

# 4MOMS + NATIONAL PERINATAL ASSOCIATION QUALITY ASSURANCE PROJECT OVERVIEW

A preliminary study shows that using the 4moms® mamaRoo® infant seat with babies affected by Neonatal Abstinence Syndrome (NAS) in the NICU increased their comfort level.

## **METHODOLOGY:**

- Six participating hospitals from across the United States
- 119 assessments collected and analyzed
- Nurses recorded the baby's heart rate, respiratory rate, and overall behavioral state on a scale from 1 to 6 (1 = calm, 6 = inconsolable) at six different points in time: pre-mamaRoo, while in the mamaRoo, and post mamaRoo.

#### **OUTCOME:**

- Data shows that babies placed in the mamaRoo after 30 minutes were more physiologically stable having lower heart and respiratory rates and were in calmer behavioral states.
- Pre-mamaRoo behavioral state average of 4.7 to an average of 1.4 after being in the mamaRoo for 30 minutes.

The mamaRoo is an effective non-pharmacological intervention for babies experiencing the uncomfortable symptoms associated with NAS.

For more information about the 4moms + NPA Quality Assurance Project or if interested in participating in future studies, please contact info@brandsinmotion.ca

# PRELIMINARY STUDY SHOWS 4MOMS MAMAROO INFANT SEAT CAN CALM OPIOID-AFFECTED BABIES

Infant Seat Offers Non-Pharmacological Intervention for Babies Diagnosed with Opioid Withdrawal

PITTSBURGH, Pennsylvania. • May 29, 2018 – A preliminary study conducted by the National Perinatal Association (NPA) and 4moms shows that using the mamaRoo infant seat with babies affected by Neonatal Abstinence Syndrome (NAS) in the NICU increased their comfort level. Babies experience NAS or NOW (Neonatal Opioid Withdrawal) because of exposure in the womb to opioids. They typically experience body shakes, seizures, fussiness, poor feeding and breathing problems, among other symptoms, after being born. Traditional pharmacologic treatment for NAS involves medicine like morphine or methadone, while non-pharmacological treatments like swaddling, skin-to-skin care and breastfeeding have been shown to lessen the symptoms. This initial data show that babies placed in the mamaRoo infant seat after 30 minutes were more physiologically stable – having lower heart and respiratory rates –and were in a calmer behavioral state, as assessed by their nurses.

"For years, nurses and doctors have told us that the natural bounce and sway motion of the mamaRoo is a life-saver in the NICU," said Maria Synan, 4moms Hospital Program Manager. "To date, we've only had anecdotal stories, so when the NPA approached us to conduct a pilot study to see if the mamaRoo could help soothe babies diagnosed with NAS/NOW, we were eager to work with them."

According to the Centers for Disease Control an estimated six out of every 1,000 infants born in the U.S. are diagnosed with NAS.

"The rate of American babies diagnosed with NAS has quadrupled over the past 15 years," explained Cheryl Milford, Director of Development & Outreach at the NPA. "We are constantly looking for new non-pharmacological treatments to help console these babies when the parents aren't able to be present. These preliminary results indicate that the mamaRoo is a great option."

The pilot study, conducted over a three-month period, analyzed 119 assessments from six hospitals across the United States. Nurses recorded the baby's heart rate, respiratory rate, and overall behavioral state on a scale of 1 - 6 (1 = calm, 6 = inconsolable) at six different points in time.

#### These included:

- 1) pre-mamaRoo/in crib
- 2) initially seated in the mamaRoo mamaRoo off
- 3) 10 minutes in the mamaRoo while moving
- 4) 30 minutes in the mamaRoo while moving
- 5) 10 minutes out of the mamaRoo in crib
- 6) 30 minutes out of the mamaRoo in crib

Amongst the most promising results were a stabilization in heart and respiratory rate while seated in the mamaRoo for 30 minutes when compared to vital signs while in the crib. A significant change in behavioral state was seen from the premamaRoo state ( $\sim$  4.7) to 30 minutes in the mamaRoo ( $\sim$ 1.4), showing the mamaRoo can help soothe babies experiencing the uncomfortable symptoms associated with NAS.

"These results are extremely promising. The hospital savings from these types of non-pharmacological treatments could be significant," said Milford. "We'll be conducting a more comprehensive, multi-site research study in 2019 to further validate the preliminary findings, and to support the development a set of guidelines for how to use the mamaRoo with these vulnerable babies."

The mamaRoo is the only infant seat on the market that bounces up and down and sways from side to side, just as parents do. It has five unique motions to calm and soothe babies, and currently is in use in nearly 375 hospitals across the country (US). The 4moms Hospital Program offers mamaRoo discounts to hospitals, while the 4moms Cares program provides monthly donations to those in need. For more information on both programs, visit 4moms.ca/cares.

"We're thrilled to have the preliminary data that supports the benefits of the mamaRoo with this fragile patient population," said Synan. "But it also speaks to the efficacy of the mamaRoo's unique bounce and sway motions to comfort and soothe all babies."

The manuscript for this pilot study is in process as a joint effort between NPA and 4moms. To further validate these results, a multicenter trial is being finalized.

#### **ABOUT 4MOMS**

4moms® is a consumer technology company that leverages technology and innovative design to disrupt and redefine existing industries. The company has transformed the baby gear industry with products like the 4moms mamaRoo® infant seat that replicates the bouncing and swaying motions parents make when soothing their babies, the 4moms breeze® playard that opens or closes in one simple step, and the 4moms high chair, which uses magnetic technology to make mealtime easier. The company, founded in 2005 and based in Pittsburgh, Penn., currently sells its products at department stores and local retailer. For more information, visit 4moms.ca.

## ABOUT THE NATIONAL PERINATAL ASSOCIATION (NPA)

The NPA is comprised of healthcare providers, parents and caregivers, educators and service providers – all driven by their desire to support and advocate for babies and families at risk across the country. Its mission is to give voice to the needs of pregnant women, infants, their families and their healthcare providers so that collectively they can positively influence the perinatal care in the United States. NPA cares about pregnant and parenting people who are substance dependent and their babies. We believe that by working together we can improve the standard of care for these families and effect better outcomes.

For more information, visit: http://nationalperinatal.org/substance\_use.

See our NPA Position Statement on Perinatal Substance Use at: http://www.nationalperinatal.org/resources/Documents/Position%20Papers/2017 \_Perinatal%20-Substance%20Use\_NPA%20Position%20Statement.pdf

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