Reducing NTSV Cesarean Section Rate with Mobility

Jessica Melendez RN, Jessica Gutierrez RN, Lindsey Bogner RN, Dalayne Nettles RN

Kern Medical Labor and Delivery

Intro

- Assessment of Nulliparous, Term, Singleton, Vertex (NTSV) deliveries:

  The Problem we are trying to decrease is cesarean section rates in NTSV mothers by focusing on the importance of mobility during labor. We discovered that patients are not being repositioned as frequently to help with their labor progress.

- The Importance of Mobility:

  With mobility, it has been found that intrapartum patients are able to dilate faster and the risk of needing a cesarean section due to "failure to progress " is avoided.

- The Purpose of Our Project:

  The Purpose of educating our Coworkers/Staff on mobility and different types of repositioning is to help labor progress and avoid cesarean section, since cesarean section deliveries are far more riskier and mothers deserve the chance to have as many children as they would like with lower risks.

- What does Research tell us?

  Research states NTSV population has been the largest contributor to the rise in cesarean rates. According to the American College of Obstetricians and Gynecologists (ACOG), it is important for health care providers to understand and be educated on the short term and long term tradeoffs between cesarean and vaginal delivery and take safe opportunities to prevent primary cesarean delivery. There are many risks for cesarean births such as hemorrhage, uterine rupture, abnormal placentation, and cardiac events. For NTSV mothers who had their first delivery as cesarean section, they run even higher risks like uterine rupture, uterine atony, placenta previa, placenta accreta, and surgical adhesions. These complications all increase with each successive cesarean section the mother gets after the primary one. There are risks for the babies as well, which include respiratory complications, higher rates of admission to NICU, and the development of childhood asthma. Furthermore, cesarean section interferes with skin to skin and breastfeeding.

- How did we choose this project?

  Kern Medical currently has the highest cesarean section rate in NTSV mothers in Bakersfield. Also, California has the highest rates compared to the rest of the United States. Our goal was to educate our staff in mobilization/repositioning of their patients even with epidurals which would hopefully cause a steady decline in NTSV cesarean rates and help Kern Medical reach one of the lowest rates in Bakersfield.

Objectives

1. To reduce cesarean sections in the NTSV population and provide a higher quality of care for both mother and baby.

2. To stay below the national average NTSV cesarean section rate of 23.9%

3. To stay within the Kern Medical goal of a steady decrease from 17.73 % to 16.1%.

4. To educate our Staff Nurses that even with epidurals, repositioning laboring patients is possible, especially because research shows that early labor epidurals slow down progress due to immobility.

5. To educate our Staff Nurses different positions to help the NTSV population and the multiparous population progress in labor faster.

6. To educate our Staff Nurses about the peanut ball and its benefits such as quicker labor progression due to better pelvic positions and widening of the pelvic outlet.

7. To educate Staff Nurses on the California Maternal Quality Care Collaborative's pre-cesarean checklist and on their failure to progress checklist that need to be followed before diagnosing NTSV population as candidates for cesarean section.

8. To examine the NTSV cesarean section rates as more and more staff nurses employ mobility and peanut balls to reposition mothers in labor.

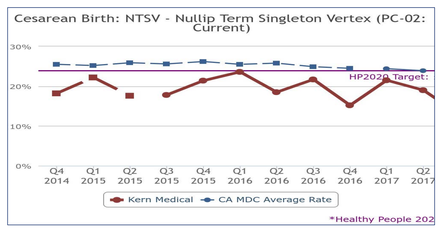


Figure 1. This Graph shows the Kern Medical Increase and decrease in NTSV Cesarean Section Rates from 2014 to 2017.

Methods

The process completed to successfully have a steady decrease in NTSV cesarean section rates are as follows:

1. Mobility classes were scheduled in a span of three weeks at different times to accommodate the schedules of day and night shifts in which a Power Point presentation was given to educate Staff Nurses on mobility, especially with the NTSV population.

2. Participants in the class were asked to complete a Pre-Survey prior to the start of the class in order to evaluate our Staff Nurse's knowledge regarding mobility in labor and delivery.

3. Participants from the class were asked to complete a Post-Survey after the class in order to re-evaluate and see if the educational presentation made any difference.

4. The use of peanut balls in labor was implemented and ever since there has been less NTSV Cesarean sections, and has resulted in faster and successful deliveries and TOLACs.

5. Graphs were created to show results.

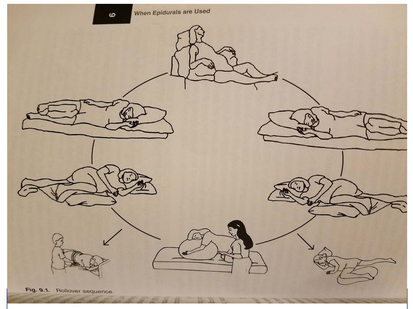
Pre Mobility Education Class Survey

1. How many years have you been an L&D Nurse?

2. Have you ever taken childbirth classes, either for yourself or for work?
   Yes No
3. How familiar are you with implementing repositioning/mobility techniques during labor?
   5 4 3 2 1
   Very familiar Not familiar at all
4. How confident are you to advocate for your L &D patient if you disagree with the Doctor? (Circle one number)
   5 4 3 2 1
   Very Confident Not At All Confident
5. How often do you think the doctors admit patients without being in active labor (not taking in account inductions)? (Circle one)
   5 4 3 2 1
   Always Never
6. How often would you say you reposition your patient during the latent phase of labor? (Circle one)
   Q30mins Q1Hour Q2Hours Once / shift Not at all
7. How often would you say you reposition your patient during the active phase of labor? (Circle one)
   Q30mins Q1Hour Q2Hours Once / shift Not at all
8. How often would you say you reposition your patient during the second stage of labor? (Circle one)
   Q30mins Q1Hour Q2Hours Once / shift Not at all
9. How many of your patients ask for an epidural? (Circle one)
   25% of my patients 50% of my patients 75% of my patients All of my patients
10. Do you reposition your patients when they have an epidural? If so, how often? (Circle One)
    Q30mins Q1Hour Q2Hours Once / Shift Not at all
11. Do you explain procedures and expectations for Nulliparous mothers -considering that they have never had a baby before, to decrease their fear or anxiety? (Circle one)
    Yes No Maybe

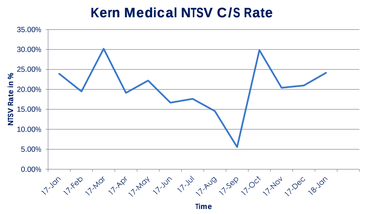
Post Mobility Education Class Survey

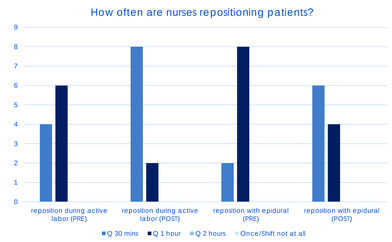
1. How familiar are you with implementing repositioning/mobility techniques during labor?
   5 4 3 2 1
   Very familiar Not familiar at all
2. How often will you reposition your patient during active labor? (Circle one)
   Q30mins Q1Hour Q2Hours Once / shift Not at all
3. How often will you reposition your patients even when they have an epidural? (Circle One)
   Q30mins Q1Hour Q2Hours Once / Shift Not at all
4. Will you explain procedures and expectations for Nulliparous mothers-considering that they have never had a baby before, to decrease their fear or anxiety?
   Yes No Maybe
5. This class has helped me to understand the importance of mobility in labor. (Circle one)
   Strongly Agree Agree Neutral Disagree Strongly Disagree

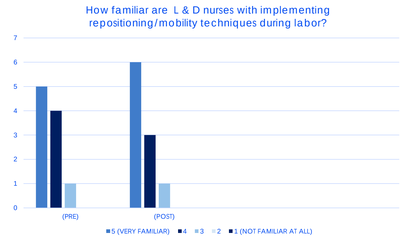


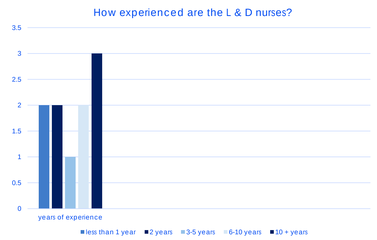
Results

There were two different results that demonstrated success. First, our staff nurses showed in their post surveys that the presentation helped them understand the importance of mobility and that they will reposition their patients every 30 minutes to every 1 hour as recommended by ACOG. Second, the NTSV Cesarean Section rates have decreased since educating our Staff Nurses on mobility, and even more since implementing the use of the peanut balls. Delivery time for NTSV patients being induced have also been faster when using the peanut ball and repositioning or mobilizing than for those who do not.









Conclusions

Did we meet Kern Medical's goal?

The goal was to stay within 16.1% to 17.73%, but unfortunately our NTSV c-section rate was 20.97% in December 2017 and 24.17% In January 2018. This could have been due to the late implementation of mobility (use of peanut balls in labor). However, we are still below the National Goal of 23.9%.

What could we have done differently?

We could have had better results if we had started on this project and implementation sooner. Our outcome could also have been different if more nurses attended the mobility classes and if we presented to the OB-GYN resident physicians. Furthermore, implementation of wireless fetal monitors would have been great in order to promote ambulation in early stages of labor.

Does this project meet Evidence-Based Practice?

Yes, according to the California Maternal Quality Care Collaborative (CMQCC) and the American College of Obstetricians and Gynecologist (ACOG), mobility in conjunction with gravity allows for the progression of labor to continue until delivery. This is what we are doing with the peanut ball and repositioning every 30 minutes as recommended.

Rationale behind mobility?

Pelvic mobility allows for subtle changes in the shape and size of the pelvis which may facilitate an optimal position of the fetal head in the first stage, as well as the cardinal movements of flexion, internal rotation, and fetal descent in the second stage.

Potential consequences of not following Evidence-Based Practice?

Increased NTSV cesarean rates, increased risks for both mother and baby, and lower quality of care for mother and baby.

Further research and improvement for this project?

Getting wireless monitors for better repositioning and walking. Volunteer doulas for labor support and to help calm and relax patients, which is another barrier found to stop labor progression.

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