Optimizing Outcomes for Tiniest Texans

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Tiniest Texan Program

- Process started: 2018; Go-Live in August 2020
- Population: infants born < 25 weeks gestation [22 - 24.6] and/or ≤ 500 grams
    - Expanded down to 22 weeks gestation in November 2021
- Cohort in a separate Tiniest Texan unit within the Neonatal ICU
- Multidisciplinary workgroup: Tiniest Texan Committee

Tiniest Texan Team

- Specialized group of RNs with extended training and specialized education
  - 40+ hours of specialized evidenced-based education from a partner consulting program
  - Review of Tiniest Texan Guidelines
  - Signed Commitment Statement
  - Orientation progress specific to Tiniest Texans Unit
- Focus on continuity of care with a core nursing group and through primary nursing model

Standardized Guidelines

- Golden Hour
- Skin Care
- Neurodevelopmental
- Respiratory/Cardiovascular
- Nutrition
- Palliative Care

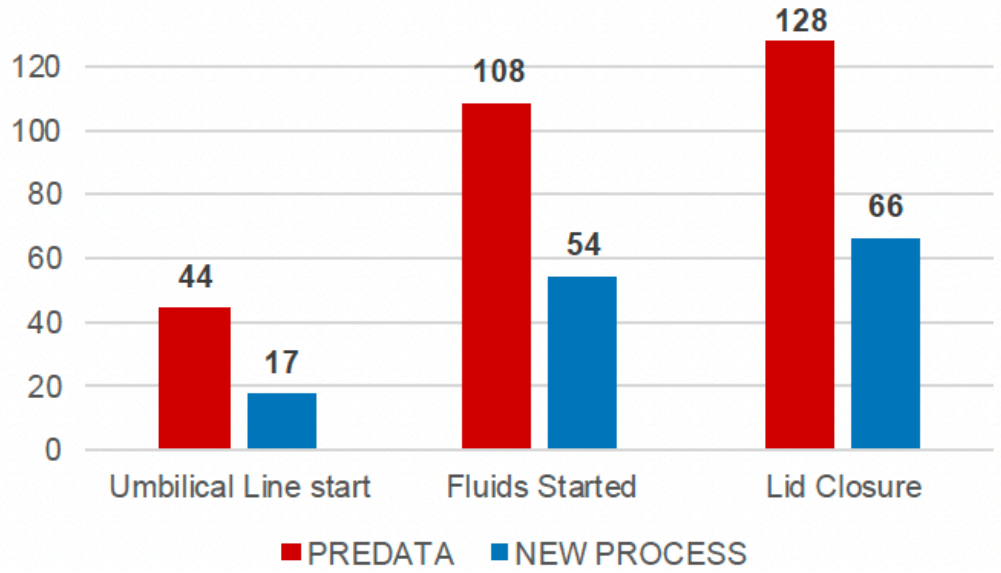
Admit RN	Transport RN	RT	Leader: NNP/MD	Charge RN
Pre-Admission				
Bring glucometer/strips and admit bed portable monitor to SR. Check supplies and equipment. Ensure Babyleo mattress at 39°C.	Bring cut down tray, if preferred, to SR. Check umbilical line supplies.	Bring Curosurf and iSTAT to SR. Prepare respiratory equipment. Prepare intubation supplies.	Obtain history/information. Hold pre-admission huddle to communicate history and establish anticipated resuscitation needs and plan.	
0-15 Minutes				
Receive infant. Apply pulse oximeter to right hand. Apply temperature probe. Wrap in plastic. Switch bed to servo.	Place Line Placement sign on SR door.	Resuscitation. Establish respiratory support.	Resuscitation. Leader will intubate, if needed.	
Auscultate and verbalize HR.	Upon delivery, begin preparing sterile field for line placement.			
Assist with stabilization. Assist with intubation & listen for breath sounds for ETT confirmation.		Prepare and deliver surfactant, as needed.	Evaluate need for surfactant.	
Obtain weight. [Verbalize to L&D nurse to place weight in Delivery Summary.]		Switch to ventilator, if needed.	Once weight obtained, enter admission orders. [Include STAT Chest/Abd Xray] [Include PRN D10W order]	
Obtain 1st axillary temperature & VS. Place OGT.				
Secure infant for line placement.			*If needed, prepare for start of sterile line placement.	
15-45 Minutes				
Ensure Xray order has been placed. "XR Chest Abdomen 2 View Neonate" Call 42-4252, notify of Tiniest Texan delivery - **location in SR**.	Begin line placement.	Monitor & adjust respiratory support, as needed.		Bring IV fluids and antibiotics to SR. (Secretary can deliver, if available)
Complete Observer Note for line placement in EPIC or paper form.		Run blood gas.	Review labs. Orders, as needed.	
Document 30 minute VS. Print EPIC armband/labels from L&D.	Verify line placement with Xray confirmation.	Complete Observer Note for line placement in EPIC (if needed)	Assist with line placement, as needed.	
Obtain labs as ordered. Send via L&D tube system.	Prime and attach all sterile tubing components to lines.		Review and confirm X-ray placement.	
Prime fluids. **Use D10W if fluids from pharmacy aren't available*		Assist with holding plate for 2-View Xray		
45 - 60 Minutes				
Document 60 minute VS.	Assist Admit RN with connecting fluids to ensure sterility.	Monitor & adjust respiratory support, as needed.		
Connect fluids and antibiotics after X-RAY verified. Undrape. Obtain 2nd temperature.	Prepare for NICU transport.	Prepare for NICU Transport.		
Obtain measurements and perform head-to-toe assessment. Remove saran wrap. Secure umbilical lines.				
Tuck in; 3rd temp check prior to closing isolette top. *If temp not WNL, ensure correct placement and monitor q10min until WNL*				
Place warm blanket on top of infant. Close isolette top & prepare for NICU transport.				
Visit mom on way to NICU.				
60+ Minutes/in NICU				
Do NOT raise top of bed. Connect to NICU Monitor. Obtain VS and 4th temperature.	Adjust lines, as needed.	Switch to NICU respiratory equipment.	Complete head to toe assessment.	Assist, as needed.
Set up IV pumps & administer medications, if not already started. *Switch to Admit TPN ASAP*	Assist, as needed.		Update parents.	
Follow up blood sugar & labs.	Complete Central Line Inserter Note in EPIC.			
Initiate humidity per orders.				
Tuck In/Begin Minimal Stimulation				
DEBRIEF with Team	DEBRIEF with Team	DEBRIEF with Team	DEBRIEF with Team	DEBRIEF with Team

Golden Hour Process

- Quality Improvement Project implemented in September 2022
- Completed in Labor & Delivery Stabilization Room prior to arrival in NICU
- Task flowchart separated by roles
- All equipment and supplies bundled by tasks to optimize time and minimize searching for supplies

Golden Hour Process

- **QI Project: moving Golden Hour process to Stabilization Room significantly improved our times related to:**



Highlights of our Care

- Skin Care Guidelines
  - Sterile water baths bi-weekly until 28 weeks gestation
  - Humidity for 7 days in closed humidity system in isolette
  - Standardized moisturizer and wound care supplies for consistency
- Neurodevelopmental Guidelines
  - Minimal Stimulation for 96 hours
  - Family Care Plan Meetings scheduled regularly

Highlights of our Care

- Respiratory Guidelines
  - CPAP is first choice in delivery room
  - When needed, High Frequency Jet Ventilator is primary mode of ventilation
  - Surfactant given in delivery room if intubated

- Nutrition Guidelines
  - Standardized feeding algorithms for advancements
  - Automatically placed in a High-Risk Feeding category
    - Turtle stickers from admission until discharge to maintain awareness
    - High Risk Oral Feeding Algorithm followed by Therapy team

Survival to Discharge Outcomes [Tiniest Texans]

Time Interval (2 years)	Date Range	Total Survival to DC/Total TTs	Survival to Discharge(%)
Before Tiniest Texan Program	Fall 2018 - Summer 2020	29 / 41	**71%**
Cohorting, GH in NICU	Fall 2020 - Summer 2022	34 / 57	**60%**
Cohorting, after GH QI Project	Fall 2022 - Present	67 / 90	**74%**

Survival to Discharge: [22-22.6 weeks]

Since 2021:

	Total Survival to DC/ Total	Survival to DC Rate %
INBORN	12 / 21	**57%**
OUTBORN	3 / 7	**43%**