



FAMILY-CENTERED CARE
TASK FORCE



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FCC Taskforce

March 2023 Webinar



FAMILY-CENTERED CARE
TASK FORCE

FCC Core Team



FAMILY-CENTERED CARE
TASK FORCE

Program Manager



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CPQCC*

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Associate Medical Director of Golisano
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Partners

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NICU PARENT NETWORK



california perinatal
quality care collaborative

American Academy
of Pediatrics



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Perinatal Advisory Council:
Leadership, Advocacy and Consultation

Section on Neonatal Perinatal Medicine

NEONATOLOGY TODAY

Peer Reviewed Research, News, and Information in Neonatal and Perinatal Medicine



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Thank you



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“Supported by a grant from Genentech, a member of the Roche Group”

&

“Prolacta Bioscience Foundation”

&

Gravens Luncheon session sponsored by
Chiesi USA, Inc



FAMILY-CENTERED CARE
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Agenda



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Taskforce updates: Dr. Colby Day

Speaker: Dr. Vincent Smith & Kristy Love

Speaker Q&A: Dr. Colby Day

Speaker: Dr. Malathi Balsundaram

Speaker Q&A: Caroline Toney-Noland, MSc

Closing & Feedback Survey: Caroline Toney-Noland



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Executive Council - Family Partners



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*Jennifer
Canvasser*



*Lelis
Vernon*



*Elizabeth
Simonton*



*Necole
McRae*



*Keira
Sorrells*



*Marybeth
Fry*



Kimberly Novod



*Michael
Hynan*



*Morgan
Kowalski*



Nicholas Hall



*Molly
Fraust-Wylie*



Michelle Wrench



Betsy Pilon



Vishal Kapadia



Katherine Huber



Meegan Snyder



Kristy Love



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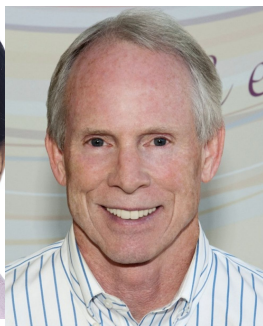
Executive Council Health Care Partners



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***Dr. Dharshi
Sivakumar***



***Dr. Bob
White***



***Dr. Emily
Whitesel***



***Dr. Daphna
Barbeau***



***Dr. Robert
Cicco***



***Dr. Kerri
Machut***



Dr. Jessica Fry



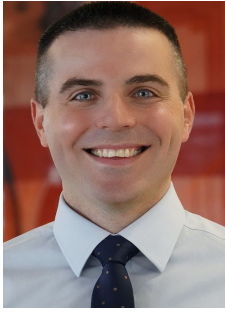
***Dr. Vargabi
Ghei***



Dr. Henry Lee



***Dr. Wendy
Timpson***



Dr. Jeff Meyers



Dr. Tim Palmer



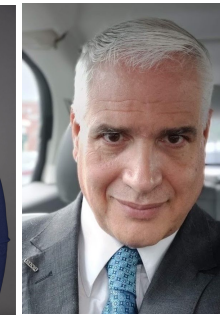
Dr. Joy Browne



Aida Simonian



Lori Gunther



***Dr. Mitchell
Goldstein***



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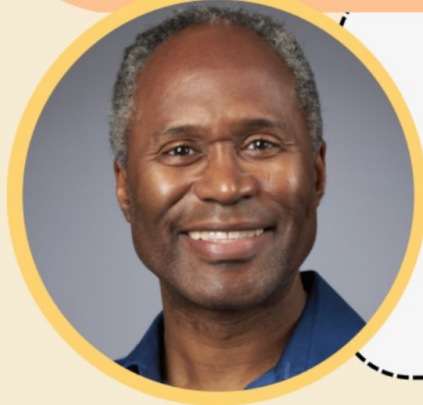
FCC Taskforce Updates



FAMILY-CENTERED CARE
TASK FORCE

- Able to support 5 Family Partners to attend the Gravens Conference virtually
- Able to sponsor 4 Family Partner Small Group Leaders (SGL) and 3 Health Care Partner SGL to attend the Gravens Conference in person
- In collaboration with the National NICU Parent Network (NPN), we were able to hold an FCC Taskforce luncheon with 70 Gravens attendees and provide CME/CEU
- Shared our Taskforce work as a workshop at Gravens on Friday
- A year ago, we had 50 individuals involved, which has expanded to 415+ individuals, representing more than 200 NICUs from 36 states and 14 countries committed to learning more about FCC

Importance of NICU discharge guidelines and standards



VINCENT C. SMITH, MD MPH

Pronouns: He/Him

Professor of Pediatrics

Boston University Chobanian & Avedisian School of Medicine

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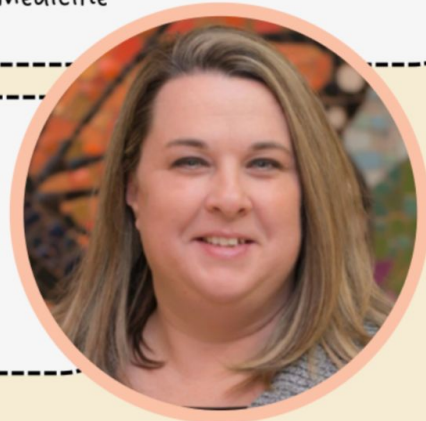
KRISTY LOVE

Pronouns: she/her

Executive Director

National Perinatal Association

Parent Advocate



The Importance of

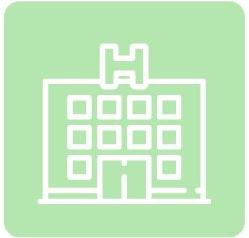
NICU Discharge Planning Guidelines and Standards

How to Provide Better
Home Transitions for
NICU Parents

Vincent C. Smith

Kristy Love

March 16, 2022



 National
Perinatal
Association

Disclosure

- Vincent C. Smith has no financial disclosures that are relevant to this discussion
- Kristy Love has no financial disclosures that are relevant to this discussion

n.

Publication of this supplement is sponsored by National Perinatal Association (NPA).

The funding for this publication was provided to NPA by private donations and supported by an educational grant provided by Sobi.

The funding for implementation this project is provided to NPA by AngelEye Health.

Objectives

- Explain the importance of NICU discharge preparation
- Describe the NPA guidelines for NICU discharge preparation and transition planning
- Identify steps for a successful implementation

TODAY'S SESSION

What to expect.

INTRO

- development
- content
- purpose

UPDATE

on Dissemination
and Partnerships

SHARE

a Model for
Guideline
Implementation

PARTNER

in Next Steps
to unit
transformation

Change

The Importance of NICU Discharge Preparation and Transition Planning



Discharge readiness

is the desired outcome.



Discharge preparation

is the process.



NICU Discharge Readiness

is the attainment of

- technical skills and knowledge
- emotional comfort
- confidence with infant care

by the primary caregivers at the time of discharge.

NICU Discharge Preparation

is the process of facilitating

discharge readiness

to successfully
make the transition
from the NICU to home.



AAP Guidelines

American Academy
of Pediatrics
Committee on
Fetus and Newborn.

Pediatrics. 2008;
122(5):1119-26

American Academy
of Pediatrics



DEDICATED TO THE HEALTH OF ALL CHILDREN™

POLICY STATEMENT

Hospital Discharge of the High-Risk Neonate

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of All Children

Committee on Fetus and Newborn

ABSTRACT

This policy statement updates the guidelines on discharge of the high-risk neonate first published by the American Academy of Pediatrics in 1998. As with the earlier document, this statement is based, insofar as possible, on published, scientifically derived information. This updated statement incorporates new knowledge about risks and medical care of the high-risk neonate, the timing of discharge, and planning for care after discharge. It also refers to other American Academy of Pediatrics publications that are relevant to these issues. This statement draws on the previous classification of high-risk infants into 4 categories: (1) the preterm infant; (2) the infant with special health care needs or dependence on technology; (3) the infant at risk because of family issues; and (4) the infant with anticipated early death. The issues of deciding when discharge is appropriate, defining the specific needs for follow-up care, and the process of detailed discharge planning are addressed as they apply in general to all 4 categories; in addition, special attention is directed to the particular issues presented by the 4 individual categories. Recommendations are given to aid in deciding when discharge is appropriate and to ensure that all necessary care will be available and well coordinated after discharge. The need for individualized planning and physician judgment is emphasized. *Pediatrics* 2008;122:1119–1126

INTRODUCTION

The decision of when to discharge an infant from the hospital after a stay in the NICU is complex.¹ This decision is made primarily on the basis of the infant's medical status but is complicated by several factors. These factors include the readiness of families for discharge, differing opinions about what forms of care can be provided at home, and pressures to contain hospital costs by shortening the length of stay. Insofar as possible, determination of the readiness for discharge should be based on peer-reviewed scientific evidence. Shortening the length of a hospital stay may benefit the infant and family by decreasing the period of separation of infant and parents; moreover, the infant may benefit from shortening its exposure to the risks of hospital-acquired morbidity. However, the over-

www.pediatrics.org/cgi/doi/10.1542/peds.2008-2174

[doi:10.1542/peds.2008-2174](https://doi.org/10.1542/peds.2008-2174)

All policy statements from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.

Key Words

discharge, high risk, premature, neonate, infant

AAP Guidelines

The transition should occur when the **INFANT**

- achieves physiologic maturity
- can coordinate breathing and oral feedings
- ingests adequate volumes and can gain weight
- can maintain a normal body temperature



STABILITY



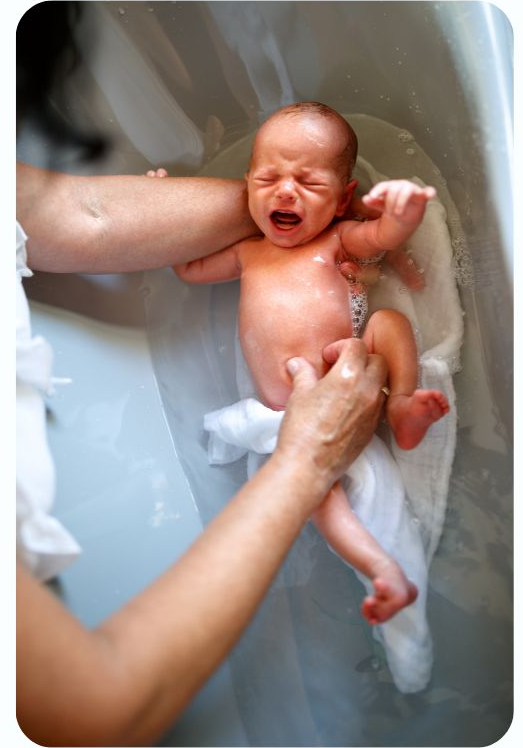
AAP Guidelines

The transition should occur when the

PARENTS

have participated in an active preparatory program for care of the infant at home.

●●●●●●●● PREPARATION



AAP Guidelines

The transition should occur

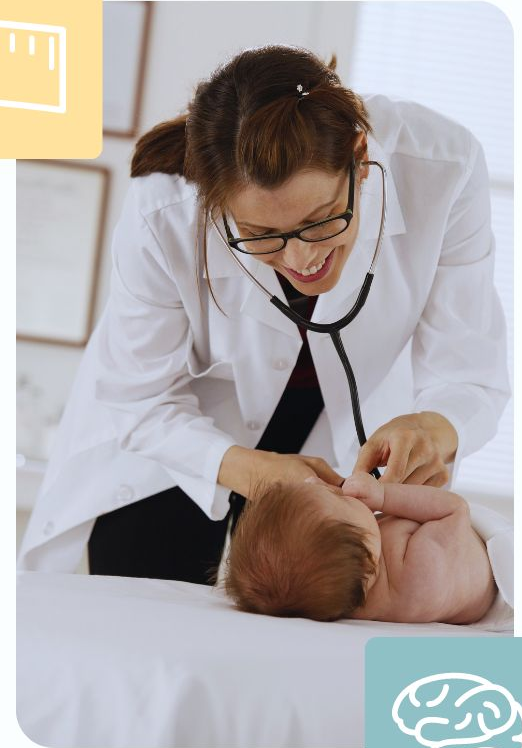
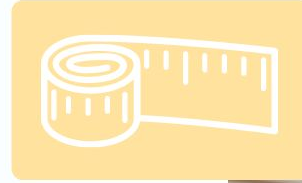


AFTER

- follow-up with a pediatric provider arranged
- a program for tracking infant growth and development established



PLANNING



Published

Interdisciplinary Guidelines and Recommendations

NICU Discharge Preparation and Transition Planning



NEW Guidance

NICU discharge preparation and transition planning: guidelines and recommendations

Journal of Perinatology.
2022.

PERSPECTIVE

NICU discharge preparation and transition planning: foreword

Heather Cohen Padrazik^{1,2} and Kristin Love^{2,3}

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Parents whose babies are admitted to the neonatal intensive care unit (NICU) need support. Whether their baby's stay is brief or long, uncomplicated or complex, a NICU stay changes how they care for their infant and how they will parent once they are discharged. While we know a NICU stay is traumatic for most parents, the consequences of a family's time spent in the NICU do not need to be negative ones. Supportive NICU teams can use the time a family is in the NICU to engage in a well-designed discharge preparation and transition planning program. These programs can have a lasting positive impact on both the infant's health and the family's wellbeing.

Journal of Perinatology, h

INTRODUCTION

Having your baby admitted (NICU) to receive critical care can be a stressful experience. Parents often anticipate their baby's birth and even fewer are family provides. Once there, parents often find that their baby will be able to come home on the first day of a family's NICU stay. Our goal is not just to see your baby when they arrive, it is to see your baby when they are discharged, confident and competent, and ready to go home. The NICU can't be limited to how to expand to meet their need for a fragile child. It has to meet it to welcome them into a care team that is what smart, timely, and coordinated. Our NICU team can deliver.

HEATHER

Being the parent of a baby is both exciting and terrifying. My son, Owen, was born a fragile, two-pound preemie. After 81 very long days and met milestones, he was finally discharged only 2 days prior. He was finally coming home overwhelmed at the thought of all of the wonderful staff that into the strong baby he had heart-apnea monitor to be. After only a 15-min explaini-

¹Board of National Perinatal Association

CONSENSUS STATEMENT

NICU discharge preparation and transition planning: guidelines and recommendations

Vincent C. Smith^{1,2}, Kristin Love^{2,3} and Erika Goyer³

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In this section, we present Interdisciplinary Guidelines and Recommendations for Neonatal Intensive Care Unit (NICU) Discharge Preparation and Transition Planning. The foundation for these guidelines and recommendations is based on existing literature, practice, available policy statements, and expert opinions. These guidelines and recommendations are divided into the following sections: Basic Information, Anticipatory Guidance, Family and Home Needs Assessment, Transfer and Coordination of Care, and Other Important Considerations. Each section includes brief introductory comments, followed by the text of the guidelines and recommendations in table format. After each table, there may be further details or descriptions that support a guideline or recommendation. Our goal was to create recommendations that are both general and adaptable while also being specific and actionable. Each NICU's implementation of this guidance will be dependent on the unique makeup and skills of their team, as well as the availability of local programs and resources. The recommendations based only on expert opinion could be topics for future research.

Journal of Perinatology, <https://doi.org/10.1038/s41372-022-01313-9>

ABOUT THE GUIDELINES

The foundation for these recommendations is based on existing literature, practice, and available policy statements. Given the range of topics we cover, there are some situations where there is no published literature specific to a recommendation. In some situations, we relied on the lived experiences of families and providers to inform our recommendations. While there may not be supporting references for some of these recommendations, all of the recommendations are based on expert opinion and consensus and the readers are requested to note this issue while adapting them into their practices, if they choose to. The recommendations based only on expert opinion could be topics for future research.

Our guidelines are divided into the following sections:

- Basic Information
- Anticipatory Guidance
- Family and Home Needs Assessment
- Transfer and Coordination of Care
- Other Important Considerations

Each section includes brief introductory comments, followed by the text of the guidelines and recommendations in table format.

NICU setting. Rather, what we propose are guidelines and recommendations that focus on content and process. We strove to create recommendations that are both general and adaptable while also being specific and actionable. Each NICU's implementation of this guidance will be dependent on the unique makeup and skills of their team, as well as the availability of local programs and resources.

BASIC INFORMATION

Discharge planning is the process of working with a family to help them successfully transition from the NICU to home. To this end, each family will need to participate in a comprehensive discharge planning program that has been tailored to their and their infant's specific needs. The first section is basic information and is meant to emphasize content that every family will need, without taking into account each family/infant's specific needs.

In preparing for discharge, your team will have to set clear criteria for what each family and infant need to accomplish to be ready to transition from the NICU to home. The NICU team should work with the family and confirm that the family understands the NICU discharge planning process. It is important that families understand that it is difficult to plan for a specific discharge date because

Discharge Preparation and Transition Planning: Editorial

June 2022

Instruction for preparing feeds, tools for preventing and treating infections, information on applying for the Supplemental Nutrition Assistance Program and the Women, Infants and Children program on the timing, safety, and instruction for family administration of medications is essential to discharge and transition planning.

Discharge planning should be reviewed and revised as needed. Assisting caregivers as they are an important component of the discharge process.

SUPPORTING REFERENCES

1. Smith VC, Love K, Goyer E. (2022) Discharge preparation and transition planning: guidelines and recommendations. *J Perinatol* 43:16–22.

2. Smith VC, Love K, Goyer E. (2022) Discharge preparation and transition planning: guidelines and recommendations. *J Perinatol* 43:16–22.

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9. Smith VC, Love K, Goyer E. (2022) Discharge preparation and transition planning: guidelines and recommendations. *J Perinatol* 43:16–22.

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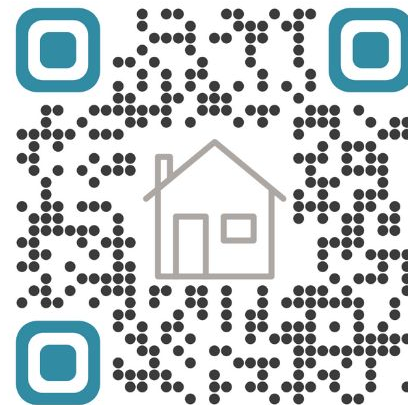
CONTENTS:

- basic information
- anticipatory guidance
- family and home needs assessment
- transition and coordination of care



basic information

- goals and timeline
- **CURRICULUM**: skills and knowledge
- discharge education strategy
- discharge supplementary
 - websites
 - digital
 - videos
 - paper
 - folders
 - binders



basic information

- infant care skills
DEMONSTRATION
- Safer Sleep
- car seat installation and safety
- typical and atypical behavior





FAMILY and HOME ASSESSMENT

- Family assessment
- Caregiver mental health
- Infant mental health
- Anticipatory guidance

TRANSFER and COORDINATION of CARE

- Primary care providers and the medical home
- Care Coordination or Navigators
- Communication among providers
- More integration of the NICU and community provider
- Subspecialty care needs
- Routine nursing home visits
- Early Intervention
- Discharge summary



Support Systems



Communication
Post-Discharge



Mental Health
Support



Community
Programs



Peer-to-Peer
Programs



How to Use
Tech Safely



Social
Workers



All Families Need ANTICIPATORY GUIDANCE

to help them understand...

- how to parent a NICU graduate
- their babies' development and when they will reach milestones
- what their babies' follow-up care will look like
- the importance of a **MEDICAL HOME**
- how to understand and address their own psychosocial need

other important
considerations

- families with limited English proficiency
- military families
- LGBTQIA+ headed families
- parents with disabilities
- families with distinct cultural
and/or philosophical expectations

basic information

anticipatory guidance

family + home
needs assessment

transfer +
coordination of care

- What every family needs to know
- What families need to be ready for
- What day-to-day life looks like
- Who will be a part of the family's team

companion website

NICUTOHOME.ORG

guidance into

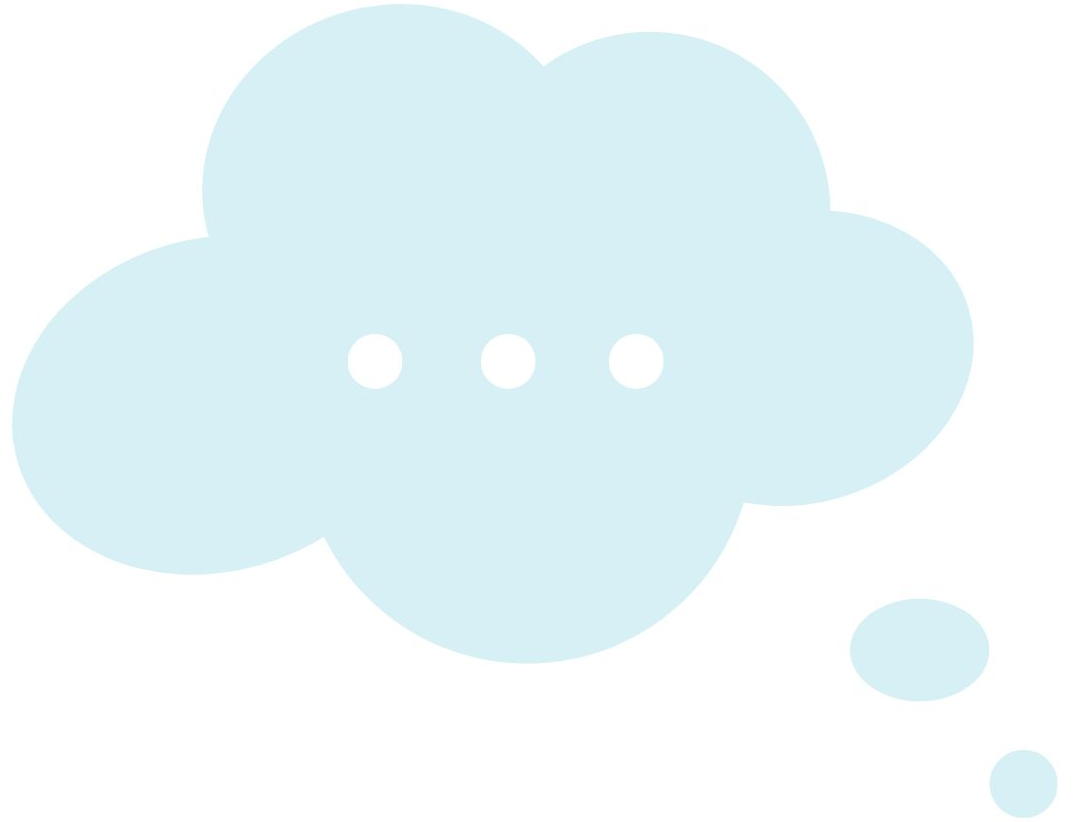


ACTION

- tools
- resources
- community of experts



But what
do **we** do
next?



IMPLEMENTATION



How do you turn
recommendations
into actions?

**What do
we do next?**





FEATURED PRESENTATION

Importance of NICU Discharge Planning Guidelines and Standards

with Cuyler Romeo MOT, OTR/L, SCFES, IBCLC

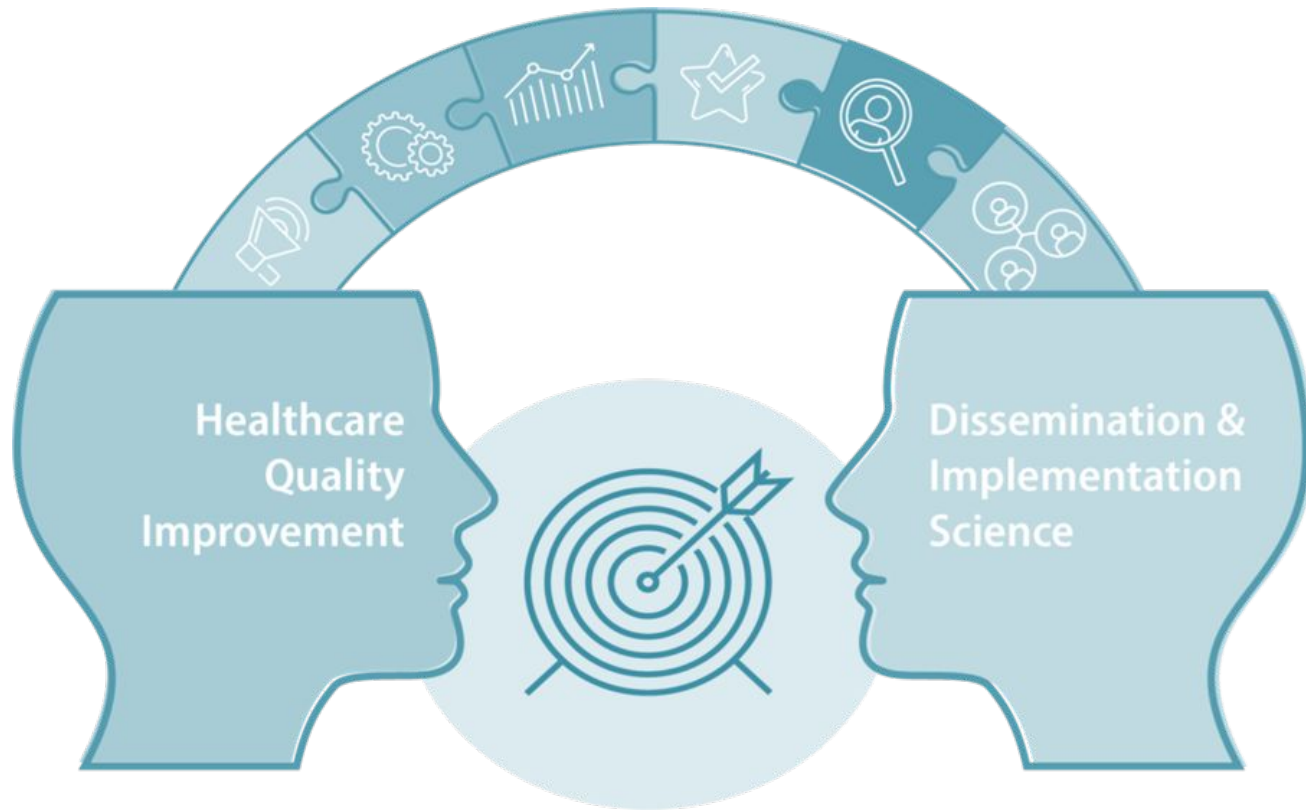


Learn about the National Perinatal Association's

New

Interdisciplinary Guidelines and Recommendations for NICU Discharge Preparation and Transition Planning

and their publication in the Journal of Perinatology.



Healthcare
Quality
Improvement

Dissemination &
Implementation
Science

Implementation pilot

- Community hospital
- Level 3
- 42 bed unit
- Serving southern Arizona and rural communities





The "Think Tank"

- What are our metrics for success?
- What would make the biggest difference to our infant outcomes?



Access to
Early
Intervention
services

Identification of
feeding needs and
risk factors

transfer +
coordination of care

In states where applicable, request an initial early intervention assessment and an Individualized Family Service Plan (IFSP) be completed while infant is still in NICU. This promotes a relationship of trust, potentially decreasing barriers to follow-up care.

Neonatal Therapists (Occupational, Physical, Feeding, and/or Speech and Language Therapists) should be part of the referral process for early intervention services.

Upon admission, begin to identify the needs of infants with complex medical issues and start creating a care plan for the family. Do the same for babies with special developmental needs and families with special social needs. Begin coordination with relevant community partners well ahead of the infant's discharge.

The Model

Dissemination and Implementation Models in Health

- Web Based Tool
- Modules and Resources

STEPS

- Plan
- Select
- Combine
- Adapt
- Use
- Assess

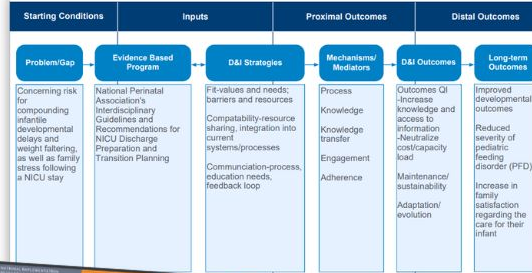


Time to Plan



Logic Model of D&I Science Project:

Implementation Pilot NPA's Guidelines for NICU Discharge Preparation and Transition Planning



PDSA Planning Template

Topic/Area of Focus: Discharge and Community Transition

Date: _____

Team Members
 NPA: Kristin Love, Executive Director;
 Vincent Smith-Neonatalogist
 NPA Classification Workgroup
 Banner UMCO-Tucson, developmental RNs,
 social work, neonatal therapists,
 neonatologists, NPAs
 Feeding Matters

What are we trying to accomplish? (Objective/Aim):
 Improve processes and outcomes for:
 1) referral and qualification for early intervention services, specifically transfer of information and
 2) screening and early identification of feeding and nutrition risk through the use of a AxiEQ-approved screener tool, the ICFQ 6 Question Screener.

What change can we make that will result in an improvement?
 Developing a change: processes, education
 Testing a change: sometimes, family survey
 Scaling or spreading a change: dissemination to NICU community

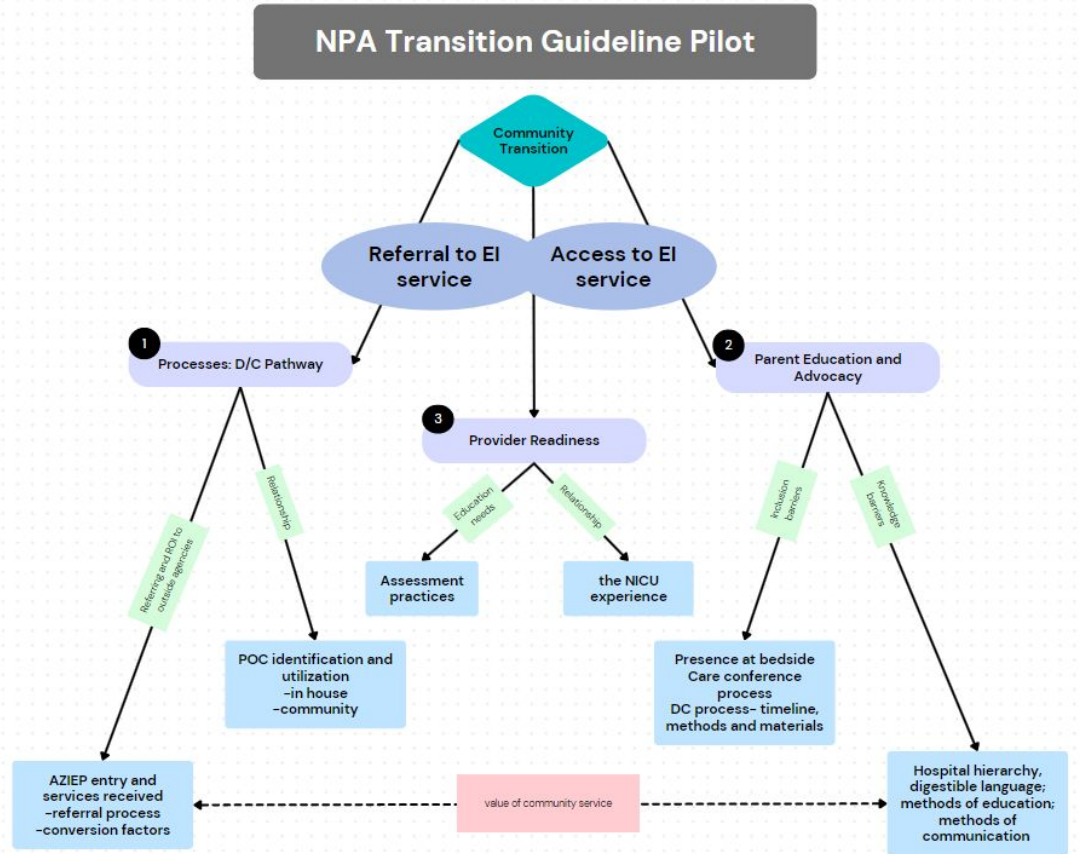
Prediction/Hypothesis
If we share medical information with our referral sources and educate families and providers on medical risk associated with a NICU stay
It will result in a greater number of families who complete intake and receive services from GI and/or our follow up clinics

FOR EVERY CYCLE you are going to need the following:

PLAN
 Tip: Start small
 Who, What, Where, How and Data Collection:
Who
 • Who will make the change?
 • Who will receive the change?
What
 • What change is being tested?
When
 • When will the change take place?
How
 • How will the change be tested?
Where
 • Where will the change take place?
Plan for data collection:
 • What information is important to collect?
 • Why is it important to collect?
 • Who will collect the information?
 • Who will analyze the information prior to the study?
 • Where will information be collected?
 • When will information be collected?
 • How will the information (measures) be collected?
 • What tasks or tools are needed?
DO
 • When was the plan completed?
 • What was observed?
 • Were problems or any special circumstances encountered?
 • Did you tweak the original plan?
 • Was the test carried out as planned?
STUDY
 • What went well?
 • What could be improved?
 • How did the data compare to your predictions?
 • What did you learn?
 • What surprised you?
ACT
 • Should you Adapt, Adopt, or Abandon the change?
 • What changes need to be made?
 • What adaptations are needed?
 • Are you confident that you should expand the aster scope of test?

The Active Implementation Plan, At Modules and Lessons are developed and maintained by The National Implementation Research Network (NIRN) at The University of North Carolina at Chapel Hill. PDSA Development materials, Copyright 2013-2016. Learn more: nirn.org/active-implementation

- PROCESSES
- PROVIDERS
- PARENTS



PROCESSES

- D/C Summary
- Approved assessments
- Education



PROVIDER

- Medical records
- Point of contact
- Referral pathway
- Follow up



PARENT EDUCATION & ADVOCACY

- Education
- Integration
- Advocacy





WHAT WAS YOUR
GREATEST WORRY?

Next Steps

- Pilot refinement
- Full implementation
- Outcome assessment
- Partnership evolution



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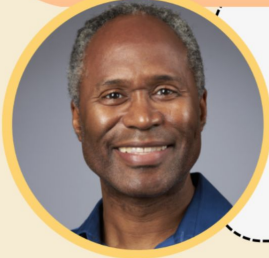


Thank You

Thank you for listening!
We welcome questions and discussion.

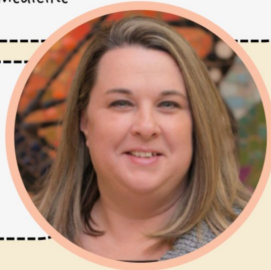


Importance of NICU discharge guidelines and standards



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Executive Director
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Parent Advocate

Q&A

**Using technology to provide early and consistent discharge
education to NICU Families**



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Clinical Associate Professor, Division of Neonatology
Dept of Pediatrics, Stanford School of Medicine
Attending Neonatologist,
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LEARNING OBJECTIVES

- 1. Recognizing the importance of NICU families' discharge readiness**
- 2. Learning about interventions we have made in the ECH NICU to improve discharge education**
- 3. Using technology to support discharge education**
- 4. Measuring the success of the education program**
- 5. Demo of Education activity and MyChart Bedside**

“Partners in Crime”

Dr. Kari McCallie

Clinical Associate Professor

Stanford School of Medicine

Attending Neonatologist

Epic Physician Builder

El Camino Health

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- 20 bed community level 3 A NICU (provides care to infants 23 weeks gestational age and beyond)
- Open bay unit with approximate delivery volume of 4500 newborns, average of 400 NICU admissions per year
- Staffed by Stanford Neonatologists, nurses, and ancillary staff, have residents & medical students (no fellows, or advanced practice providers)

Bringing your baby home from the NICU

- When families feel inadequately prepared for discharge with their high-risk infant, this contributes to:
 - Poor infant outcomes
 - Heightened family anxiety
 - Increased healthcare utilization after discharge
- The quality of discharge teaching has proved to be the strongest predictor of discharge readiness

Press-Ganey Patient Satisfaction Surveys

- **Aim:** Improve “prepared for discharge” top-box responses (responses that reflect the highest possible rating) from only 47% in 2017
- **How:** Use technology to improve the consistency of discharge teaching
- **When:** Start on admission rather than waiting until the last few days of hospitalization



El Camino Health Press Ganey Survey Sample

NICU SURVEY

We thank you in advance for completing this questionnaire. When you have finished, please mail it in the enclosed envelope.

INSTRUCTIONS: Please rate the services you received from our facility. Select the response that best describes your experience. If a question does not apply to you, please skip to the next question. Space is provided for you to comment on good or bad things that may have happened to you.

Please use black or blue ink to fill in the circle completely.
Example: ●

NURSES

	very poor	poor	fair	good	very good
	1	2	3	4	5
1. How well the nurses communicated with you in a way that was easy to understand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Nurses' explanations about equipment/monitors used in caring for your baby	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. How well the nurses helped you understand your baby's daily progress	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. How well the nurses encouraged you to participate in your baby's care when possible (bathing, feeding, temperature taking)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Nurses' support of mother's efforts to breastfeed (if applicable)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Nurses' attentiveness to your needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. How well the nurses respected your role as a parent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Nurses' courtesy if you phoned the unit for information about your baby	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments (describe good or bad experience):

DOCTORS

	very poor	poor	fair	good	very good
	1	2	3	4	5
1. Information the doctors gave about your baby's medical condition at birth	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Information given about what would happen after delivery	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Information the doctors gave about the plan of care for your baby	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. How well the doctors included you in decisions about your baby's care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. How well the doctors communicated with you in a way that was easy to understand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. How well the doctors respected your role as a parent	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments (describe good or bad experience):

DISCHARGE

	very poor	poor	fair	good	very good
	1	2	3	4	5
1. Opportunity you had to care for your baby on your own before discharge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. How prepared you felt to feed your baby at home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

this section continued on next page...

1234567890-1-1

DISCHARGE (...continued)

	very poor	poor	fair	good	very good
	1	2	3	4	5
3. Information given about follow-up care (when to schedule, whom to call)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. How prepared you felt for your baby's discharge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Comments (describe good or bad experience):

OVERALL ASSESSMENT

	very poor	poor	fair	good	very good
	1	2	3	4	5
1. Consistency of information given by the care team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. How well your baby's discomfort was controlled	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. How well staff met your emotional needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Degree of safety/security felt in the NICU	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Your trust in El Camino Health to keep you and your baby safe during your care	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. How well the staff worked together to care for you and your baby	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Overall rating of care given to your baby	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Likelihood of your recommending this hospital to others	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

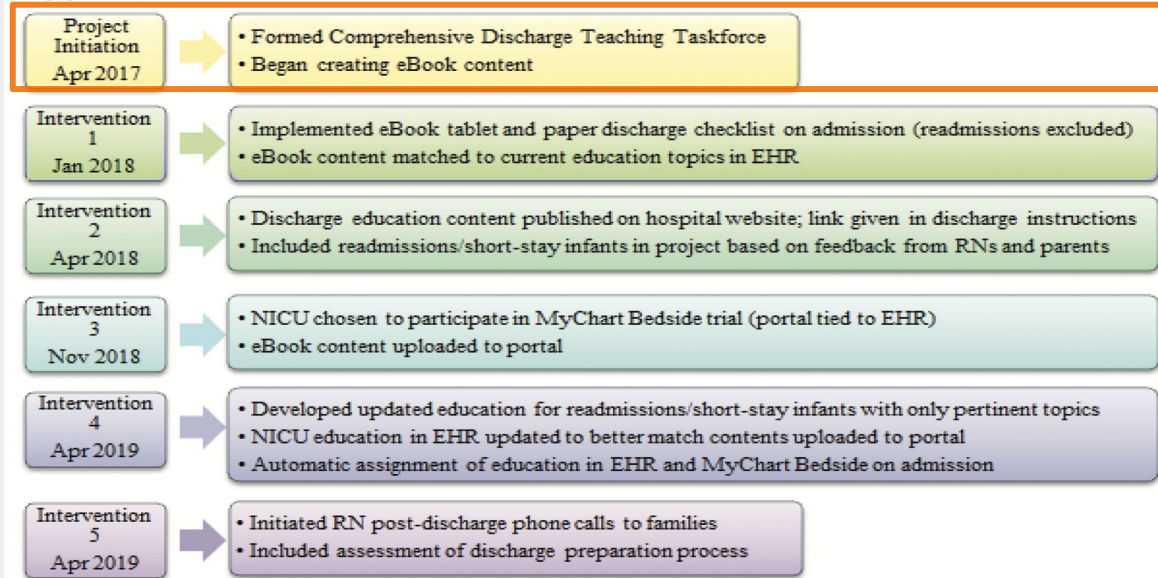
Comments (describe good or bad experience):

Patient's Name: (optional)

Patient's or Guardian's Name: (optional)

Telephone Number: (optional)

FIGURE 1



Quality improvement process map. Chronological map of interventions implemented to improve discharge preparation for our NICU families. EHR indicates electronic health record; NICU, neonatal intensive care unit; RN, registered nurse.

Comprehensive Discharge Teaching Taskforce (CDTT)

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Kelly Matsumoto RNC

Anna Celestino RN

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Jody Charles RN MSN NE-BC

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Stephanie Miller MD

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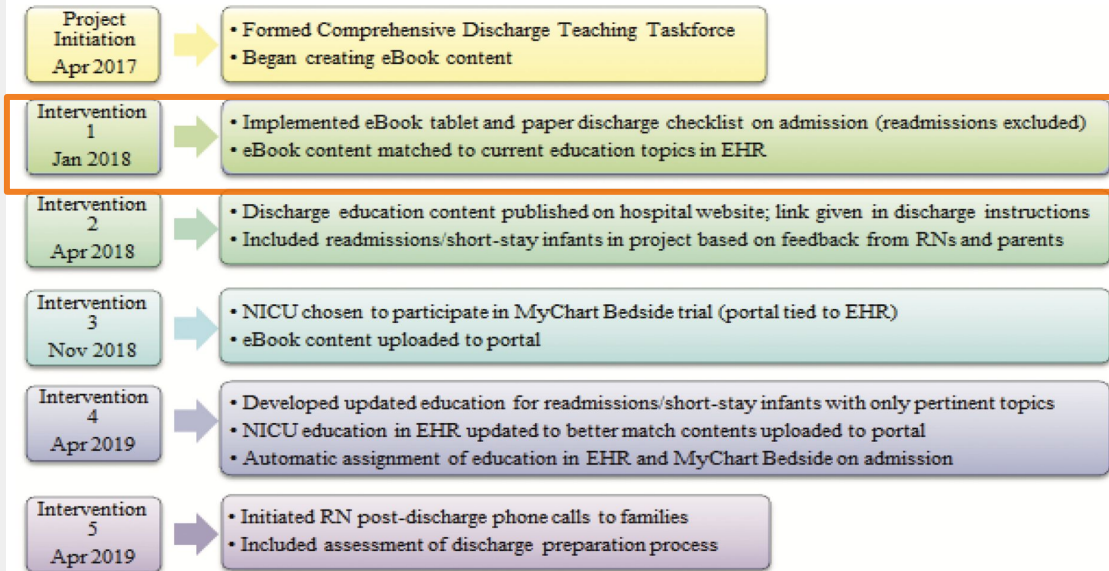
Family Advisory Board (FAB)

Creation of eBook:

- Team members created unit specific discharge teaching
- Created videos for important discharge teaching sections
- Several revisions were made to accommodate Family Advisory Board (FAB) and team member suggestions
- Word document was changed into eBook using iBook author application (now Apple Pages)
- eBook was uploaded onto 3 iPads (which were donated by FAB)

Interventions

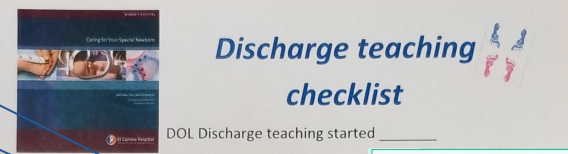
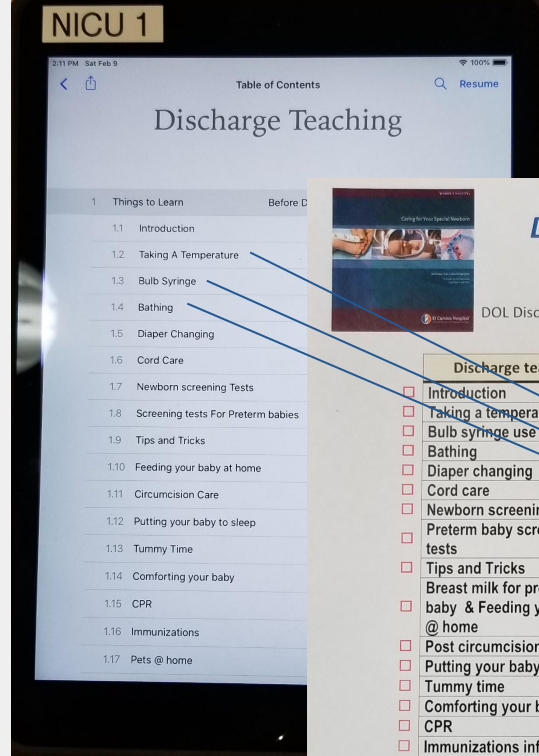
FIGURE 1



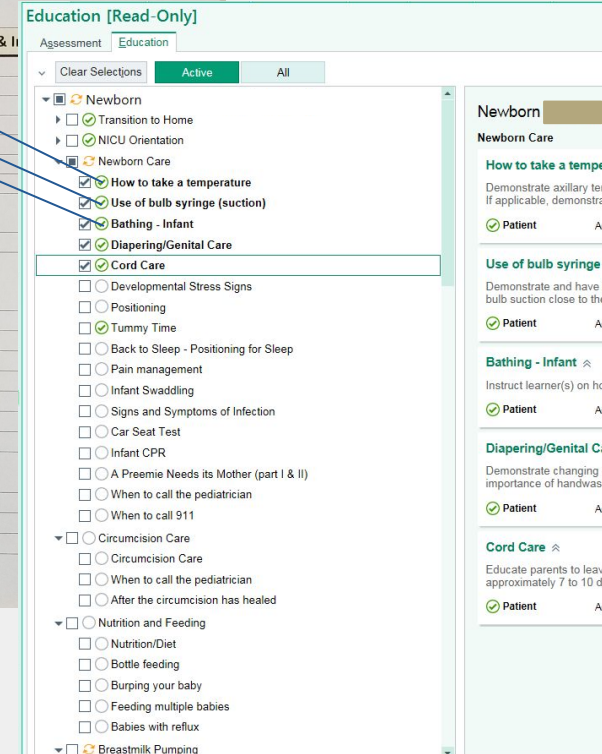
Quality improvement process map. Chronological map of interventions implemented to improve discharge preparation for our NICU families. EHR indicates electronic health record; NICU, neonatal intensive care unit; RN, registered nurse.

Electronic Book on Tablets

- Content written by interdisciplinary Discharge Teaching Taskforce
- E-book chapters matched Epic education topics
- Paper checklists at bedside -- nurses transferred to Epic



Discharge teaching	Date & I
<input type="checkbox"/> Introduction	
<input type="checkbox"/> Taking a temperature	
<input type="checkbox"/> Bulb syringe use	
<input type="checkbox"/> Bathing	
<input type="checkbox"/> Diaper changing	
<input type="checkbox"/> Cord care	
<input type="checkbox"/> Newborn screening tests	
<input type="checkbox"/> Preterm baby screening tests	
<input type="checkbox"/> Tips and Tricks	
<input type="checkbox"/> Breast milk for preterm baby & Feeding your baby @ home	
<input type="checkbox"/> Post circumcision care	
<input type="checkbox"/> Putting your baby to sleep	
<input type="checkbox"/> Tummy time	
<input type="checkbox"/> Comforting your baby	
<input type="checkbox"/> CPR	
<input type="checkbox"/> Immunizations information	
<input type="checkbox"/> Pets @ home	
<input type="checkbox"/> Discharge medication administration	
<input type="checkbox"/> Follow up appointments	
<input type="checkbox"/> When to call Pediatrician	
<input type="checkbox"/> Safety tips	

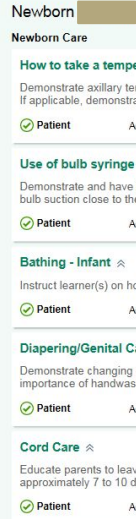


Education [Read-Only]

Assessment | Education

Clear Selections | Active | All

- Newborn
 - Transition to Home
 - NICU Orientation
 - Newborn Care
 - How to take a temperature
 - Use of bulb syringe (suction)
 - Bathing - Infant
 - Diapering/Genital Care
 - Cord Care**
 - Developmental Stress Signs
 - Positioning
 - Tummy Time
 - Back to Sleep - Positioning for Sleep
 - Pain management
 - Infant Swaddling
 - Signs and Symptoms of Infection
 - Car Seat Test
 - Infant CPR
 - A Premie Needs its Mother (part I & II)
 - When to call the pediatrician
 - When to call 911
 - Circumcision Care
 - Circumcision Care
 - When to call the pediatrician
 - After the circumcision has healed
 - Nutrition and Feeding
 - Nutrition/Diet
 - Bottle feeding
 - Burping your baby
 - Feeding multiple babies
 - Babies with reflux
 - Breastmilk Pumping



Newborn

Newborn Care

How to take a temperature

Demonstrate axillary temperature. If applicable, demonstrate rectal temperature.

Patient

Use of bulb syringe

Demonstrate and have learner demonstrate bulb suction close to the mouth.

Patient

Bathing - Infant

Instruct learner(s) on how to bathe the infant.

Patient

Diapering/Genital Care

Demonstrate changing and importance of handwashing.

Patient

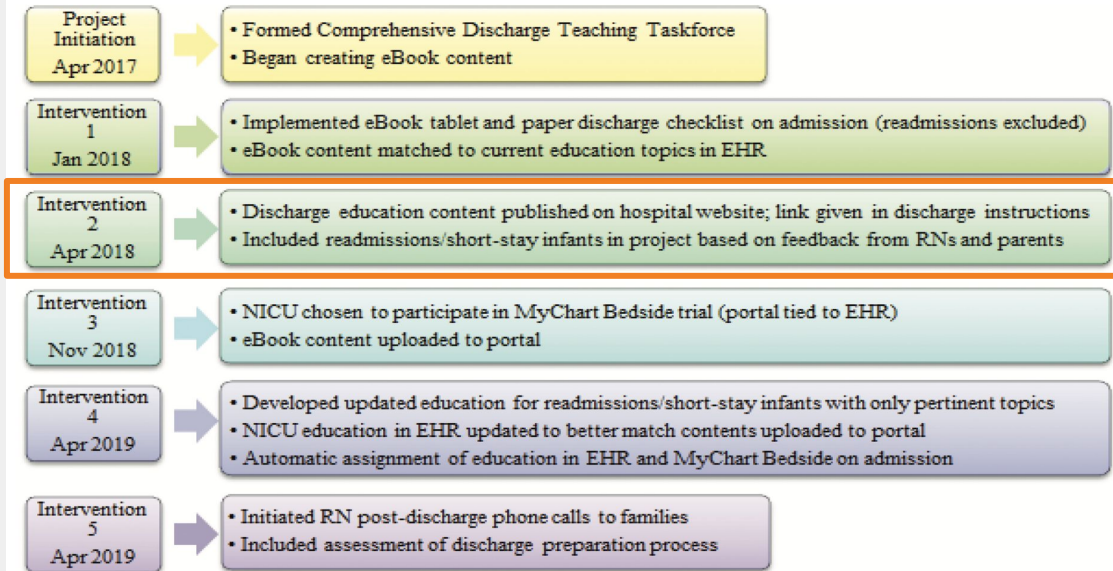
Cord Care

Educate parents to leave umbilical cord dry and intact for approximately 7 to 10 days.

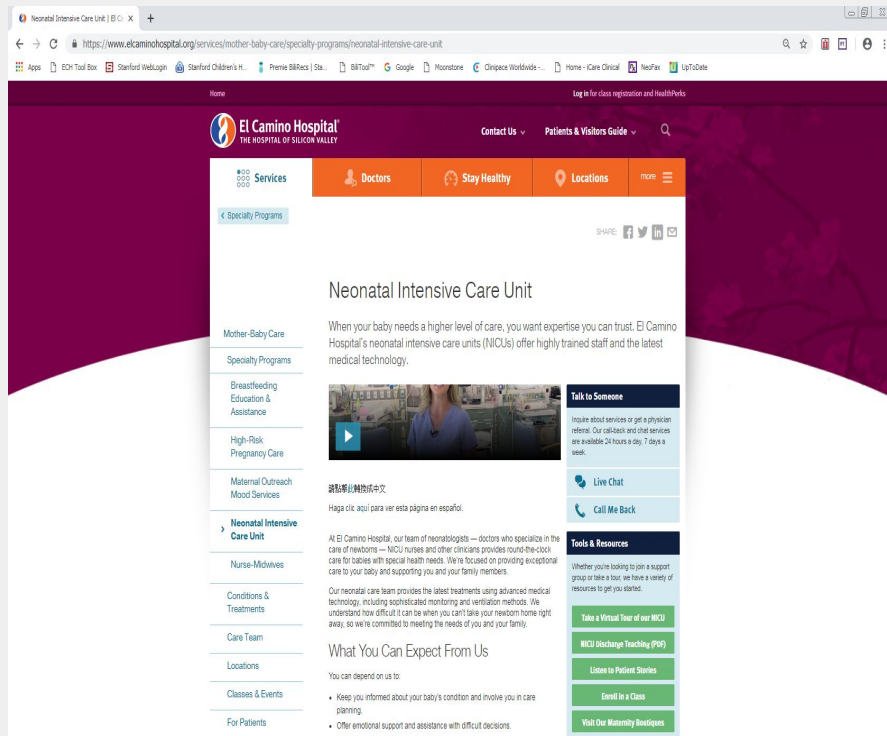
Patient

Interventions

FIGURE 1




Quality improvement process map. Chronological map of interventions implemented to improve discharge preparation for our NICU families. EHR indicates electronic health record; NICU, neonatal intensive care unit; RN, registered nurse.



The screenshot shows the El Camino Hospital website's page for the Neonatal Intensive Care Unit. The page features a navigation menu with options like 'Services', 'Doctors', 'Stay Healthy', and 'Locations'. The main content area includes a video player, a 'Talk to Someone' section with contact options (Live Chat, Call Me Back), and a 'Tools & Resources' section with buttons for 'Take a Virtual Tour of our NICU', 'NICU Discharge Teaching (PDF)', 'Listen to Patient Stories', 'Enroll in a Class', and 'Visit Our Maternity Boutiques'. The page also contains text describing the unit's services and what patients can expect from the care team.

Women's Hospital



EL CAMINO HOSPITAL
THE HOSPITAL OF SILICON VALLEY

NEONATAL INTENSIVE CARE UNIT

Discharge Teaching

INTRODUCTION

Congratulations! Your baby is almost ready to go home. This eBook contains important information you will need in preparation for your baby's discharge from the hospital and afterwards. There are tips on infant care and easing the transition to caring for your baby at home. This is just a guideline and please discuss with your caregivers if you have any questions.

- Taking time to bond with your baby.
- Keeping visitors to a minimum.

Don't get discouraged. It may take a while to develop daily habits that work for you and your baby.

How to help your family adjust to your new baby at home:

- Spend time together as a family.
- Get back to your usual family routines and rules.
- Encourage your family to talk about the hospital experience. For example, you can read stories about what happened at the hospital to sisters and brothers.
- Make sure everyone (including sisters and brothers) wash their hands before touching your baby.
- Encourage your family to participate in your baby's care at home, such as changing diapers or feeding.
- Allow your baby's sisters or brothers to talk about their feelings about having the new baby at home.
- Schedule time with sisters or brothers who may have felt left out during the hospitalization.
- Talk to your extended family and friends about your baby's special needs or issues.

Continued on next page

EASING THE TRANSITION TO HOME
How your new baby responds to living at home after being in the hospital depends on:

- Your baby's age or adjusted post-gestational age (for premature babies) or developmental level.
- Your baby's temperament, or how your baby usually responds to different situations, stimulation or environments.
- How long your baby is in the hospital.
- The reason your baby is in the hospital.
- The pain or discomfort your baby may have experienced.
- Medicines your baby may be taking.

How to help your baby adjust to being home
The environment of your home will be unfamiliar to your baby and different from what they

Information
for Patients



NEONATAL INTENSIVE CARE UNIT (NICU)

Discharge Checklist for Parents

Congratulations! Your baby is on track to go home soon! This is a very exciting time after a stay in the NICU. It can also be stressful and sometimes overwhelming getting everything ready for baby's homecoming. To help smooth this transition we have made a list to help you prepare.

Pediatrician: If you have not already chosen a pediatrician you need to do that now. A confirmed follow up appointment with a pediatrician is required before your baby goes home. Ask your baby's nurse what day the neonatologist would like your baby to be seen, and schedule the appointment accordingly.

Car seat: Your car seat should be purchased and installed. Ask the nurse or neonatologist if you need a car seat rated for 4 pounds. It is extremely important you read the manual of the car seat you purchased and know how to secure your child into the seat safely. This will be your responsibility on the day of discharge. If you need guidance with car seat installation or safe placement of your baby in the car seat, visit www.besafesecarsseat.com. They offer car seat safety appointments for a fee. Be sure to have your car seat base installed prior to day of discharge and bring your car seat to the NICU the day your baby goes home (or sooner if your baby requires a car seat test).

Safe Sleep: Your crib or bassinet should be set up at home. Your baby should be placed on his/her back alone in their own bed without any bumpers, pillows, stuffed animals, or loose blankets. For more information on Safe Sleep visit <https://www.healthychildren.org/English/ages-stages/baby/sleep/Pages/A-Parents-Guide-to-Safe-Sleep.aspx>

Bottles: If your baby is going home bottle feeding you need to purchase your bottle system of choice. They need to be sanitized per manufacturer's guidelines before baby uses them. If you haven't already done so, you should bring in your bottle to trial with your baby before he/she goes home.

Formula: Talk to your baby's nurse about the kind of formula your baby will use at home, where you will be able to purchase the formula, and how to prepare it.

Medications: If your baby is going home on any medications (vitamins, iron, other) you need to purchase these or pick them up at the pharmacy prior to discharge. You can pick up most medications on site at the El Camino Hospital Outpatient Pharmacy.

Clothes: Bring baby's homecoming outfit, hat, and blanket on the day of discharge.

Cooler: Bring a cooler on the day of discharge to transport your breastmilk home. If you have milk in the NICU freezer, you may want to take some of it home the day before your discharge.

Call: Please call the NICU on the morning of your baby's anticipated discharge date to confirm that he/she will be going home that day.

2500 GRANT ROAD, MOUNTAIN VIEW, CA 94040 650-940-7000
815 POLLARD ROAD, LOS GATOS, CA 95032 408-378-6131

WWW.ELCAMINOHOSPITAL.ORG

Arrive on time: Generally, our goal discharge time is 11 am. There are several factors which may alter this time. Please discuss with your nurse on the day of discharge to see what time you should arrive and what your baby's goal discharge time will be.

Please ask the NICU staff if you need any further guidance or have questions about how the day of discharge will go. We look forward to sharing this very special NICU homecoming day with you!

Pediatrician

Selected
Name: _____ Appointment Date/Time: _____

Car Seat

purchased manual read installed in car checked by technician
 car seat trial completed in NICU (if applicable)

Safe Sleep

crib/bassinet purchased swaddle blankets or sleep sacks purchased

Feedings

bottles and nipples purchased know how to clean per manufacturer instructions
 bottle feeding done in NICU with chosen system

Formula (if applicable)

purchased know how to prepare and store correctly

Medications (if applicable)

prescription(s) filled vitamins and iron picked up from outpatient pharmacy

Clothing

outfit for baby to wear when discharged (bring to NICU)

Breast Milk

cooler to bring home breast milk stored in NICU (bring prior to discharge if large amount)

Day of Discharge

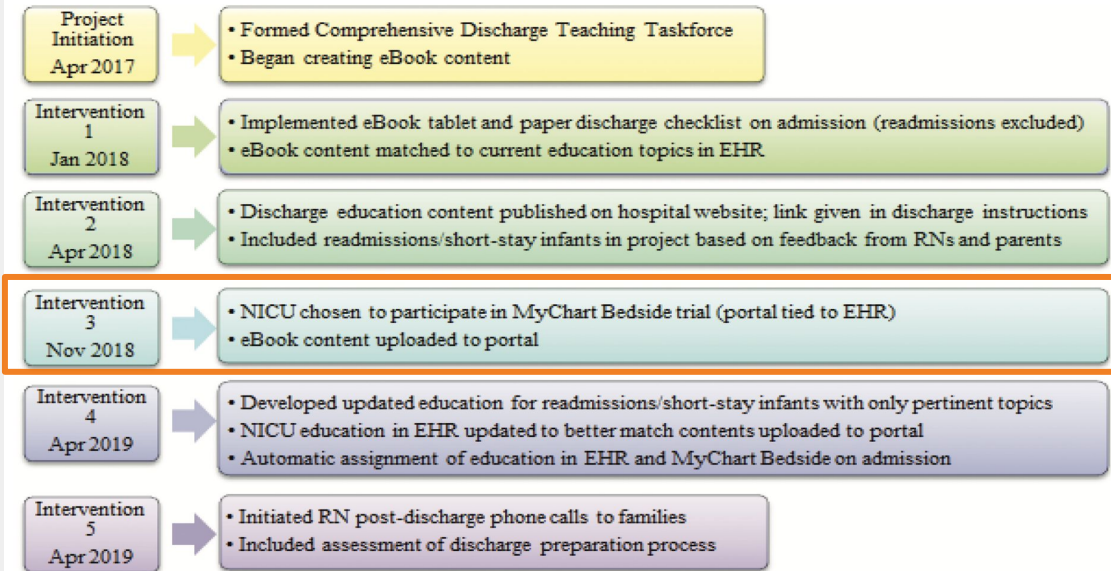
call in the morning to confirm baby is going home
 estimated time of discharge is 11:00 am
 bring your parent badge with you to return to the NICU staff
 complete your discharge survey



2500 GRANT ROAD, MOUNTAIN VIEW, CA 94040
650-940-7000 WWW.ELCAMINOHOSPITAL.ORG

815 POLLARD ROAD, LOS GATOS, CA 95032
408-378-6131 WWW.ELCAMINOHOSPITAL.ORG/LOS GATOS

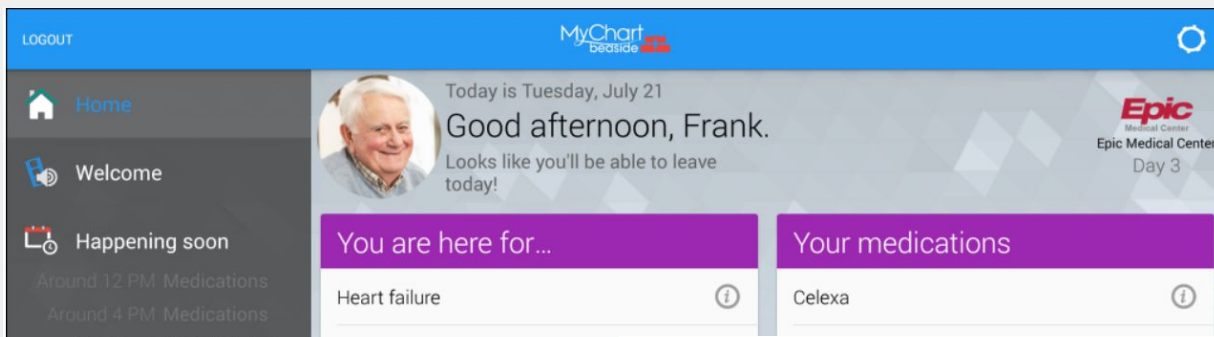
FIGURE 1



Quality improvement process map. Chronological map of interventions implemented to improve discharge preparation for our NICU families. EHR indicates electronic health record; NICU, neonatal intensive care unit; RN, registered nurse.

MyChart Bedside

Tablet-based application that gives admitted patients and their families more information about the patient's condition and hospital stay.



LOGOUT MyChart bedside

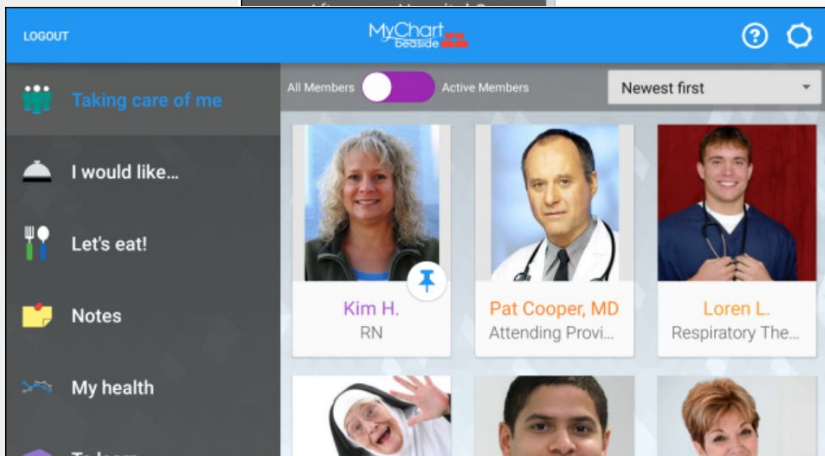
Home Welcome Happening soon

Today is Tuesday, July 21
Good afternoon, Frank.
Looks like you'll be able to leave today!

Epic Medical Center
Epic Medical Center
Day 3

You are here for... Heart failure

Your medications Celexa



LOGOUT MyChart bedside

Taking care of me

All Members Active Members Newest first

I would like... Let's eat! Notes My health

Kim H. RN Pat Cooper, MD Attending Provi... Loren L. Respiratory The...



LOGOUT MyChart bedside

At 3:00 PM Kate is visiting
Around 5 PM Medications

Taking care of me I would like ... Notes My health To learn

Blood Pressure 106/60 Pulse 104

Temperature 37 °C Respirations 20

Key Labs All Labs Newest to oldest

pCO2	Today at 5:00 AM	33 torr
Hematocrit	Yesterday at 10:00 PM	42 %
Hemoglobin	Yesterday at 10:00 PM	14.0 g/dL
Leukocytes	Yesterday at 10:00 PM	17.5 K/uL
Creatinine	Yesterday at 6:38 AM	2.2 mg/dL
Potassium		4.2 mEq/L

LOGOUT



Education in Progress

Newborn Discharge Education

- At 3:00 PM Kate
- Around 5 PM Medi
- Taking care o
- I would like ...
- Notes
- My health
- To learn**
- A few questio
- Entertainmen

Done

Contents



- Newborn Care 2
- Newborn Screening Tests 8
- Nutrition and Feeding 10
- Breastmilk Pumping 11
- Transition to Home 19
- Immunizations 31

Newborn Care

Taking a temperature

Regular temperature checks are not needed at home unless your baby is over-dressed or under-dressed or if you are worried your baby has a fever or is not acting normally.

We suggest dressing your baby as you would dress, for example, in layers for a cold day, then dress your baby in layers as well.

Your baby's body temperature changes throughout the day, with the lowest in the afternoon than in the morning.

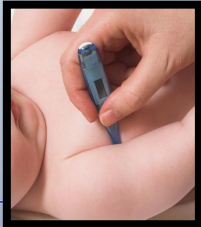
Your baby's temperature may increase with activity or crying.

An increase or decrease in temperature may indicate that your baby has an infection.

A normal temperature range for your baby is 97.6-99.6 degrees Fahrenheit (36.5-37.5 Celsius).

We measure your baby's temperature with a thermometer (usually in the armpit, called an axillary temperature). Some pediatricians will ask you to take your baby's temperature so we recommend you learn how to do this at your doctor's visit.

PDF Taking an Axillary Temperature



? I have questions

✓ I understand



Newborn Care

Caring for the umbilical cord

The umbilical cord will dry and fall off 1-3 weeks after birth. No routine cleaning or wetting the cord may actually extend the time it takes to fall off.

When the cord stump is dry, fold the front of the diaper down below the cord stump.

If the cord stump is soiled with stool or urine, wash it off right away with water. This will prevent infection around your baby's cord stump.

If you notice any redness, swelling, or oozing from the cord, notify your doctor. Do not give your baby a bath until the cord has fallen off. When it falls off, you might see a spot of blood on the stump, which is normal.

Umbilical Cord

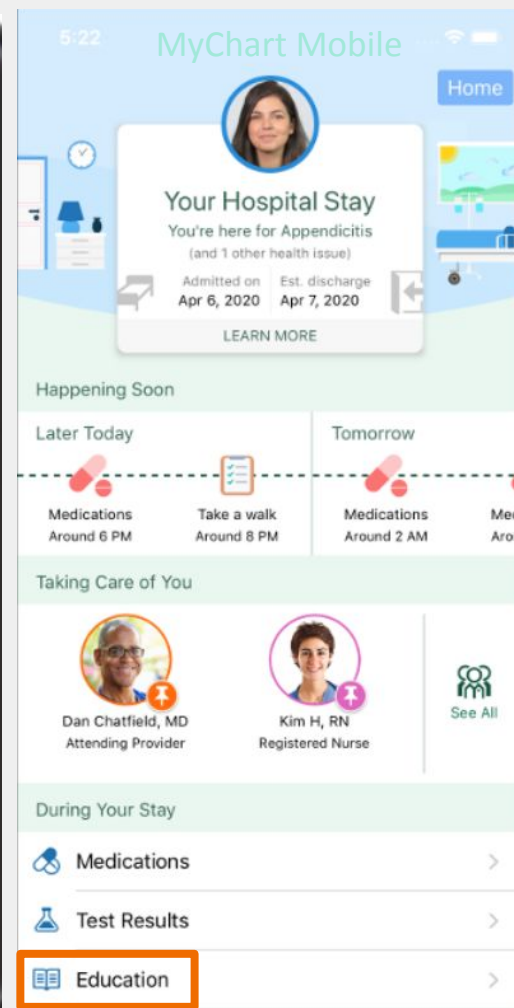
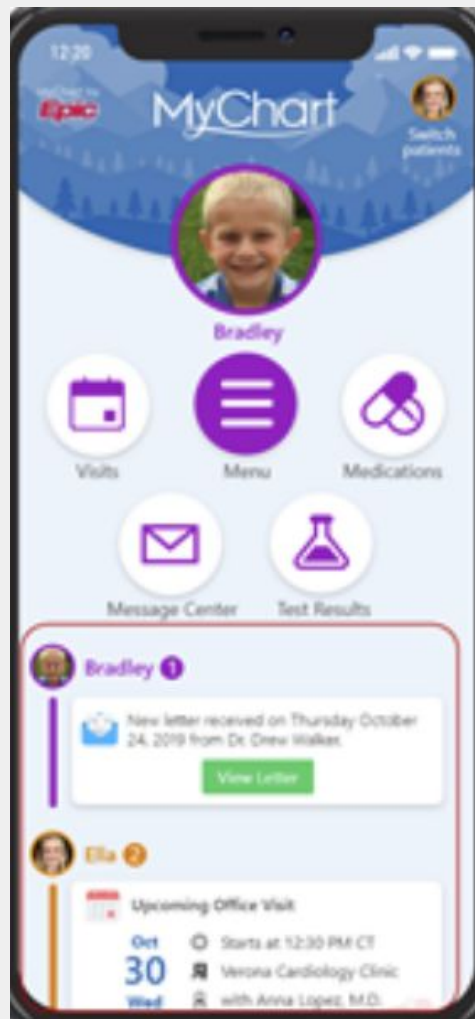
? I have questions

✓ I understand

MyChart Mobile



- App store >> MyChart
- Organization >> El Camino Health
- Log into mother's MyCare account (automatic proxy)
- Switch to baby
- Select Menu, type "Education" in search



MyChart Bedside (MCB) Pilot

- E-book content transferred to “To Learn” section of MCB
- Discharge Education checklist manually assigned to patients by nurses
- Parent responses to topics documented automatically in Hyperspace

The screenshot shows the 'Education' tab in MyChart. A search bar contains the text 'nicu'. Below the search bar is a table of results:

%	Title/Topic/Point Name	Title/Topic/Point ID
<input type="checkbox"/>	NICU DISCHARGE EDUCATION CHECKLIST - SPANISH	825
<input type="checkbox"/>	NICU FOR ANTEPARTUM FAMILIES	50
<input checked="" type="checkbox"/>	NICU/NEWBORN DISCHARGE EDUCATION CHECKLIST	3041000000
<input type="checkbox"/>	NEWBORN/NICU INPATIENT EDUCATION (aka NICU)	3040253

Buttons for 'Search' and 'Recent' are visible at the bottom of the results area.

The screenshot shows the 'Education' tab in MyChart with the 'Newborn Discharge Education Checklist' selected. The checklist is displayed in the main content area, and the 'How to take a temperature' item is checked.

Education
Assessment **Education**

Clear Selections **Active** All

Comments (0) Hide Descriptions

Newborn Discharge Education Checklist

Newborn Care

How to take a temperature

Use of bulb syringe (suction)

Bathing - Infant

Diapering/Genital Care

Cord Care

Newborn Screening Tests

Newborn Screening Tests for All...

Preterm screening tests (for babi...

Nutrition and Feeding

Feeding Your Baby

Breastmilk Pumping

Establishing your milk supply wit...

Collection of breastmilk

Cleaning a breast pump

Storing, labeling, and transportin...

How to take a temperature

Demonstrate axillary temperature taking and explain the normal range of axillary temperature.
If applicable, demonstrate how to take rectal temperature and explain the normal range of rectal temperature.

Not started

Patient Handouts

How to take a temperature
[Taking an Axillary Temperature](#)

5:51 PM Mon Jul 8 Done Newborn Discharge Education - 3 Contents

Newborn Care

Taking a temperature

Regular temperature checks are not needed at home unless you are unsure whether the baby is over- or underdressed or if you are worried the baby may have a fever or is not acting normally.

We suggest dressing your baby as you would yourself. For a cold day, then dress your baby in layers.

Your baby's body temperature changes in the afternoon than in the morning.

Your baby's temperature may increase during the day.

An increase or decrease in temperature may indicate an infection.

A normal temperature range for your baby is 36.5-37.5 Celsius.

We measure your baby's temperature at the hospital (using an axillary temperature). Some pediatricians also measure your baby's temperature so we recommend you let your pediatrician know if you have any questions.

Taking an Axillary Temperature

? I have questions I understand

Education

Assessment Education

Clear Selections Active All

Newborn Discharge Education Checklist

- Newborn Care
 - Introduction
 - How to take a temperature**
 - Use of bulb syringe (suction)
 - Bathing - Infant
 - Diapering/Genital Care
 - Cord Care**
- Newborn Screening Tests
 - Newborn Screening Tests for All Babies
 - Preterm screening tests for babies less than 32 weeks gestation
- Nutrition and Feeding
 - Establishing your milk supply with a pump
- Breastmilk Pumping
 - Establishing your milk supply with a pump

Newborn Discharge Education Checklist

Newborn Care

How to take a temperature

Demonstrate axillary temperature taking and explain the normal range of axillary temperature. If applicable, demonstrate how to take rectal temperature and explain the normal range of rectal temperature.

Mother Acceptance, Handout, Indicates Understanding in Bedside Tablet, Bedside at 4/22/2019 1709

Cord Care

Educate parents to leave cord dry and open out of diaper area. Instruct the patient/caregiver to sponge bathe infant until cord falls off in approximately 7 to 10 days.

Mother Nonacceptance, Handout, Indicates Has Questions in Bedside Tablet, Bedside at 4/22/2019 2208 [More \(1\)](#)

5:51 PM Mon Jul 8 Done Newborn Discharge Education - 7 Contents

Newborn Care

Caring for the umbilical cord

Your baby's umbilical cord will dry and fall off 1-3 weeks after birth. No routine cleaning is necessary. Cleaning or wetting the cord may actually extend the time it takes to fall off.

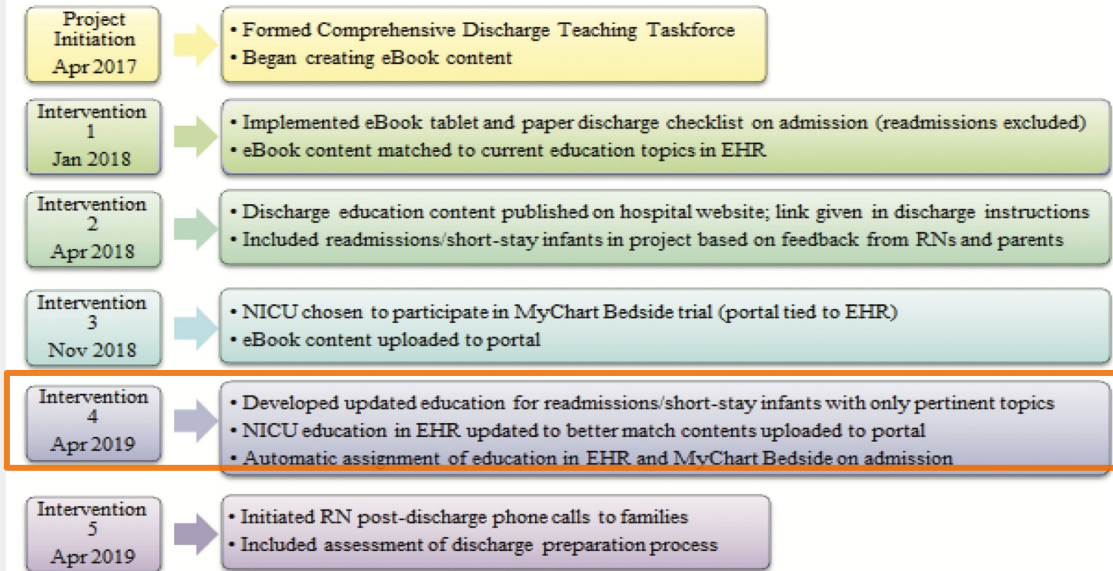
Keep the cord clean and dry. Fold the front of the diaper down below the cord.

If you see redness, swelling, or discharge from the cord, notify your doctor. Do not give your baby anything to eat or drink if the cord falls off, you might see a spot of blood on the diaper.

? I have questions I understand

Interventions

FIGURE 1



Quality improvement process map. Chronological map of interventions implemented to improve discharge preparation for our NICU families. EHR indicates electronic health record; NICU, neonatal intensive care unit; RN, registered nurse.

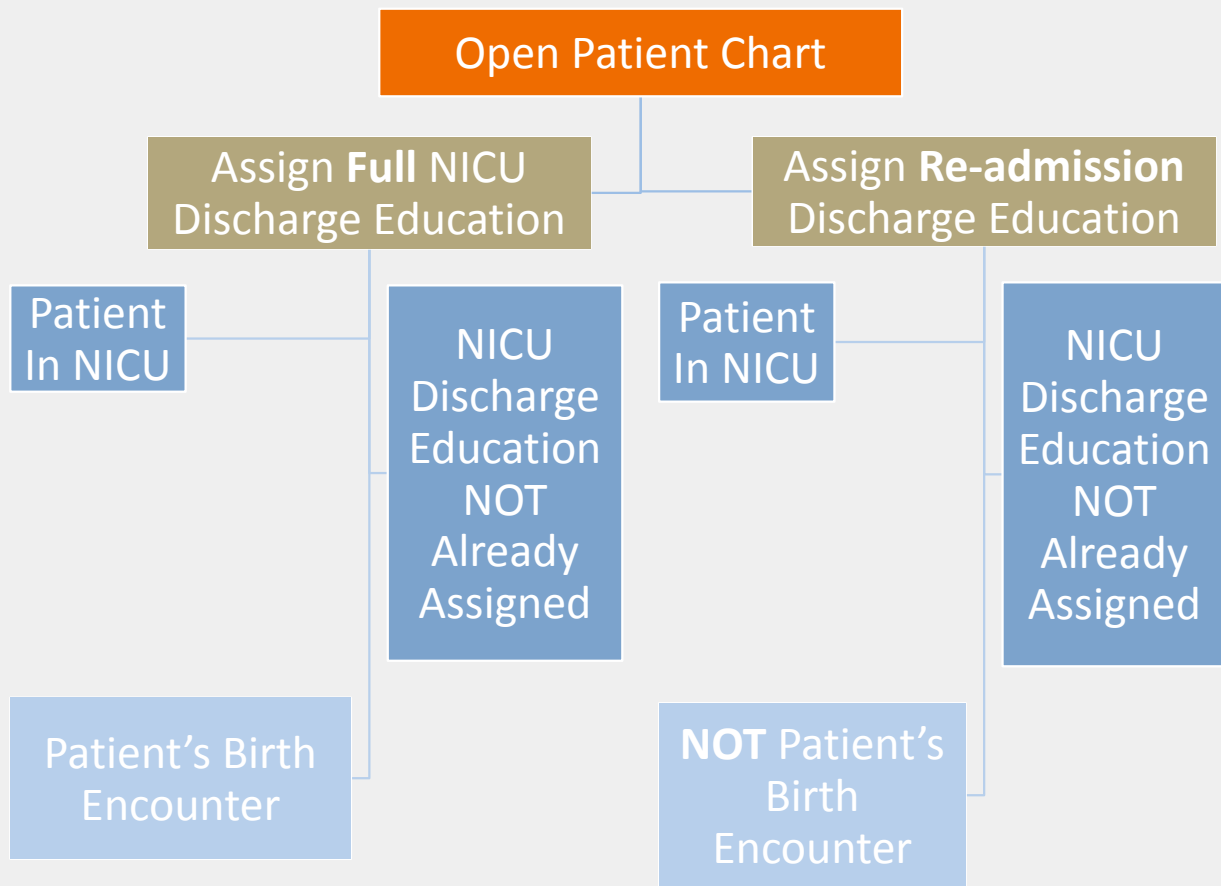
MyChart Bedside (MCB) Optimization

- Content re-vamped to better match e-book content
- Short-stay checklist created for re-admissions
- Appropriate checklist *automatically assigned* to patients on NICU admission

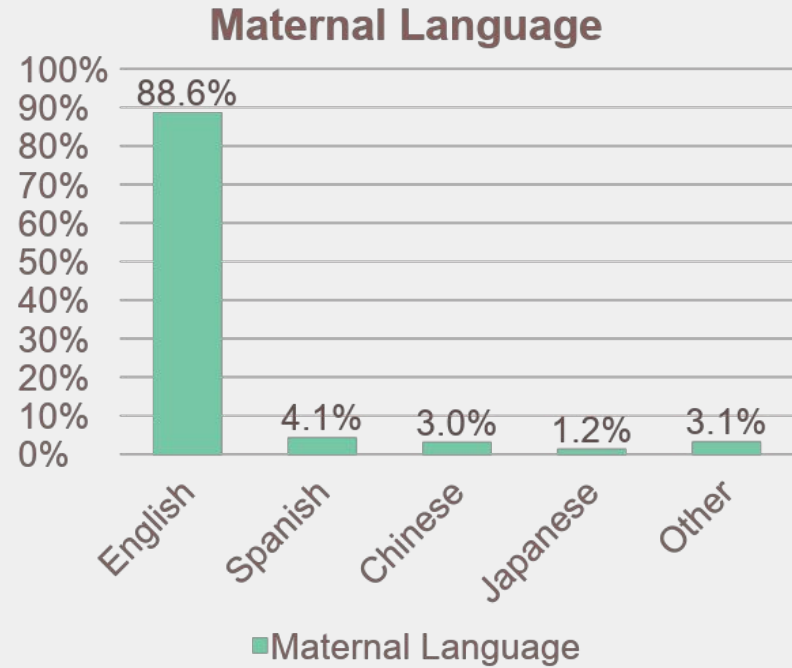
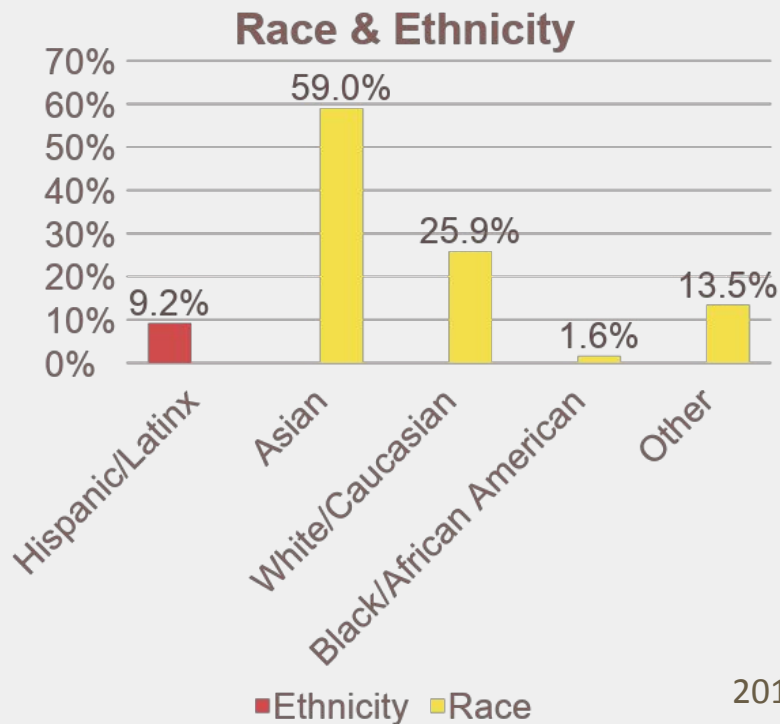
Full NICU Discharge Education Points	Re-admission Discharge Education Points
Newborn Care Introduction How to take a temperature Use of bulb syringe (suction) Bathing – Infant Diapering/Genital Care Cord Care	Newborn Care How to take a temperature Use of bulb syringe (suction) Bathing – Infant
Newborn Screening Tests Newborn screening tests for all babies Preterm screening tests (for babies < 32 weeks gestation or < 1500 grams at birth)	
Nutrition and Feeding Feeding Your Baby	Nutrition and Feeding Feeding Your Baby
Breastmilk Pumping Establishing your milk supply with a pump Collection of breastmilk Cleaning a breast pump Storing, labeling, and transporting breastmilk Appropriate breastmilk volumes Maintaining a healthy pumping routine Maintaining full milk production Thawing and warming stored breastmilk	
Transition to Home Easing the Transition to Home Tips and Tricks for Transition to Home Circumcision Care Back to Sleep – Positioning for Sleep Tummy Time Comforting your baby Infant CPR Pets at home NICU Discharge Medications Follow-up appointments When to call the pediatrician Safety tips	Transition to Home Tips and Tricks for Transition to Home Back to Sleep – Positioning for Sleep Tummy Time Comforting your baby When to call the pediatrician Safety tips
Immunizations Why vaccinate? Hepatitis B Vaccine DTaP Vaccine	

Automation using silent BPAs

- Assignment of discharge education checklist to patient in NICU location upon first chart opening
- Appropriate checklist based on birth encounter status



Demographics & Non English Language Preference



2017-2019

Open Patient Chart

Assign Full D/C Educ – English
1 & NOT 2 & 3 & NOT 4

Assign Re-admit D/C Educ – English
1 & NOT 2 & NOT 3 & NOT 4

Assign Full D/C Educ – Spanish
1 & NOT 2 & 3 & 4

Assign Re-admit D/C Educ – Spanish
1 & NOT 2 & NOT 3 & 4

Criteria

1

In NICU

2

D/C Educ
Already
Assigned

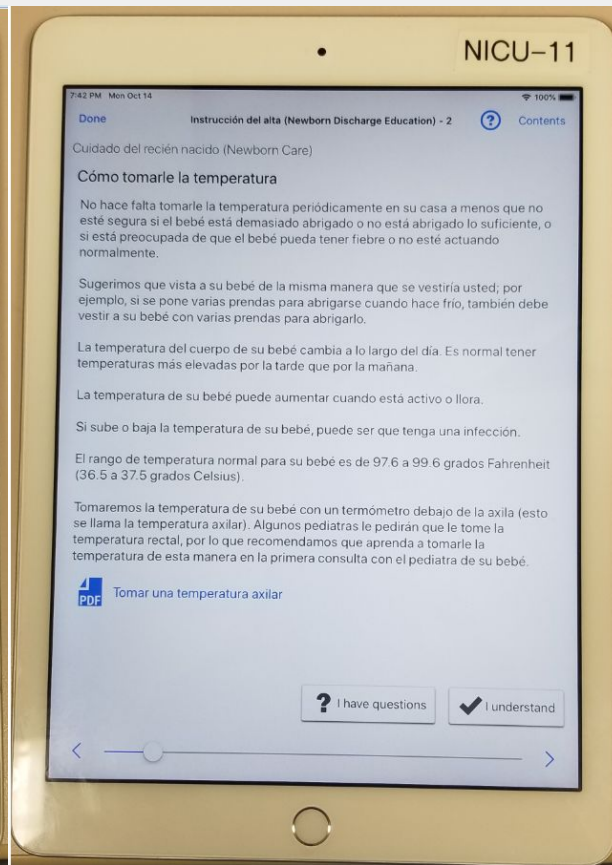
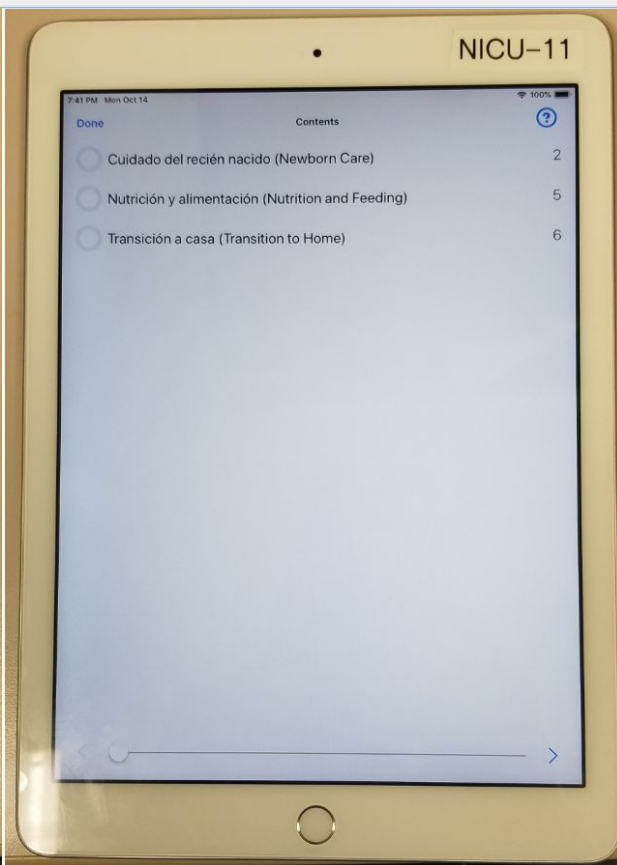
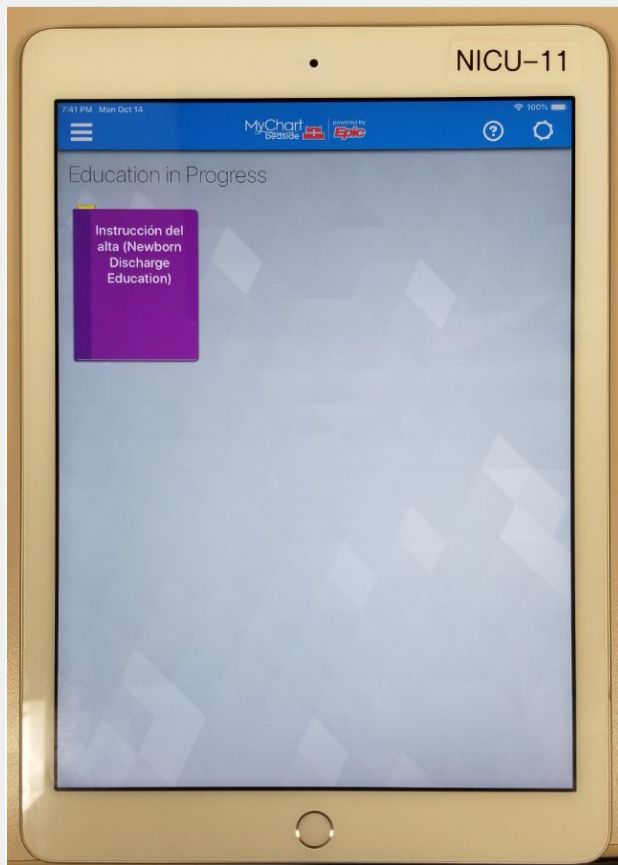
3

Birth
Encounter

4

Preferred
Language
Spanish

What the family sees...



What the nurse sees...

Education ?

Assessment **Education**

Clear Selections **Active** All

- Developmental Care
 - Developmentally supportive care
 - Developmental Stress Signs
- Prematurity
 - A Preemie Needs its Mother (part I & II)
 - Care Conference
 - ROP (<32 weeks)
 - RSV
- NICU Discharge Education Checklist (Spanish)**
 - Newborn Care**
 - How to take a temperature**
 - Use of bulb syringe (suction)**
 - Bathing - Infant**
 - Nutrition and Feeding
 - Feeding Your Baby
 - Transition to Home
 - Tips and Tricks for Transition to Home
 - Back to Sleep - Positioning for Sleep
 - Tummy Time
 - Comforting your baby
 - When to call the pediatrician
 - Safety tips

NICU Discharge Education Checklist (Spanish)

Newborn Care

How to take a temperature ⌵

Regular temperature checks are not needed at home unless you are unsure whether the baby is over- or underdressed or if you are worried the baby may have a fever or is not acting normally.

We suggest dressing your baby as you would dress; for example, if you are wearing layers for a cold day, then dress your baby in layers as well.

Your baby's body temperature changes throughout the day. Expect higher readings in the afternoon than in the morning.

Your baby's temperature may increase with activity or crying.

An increase or decrease in temperature may indicate that your baby has an infection.

A normal temperature range for your baby is 97.6-99.6 degrees Fahrenheit (36.5-37.5 Celsius).

We measure your baby's temperature with a thermometer under the armpit (called an axillary temp). Some pediatricians will ask you to check the rectal temperature so we recommend you learn how to do this at your baby's pediatrician visit.

Not started

Use of bulb syringe (suction) ⌵

A bulb syringe may be used to clear fluid from your baby's nose or mouth. This tool helps you clear secretions if your baby has a cold or remove milk if your baby spits up. Follow these steps to use a bulb syringe.

Squeeze the bulb.

Insert the tip into the nostril or mouth.

IMPORTANT: Take care to avoid inserting the tip too deeply into the nose or mouth, as this may cause gagging or injury.

Holding the syringe in place (nose or mouth), release the compression of the bulb, suctioning liquid into the bulb syringe.

Remove the bulb syringe from the baby's nose or mouth and squeeze the bulb again, expelling the contents into the trash or onto a paper towel.

Comments (0) Hide Descriptions

Patient Handouts

How to take a temperature
[Tomar una temperatura axilar](#)

Use of bulb syringe (suction)
[Cómo usar una perilla de succión](#)

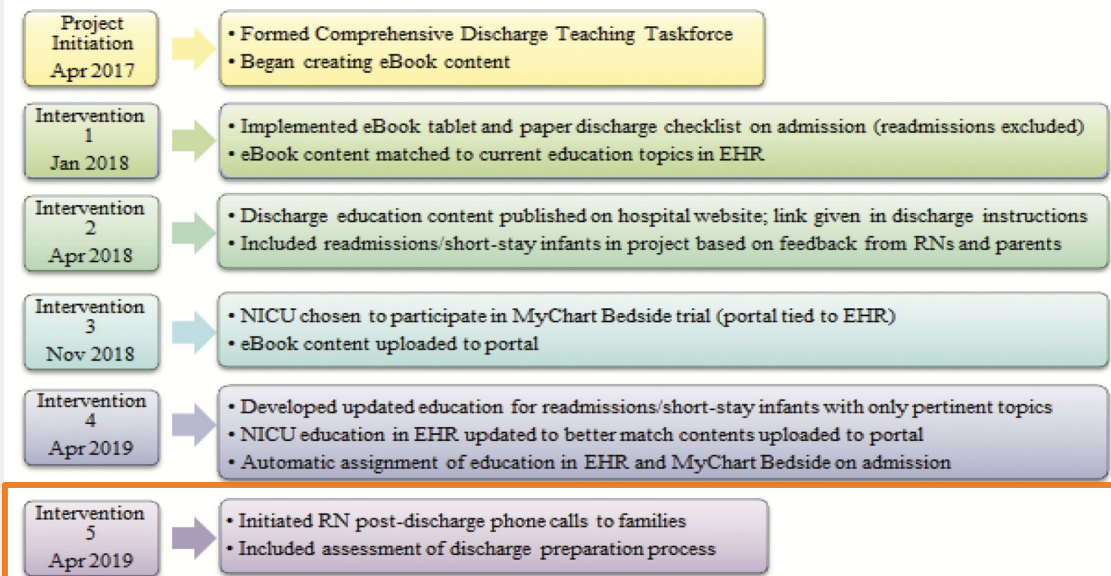
Discharge Checklist indicates Spanish

(Spanish)

English version of what parents read in Spanish in MyChart Bedside

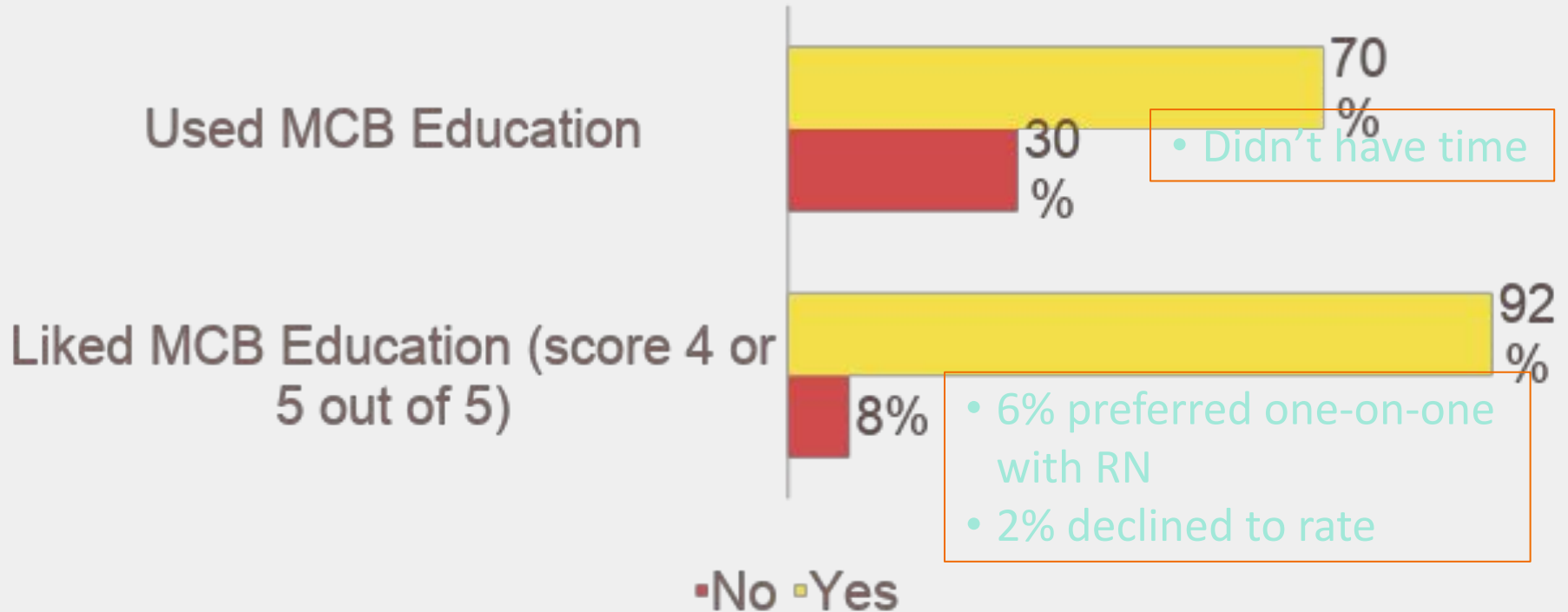
Interventions

FIGURE 1



Quality improvement process map. Chronological map of interventions implemented to improve discharge preparation for our NICU families. EHR indicates electronic health record; NICU, neonatal intensive care unit; RN, registered nurse.

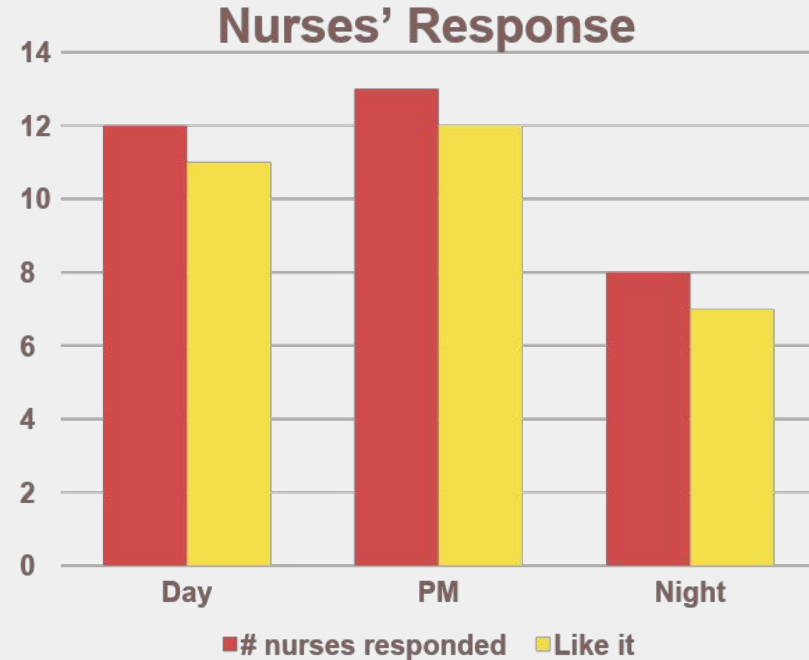
Follow Up Phone Calls (n = 159 families)



- “it is very good informative material and it answered most of our questions”
- “appreciated the simplicity of the iPad”
- “enjoyed the streamlined discharge teaching”
- “very convenient refresher for experienced parents”
- “smooth, easy-to-navigate, and self-paced”

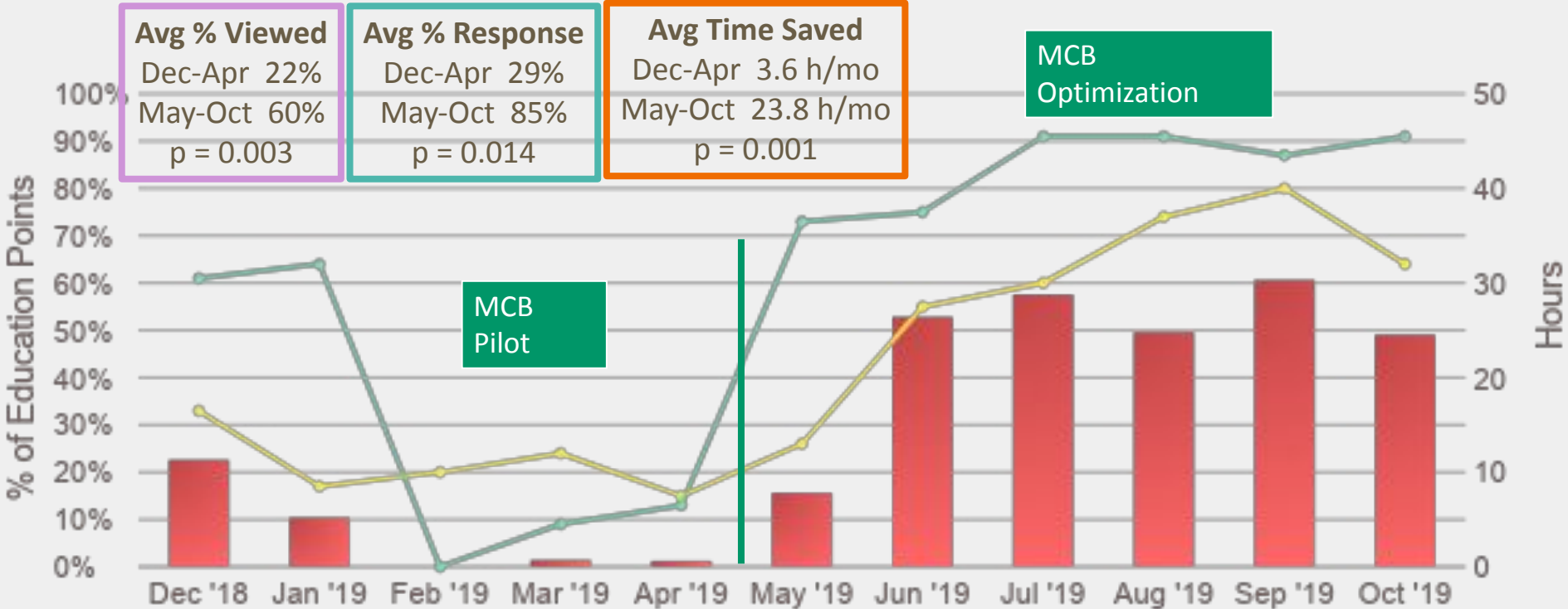
Nurses' Response

- “Improved the workflow on the day of discharge”
- “Making teaching easier for parents as they had seen content previously and were able to ask better informed questions”
- “Consistent teaching content”
- “Easy to keep track”



THE OUTCOME

MyChart Bedside Usage Report

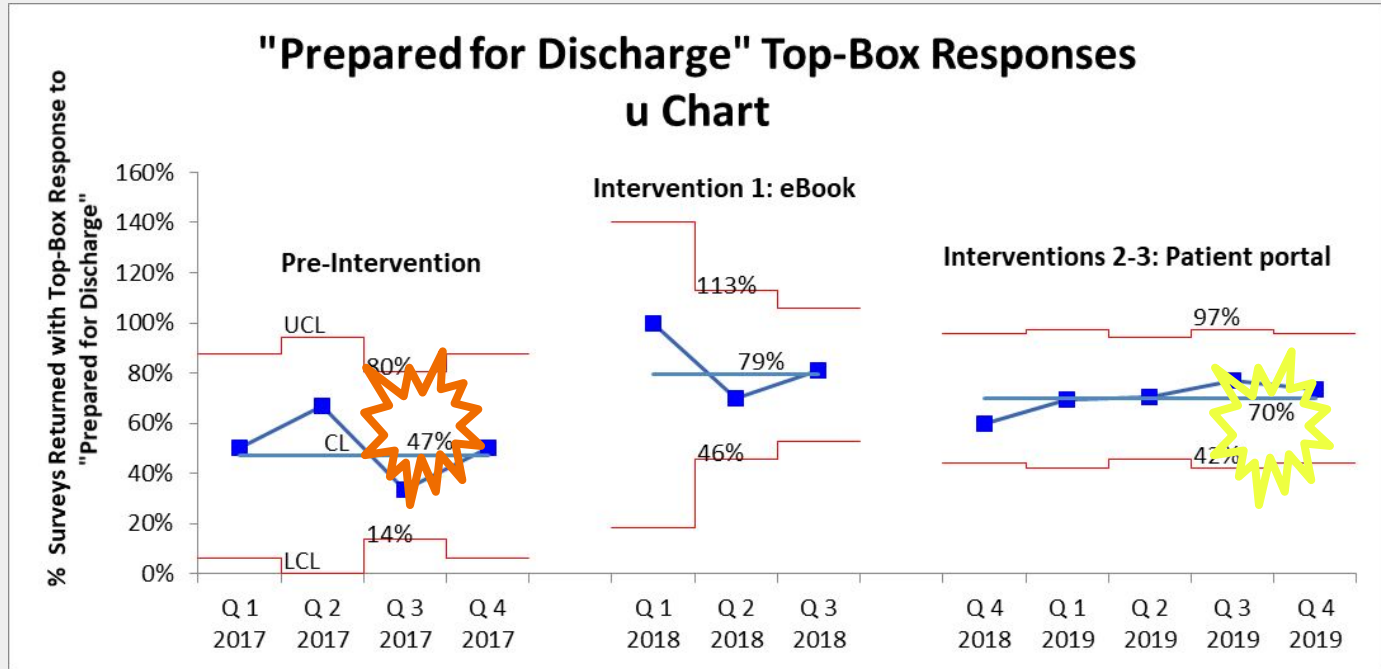


- Nursing Time Saved (hrs)
- Education Points Viewed (% of assigned)
- Education Points with Response (% of viewed)

*assuming 5 minutes of time per education point saved when a family responded "I Understand"

Press-Ganey Survey: "Prepared for Discharge"

**Relative 50%
improvement!**



Top box analysis (percentage of responses that reflect the highest possible rating) of parent responses to patient satisfaction survey question regarding preparation for discharge from NICU

Sustainability: Two Years Later

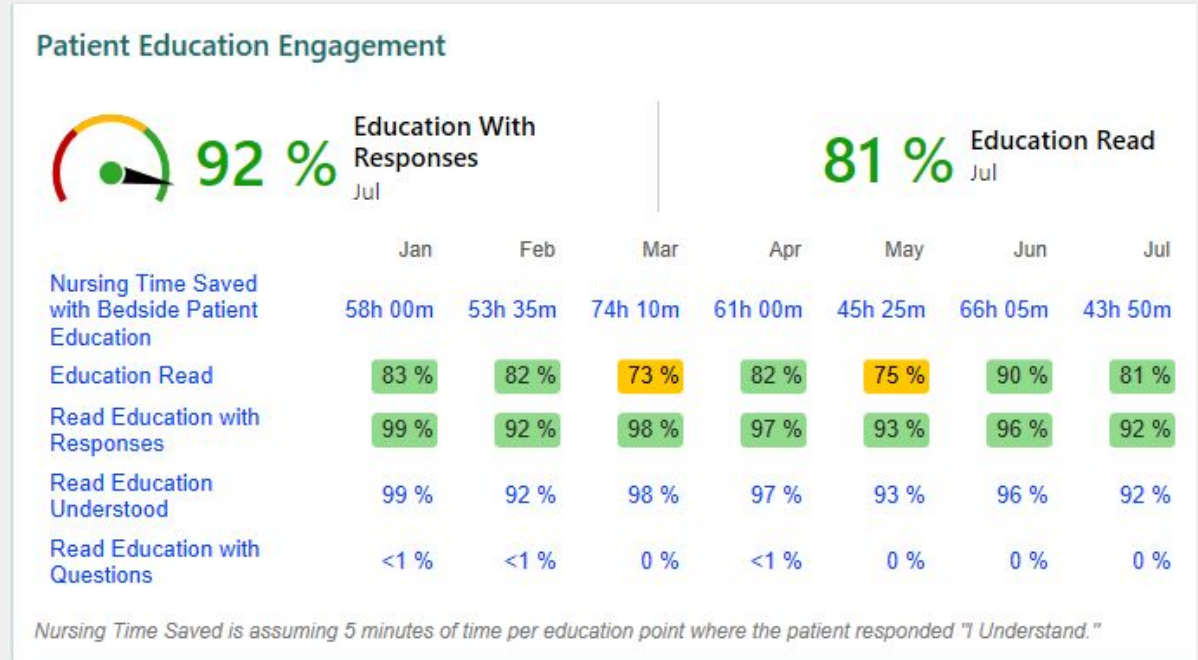


- Mar-Sep 2021
- An average of 83% of education points assigned were read
- An average of 94% of education points read were responded to
- An average of 94% of responses were "I Understand"



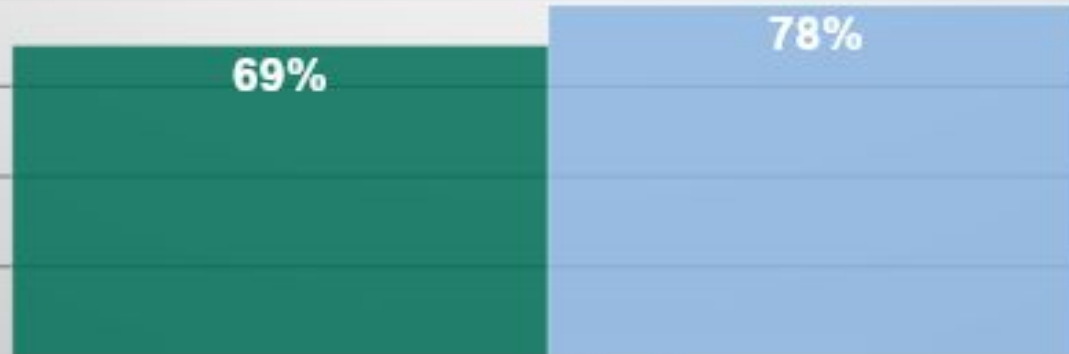
Recent Usage Report: January-July 2022

- An average of 81% of points assigned were read
- An average of 95% of points read were responded to
- An average of 95% of responses were “I Understand”



Sustainability: Last Two Years

“Prepared for Discharge” Top Box Responses



Top Box Prepared for Discharge

■ 2021 ■ 2022 (to date)

- Families received consistent information, prepared well before discharge, asked questions based on the knowledge
- Saved Nurses time
- Improved families' satisfaction scores about "prepared for discharge"
- Easy to update the content based on feedback/changes in the unit (with EPIC physician's help)
- **Every disciplinary staff got involved to provide better care** - RN,MD,LC,Unit Clerk, Marketing, IT and families:)
- Families have access to this education post discharge

- Physicians time Commitment (Volunteer)
 - Write eBook, format, upload
 - Building EHR BPA (Best Practice Advisory)
- IT security concern, losing iPads
 - Shared family voices
- Staff/rotating Trainees education
 - Yearly refresher FCC orientation list
 - Trainee one on one orientation by FCC Chair
- Delay in updating the website content

FCC Training Checklist

Name:	
Trainer:	Date:

Antenatal

- Physicians will do prenatal consultation for all high risk babies and at OB's request.
- Show eBook contents**
- If neonatologist is unable to get to the consultation immediately, they may request staff to show the iPad to parents.
- Provide time for tour if parents request.

At the Time of NICU Admission

- Physician will return to L&D and update the delivered mom about the baby's clinical status; the goal is within 1 hour of admission to NICU.
- Physician may ask the charge nurse, or nurse manager to update mom depending on infants immediate needs (line placements, etc.).
- Encourage hand expression when we update mom. Handout with QR code video in every room in L&D/DMBU. (Hand out is also available on our resources board next to tube system)
- Once first colostrum received, administer as soon as possible - do not freeze or put in the fridge. **Show video of oral drops when babies cues.**
- Document under breast milk PO intake row in the NICU I/O flowsheet
- "My NICU baby" Parents can track pumping volume, kangaroo care time, baby's weight on a March of Dimes app.

During NICU Stay

- Skin to skin:** Zaky zak <1kg/<30 weeks baby. Look at the poster in lounge. Give the SSC handout to parents while talking to them (in the drawer in front of Bay 1) Goal is to do first skin to skin within 48 hours of life. Give the first SSC certificate to both dad and mom (in the drawer in front of Bay 1)
- "Out of the Box" time: We are working on improving our babies' time out of the isolette, so encourage parents to swaddle hold as well as skin to skin and document in the NICU family/developmental flowsheet. Hold the baby while do gavage feed when you can.
- Infant massage** - Video is in ebook – PT starts education at 32 weeks
- Cris gives out minky blanket to all NICU families & write it on sticky notes
- R.O.A.R:** Reach out and Read: Encourage parents/staff to read to their baby 10 minutes per shift (30 minutes a day) to improve positive vocal exposure. Team provides a "welcome book bag" to all NICU families—write it on sticky notes. Spanish books are available
- Document reading/talking/singing/massage in the NICU family/devopmental flowsheet.
- FCC Checklist:** Physicians will add an FCC checklist to the treatment team sticky note in epic under overview. This provides an area for the MDs and nurses to track and check off information that has been communicated with the family. Please discuss the checklist items

with parents and check off after discussion to promote consistent delivery of information to parents.

- iPads/MyChart:** Unit clerks will provide the parents with an iPad or activate parents' personal iPad. iPads provide all infants' medical information to the parents including access to physician notes and nursing notes. **Bottle feeding info** flyer left it at the bedside. Give this to families
- Multi-disciplinary rounds:** Parents encouraged to be present for weekly rounds at the bedside each Wednesday between 10:30-11:30 am.
- If <32 weeks, physician provides a **bedside binder** to the parents at approximately one week of life which has great developmental care resources for parents.

Discharge

- All unit specific discharge teaching is in MyChart Bedside. **Start the process early** at the time of admission, check in with parents intermittently. Reading out loud DC teaching on the iPad while doing Skin to Skin counts for ROAR time too.
- Homecoming checklist given to parents when the babies are close to 50% taking bottle feed. Give it to them if they haven't received one
- Neonatologists do care conference for all babies <32 weeks or <1500 grams when they are close to taking 50% po feed.
- Nurse: Encourage parents to complete the discharge education information and encourage them to do more hands on skills. **iPad is not a replacement for discharge education**

Family Centered Care Support

- Parent Buddy program – Offered to all <32 weeks infants' parents to connect them with former NICU parents for emotional support. Inform neonatologist if anyone has interest to join.
- SLACK: Parent run EGH NICU community for current NICU parents of babies < 32 weeks to connect with former NICU parents for support. Get current parents' email if they are interested to join and give it to on service neonatologist.
- Parent exchange group (Tammy, Michelle, Dr.B) – Encourage parents to attend when you see fliers posted to connect with other parents.
- FPC- Family Partnership Council (former NICU parents sit on this council and advise on our QI work to make sure our work is meaningful for NICU families).
- Follow Up call (Julie, Linda, Kim, Judy) – call all the discharges within a week to learn about our unit strengths and weaknesses.

Signatures:

Name:

Trainer

Limitations/Possible Solution

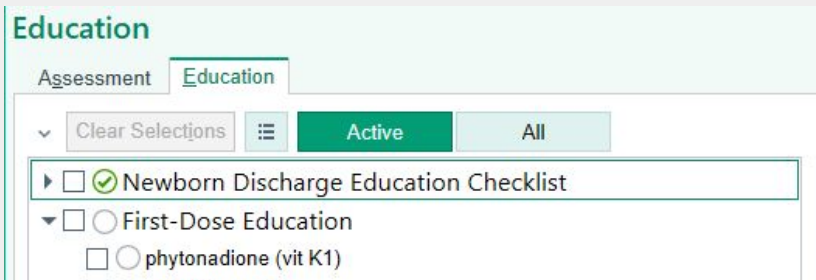
- Writing the unit specific contents
 - Use current education content or NPA guidelines (great project for med students)
- Generalization to large high acuity NICU
 - It is still possible to assign the education once the baby is stable
 - Finding champions to run the program
- Not available in other languages yet
 - What are doing for your current Non English Language Preference families?
 - Based on your unit needs, you can get funds for translating materials
- Availability of iPads for each bedside
 - Support from Foundation/ philanthropy - share nurses time saved data, reducing burn out, improving patient experience
- What about if families are technologically challenged
 - Everyone uses smartphones and easy to teach them

CONTINUOUS IMPROVEMENTS

Discharge Demonstration Checklist

- Education in MCB does not replace direct bedside teaching!
- Families still need to demonstrate certain tasks prior to discharge

MCB Discharge Education complete

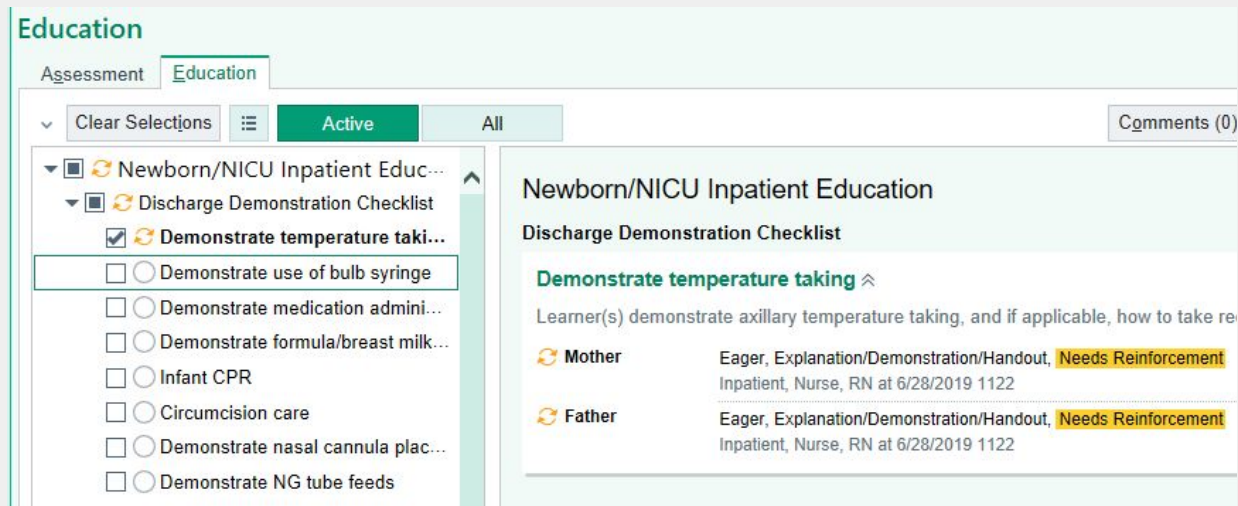


Education

Assessment Education

Clear Selections Active All

- Newborn Discharge Education Checklist
- First-Dose Education
 - phytonadione (vit K1)



Education

Assessment Education

Clear Selections Active All Comments (0)

- Newborn/NICU Inpatient Education
 - Discharge Demonstration Checklist
 - Demonstrate temperature taking
 - Demonstrate use of bulb syringe
 - Demonstrate medication administration
 - Demonstrate formula/breast milk preparation
 - Infant CPR
 - Circumcision care
 - Demonstrate nasal cannula placement
 - Demonstrate NG tube feeds

Newborn/NICU Inpatient Education

Discharge Demonstration Checklist

Demonstrate temperature taking

Learner(s) demonstrate axillary temperature taking, and if applicable, how to take re

Mother	Eager, Explanation/Demonstration/Handout, Needs Reinforcement Inpatient, Nurse, RN at 6/28/2019 1122
Father	Eager, Explanation/Demonstration/Handout, Needs Reinforcement Inpatient, Nurse, RN at 6/28/2019 1122

Adding Spanish Discharge Education

Change preferred language

Demographics

Clinical Information

Preferred Language

Delete current (English) Family Reading

Education

Select checkbox

Delete

“Data entry error”

Delete

Close and re-open chart

Spanish checklist assigned next time chart opened

*** Preferred Language now copied from mother's chart to baby's at birth!

Clear Selections

Active

All

- Newborn/NICU Inpatient Education
- Family Reading - Discharge Education Checklist
 - Newborn Care
 - Introduction
 - How to take a temperature
 - Use of bulb syringe (suction)
 - Bathing - Infant
 - Diapering/Genital Care
 - Cord Care
 - Newborn Screening Tests
 - Newborn Screening Tests for All Babies
 - Preterm screening tests (for babies less than 3...
 - Nutrition and Feeding
 - Feeding Your Baby
 - Transition to Home
 - Easing the Transition to Home
 - Tips and Tricks for Transition to Home
 - Circumcision Care
 - Back to Sleep - Positioning for Sleep
 - Tummy Time
 - Comforting your baby
 - Infant CPR
 - Pets at home
 - NICU Discharge Medications
 - Follow-up appointments
 - When to call the pediatrician
 - Safety tips

Family Reading - Discharge Education Checklist

Newborn Care

Introduction

Not started

How to take a temperature

Demonstrate axillary temperature taking and explain the normal range of axillary temperature. If applicable, demonstrate how to take rectal temperature and explain the normal range of rectal temperature.

Delete Education

To mark the item as done, Go Back and select Resolve.
To mark the item as not applicable for the current visit, Go Back and select Mark Not Applicable.

Enter a reason for deleting these items from the patient's education record, if this was added in error.

Reason:

Delete

Go Back

Diapering/Genital Care

Demonstrate changing of soiled diapers and use of ointments to prevent diaper rash. Instruct on the need of frequent diaper changes and the importance of handwashing after changing the diaper.

Not started

Cord Care

Educate parents to leave cord dry and open out of diaper area. Instruct the patient/caregiver to sponge bathe infant until cord falls off in approximately 7 to 10 days.

Not started

Comments (0)

Hide Descriptions

Patient Handouts

How to take a temperature
[Taking an Axillary Temperature](#)

Use of bulb syringe (suction)
[Use of Bulb Syringe](#)

Cord Care
[Diapering with Umbilical Cord](#)

Newborn Screening Tests for All Babies
[For more details, click here to...](#)

Preterm screening tests (for babies less than 32 weeks gestation or less than 1500 grams at birth)
[Placing your baby in the car seat](#)

Feeding Your Baby
[EMMI Video on Breastfeeding](#)
[Mixing and Warming Formula](#)

Circumcision Care
[How to Care for Your Baby's P...](#)

Back to Sleep - Positioning for Sleep
[Safe Sleep Recommendations...](#)
[How to swaddle your baby](#)

NICU Discharge Medications

Add Title

Add Point

Delete

Resolve

Mark Not Applicable

Document

Infant Massage

- Automatically assigned at 32 weeks CGA
- Short description of benefits
- Video link starring Karen Brady, PT
- English & Spanish
- Available post-discharge if not deleted

The screenshot shows a software interface with a teal header and two tabs: 'Assessment' and 'Education'. The 'Education' tab is active. Below the tabs, there are three buttons: 'Clear Selections', a menu icon (three horizontal lines), and 'Active'. A list of educational items follows, each with a right-pointing arrow, a checkbox, and a radio button. The items are: 'Newborn/NICU Inpatient Educ', 'Family Reading - Discharge Ed', 'Family Reading - Breastmilk Pu', 'Family Readings - Discharge Ed', and 'NICU Infant Massage'. The 'NICU Infant Massage' item is expanded, showing two sub-items: 'Benefits of Infant Massage' and 'Performing Infant Massage', both with checked checkboxes and radio buttons.

Education

Assessment **Education**

> Clear Selections ☰ Active

- ▶ Newborn/NICU Inpatient Educ
- ▶ Family Reading - Discharge Ed
- ▶ Family Reading - Breastmilk Pu
- ▶ Family Readings - Discharge Ed
- ▼ **NICU Infant Massage**
 - Benefits of Infant Massage**
 - Performing Infant Massage**

New Breastmilk Pumping “Book”

Education ?

Assessment **Education**

Clear Selections **Active** All

- Newborn/NICU Inpatient Education
- Family Reading - Discharge Education Check--
- Family Reading - Breastmilk Pumping**
 - Lactation Services**
 - Breastmilk Expression**
 - Using Breast Pump**
 - Hand Expression**
 - Practical Pumping Tips**
 - Appropriate Breastmilk Volumes**
 - Breastmilk Storage Tips**
- NICU Infant Massage
- Handouts for NICU Diagnoses
- First-Dose Education

Comments (0) Hide Descriptions

Family Reading - Breastmilk Pumping

Lactation Services

Introduction to Lactation Services

Mother Acceptance, Handout, Indicates Understanding in Bedside [Tablet](#), Bedside at 1/22/2022 1916

Breastmilk Expression

Using Breast Pump

Mother Nonacceptance, Handout, **Indicates Has Questions in Bedside** [Tablet](#), Bedside at 1/22/2022 1916

Hand Expression

Mother Acceptance, Handout, Indicates Understanding in Bedside [Tablet](#), Bedside at 1/22/2022 1916

Practical Pumping Tips

Appropriate Breastmilk Volumes

- During the first few days after delivery, you may only see drops of colostrum. Colostrum is highly concentrated and present in very small quantities.
- Most mothers experience their transitional milk coming in between 3-5 days after delivery.
- Once you begin collecting 20 mL (combined breasts), your milk is “in.” Your breastmilk volumes will continue to increase gradually over time with frequent, effective milk removal.

Not started

Patient Handouts

Hand Expression
[Hand Expression](#)

Appropriate Breastmilk Volumes
[Pumping volume ranges](#)

Breastmilk Storage Tips
[Breastmilk storage for home](#)

Acknowledgements

- Dr. Kari McCallie – Epic Physician Builder
- ECH Neonatologists
- ECH staff
- Nursing manager and leadership team
- Family Advisory Board now FPC
- Administrative support
- Patient Experience
- Marketing
- IT department



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**Using technology to provide early and consistent discharge
education to NICU Families**



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Q&A



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Family-Centered Care Taskforce

Improving family integration in NICU care



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Chris Sanchez, MD



Future Webinars



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May 11

- "Family engagement and QI" with Dr. Meg Parker & Molly Wylie
- "VON Family engagement QI work examples" with Marybeth Fry & Lelis Vernon

July 20

- "The I-Rainbow: A flexible, evidence-based care path for providing developmental care in the NICU" with Dr. Melissa Scala & Dr. Eilish Byrne
- "Connecting with families post discharge" with Dr. Daphna Barbeau
- "Mental Health Support" with Mammha founder Ms. Maureen Fura

September 28

- "Family Integrated Care" with Dr. Karel O'Brien

November 9*

- "Helping Families Cope and the Ethics of FICare" with Dr. Annie Janvier
- "Family Integrated Care Interventions May Improve Preterm Infant and Maternal Outcomes Compared with Family-Centered Care in U.S. NICUs" with Dr. Linda Franck