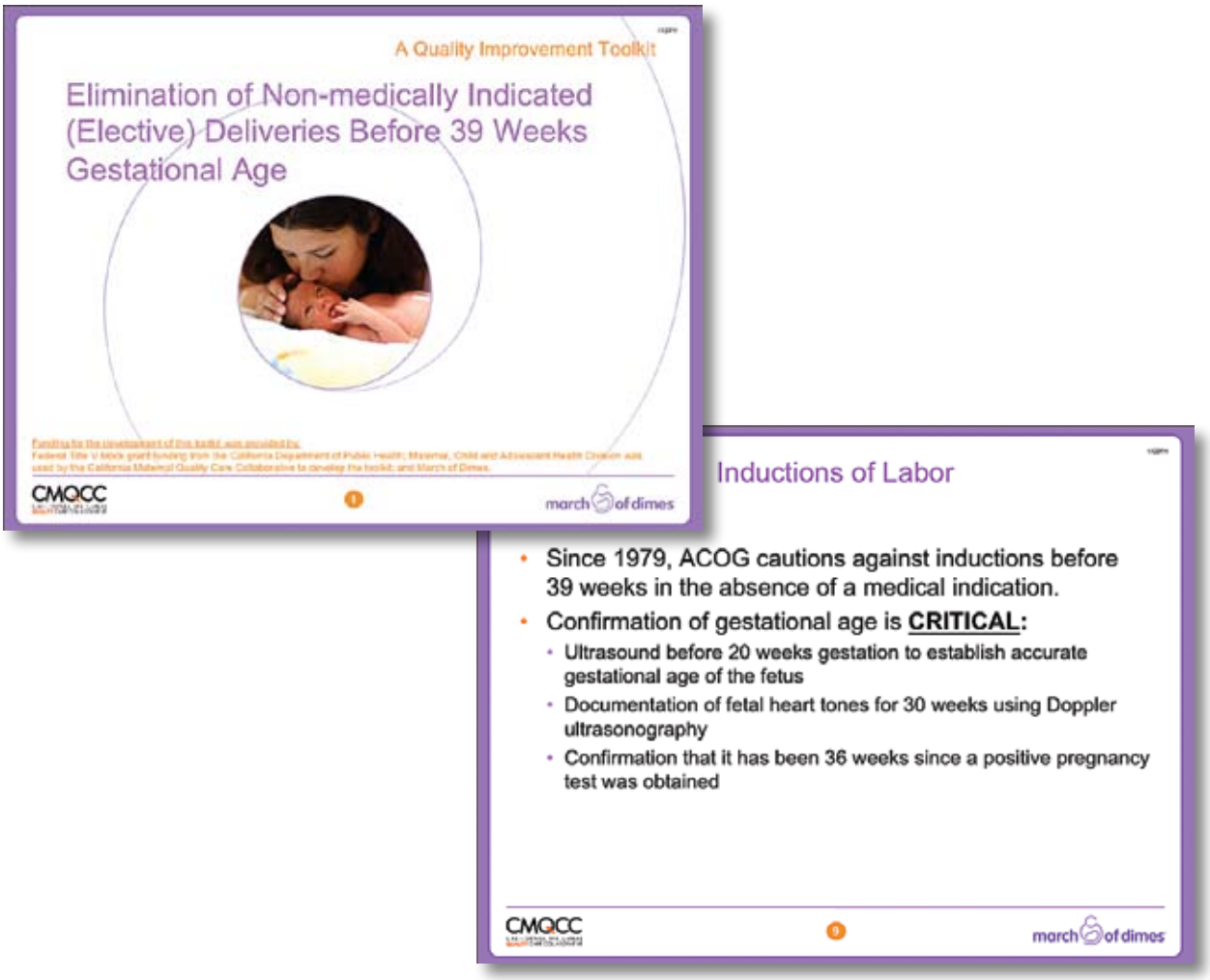
Clinician Education

Effective QI implementation begins with educating clinical providers and support staff about changes that are necessary for improving care.[44] This section provides resources to educate clinical staff about the consequences and dangers of elective deliveries <39 weeks, and includes professional education slides and clinician frequently asked questions (FAQs).

In This Section

Clinician Slide Presentation

A slide deck with presentation notes was developed to help engage clinical professionals in eliminating non-medically indicated (elective) deliveries <39 weeks. Institutions are encouraged to tailor this presentation to fit the culture and needs of their audience. The presentation outlines the research on the risks associated with early term deliveries and the quality improvement steps an institution can complete to reduce non-medically indicated scheduled deliveries. Copies of the slides are contained in Appendix E and a downloadable version of the toolkit and slide deck can be found at marchofdimes.com and cmqcc.org



Clinician Frequently Asked Questions (FAQs)

Q1: Will delaying elective deliveries to 39 weeks increase the rate of other complications (e.g., stillbirth, macrosomia or preeclampsia)? (This is a question about possible unanticipated harms.)

A1. No.

Several recent intervention trials address these concerns. Oshiro, et al.[18] note that delaying elective induction until 39 weeks is associated with the following benefits:

- Decreased stillbirth rate by >50%, with greatest improvement in the 37-38 week groups
- Decreased rates of postpartum anemia, meconium aspiration, Apgar scores <5 at 1 minute, and cesarean deliveries due to fetal distress
- No change in rates of chorioamnionitis, endometritis, macrosomia, meconium aspiration syndrome, neonatal ventilator use, respiratory distress syndrome, or neonatal sepsis
- Oshiro et al. note a slight increase in the rate of preeclampsia; however, Fisch et al. report that preeclampsia rates were unchanged when the number of early inductions decreased.[18, 37]

Q2: Does early induction prior to 39 weeks benefit the babies of a women with a history of large babies or impending or suspected macrosomia?

A2: No.

Macrosomia—particularly "impending" macrosomia—is controversial as an indication for induction. According to the ACOG Technical Bulletin on Macrosomia, retrospective studies did not show a reduction in shoulder dystocia in infants born to women who were induced, but there was a doubling of the cesarean section rate.[54] In a prospective trial, the incidence of shoulder dystocia in infants was identical between those women who were induced and those who were allowed to spontaneously labor without a change in the cesarean section rate.[55] Macrosomia rates remained stable after inductions prior to 39 weeks were eliminated. Macrosomia is not an acceptable medical indication for induction.

Q3. Is it beneficial to induce diabetic women prior to 39 weeks?

A3. Generally, no.

Women with gestational diabetes and good control on diet are not at increased risk for perinatal complications prior to 41 weeks, compared to the general population. Therefore delivery is generally considered elective prior to 41 weeks.

Women with diabetes and good control on medications (e.g., insulin or oral agents) who are clinically stable may be offered delivery after 39 weeks but prior to their due date. Amniocentesis for lung maturity is recommended prior to 39 weeks. However, even when there is a mature fetal lung test, there is an association with increased neonatal morbidity if an infant is delivered prior to 39 weeks, compared to delivery at 39 to 40 weeks.[31]

Q4: Do women with an indication for induction, such as well-controlled chronic hypertension, benefit from delivery prior to 39 weeks?

A4. Generally, no.

Most women with stable conditions do not need to be induced prior to 39 weeks. If their clinical picture changes, induction prior to 39 weeks should be considered.

Q5: Why do elective cesarean sections have more neonatal complications than elective inductions?

A5: Physiologic changes occur during the last few weeks of pregnancy to prepare the fetal lungs for birth.[56] Active labor and vaginal birth further stimulate lung maturation and clearance of fluid from the neonate's lungs. Delivery prior to 39 weeks worsens this transition considerably. A recent study by Tita et al. showed increased neonatal morbidity and mortality with declining gestational age. Overall, 10% of all infants experienced complications when born electively before 39 weeks.[7]

Q6: How should one proceed with elective delivery if there is a dating discrepancy? How can dating discrepancies between the last menstrual period and ultrasound be resolved?

A6: Dating discrepancies usually do not matter with spontaneous labor. However, with elective delivery before 39 weeks, the more conservative gestational dating parameter should be used. When performed in a skilled unit, the margin for error for a second-trimester ultrasound is 10 or fewer days. Beyond that, pregnancies are generally re-dated by the scan. Clinical correlation can help determine the best dating.[11] When this occurs and clinicians review dating with a patient, it is common for patient to state she is unsure of her menstrual dating. When patients are unsure of menstrual dating, ultrasound dating is the best parameter. On a population basis, genetic screening tools use ultrasound dating because it is more accurate than patient recollection.

Q7: Why do ACOG guidelines recommend that fetal lung maturity be determined by amniocentesis when elective delivery is planned and when gestational age is questionable, even when gestational age appears to be >39 weeks?

A7: ACOG's recommendations aim to protect patients and physicians. Therefore, amniocentesis should be performed to confirm fetal maturity in patients undergoing any elective delivery if they are not term based on ACOG-defined dating criteria.[11] For instance, a patient presenting for care at 32 weeks (dated by late sonogram) is subject to ultrasound standard error of ±3 weeks. Based on that error range, the patient would not meet ACOG criteria for elective delivery at term, even if the single scan indicated a gestational age of 39+2 weeks.

Q8: Are there disadvantages to determining lung maturity by amniocentesis when elective birth is planned prior to 39 weeks?

A8: Yes.

Lung maturity is only one aspect of newborn health. Feeding, temperature control and jaundice are other issues that affect early term infants. ACOG guidelines state that mature fetal lung study on amniotic fluid is not an indication for an elective delivery prior to 39 weeks.[11] A recent study compared neonatal outcomes for elective repeat cesarean births performed at 37-38+6 versus 39+ weeks in women with confirmed mature amniotic fluid analysis.[31] The related risks of neonatal issues were nearly 2-6 times greater in younger age groups. In addition, even when there is a mature fetal lung test there is an association with increased neonatal morbidity if an infant is delivered prior to 39 weeks, compared to delivery at 39 to 40 weeks.

Q9: Is there a difference between augmentation and induction?

A9: Yes.

Augmentation is defined as administration of oxytocin in a woman who is already in labor as a treatment for an arrest or protraction disorder.

Induction is defined by ACOG as attempting "to achieve a vaginal delivery by stimulating uterine contractions before the onset of spontaneous labor."[11] Induction also encompasses cervical ripening.

Patients with irregular contractions without cervical change are not considered to be in labor. Therefore, the use of oxytocin in this setting would be an induction, not augmentation.

Q10: Should informed consent be obtained for any elective inductions before 39 weeks? What if there is a medical indication?

A10: Yes.

This is an evolving area. The 2009 ACOG Practice Bulletin on induction of labor supports obtaining informed consent from all women who are induced.[11]

Any induction consent discussion should include the risks of the induction to the infant. Informed consent discussions need to be documented in the medical record. Informed consent discussions should occur whether the induction is elective or medically indicated. A standardized form that documents the informed consent discussion can assist providers with documentation while educating both medical staff and patients about associated perinatal risks.

Q11: In a multi-provider system, how is compliance documented and compared among the different physicians and other clinicians?

A11: Review the documentation; chart reviews and check lists can identify areas for improvement. The easier it is to document, the better compliance will be. As with an operating room "time out," it may be necessary to deny patient admissions if documentation items are absent (e.g., informed consent).

Q12: How do hospitals handle situations in which the doctor wants to induce prior to 39 weeks and provides an indication that cannot be confirmed in the chart, such as pregnancy-induced hypertension with normal blood pressure or ruptured membranes with no evidence of leaking or ferning?

A12: These types of scenarios can be a challenge and can impact quality of patient care. Hospital and OB department leaders must guide development of appropriate definitions of preeclampsia, for example, to avoid misuse of clinical terms. QI implementation based on evidence-based decisions at the leadership level leads to higher quality standardized care that is consistent among OB providers.

When justifiable disagreements occur, nurses and other staff should not be expected to question a provider; policies for documentation and approval processes should be designed to assess any persistent concerns around inductions. We recommend that when there is a disagreement that there be a process developed for resolving these conflicts in a positive manner. When disagreements occur these can provide important learning opportunities and, with that in mind, details that led to the disagreement can be monitored and tracked by a perinatal quality improvement committee. Reviewing why these types of disagreements are occurring can become particularly important if several providers are empowered to determine when exceptions to the policy and procedure are allowed.

We recommend that when there is a disagreement that there be a process developed for resolving these conflicts in a positive manner.

Q13: Are there incentives to improve provider documentation?

A13: Yes.

One of the benefits of well-designed, standardized documentation and checklists is that they save time for the OB. From an incentive standpoint, adequate documentation allows the most efficient care of their patient (i.e., care does not start until the documentation is complete). From a disincentive standpoint, failure to comply with documentation standards may invoke time-consuming re-credentialing reviews.

Q14: Did any of the studies identify the need to change staffing levels?

A14: No specific studies have examined impact of staffing level with the elimination of elective deliveries before 39 weeks. However, multiple studies have demonstrated that reducing elective inductions in patients with unfavorable Bishop Scores have decreased the patients' time in labor and delivery by an average of 4 to 6 hours.

Failed inductions that result in cesarean sections increase postpartum length of stay. One reason Intermountain Healthcare began its induction project was to specifically reduce inductions and length of stay in L&D and postpartum.

Q15: Can we expect doctors to move their patients to other hospitals with less restrictive induction/cesarean policies?

A15: Perhaps.

It may be helpful to stress patient safety as the key issue and to inform doctors that tracking deliveries prior to 39 weeks is becoming a common quality measure among multiple national organizations, including ACOG. In addition, multiple states are planning to publicly report compliance with these measures. Thus, it is a matter of time before hospital leaders at other hospitals in their community will also begin to implement this change.

Q16: What about using membrane stripping to induce labor before 39 weeks gestation?

A16: Membrane stripping is a type of induction procedure and should not be performed for elective induction of labor prior to 39 weeks.

A recent Cochrane review found: "Routine use of sweeping of membranes from 38 weeks of pregnancy onwards does not seem to produce clinically important benefits."[57] The large majority of the studies included in the review included women who were after 39 weeks gestation; stripping of membranes was being performed in an effort to prevent post-date pregnancies.

If there is a medical indication that necessitates early delivery, then more effective induction of labor methods should be utilized. Stripping of membranes prior to 39 weeks is not recommended.

Additional resource website links are highlighted in the appendices.