NEWBORN ADMISSION TEMPERATURE
STATE-LEVEL REPORT

Data Reporting Period: July-September 2021
Contact: NAT@utsystem.edu

SUMMARY

The goal of the TCHMB Newborn Admission Temperature (NAT) project is to implement evidence-based guidelines to increase the proportion of newborn infants with admission temperatures within normal limits. The broader goal is to increase newborn health care quality and patient safety.

» Out of 229 birthing hospitals in Texas, 157 (69%) were enrolled in the TCHMB NAT project by this reporting period. To date, this is TCHMB’s largest statewide quality improvement initiative.

» Of 157 enrolled hospitals, 70% (n=110) submitted data for July-September 2021. The overall quality of the data submitted has improved since the previous reporting period, with more hospitals reporting data by race/ethnicity.

» Among hospitals reporting data in July-September 2021, 3.5% of infants had hypothermia and 5.0% of infants had hyperthermia at admission to the NICU.

» Among hospitals reporting data in July-September 2021, 0.7% of infants had hypothermia and 3.1% of infants had hyperthermia at admission to the Mother-Baby Unit.

» Common strategies used by hospitals to facilitate collection of project data included working with their hospital’s IT department to generate reports (42%), changing workflow/clinical processes (26%), and educating clinical staff (26%).

» While these baseline data are preliminary, continued participation of hospitals in the NAT project will help drive improvement in newborn outcomes including reduction in health disparities in Texas.
Hypothermia and Hyperthermia in NICU Admissions by Race/Ethnicity

Compared to infants of Non-Hispanic White mothers, infants of Non-Hispanic Black mothers were significantly more likely to have hypothermia at NICU admission.

*Significant difference compared to infants of Non-Hispanic White mothers (p<0.05)

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Non-Hispanic Other</th>
<th>Non-Hispanic Black</th>
<th>Non-Hispanic White</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Hyperthermia</td>
<td>3.2</td>
<td>1.7</td>
<td>1.6</td>
<td>1.1</td>
</tr>
<tr>
<td>% Hypothermia</td>
<td>3.4</td>
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Hypothermia and Hyperthermia in Mother-Baby Unit Admissions by Race/Ethnicity

Compared to infants of Non-Hispanic White mothers, infants of Non-Hispanic Black mothers were significantly more likely to have hypothermia and less likely to have hyperthermia at admission to the Mother-Baby Unit.

Compared to infants of Non-Hispanic White mothers, infants of Hispanic and Non-Hispanic Other mothers were significantly more likely to have hypothermia at admission to the Mother-Baby Unit.

*Significant difference compared to infants of Non-Hispanic White mothers (p<0.05)

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Hypothermia and Hyperthermia in NICU Admissions by Birthweight

Compared to infants with normal birthweight, very low birthweight infants were significantly more likely to have hyperthermia at NICU admission.

*Significant difference compared to normal birthweight (>=1500g) (p<0.05)

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Normal Birthweight (&gt;=1500g)</th>
<th>Very Low Birthweight (&lt;1500g)</th>
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<tbody>
<tr>
<td>% Hyperthermia</td>
<td>5.3</td>
<td>6.8</td>
</tr>
<tr>
<td>% Hypothermia</td>
<td>4.9</td>
<td>7.9</td>
</tr>
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Hypothermia and Hyperthermia in NICU Admissions by Hospital Annual Delivery Volume

Compared to low annual delivery volume hospitals, NICU admissions with hypothermia were significantly more common in medium and high annual delivery volume hospitals.

*Significant difference compared to low delivery volume hospitals (p<0.05)

Hypothermia and Hyperthermia in Mother-Baby Unit Admissions by Hospital Annual Delivery Volume

Compared to low annual delivery volume hospitals, Mother-Baby Unit admissions with hyperthermia were significantly less common in high annual delivery volume hospitals.

*Significant difference compared to low delivery volume hospitals (p<0.05)

Hypothermia and Hyperthermia in NICU Admissions by NICU Level

Compared to Level I NICUs, NICU admissions with hypothermia were significantly more common in Level III and IV NICUs.

*Significant difference compared to Level I NICU (p<0.05)