

2015

Reducing Readmissions for Newborns with Hyperbilirubinemia

Kristi Patterson

CentraCare Health, pattersonk@centracare.com

Follow this and additional works at: https://digitalcommons.centracare.com/nursing_posters



Part of the [Other Nursing Commons](#)

Recommended Citation

Patterson, Kristi, "Reducing Readmissions for Newborns with Hyperbilirubinemia" (2015). *Nursing Posters*. 50.
https://digitalcommons.centracare.com/nursing_posters/50

This Book is brought to you for free and open access by the Posters and Scholarly Works at DigitalCommons@CentraCare Health. It has been accepted for inclusion in Nursing Posters by an authorized administrator of DigitalCommons@CentraCare Health. For more information, please contact schlepers@centracare.com.



Reducing Readmissions for Newborns with Hyperbilirubinemia

Kristi Patterson, RN BSN

Performance Improvement, Value and Analytics
St. Cloud Hospital, St. Cloud, Minnesota



Purpose Statement

The purpose of this project is to reduce 30 day readmission rates by 20% for normal newborns with hyperbilirubinemia on their index admission by utilizing the AAP clinical practice guideline including:

- Utilizing the AAP nomogram based on age in hours
- Screening prior to discharge
- Implementing the recommended interventions at discharge

Synthesis of Evidence

Over 40 articles were reviewed and graded utilizing the AACN Levels of Evidence with 6 key articles identified.

Table 1.
AACN Level of Evidence & Key Findings

Evidence Level:	Key Findings:
Evidence Level B: Well-designed controlled studies, both randomized and nonrandomized, with results that consistently support a specific action, intervention, or treatment	<ul style="list-style-type: none"> • Universal pre-discharge TSB • TcB not to be used in isolation of clinical presentation or based on a single reading
Evidence Level D: Peer-reviewed professional organizational standards, with clinical studies to support recommendations	<ul style="list-style-type: none"> • Systematic assessment of all newborns prior to discharge • Report age in hrs • Provide phototherapy equip before DC • TSB/TcB between 24-72 h in all infants
Evidence Level E: Theory-based evidence from expert opinion or multiple case reports	<ul style="list-style-type: none"> • Screening is a key intervention • Visual inspection alone is insufficient

Team Members

- Carla Bieniek, Case Manager
- Melissa Erickson, Clinical Resource Nurse
- Amy Junes, Educator
- Dr. Kathy Kulus, Pediatric Hospitalist Program
- Terri Nicoski, Nursery Nurse
- Jeannie Olson, Core Charge
- Kristi Patterson, Performance Improvement

Ad hoc Members:

- Michelle Scepaniak, Case Manager
- Dr. Elaina Lee, Pediatrician

Pre/Post Measures

Table 1.
Process Measures: Pre- and Post-Implementation

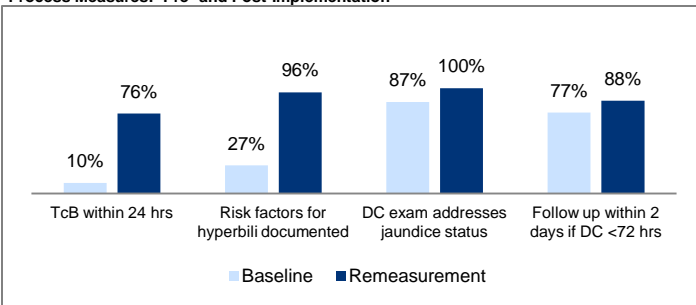


Table 2.
Outcome Measure: 30 Day Readmissions by Quarter

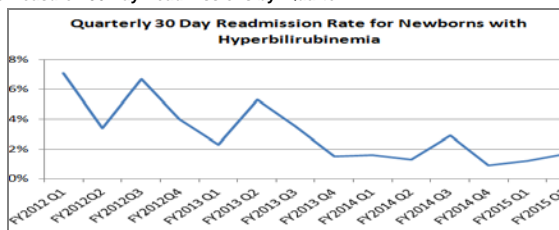
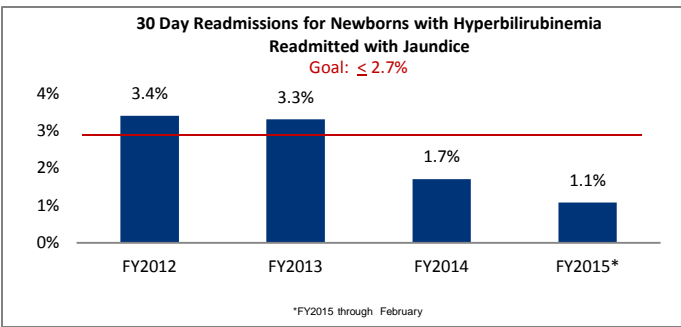


Table 3.
Outcome Measure: 30 Day Readmission by Fiscal Year



EBP Practice Changes

Policy & Practice	<ul style="list-style-type: none"> • Align policy, order set, & documentation with American Academy of Pediatrics Clinical Practice Guideline • Implement amber tubes for lab draws to minimize light exposure • Automate age in hours calculation
Epic, Coding, Documentation	<ul style="list-style-type: none"> • Revise provider discharge summary template • Create nursing flowsheet group to standardize assessment & documentation • Coder & Provider education re: clinically significant hyperbilirubinemia
Early Screening & Intervention	<ul style="list-style-type: none"> • Embed BilTool into Epic • Initiate TcB on all infants within 24 hrs & repeat at least every 24 hrs until DC • Phototherapy initiated by nursing as indicated by the BilTool
Care Transitions	<ul style="list-style-type: none"> • Follow up based on DC time & risk assessment • Establish DME availability 365 days/yr & consistent mode of delivery • Seek funds for home phototherapy equipment • Home Care & OP Clinic collaborative
Patient Education	<ul style="list-style-type: none"> • Standardize content • Educate all newborn families at discharge

References

Alkaly, A.L., Brese, C.J., & Simmons, C.F. (2010). Decreased neonatal jaundice readmission rate after implementing hyperbilirubinemia guidelines and universal screening for bilirubin. *Clinical Pediatrics*, 49(9), 830-833.

Allegro, D. & Young, M. (2009). Program helps in early identification and treatment of neonatal hyperbilirubinemia. *Canadian Nurse*, 105(6), 6-7.

American Academy of Pediatrics. (2004). Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation. *Pediatrics*, 114 (1), 297-316.

Barrington, K. J. & Sankaran, K. (2007). Guidelines for detection, management and prevention of hyperbilirubinemia in term and later preterm newborn infants (35 or more weeks' gestation). *Pediatric Child Health*, 12(5), 401-407.

Bhutani, V. K., Johnson, L., & Sivieri, E. M. (1999). Predictive ability of a predischage hour-specific serum bilirubin for subsequent significant hyperbilirubinemia in healthy term and near-term newborns. *Pediatrics*, 103(1), 6-14.

National Institute for Health and Clinical Excellence. (2010). Neonatal jaundice quick reference guide. *NICE clinical guideline*, 1-18.



Reducing Readmissions for Newborns with Hyperbilirubinemia



CENTRA CARE
St. Cloud Hospital

Purpose

The purpose of this 30 day readmission normal newborns w on their index adm AAP clinical practic

- Utilizing the AAP i age in hours
- Screening prior to
- Implementing the r interventions at dis

Synthesis

Over 40 articles were reviewed with 6 key articles identified.



se

Dr. Kathy Kulus-Medical Director Pediatric Hospitalist Program
Terri Nicoski, Nursery Nurse
Jeannie Olson, Core Charge
Kristi Patterson, Performance Improvement

Ad hoc M
Michelle S
Dr. Elaine

Level	Description	# Key Articles	Key Findings
B	Well-designed controlled studies, both randomized and nonrandomized, with results that consistently support a specific action, intervention, or treatment	2	<ul style="list-style-type: none"> Universal pre-discharge TSB TcB not to be used in isolation of clinical presentation or based on a single reading
D	Peer-reviewed professional organizational standards, with clinical studies to support recommendations	3	<ul style="list-style-type: none"> Systematic assessment of all newborns prior to discharge Report age in hrs Provide phototherapy equip before discharge TSB/TcB between 24-72 h in all infants
E	Theory-based evidence from expert opinion or multiple case reports	1	<ul style="list-style-type: none"> Screening is a key intervention Visual inspection alone is insufficient

Changes

- Order set, & documentation with
- Order tubes for lab draws
- Order education
- Order DC summary template
- Order docflowsheet group
- Order into Epic
- Order ts within 24 hours & repeat at hrs until DC
- Order es phototherapy per BillTool

Patient Education

- Standardize content
- Educate all newborn families at discharge

Care Transitions

- Follow up based on time of discharge & risk assessment
- DME: establish availability 365 days/year
- Collaborate with Home Care

References

Alkaly, A.L., Brese, C.J., & Simmons, C.F. (2010). Decreased neonatal jaundice readmission rate after implementing hyperbilirubinemia guidelines and universal screening for bilirubin. *Clinical Pediatrics*, 49(9), 830-833.

Allegro, D. & Young, M. (2009). Program helps in early identification and treatment of neonatal hyperbilirubinemia. *Canadian Nurse*, 105(6), 6-7.

American Academy of Pediatrics. (2004). Management of hyperbilirubinemia in the newborn infant 35 or more weeks of gestation. *Pediatrics*, 114 (1), 297-316.

Barrington, K. J. & Sankaran, K. (2007). Guidelines for detection, management and prevention of hyperbilirubinemia in term and later preterm newborn infants (35 or more weeks' gestation). *Pediatric Child Health*, 12(5), 401-407.

Bhutani, V. K., Johnson, L., & Sivieri, E. M. (1999). Predictive ability of a predischage hour-specific serum bilirubin for subsequent significant hyperbilirubinemia in healthy term and near-term newborns. *Pediatrics*, 103(1), 6-14.

National Institute for Health and Clinical Excellence. (2010). Neonatal jaundice quick reference guide. *NICE clinical guideline*, 1-18.

Table 2. Outcome Measure: 30 Day Readmissions by Quarter

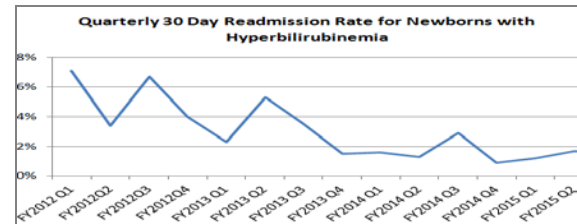
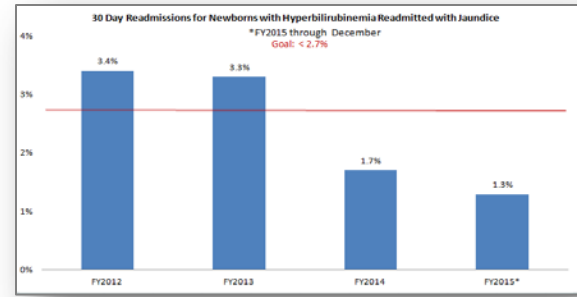


Table 3. Outcome Measure: 30 Day Readmission by Fiscal Year





Reducing Readmissions for Newborns with Hyperbilirubinemia

Kristi Patterson, RN BSN

Performance Improvement, Value and Analytics
St. Cloud Hospital, St. Cloud, Minnesota



Purpose Statement

The purpose of this project is to reduce 30 day readmission rates by 20% for normal newborns with hyperbilirubinemia on their index admission by utilizing the AAP clinical practice guideline including:

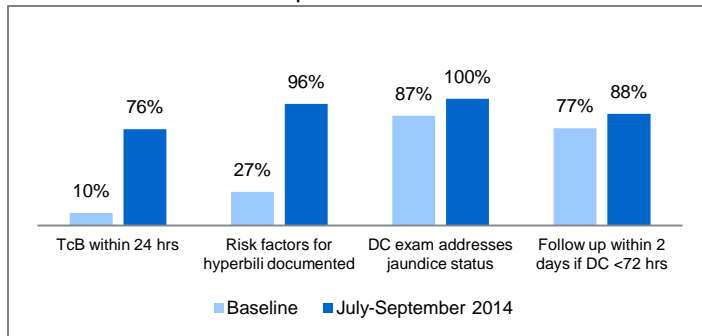
- Utilizing the AAP nomogram based on age in hours
- Screening prior to discharge
- Implementing the recommended interventions at discharge

Synthesis of Evidence

Over 40 articles were reviewed with 6 key articles identified.

Pre/Post Measures

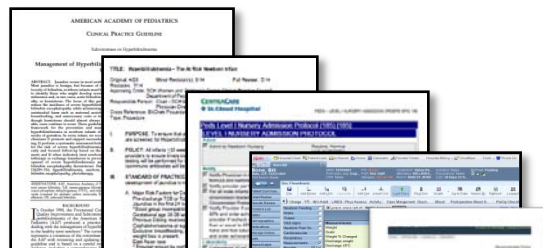
Table 1. Process Measures: Pre- and Post-Implementation



Quarterly 30 Day Readmission Rate for Newborns with Hyperbilirubinemia

EBP Practice Change

1. Engage nurses and physicians
2. Align policy & practice with the AAP Clinical Practice Guideline
3. Early screening & intervention
4. Standardize assessments, interventions, and documentation
5. Address care transitions



Team

Carla Bieniek, C
Melissa Erickson
Amy Junes, Edu
Dr. Kathy Kulus-
Hospitalist Progr
Terri Nicoski, Nu
Jeannie Olson, C
Kristi Patterson,

Ad hoc Members
Michelle Scepan
Dr. Elaina Lee, P

pattersonk@cen

Project Title	Project Description	Project Goals	Project Objectives	Project Outcomes	Project Evaluation	Project Impact
Standardizing Discharge Planning	Standardizing discharge planning for newborns with hyperbilirubinemia to ensure consistent assessment and documentation.	Reduce 30-day readmission rates by 20%.	Implement AAP clinical practice guideline for hyperbilirubinemia.	76% TcB within 24 hrs, 96% risk factors documented, 100% DC exam addresses jaundice status, 88% follow up within 2 days.	Quarterly 30-day readmission rate for newborns with hyperbilirubinemia.	Improved patient safety and care transitions.



EBP Project Poster Title

Your name & credentials

Institution, St. Cloud, Minnesota



Purpose Statement

The purpose of this project is to reduce 30 day readmission rates by 20% for normal newborns with hyperbilirubinemia on their index admission by utilizing the AAP clinical practice guideline including:

- Utilizing the AAP nomogram

Synthesis of Evidence

Include bullet points of your literature findings, recommended interventions at appropriate discharge

- Bullet

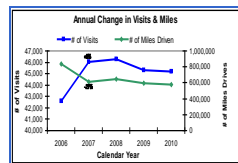
Team Members

Your email here

Pre/Post Measures

Use this template if you want to emphasize measurements/outcomes

Include charts, graphs, policies, orders, Epic screen shots – what ever you can do to show your results
Your pre and post data should be here



EBP Practice Change

References

This can be in font size 6. Template includes APA format as an example provided
Forsyth, D. N., Wright, T., Scherb, C., & Gaspar, P. (2010). Disseminating evidence-based practice projects: Poster design and evaluation. *Clinical Scholars Review*, 3(1), 14-21.



EBP Project Poster Title

Your name & credentials

Institution, St. Cloud, Minnesota



Purpose Statement

Font size recommended at 10

Synthesis of Evidence

Include bullet points of your literature findings, include the grading as appropriate

- Bullet

Team Members

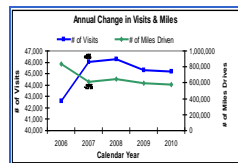
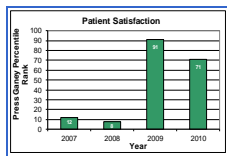
Blank area for team members.

Your email here

Pre/Post Measures

Use this template if you want to emphasize measurements/outcomes

Include charts, graphs, policies, orders, Epic screen shots – what ever you can do to show your results
Your pre and post data should be here



EBP Practice Change

Blank area for EBP Practice Change.

References

This can be in font size 6. Template includes APA format as an example provided
Forsyth, D. N., Wright, T., Scherb, C., & Gaspar, P. (2010). Disseminating evidence-based practice projects: Poster design and evaluation. *Clinical Scholars Review*, 3(1), 14-21.



Research Study Poster Title

Your name & credentials

Institution, St. Cloud, Minnesota



Introduction

Font size recommended at 10

Research Problem/ Question

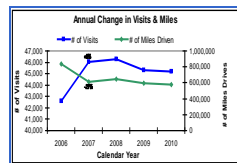
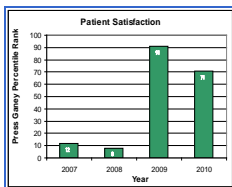
Methodology

Include bullet points of your literature findings, include the grading as appropriate

- Bullet

Analysis/Results

Include charts, graphs, policies, orders, Epic screen shots – what ever you can do to show your results
Your pre and post data should be here



Conclusions/Implications

Acknowledgements/Funding

(if appropriate)

References

This can be in font size 6. Template includes APA format as an example provided
Forsyth, D. N., Wright, T., Scherb, C., & Gaspar, P. (2010). Disseminating evidence-based practice projects: Poster design and evaluation. *Clinical Scholars Review*, 3(1), 14-21.



Performance Improvement Poster Title



Your name & credentials

Institution, St. Cloud, Minnesota

Plan

Identify and analyze the problem

Do

Identify the solution

- Bullet

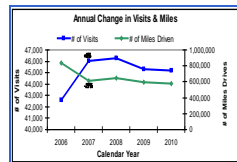
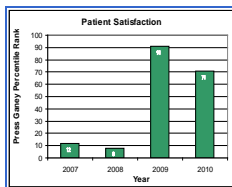
Team Members

Your email here

Check

Gather data and evaluate

Include charts, graphs, policies, orders, Epic screen shots
 – what ever you can do to show your results
 Your pre and post data should be here



Act

Standardize the solution – systematic changes and training needs for full implementation

References

This can be in font size 6. Template includes APA format as an example provided
 Forsyth, D. N., Wright, T., Scherb, C., & Gaspar, P. (2010). Disseminating evidence-based practice projects: Poster design and evaluation. *Clinical Scholars Review*, 3(1), 14-21.