

MaineHealth

## MaineHealth Knowledge Connection

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Costas T. Lambrew Research Retreat 2022

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### Improving Car-Bed Discharge Process and Follow up

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Problem/Impact Statement

The car seat challenge test is most commonly performed on premature infants prior to discharge home from the hospital. Infants who fail the car seat test twice at MMC are discharged home in a car-bed. The process of discharging an infant home in a car-bed and the subsequent re-testing prior to transitioning safely to a rear-facing car seat is neither widely understood or standardized among Maine Health providers.

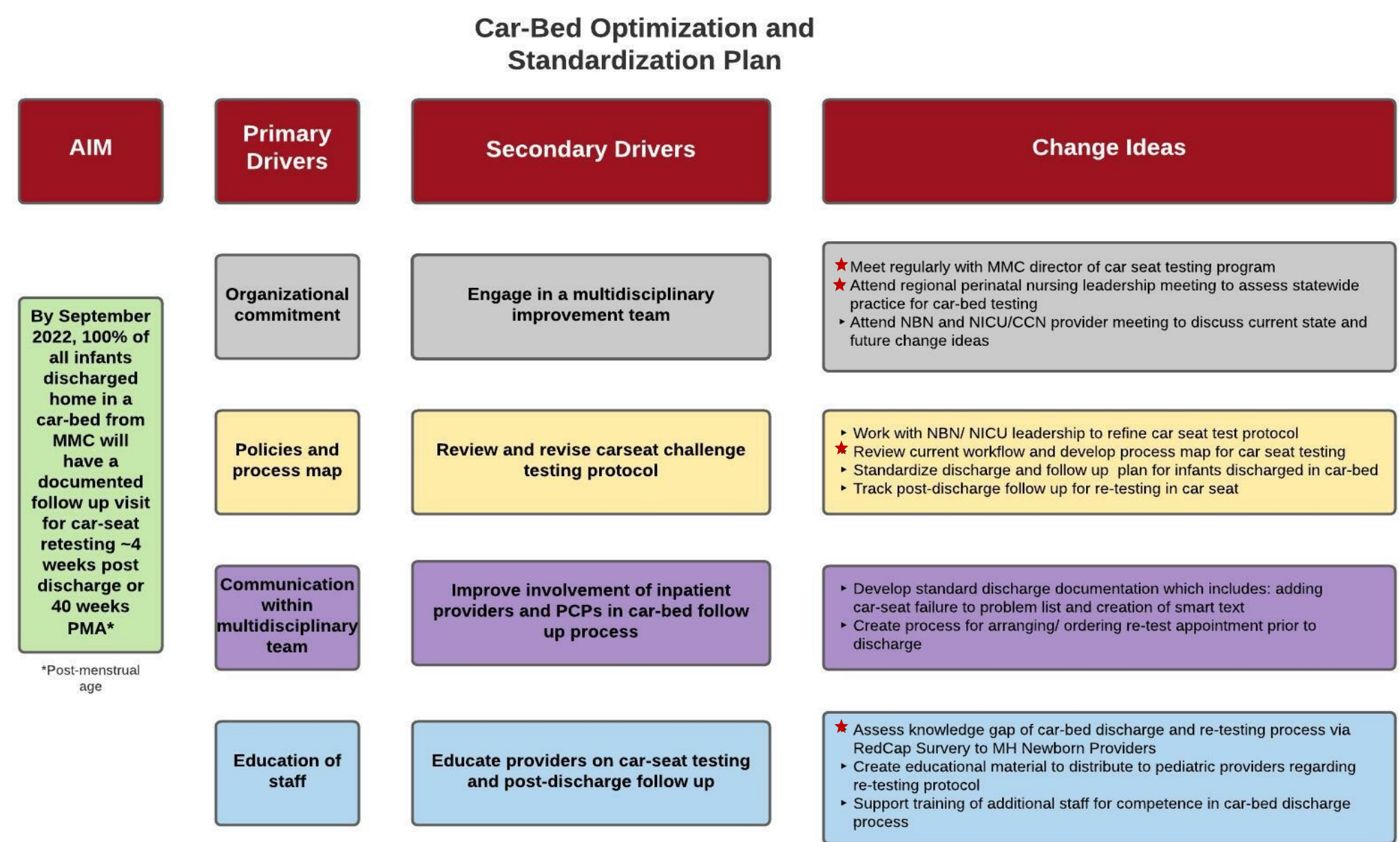
Scope

The scope of this project includes all infants discharged from Maine Medical Center in a hospital issued car-bed.

Goal/Objective

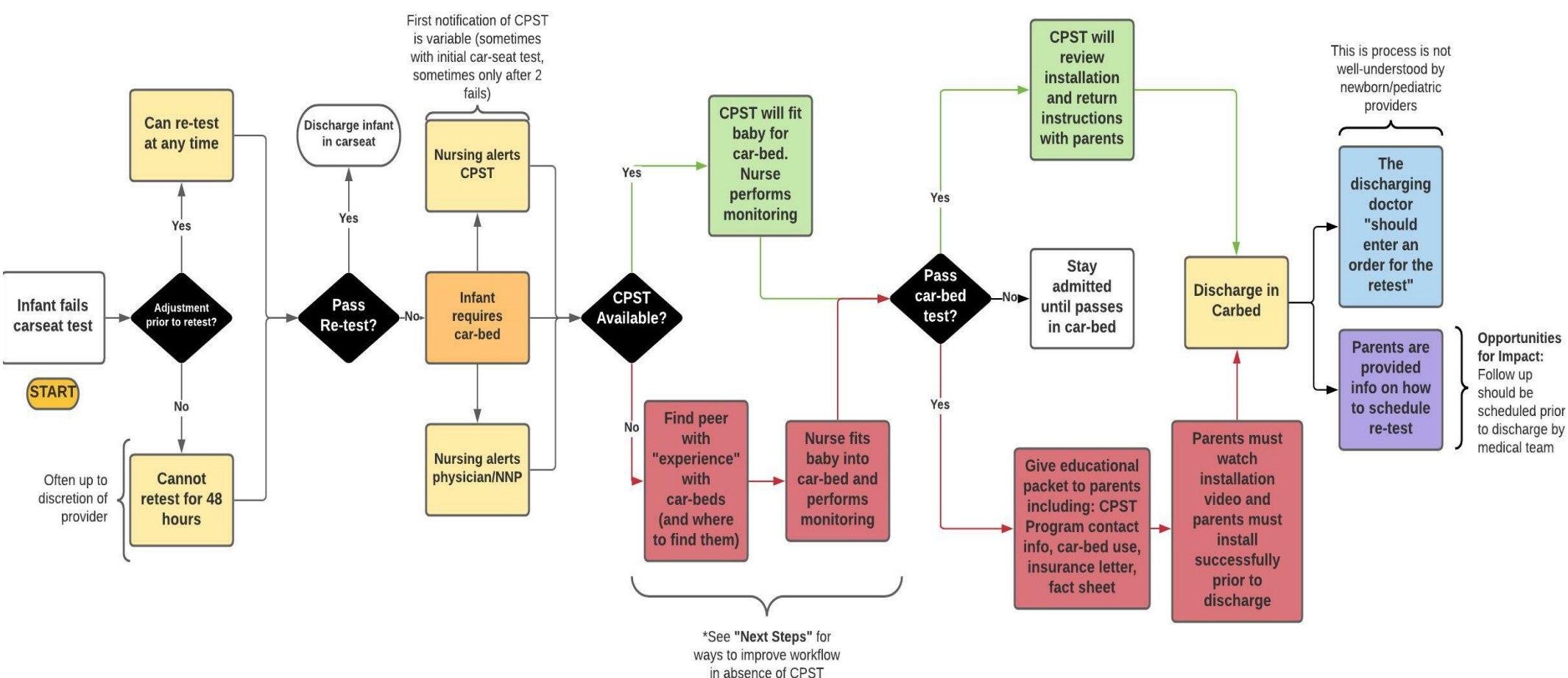
By September 2022, 100% of all infants discharged home in a car-bed from MMC will have a documented follow up visit for car-seat retesting ~4 weeks post discharge or 40 weeks PMA.

Key Driver Diagram



★ Completed

Process Map



Baseline Results

Survey of MaineHealth Newborn/ Pediatric Providers  
July-August 2021

1. When an infant is discharged in a car-bed, how long after discharge should they return for re-testing prior to transitioning to a semi-reclined car seat?				
1 week	2 weeks	4 weeks	2 months	1 year
	20%	80%		
2. Does your hospital have a policy for when car-beds should be returned?				
Yes	No	Unknown		
20%	7%	73%		
3. Where would car beds be returned at your hospital?				
Nursery	Inpatient Unit	Unknown		
33%	7%	60%		
4. Is there documentation given to parents about where/when to return for re-testing?				
Yes	No	Unknown		
47%	33%	20%		
5. Where does re-testing take place?				
Nursery	Inpatient unit	Unknown		
20%	33%	47%		
6. Is there a follow up car seat test scheduled prior to discharge? (for infants discharged in car-bed)				
Yes	No	Unknown		
27%	13%	60%		

\*N=15 (Survey sent to 76 providers with 15 respondents)

Percentage of Patients Who Returned for Car Seat  
Re-testing 2017-2020

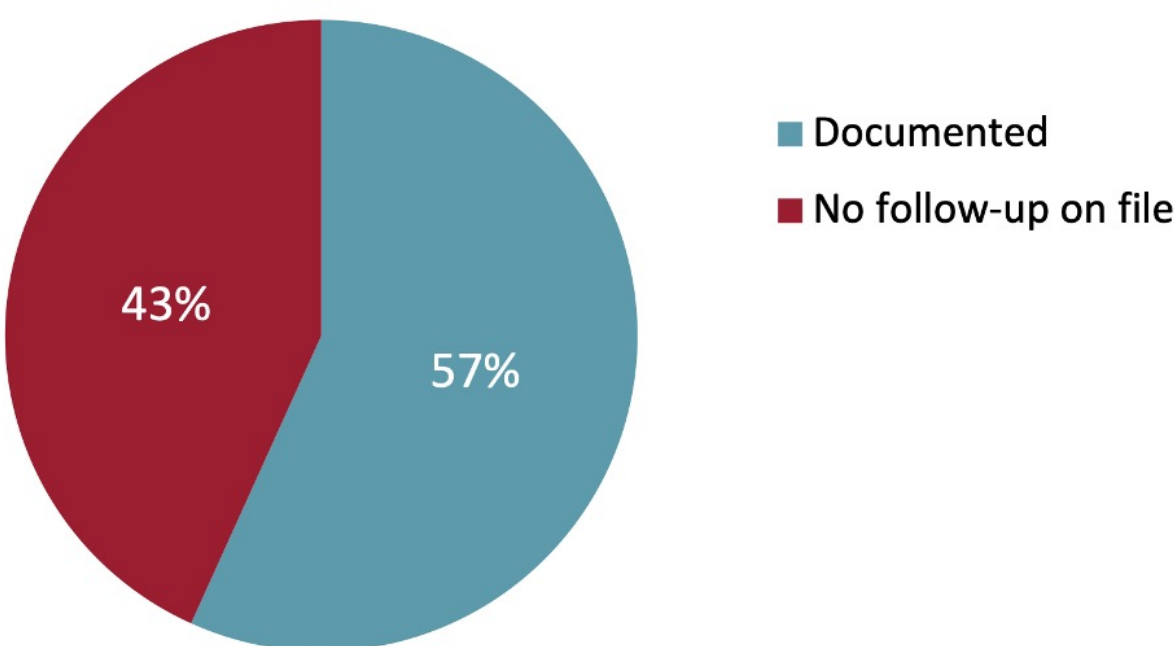


Figure 2: 74 infants were discharged from Maine Medical Center in a car-bed between 2017-2020. Of those infants, 42 (57%) returned for re-testing in a car-seat. 32 (43%) were lost to follow up or had no evidence of re-testing documented in the medical record

Model for Improvement

Status	When	Deliverable
PDSA 1 In Process	September-October 2021	<ul style="list-style-type: none"><li>Provide education to NBN, CCN and NICU providers to inform of knowledge gaps and review current car-bed protocol</li></ul>
PDSA 2 In process	October-November 2021	<ul style="list-style-type: none"><li>Implement standardized discharge documentation by educating providers to add car-seat failure to problem list with designated smart text</li></ul>
PDSA 3 In process	October-November 2021	<ul style="list-style-type: none"><li>Ensure an order to schedule car seat re-test is placed prior to discharge, and require an encounter be created to document all follow-ups</li></ul>

Next Steps

The following action steps are currently planned for:

PDSA Cycle 1:

- Present at the Pediatrics Departmental Forum regarding protocol and expectations
- Repeat Survey of MH Providers in 6 months for monitoring of knowledge gain

PDSA Cycle 2:

- Create run chart of # patients with smart-text added to problem list for infants discharged in car-bed

PDSA Cycle 3:

- Clarify how providers can make follow up appointment- Both inpatient newborn providers prior to discharge and outpatient PCPs
- Track ongoing data collection for all infants discharged in car-bed after 9/2021

Future Directions:

- Meet with lead CPST to develop workflow in the event of her absence
- Support training of additional techs or nurses for competency in car-bed use
- Compare Maine Med Policy to similar hospitals around the country
- Adjust car seat test protocol

Standardizing the EMR

ICD P09

Name	ICD-10 Codes	MCC	CC
Abnormal cerebral signs in the newborn	P91.9	No	No
Abnormal serum glucose level in newborn	R73.09	No	No
Abnormal findings on newborn screening	P09	No	No
Cerebral depression, coma, and abnormal cerebral signs in fetus or newborn	P91.9	No	No

New Problem

Problem: Abnormal findings on newborn screening

Display: Failed Carseat Test Requiring Carbed

Priority: 8/10/2021 Noted Chronic

Class: Resolved Share with patient

Overview:

This patient ( ) is being discharged in a carbed due to failure of carseat test(s). It is recommended that they return to the hospital for re-testing in a semi-reclined carseat at 40 weeks PMA or 4 weeks post discharge (whichever is longer).

- Either PCP or family needs to make an appointment for retesting at BBCH 1 month from time of discharge
- To schedule an appointment for a car seat angle tolerance re-test, please call the Barbara Bush Children's Hospital Pediatric Unit at (207) 862-2541.
- If there are questions or concerns regarding use of a carbed please contact Child Passenger Safety Program: (207) 662-1572

Smart phrase:

.carbedPL