

## Newborn Admission Temperature Frequently Asked Questions

### What is TCHMB?

The Texas Collaborative for Healthy Mothers and Babies (TCHMB) is the statewide perinatal quality collaborative focused on improving birth outcomes in Texas. TCHMB aims to advance health care quality and patient safety for all Texas mothers and babies by partnering with providers to implement quality improvement (QI) initiatives that advance data-driven best practices. For more information, please visit the website at: <https://www.tchmb.org/>.

### What is the Newborn Admission Temperature project?

The Newborn Admission Temperature project is a QI initiative hosted by TCHMB in partnership with the Regional Advisory Council (RAC) Perinatal Committees to increase the proportion of newborn infants with admission temperatures within normal limits through the implementation of best practices.

### What is the role of RAC PCR Alliance with respect to the project?

TCHMB and RAC Perinatal Care Region (PCR) Alliance are working together to establish a statewide collaborative around the Newborn Admission Temperature project. The RAC PCR Alliance will be critical in successful implementation of the project as they will be the liaison that connects TCHMB with every single hospital stakeholder across the state.

### What is the role of RAC Perinatal Committees with respect to the project?

The following are some examples of how the RAC Perinatal Committees can help facilitate the successful implementation of the project:

- ❖ Serve as an information conduit between TCHMB and RAC Perinatal Committees to ensure hospital stakeholder engagement and data submission
- ❖ Provide focused technical assistance to address barriers to implementation at local hospital/PCR level
  - Convene hospitals with common barriers within PCRs to identify and share strategies and resources for improvement
- ❖ Build skills acquisition

### **Why is it critical to monitor the temperature of newborns?**

Immediate postnatal hypothermia is a risk factor for morbidity and mortality in all neonates, including premature neonates. Challenges in thermoregulation persist – especially when caring for the smallest preterm infants - despite readily available evidence-based thermal care recommendations to minimize heat loss immediately after birth. Indeed, hyperthermia is also associated with adverse outcomes. Reducing variation in neonatal thermal care will diminish the risks with hypo- and hyperthermia exposure-related outcomes in all newborns thus increasing newborn health care quality and patient safety. Reducing variation through the implementation of best practices also helps to reduce health disparities.

Further, the Perinatal Committee of the North Central Texas Trauma Regional Advisory Council conducted a newborn admission temperature project in their region, which showed positive outcomes for all newborns, including term infants. We would like to expand their project to statewide.

### **What is the scope of the Newborn Admission Temperature project?**

The project will impact every single birth in Texas (~400,000 annual deliveries).

### **Is there any cost associated with participation?**

The project is with TCHMB. TCHMB is funded by the Texas Department of State Health Services, Community Health Improvement Division, Title V Maternal and Child Health. There is no cost for hospitals to participate in the project.

### **Do hospitals need to obtain IRB approval for participating in the study?**

The project is a quality improvement study and not a research study. We will only collect hospital-level aggregate data, and no patient-level data. We will generate individual hospital reports that will be based on the aggregate hospital-level data. The individual hospital reports will only be shared with the respective hospital and their RAC. Since this is a quality improvement study and not a research study, TCHMB has obtained IRB exempt from UTHSCT.

### **How will participation in the project benefit the hospital stakeholders?**

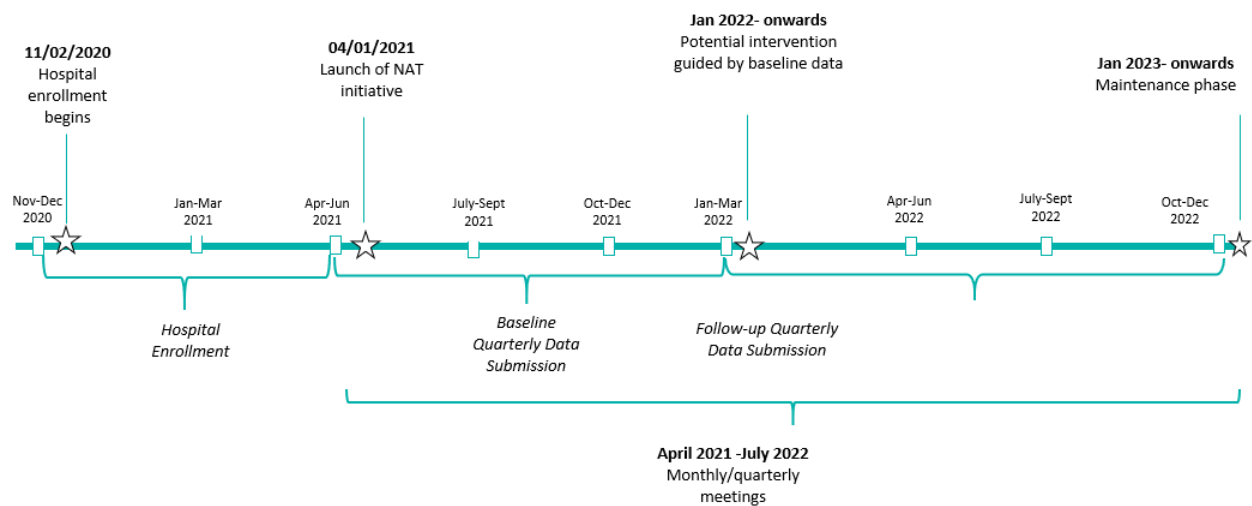
Participation in this project will be an excellent example of a hospital's involvement in a state- and local-level QI initiative and will provide additional metrics to inform their quality assurance and performance improvement programs to support levels of care designation.

### What are the SMART goals of the project?

- ❖ Within 18 months of beginning of the project, there will be a 50% increase in the proportion of infants with normothermia (36.0-37.5°C) upon admission among infants admitted to NICU.
- ❖ Within 18 months of beginning of the project, there will be a 50% increase in the proportion of infants with normothermia (36.0-37.5°C) measured within 20-60 minutes after birth among infants admitted to the newborn nursery.

### What is the project timeline?

- ❖ Hospital enrollment and completion of needs assessment survey: November 2020-March 2021
- ❖ Baseline quarterly data: April 2021-December 2021
- ❖ Follow-up quarterly data: January 2022-December 2022
- ❖ Maintenance phase: January 2023 and onwards (for hospitals that are interested to participate)



### What are the expectations of participating in this project?

- ❖ Formal commitment to participate in TCHMB's Newborn Admission Temperature QI Project
- ❖ Complete data use agreement (note: for some hospitals this may take some time as it may require review and approval from the Legal team, which is okay)
- ❖ Conduct a QI project specific to newborn admission temperature
- ❖ Provide aggregate data related to newborn admission temperature to TCHMB via REDCap on a quarterly basis for at least 24 months.
- ❖ Participate in periodic collaborative calls (frequency to be determined) with other members of your PCR. This may be conducted during your monthly/quarterly PCR meetings.
- ❖ Implement well-infant thermoregulation guidelines following baseline data collection (approximately, 6 months into the project) and track follow-up data subsequently
- ❖ TCHMB will create a REDCap account for each individual hospital so that they can submit data. NOTE: data submitted will not be shared with other hospitals, and any data shared will be in aggregate form.
- ❖ Attend and potentially present at webinars on newborn admission temperature protocols and interventions for thermoregulation
- ❖ Develop and/or share tools and materials specific to newborn admission temperature and thermoregulation
- ❖ Potentially serve as a mentor to educate and support hospitals in your PCR with the ultimate goal of helping all hospitals within your PCR achieve the project aims.

### What is the timing for infant first admission temperature tracking?

- ❖ Temperature reported for infants in mother-baby unit/newborn nursery should be between 20-60 minutes after birth
- ❖ Temperature reported for NICU infants should be the first temperature upon admission

### What are the data metrics?

- ❖ Total number of births in the hospital\*
- ❖ Total number of admissions to mother-baby/newborn nursery\*
- ❖ Total number of admissions to the NICU\*
- ❖ Total number of admissions with birthweight <1,500 grams\*
- ❖ Total number of infants with admission temperature <36°C (96.8°F) in mother-baby/newborn nursery\*
- ❖ Total number of infants with admission temperature <36°C (96.8°F) in NICU\*
- ❖ Total number of infants with admission temperature <36°C (96.8°F) among those with birthweight <1,500 grams in NICU\*
- ❖ Total number of infants with admission temperature >37.5°C (99.5°F) in mother-baby/newborn nursery\*
- ❖ Total number of infants with admission temperature >37.5°C (99.5°F) in NICU\*

- ❖ Total number of infants with admission temperature  $>37.5^{\circ}\text{C}$  ( $99.5^{\circ}\text{F}$ ) among those with birthweight  $<1,500$  grams in NICU\*
- ❖ Total number of infants cooled for possible hypoxic ischemic encephalopathy at the time of admission with temperature  $<36^{\circ}\text{C}$  ( $96.8^{\circ}\text{F}$ )

\*These measures will be stratified by race/ethnicity. Race/ethnicity categories:

- Hispanic
- Non-Hispanic White or Caucasian
- Non-Hispanic Black or African American
- Other (includes American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, other groups, multiracial)
- Unknown (includes unknown and decline to answer)

#### Where can you find information about the different measures?

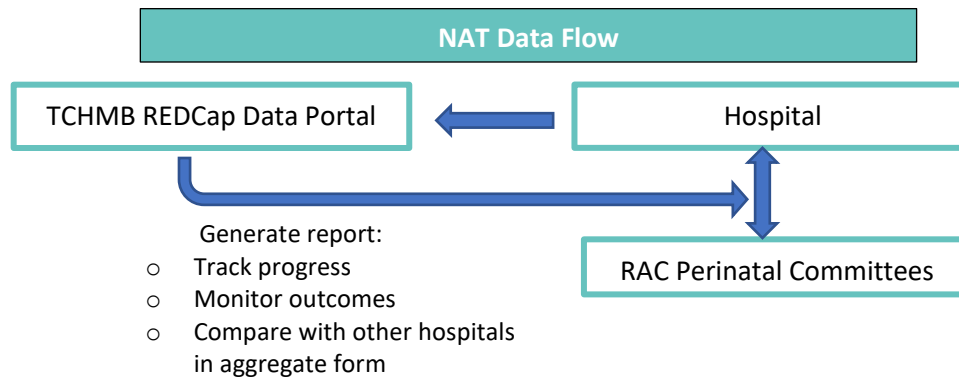
- ❖ Total number of births: delivery logbook / DRG codes / Joint Commission measure
- ❖ Total number of infants admitted to NICU: admission logbook
- ❖ Total number of admissions with birthweight  $<1,500$  grams: admission logbook and chart review/EMR
- ❖ Total number of infants admitted to mother-baby/newborn nursery: admission logbook
- ❖ NICU admission temperature: chart review/EMR
- ❖ NICU admission temperature among infants with birthweight  $<1,500$  grams: chart review/EMR
- ❖ Temperature at 20-60 minutes after birth for babies admitted to mother-baby/newborn nursery: chart review/EMR
- ❖ Total number of infants cooled for possible hypoxic ischemic encephalopathy at the time of admission with temperature  $<36^{\circ}\text{C}$  ( $96.8^{\circ}\text{F}$ ): chart review/EMR
- ❖ Race/ethnicity: admission chart

#### How will the data be collected?

Hospitals will submit aggregate data to TCHMB via REDCap on a quarterly basis for at least 24 months. Each hospital will receive an individual login to access REDCap and submit data. NOTE: no patient-level data will be collected by TCHMB. Hospitals will only have access to their own data.

### How will TCHMB report back the data to the hospitals?

TCHMB will generate individual hospital reports that will be shared with the respective hospitals and their representative RACs. These reports will compare individual hospital data with statewide data, regional data, data from similar hospitals in aggregate form (e.g., NICU, delivery volume, urban/rural location).



If you have any questions, please contact Dr. Meliha Salahuddin by email ([nat@utsystem.edu](mailto:nat@utsystem.edu)).