Utilizing a Pre-Cesarean Checklist in Labor and Delivery

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This research was supported (in whole or in part) by HCA Healthcare and/or an HCA Healthcare affiliated entity. The views expressed in this publication represent those of the author(s) and do not necessarily represent the official views of HCA Healthcare or any of its affiliated entities.

This material is the result of work supported with resources and the use of facilities at the Orlando VA Healthcare System (Orlando, Florida). The contents of this publication do not represent the views of the Department of Veterans Affairs or the United States Government.
Background
• There has been a rapid increase in cesarean birth rates from **1996 to 2011**

• A continuous increase through **2021** suggests an overuse of this delivery method

• The United States Department of Health and Human Services (HHS) goal: < than **25%**

• The Healthy People 2030 goal specifically targets low risk pregnancies categorized as **NTSV**

• Our current **NSTV rate at HCA Osceola**: **29.9 %**
Nulliparous

Term

Singleton

Vertex
Why is decreasing the rate of NTSV important?
- Cesarean deliveries when not indicated place these women at higher risks for negative health outcomes.

Why use a Pre-Cesarean checklist?
- Utilizing evidence-based strategies, such as a pre-cesarean checklist, could positively impact health outcomes and support these national initiatives.

Why at HCA Florida Osceola Hospital?
- The population we serve is reflective of the population affected by this increased rate of cesarean deliveries.
Figure 1. Cesarean Deliveries Amongst Low-Risk Women

Figure 2. Population by Race

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Figure 1. Cesarean Deliveries Amongst Low-Risk Women

- Total
- Hispanic or Latino
- American Indian or Alaska Native only, not Hispanic or Latino
- Asian only, not Hispanic or Latino
- Native Hawaiian or Other Pacific Islander only, not Hispanic or Latino
- Black or African American only, not Hispanic or Latino
- White only, not Hispanic or Latino
- 2 or more races, not Hispanic or Latino
- Target: 23.6

Figure 3. Population by Ethnicity

<table>
<thead>
<tr>
<th>Percentage of Population</th>
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<tbody>
<tr>
<td>Lake</td>
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<tr>
<td>Orange</td>
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<tr>
<td>Osceola</td>
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<tr>
<td>Seminole</td>
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<tr>
<td>Florida</td>
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<tr>
<td>Hispanic or Latino</td>
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<td>Non-Hispanic</td>
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- Lake: 15.4% Hispanic or Latino, 84.6% Non-Hispanic
- Orange: 31.4% Hispanic or Latino, 68.6% Non-Hispanic
- Osceola: 53.7% Hispanic or Latino, 46.3% Non-Hispanic
- Seminole: 21.4% Hispanic or Latino, 78.6% Non-Hispanic
- Florida: 25.6% Hispanic or Latino, 74.4% Non-Hispanic
Objective
During the Plan phase of our project we identified:

- An NTSV cesarean delivery rate of 29.9%

Our quality improvement project:

- Utilized a pre-cesarean checklist as a tool
  - Placed in every low-risk pregnant patient’s chart throughout the labor course
  - Evaluated and determined if cesarean delivery was indicated

- Set a goal to lower the risk of NTSV to less than 25%.
Methods
• Common indications for cesarean deliveries were identified using ACOG guidelines
  • The indications were added to the pre-cesarean checklist and shared with physicians and ancillary staff

• The charge nurses identified NTSV pregnancies on admission

• A reminder was placed on patient doors

• Residents filled out a checklist if the patient had a cesarean delivery

• Data was collected for 3 months and compared to the previous 3 months when the checklist was not in use
  • Collected pre-checklist implementation NTSV numbers from November 2022 to January 2023
  • Collected post-checklist implementation NTSV numbers from February 2023 to April 2023
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Results
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- **Pre-checklist implementation (November 2022 to January 2023):** 29.9% NTSV patients delivered by cesarean section

  ![Pie chart showing percentages of NTSV patients delivered by cesarean section before checklist implementation.]

  - Cat II fetal heart rate tracing: 53.8%
  - Arrest Disorder: 11.5%
  - Other: 35%

- **Post-checklist implementation (February 2023 to April 2023):** 25.3% NTSV patients delivered by cesarean section

  ![Pie chart showing percentages of NTSV patients delivered by cesarean section after checklist implementation.]

  - Cat II fetal heart rate tracing: 27%
  - Arrest Disorder: 32%
  - Other: 41%

- **Data was sent to statisticians to determine:**
  - Statistical significance
  - Clinical significance

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Discussion/Conclusion
• If there continues to be a decrease in the rates of primary cesarean deliveries using this checklist:
  • There will be consideration to permanently incorporate it into workflow
  • Re-education on indications for NTSV cesarean deliveries will be conducted

• Our project could then be expanded to encompass the remainder of indications for NSTV cesarean deliveries and further help meet national goals, such as:
  • Category 3 fetal heart tracings
  • Suspected macrosomia
  • Maternal request
• ACOG. Safe prevention of the primary cesarean delivery. 2013 (reaffirmed 2019).


Q&A

You have Questions
We have Answers