

# Decreased decision-to-incision time for non-emergent cesarean deliveries improves maternal and fetal outcomes: Study

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A new study from Boston Medical Center aims to standardize the pre-procedure process for urgent cesarean deliveries in order to decrease

decision to skin incision times. Published in *Obstetrics & Gynecology*, the study found that the implementation of a streamlined process for cesareans done because of concern for the fetus led to improved outcomes, increasing the rate of healthier babies immediately after birth, particularly for Black and Hispanic infants.

There is currently no recommended decision-to-incision time for unscheduled non-emergent cesarean deliveries. A target decision-to-incision time of 30 minutes is recommended for emergent cesarean deliveries, but there is little guidance on how to achieve this goal, and there are no data on the effects of decreasing decision-to-incision time on maternal and fetal outcomes.

This quality improvement intervention is the first to designate and implement 'urgent' delivery criteria to reduce decision-to-incision time for cesarean deliveries designated as urgent (but non-emergent) and evaluate if a standard algorithm for urgent cesarean deliveries was associated with improvement in clinical outcomes.

"The hope is that creating a streamlined approach for urgent cesareans will lead to more [equitable care](#) for all patients and improve communication among labor delivery teams," said lead author Lina Tibavinsky Bernal, MD, an obstetrics & gynecology specialist at Boston Medical Center.

The BMC labor and [delivery](#) team decreased decision-to-incision time for people with critical conditions through a series of improvements in staff coordination and operating room team function. One of the most important steps, creating a workflow triggered by certain patient conditions, involved many simulations to see what process worked best.

The changes in timely care were associated with improvements in infant Apgar scores, a 1-10 rating of an infant's health immediately after birth,

for those with cesareans for concerning fetal heart rates. The authors highlight that their findings were most significant for Black and Hispanic patients.

Researchers analyzed 642 urgent cesarean deliveries, 199 pre-implementation and 160 post-implementation of the standard algorithm, and the mean decision-to-incision time improved from 88 to 50 minutes. When broken down by race and ethnicity, the mean decision-to-incision time among Black non-Hispanic patients improved from 98 minutes to 50 minutes and from 84 minutes to 49 minutes among Hispanic patients. There was not significant improvement in decision-to-incision time among other racial and ethnic groups.

"These changes should help L&D units decide which cases need to be prioritized, especially if there is more than one cesarean to complete," said senior author Ronald Iverson, MD, MPH, an obstetrician gynecologist at Boston Medical Center and director of Quality and Safety for OBGYN. "These findings also suggest that clear, objective indications and expectations for treatment may be the first steps to eliminating biases in how we care for people."

**More information:** Lina Tibavinsky Bernal et al, Decreasing Decision-to-Incision Times for Unscheduled, Urgent Cesarean Deliveries, *Obstetrics & Gynecology* (2023). [DOI: 10.1097/AOG.0000000000005221](https://doi.org/10.1097/AOG.0000000000005221)

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