

# Improving Standardization of Golden Hour Practices Through the Use of a NEW Admission Checklist

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## Rationale / Background

Audit of golden hour (GH) practices identified the following problems:

- Increased rate of hypothermia in the DR (26%)
- Inconsistent and/or missing documentation
- Minimal or inconsistent family engagement

## Pre-existing Admission Checklist

- Outdated and not comprehensive
- Missing detail on family interactions
- Follow up debriefs not effectively prompted

## Hierarchy of Aims

### Global Aim:

- Effective Transition from pre-delivery through to NICU admission

### Improvement Project Aim:

- GH Admission Checklist completed for 90% of inborn infants <30 weeks gestation admitted to the NICU by December 2022.

### Interim Aims:

- Create a draft GH Checklist with broad input from interprofessional team by January 2022
- Finalize GH Checklist by March 2022
- Educate minimum of 75% of admission staff by April 2022

## Tests of Change

### PDSA Cycle 1 – Creating the Checklist

- Created tool inspired by other admission checklists
- Tested with one admission.
- Feedback: duplication in charting, too cumbersome to document, too onerous for the nurse
- Checklist revised

### PDSA Cycle 2 – Golden Hour Checklist Final

- Tested revised checklist with 3 admissions
- Determined most appropriate team member for completion, sign-off, and submission.
- Process for completion was not yet standardized.

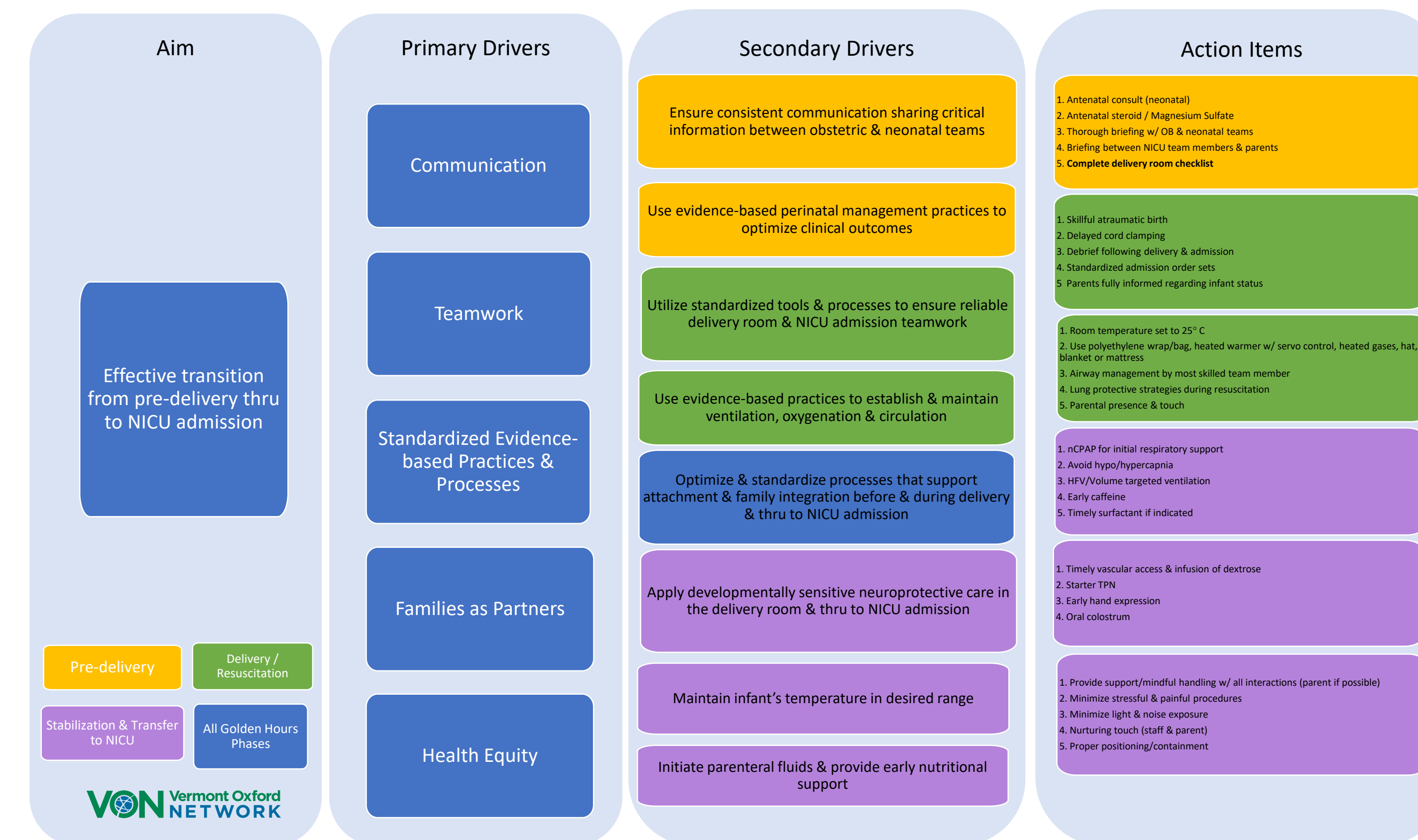
### PDSA Cycle 3 – Checklist Process Map

- Assembled team members to identify key steps in completion of checklist
- Developed Process Map to be used for orientation/education
- Need for extension of the process to include a routine debrief was appreciated

### PDSA Cycle 4 – Incorporate a Debrief

- Created an abridged debrief template based on validated debriefing tools in the literature
- Currently developing education sessions for teams
- Goal-Launch by January 2023

# Reality Check(LIST)

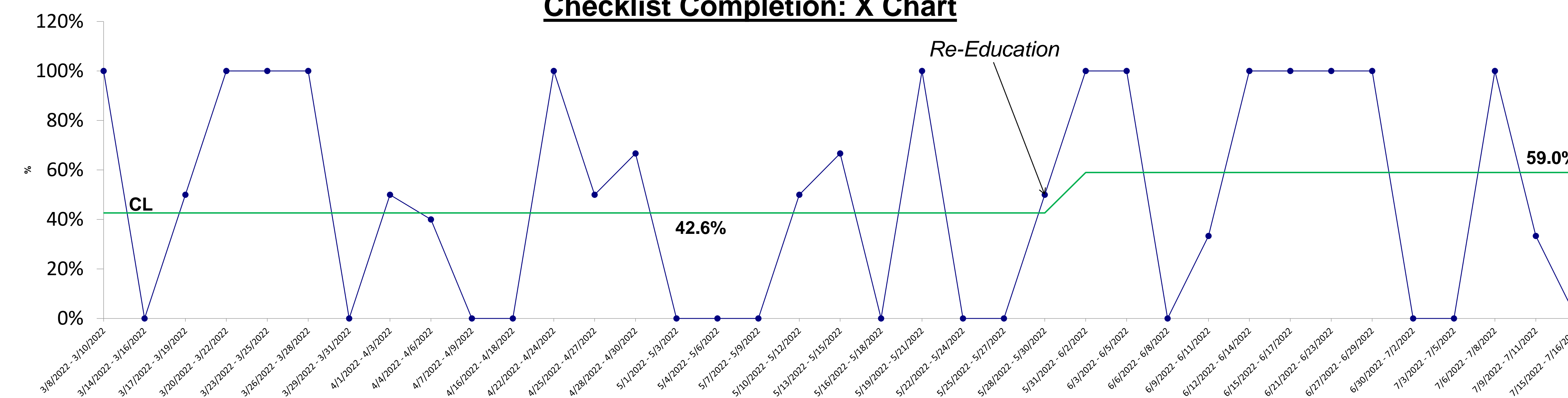


## Golden Hour Admission Checklist

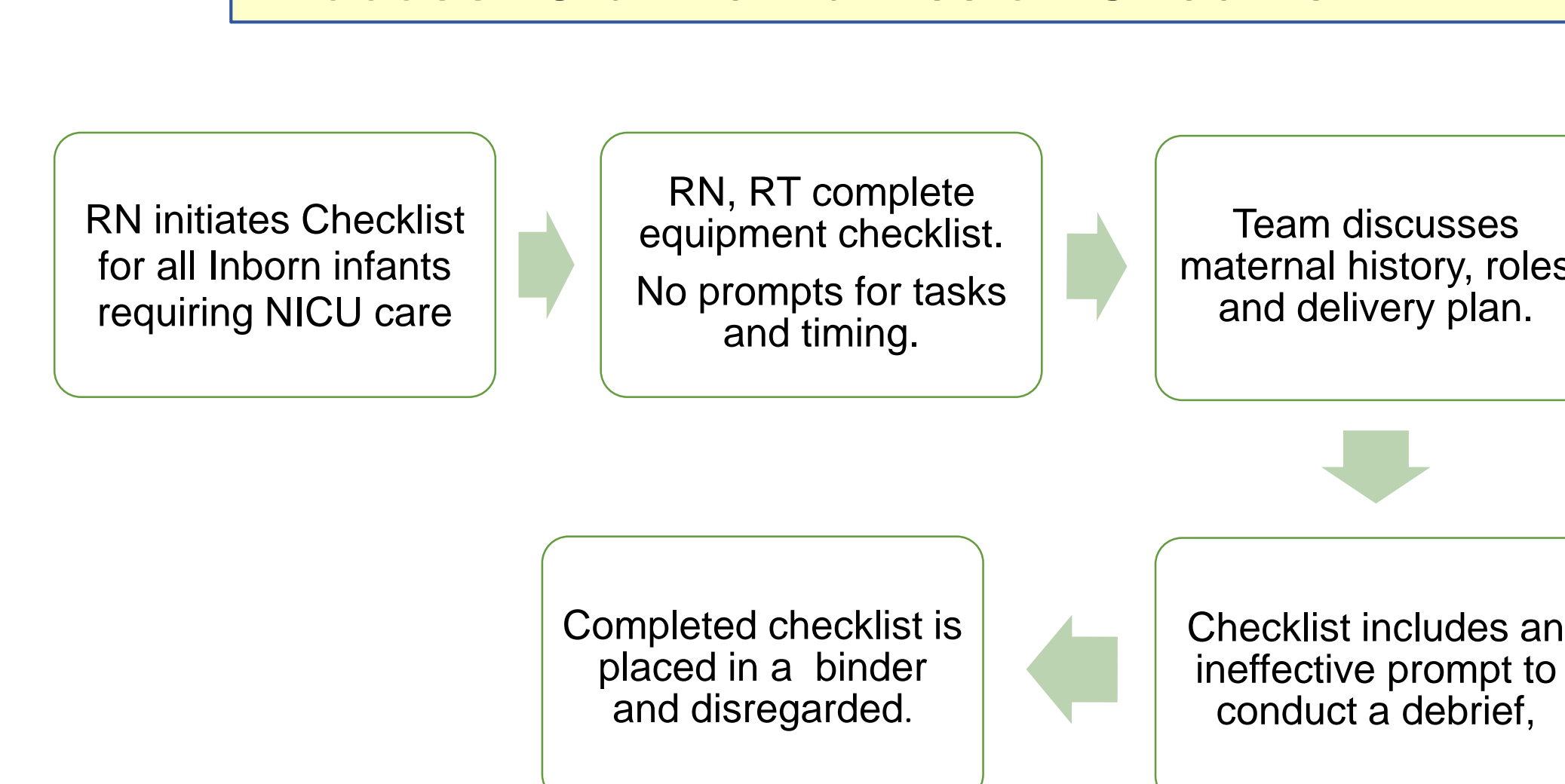
Please complete for all infants

Pre-Admission		
<input type="checkbox"/> Review Neuroprotection and Neuropromotion Policy		
<b>Nursing</b> <input type="checkbox"/> Prepare Bed <input type="checkbox"/> Equipment Checklist complete <input type="checkbox"/> Prepare Solutions/Lines <input type="checkbox"/> Prepare blood collection tubes <input type="checkbox"/> Prepare Umbilical Line trays <input type="checkbox"/> Ensure alarms are silent and QRS sound on <input type="checkbox"/> Notify TL of impending admission	<b>Physician/NP</b> <input type="checkbox"/> Obtain history and share with team <input type="checkbox"/> Antenatal consult completed <input type="checkbox"/> Advance directives reviewed <input type="checkbox"/> Identify roles: Leader/Line inserter <input type="checkbox"/> Discuss NRP plan/DR algorithm <input type="checkbox"/> Notify Staff Neo if < 26 wks (or complex admission) <input type="checkbox"/> Turn on Resuscitation Camera	<b>RRT</b> <input type="checkbox"/> Prepare bag and mask <input type="checkbox"/> Prepare Ventilator/Humidifier <input type="checkbox"/> Prepare Intubation Equipment <input type="checkbox"/> Confirm camera use with family <input type="checkbox"/> Inquire about family's cell phone for pictures <input type="checkbox"/> Prepare warm towels <input type="checkbox"/> Consider surfactant prep
<b>Goals: Axilla Temp checks Q 15 mins   Humidified gases by 10 mins   Start TPN by 45 mins   Top down by 60 mins</b>		
<b>By 15 Minutes After Birth</b>		
<input type="checkbox"/> Unit Clerk Notified <input type="checkbox"/> Normothermia bundle in place <input type="checkbox"/> Axillary temperature checked <input type="checkbox"/> Gastric Tube inserted	<input type="checkbox"/> Begin vascular access set-up	<input type="checkbox"/> Humidified Gases in use <input type="checkbox"/> Transcutaneous probe applied
<b>By 45 Minutes After Birth</b>		
<input type="checkbox"/> TPN/Dextrose solution infusing <input type="checkbox"/> Orders Faxed to Pharmacy <input type="checkbox"/> Infuse antibiotics (prior to X-ray) if appropriate <input type="checkbox"/> Vitamin K (document in DBTV)	<input type="checkbox"/> vascular access inserted and fluid initiated <input type="checkbox"/> UAC if clinically indicated <input type="checkbox"/> Obtain bloodwork	<input type="checkbox"/> Input blood and X-ray orders <input type="checkbox"/> Assess for Surfactant Need <input type="checkbox"/> Surfactant Given as per protocol
<b>By 60 Minutes After Birth</b>		
<input type="checkbox"/> Turn baby to switch HOB <input type="checkbox"/> Top Down; set humidity; set temp to 38 degrees; followed by 30 minutes hands-free <input type="checkbox"/> Ensure monitor alarms are turned on	<input type="checkbox"/> APGAR documented	<input type="checkbox"/> Blood Gas Reviewed / correlate transcutaneous probe <input type="checkbox"/> Page for X-ray
<input type="checkbox"/> Parent/Family in <input type="checkbox"/> Pictures offered <input type="checkbox"/> Baby touched <input type="checkbox"/> Update Given: <input type="checkbox"/> Delivering parent <input type="checkbox"/> Partner/Support		
<b>By 90 Minutes After Birth</b>		
<input type="checkbox"/> Caffeine administered or infusing Q 1 minute Vitals validated <input type="checkbox"/> Notify bedside RN upon departure <input type="checkbox"/> Transfer baby on Philips monitor	<input type="checkbox"/> X-ray reviewed with team <input type="checkbox"/> Lines and/or ETT Adjusted and documented (as needed)	<input type="checkbox"/> Notify POD RRT upon departure

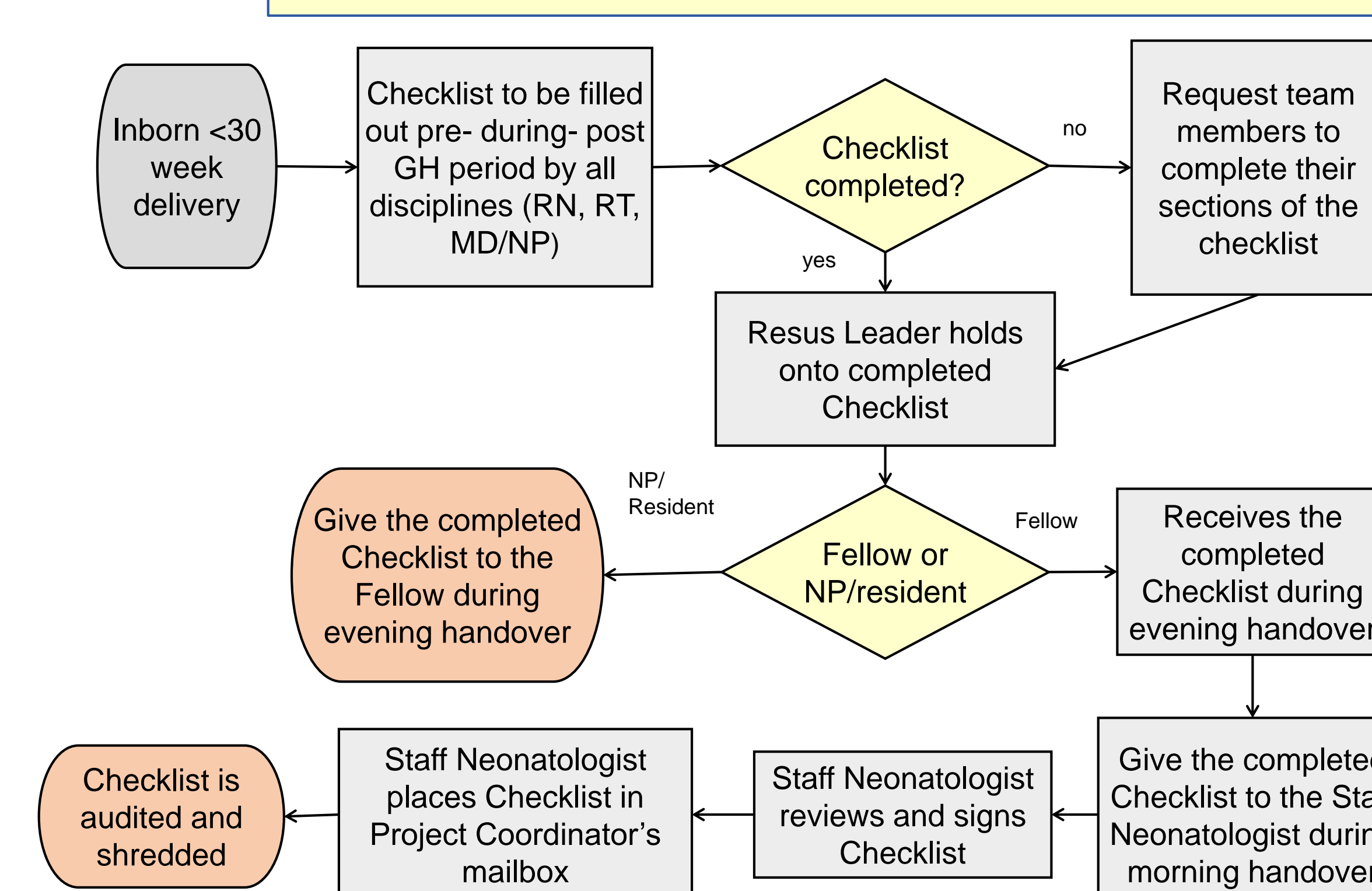
## Checklist Completion: X Chart



## Process: Old Pre-Admission Checklist



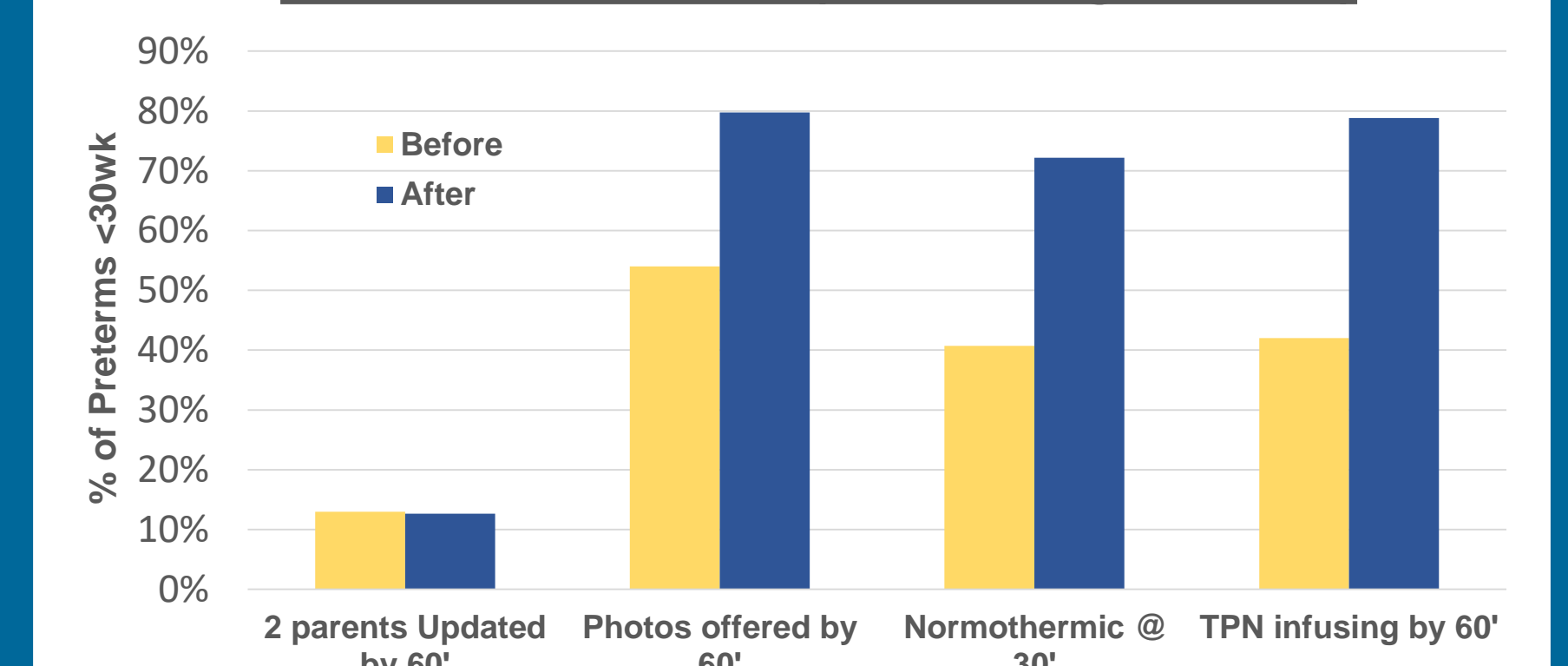
## Process: New Golden Hour Checklist



## Outcome Measures

- Rate of normothermia at 30 minutes
- Rate of intravenous fluids initiated by 60 minutes
- Percent of delivering parent receiving update within 60 minutes
- Percent of families receiving photo record during the golden hour

## Outcome Measures (March-August 2022)



## Key Lessons Learned

- Appreciation of the value of checklists to help standardize key clinical processes is essential for team buy-in
- The perception of workload associated with completing the checklist has affected the rate of acceptance of this tool by admission team members of all disciplines
- Rotational changes of neonatal fellows have negatively affected the consistency of checklist completion
- We have work to do regarding updating/documenting conversations with the delivering parent

## Surprises and Challenges

- We had thought that offering birth photos was inconsistent. To our surprise, our team is actually quite consistent with offering photo opportunities. It is important to remember that not all baseline data is good data.
- Lack of buy-in from more experienced team members. The addition of the debrief may increase the value-add
- Consistency and compliance are difficult to sustain.

## Team Acknowledgements

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