Get Out of the Way! – Promoting Vaginal Births
Northwestern Memorial Hospital

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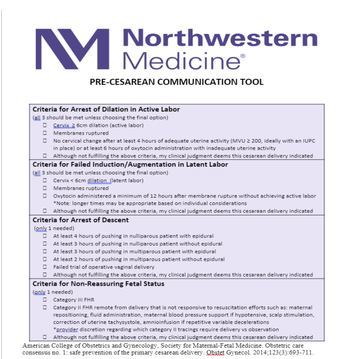
Northwestern Memorial Hospital is a Level III academic medical center located in Chicago, Illinois. Over 11,000 patients were delivered in 2020.

Problem

Northwestern Memorial Hospital submits PC-02 Cesarean Birth data to the Joint Commission. The PC-02 measure reflects cesarean delivery rate in nulliparous, term, singleton, vertex patients (NTSV) . In CY 2019, our PC-02 rate based on a sample size was 16.6%; in CY 2020 the rate increased to 24.1%. Data review identified three contributing factors: 1) the reason for cesarean is often not documented in the EMR, 2) if documented, the data in the delivery summary did not align with the clinical indication and 3) the clinical indication did not align with ACOG recommendations.

Project Implementation

- The ILPQC Promoting Vaginal Birth Initiative was launched in October 2020 in an effort to decrease our NTSV cesarean delivery rate.
- Reports were created to identify our entire NTSV population.
- A Grand Rounds was held in June 2021 to update the Department of the increasing cesarean rate trend and provide education on the ACOG/SMFM recommendations for cesarean delivery.
- A pre-cesarean communication tool was developed to assist in determining if ACOG/SMFM criteria was met prior to proceeding with the cesarean.
- Starting with CY 2021, on a quarterly basis, a graph is created displaying blinded NTSV cesarean practice rates. The graph is displayed on Labor & Delivery and distributed to the practices with their rates and cesarean indications. We plan to distribute the practice data in the future with individual rates.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PRE-CESAREAN COMMUNICATION TOOL

Criteria for Arrest of Dilation in Active Labor
(all 3 should be met unless choosing the final option)
- ☐ Cervix ≥ 6cm dilation (active labor)
- ☐ Membranes ruptured
- ☐ No cervical change after at least 4 hours of adequate uterine activity (MVU ≥ 200, ideally with an IUPC in placed or at least 6 hours of oxytocin administration with inadequate uterine activity
- ☐ Although not fulfilling the above criteria, my clinical judgment deems this cesarean delivery indicated

Criteria for Failed Induction/Augmentation in Latent Labor
(all 3 should be met unless choosing the final option)
- ☐ Cervix < 6cm dilation (latent labor)
- ☐ Membranes ruptured
- ☐ Oxytocin administered a minimum of 12 hours after membrane rupture without achieving active labor
  *Note: longer times may be appropriate based on individual considerations
- ☐ Although not fulfilling the above criteria, my clinical judgment deems this cesarean delivery indicated

Criteria for Arrest of Descent
(only 1 needed)
- ☐ At least 4 hours of pushing in nulliparous patient with epidural
- ☐ At least 3 hours of pushing in nulliparous patient without epidural
- ☐ At least 3 hours of pushing in multiparous patient with epidural
- ☐ At least 2 hours of pushing in multiparous patient without epidural
- ☐ Failed trial of operative vaginal delivery
- ☐ Although not fulfilling the above criteria, my clinical judgment deems this cesarean delivery indicated

Criteria for Non-Reassuring Fetal Status
(only 1 needed)
- ☐ Category III FHR
- ☐ Category II FHR remote from delivery that is not responsive to resuscitation efforts such as: maternal repositioning, fluid administration, maternal blood pressure support if hypotensive, scalp stimulation, correction of uterine tachysystole, amnioinfusion if repetitive variable decelerations
  *provider discretion regarding which category II tracings require delivery vs observation
- ☐ Although not fulfilling the above criteria, my clinical judgment deems this cesarean delivery indicated

American College of Obstetrics and Gynecology, Society for Maternal-Fetal Medicine. Obstetric care consensus no. 1: safe prevention of the primary cesarean delivery. Obstet Gynecol. 2014;123(3):693-711.

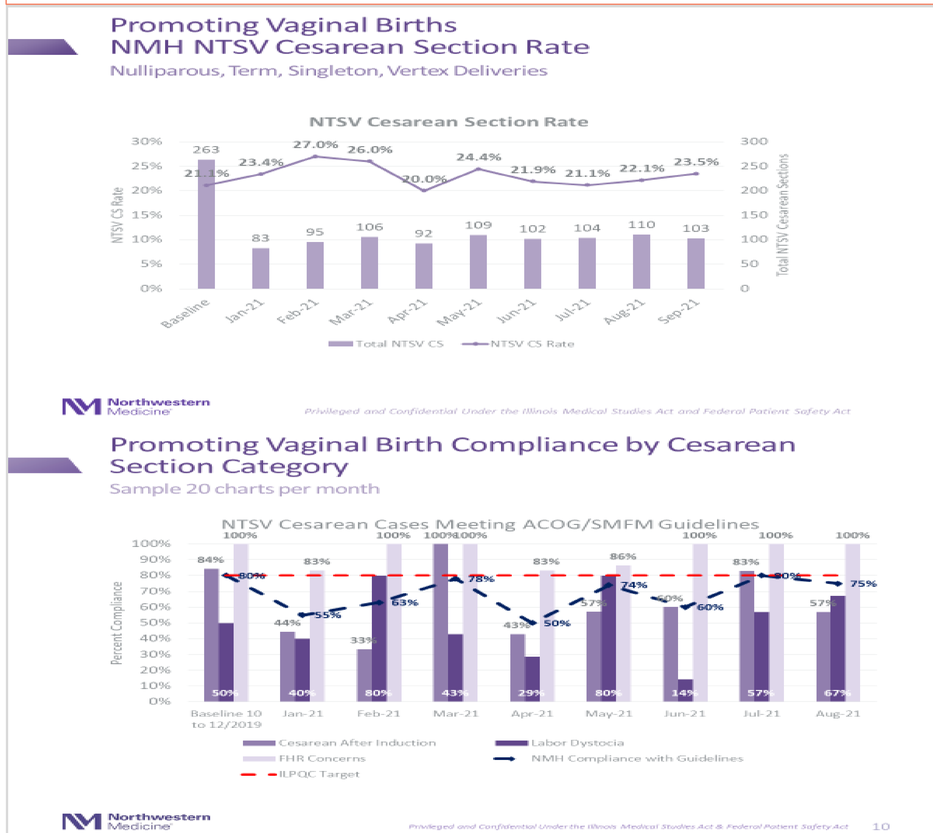
Pre-Cesarean Communication Tool

Results

NTSV Cesarean Section rate for CY 2021 through September is 23.1%.

In August 2021, 75% of NTSV cesarean cases met ACOG/SMFM criteria. Compliance with ACOG/SMFM criteria is highest for FHR concern cases followed by cesarean after induction and labor dystocia. Of note, NMH uses the definition of < 6 cm for cesarean after induction and ≥ 6 cm for labor dystocia regardless of induction status.

50% (4/8) of hospital measures are in place. Our team is working on the remaining four measures.



Hospital Measure	Status through 8/2021
Implemented provider and nurse education and other strategies to achieve buy-in	Working on it
Implemented standardized protocols/processes for induction, labor support management and response to labor and fetal heart rate abnormalities	In place
Implemented and integrated PVB order sets, protocols, and documentation into the EMR	In place
Implemented cesarean decision checklist using ACOG/SMFM labor guidelines	In place
Implemented decision huddles and/or decision debriefs with appropriate care team to standardize use of ACOG/SMFM guidelines and checklist	Working on it
Implemented workflow process to incorporate shared decision making with the patient	Working on it
Implemented standardized patient education with positive messaging promoting vaginal birth strategies and techniques for women and families	Working on it
Integrated process to review and share data that includes provider-level data with labor and delivery clinical teams	In place

Conclusions

Efforts to improve NTSV rates will continue through

- Data review/analysis;
- Education on ACOG/SMFM criteria and labor support management;
- Distribution of provider/practice data.

Acknowledgements/Hospital Team

NMH Promoting Vaginal Birth Team

Physician Champion: Emily Donelan MD

Nurse Champion: Marissa Wernick, Manager L&D

Team Leader: Deborah Miller, Quality

Team Members: Mary Clare Vanecko APRN CNM; Nancy Grady APRN CNM; Mahesh Vaidyanathan MD; Marybeth Lore MD; Alexandra Stewart RN Education Coordinator; Laura Kosiek RN Education Coordinator