BASIC Teams Call: Finding and Prioritizing your BASIC Opportunities

February 15, 2021

1:00 – 2:00pm

Call Overview

- Housekeeping Items
- BASIC Data Overview & FAQs
- Readiness Survey Results
- QI Corner: Using Readiness Survey Results + Prioritization Matrix to Plan PDSA #1
- Common Questions and Answers
- BASIC Data Question Office Hours (After Call)

HOUSEKEEPING ITEMS

Build Your Teams QI Capacity!

Are you or a member of your hospital QI team looking to learn and build quality improvement skills and strategies?

- ILPQC will be offering every ILPQC hospital team at least 1 spot for a member to take QI courses with the Institute for Healthcare Improvement (IHI) Open school for two years!
- Details coming Summer 2021!

2021 Virtual Face-to-Face

ILPQC 2021 Virtual Face-to-Face Volunteers

Interested in helping to help make F2F a success!

Join our planning committee today!

- ILPQC is now recruiting volunteers for our 2021 F2F Planning Committee
- Planning Committee member roles:
  - Attend bi-weekly zoom meetings (March-May)
  - Provide insight and feedback on F2F items

2021

Annual Conference

October 28, 2021

BASIC DATA OVERVIEW AND FAQS

ILPQC BASIC Vision & AIMS

Vision: ILPQC hospitals, regardless of perinatal level or past experience with implementing newborn antibiotics initiatives, will implement best practices to provide: the right antibiotics to the right babies for the right duration

AIMs:

- Decrease by 20% (or absolute rate of 4%) the number of newborns, born at ≥35 weeks who receive antibiotics
- Decrease by 20% the number of newborns with a negative blood culture who receive antibiotics for longer than 36 hours

Measures:

- % of newborns with EOS risk assessment tool used and documented
- % of parents/families provided education on antibiotics, EOS, and treatment plan for their newborn
- % of parents/families provided education in their preferred language
- % of newborns receiving abx with documentation of maternal risk factors for EOS in their chart
- % of newborns with anticipated duration of abx course discussed by clinical team
- % of newborns with antibiotic automatic stop order in medical chart

BASIC Data Collection

Patient-level Data

ILPQC Babies Antibiotic Stewardship Improvement Collaborative (BASIC)

Monthly Newborn Data Form

Data Collection Instructions:

- Please collect data on all newborns of all gestational ages receiving any intravenous (IV) antibiotics within the first 72 hours of life.
- Exclude newborns requiring surgical procedures or antibiotics for surgical prophylaxis within the first 72 hours of life.
- If a newborn that receives any intravenous (IV) antibiotics within the first 72 hours of life is transferred, the receiving hospital will submit data on the newborn and should request from the transferring hospital any information pertinent to completion of the data form.
- Data will be submitted monthly for all newborns born that month who meet the following definition. Data should be submitted by the 15th of the month for the previous month.

REDCAP Identifiers	
REDCap Record ID	REDCap Record ID: _____ (automatically generated)
Hospital ID Number	Hospital ID Number: _____
A. Maternal Demographics	
1. Maternal Age	Maternal Age: _____
2. Type of Delivery	▫ Vaginal ▫ Cesarean section without labor ▫ Cesarean section with labor
B. Infant Demographics	
3. Location of initial admission	▫ Neonatal Intensive Care Unit (Level 3/4) ▫ Immediate Care/Special Care Nursery (Level 2/2E) ▫ Newborn Nursery (Level 1)
4. Date of Birth (MM/DD/YYYY)	Date of Delivery ____/____/____
5. Time of Birth (hh:mm)	Time of Birth ____ : ____
6. Gestational age at birth (weeks, 0-44)	Gestational age, weeks: ____
7. Gestational age at birth (days, 0-6)	Gestational age, days: ____
8. Birth Weight (grams)	Birth weight: _____
9. Insurance Status	▫ Medicaid/Public ▫ Private

Hospital-level Data

ILPQC BASIC Monthly Structure Measures Data Collection Form

REDCAP Study Identifiers	
1. REDCap Record ID	REDCap Record ID: _____ (automatically generated)
2. Hospital ID Number	Hospital ID Number: _____
3. Please select the time period for this quarterly data:	☐ Baseline (Oct -Dec 2020) ☐ January 2021 ☐ February 2021 ☐ March 2021 ☐ April 2021 ☐ May 2021 ☐ June 2021 ☐ July 2021 ☐ August 2021 ☐ September 2021 ☐ October 2021 ☐ November 2021 ☐ December 2021
Data Monitoring, Transparency, and Stewardship Infrastructure	
Total number of newborns admitted <35 weeks gestation this month (excluding newborns requiring surgical procedures or antibiotics for surgical prophylaxis within the first 72 hours of life): _____	
Total number of newborns admitted <35 weeks gestation this month **transferred out** month (excluding newborns requiring surgical procedures or antibiotics for surgical prophylaxis within the first 72 hours of life): _____	
Total number of newborns born at ≥35 0/7 weeks gestation this month (excluding newborns requiring surgical procedures or antibiotics for surgical prophylaxis within the first 72 hours of life): _____	
Total number of newborns born at ≥35 0/7 weeks gestation this month **transferred out** (excluding newborns requiring surgical procedures or antibiotics for surgical prophylaxis within the first 72 hours of life): _____	
Total number of newborns born at <35 weeks gestation this month that had a blood culture drawn within 72 hours of birth?	
Total number of newborns born at ≥35 0/7 weeks gestation this month that had a blood culture drawn within 72 hours of birth?	
4. Hospital has implemented a process for standardized education for healthcare team on neonatal antibiotic stewardship best practices and equitable care	☐ Haven't started ☐ Working on it ☐ In place
At the end of this month, cumulative proportion of neonatal/pediatric providers educated on neonatal antibiotic stewardship best practices and equitable care	☐ 10% ☐ 20% ☐ 30% ☐ 40% ☐ 50% ☐ 60% ☐ 70% ☐ 80% ☐ 90% ☐ 100%
5. At the end of this month, cumulative proportion of neonatal/pediatric nurses educated on neonatal antibiotic stewardship best practices and equitable care	☐ 10% ☐ 20% ☐ 30% ☐ 40% ☐ 50% ☐ 60% ☐ 70% ☐ 80%

Submitting the Data

	Monthly Patient-Level Measures	Monthly Hospital Measures
Data Collection Form(s) Name	BASIC Monthly Newborn Data Form	BASIC Monthly Hospital Data Form
Who/what are we collecting data on?	Patients: Newborns of all gestational ages receiving antibiotics within 72 hrs of life	Hospital QI systems changes: • patient and provider education • protocol implementation • mapping resources • process flow
Baseline Time Period	October – December 2020 (Quarter 4)	
Baseline Due Date	January 31, 2021	
Prospective Data Collection Start	January 1, 2021	
Prospective Data Due Date	January 2021 due February 28th 2021 15th of the month for future months	

BASIC Team Data Submission

Month	Teams Reporting Patient Data	Teams Reporting Hospital Data
Baseline (Q4 2020)	52 teams (1521 newborns)	36 teams
January 2021	20 teams (153 newborns)	6 teams

Use your hospital data form as a roadmap to guide your efforts. Please contact us if you need help getting started with reviewing and entering your data.

Dan says, "If hospital data is not submitted for a given month we will NOT be able to calculate your team's Antibiotic Prescribing Rate!"

Recognizing your QI effort and work!

A Successful BASIC Launch - ILPQC will award teams at the Face to Face meeting.

To be recognized, please make sure these key steps are complete **by Friday, May 14th:**

- ✓ BASIC Team Roster Submitted
- ✓ BASIC Readiness Survey Submitted
- ✓ BASIC Monthly Newborn Data Submitted for Baseline (Q4 2020) and January – April 2021
- ✓ BASIC Monthly Hospital Level Data Submitted for Baseline (Q4 2020) and January – April 2021

Patient Population

- Submit data on all live born neonates born between 24-44 weeks gestation receiving any intravenous (IV) antibiotics within the first 72 hours of life, including newborns who die within 72 hours of life.

- Exclude newborns requiring surgical procedures or antibiotics for surgical prophylaxis within the first 72 hours of life.

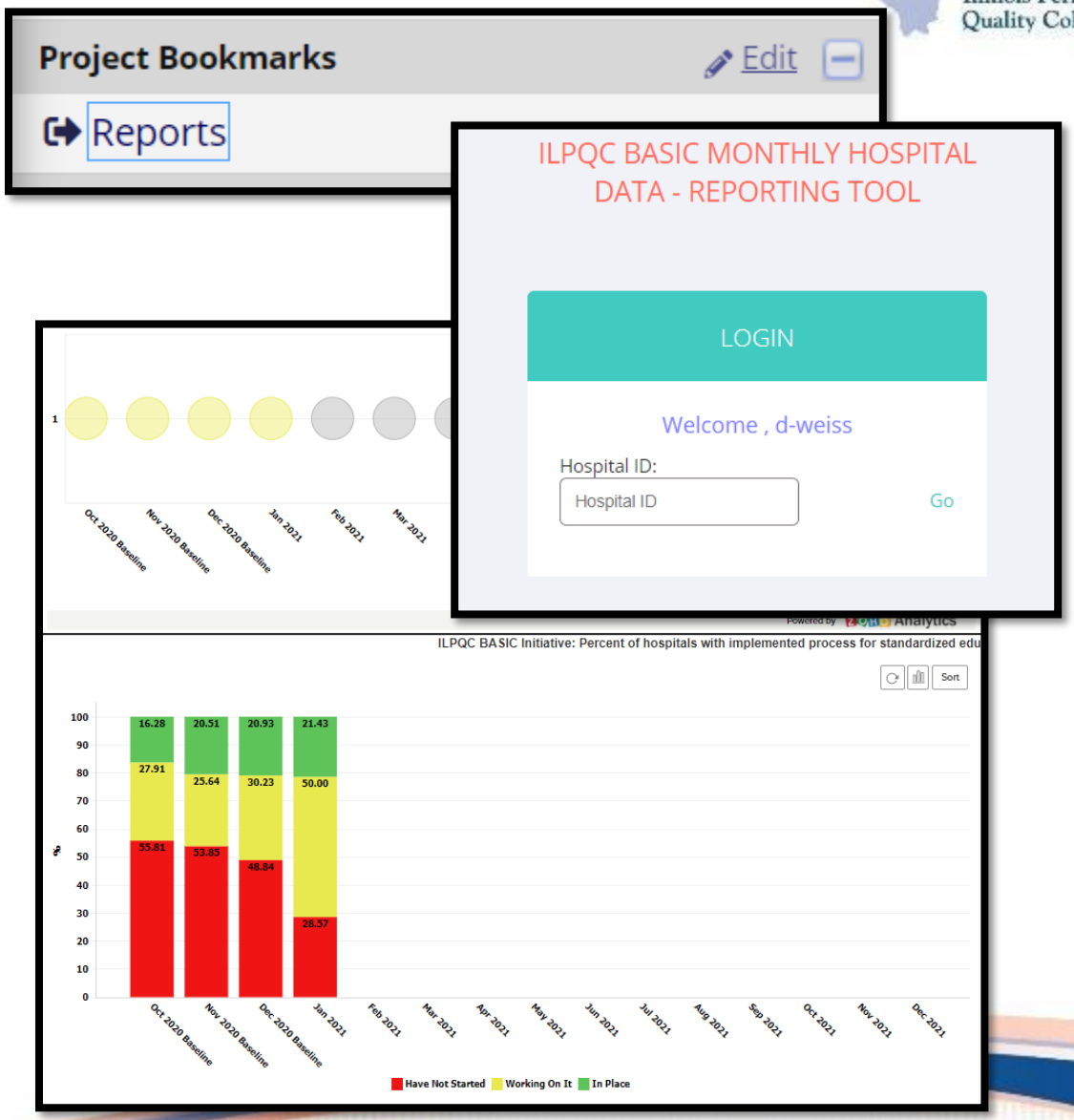
Patient Transfer Data Collection

- If a live born newborn 24-44 weeks gestation receives any intravenous (IV) antibiotics within the first 72 hours of life and is transferred within the first 72 hours of life, the receiving hospital will submit data on the newborn and should request from the transferring hospital any information pertinent to completion of the data form, including newborns who die within 72 hours of life.

- Details available under the QI Initiatives & Data Resources Section of the online toolkit at www.ilpqc.org/basic2021/

Hospital Measure Reports

- ILPQC Hospital Measure Reports are available for teams in REDCap!
- Under the Hospital Measures Project, click Reports and type in your 3-digit hospital ID



BASIC READINESS SURVEY RESULTS

BASIC Key Driver Diagram

AIMS

By June 2022, ILPQC Hospitals will:

A. Decrease by 20% (or absolute rate of 4%) the number of newborns, born at ≥35 weeks who receive antibiotics

B. Decrease by 20% the number of newborns with a negative blood culture who receive antibiotics for longer than 36 hours

Primary Drivers

- Implement QI infrastructure
- Monitor & share transparent antibiotic data
- Initiate timely and appropriate antibiotics
- Administer and de-escalate antibiotics
- Deliver equitable care

Change Ideas

- Create multidisciplinary antibiotic stewardship QI team
- Educate healthcare team on best practices
- Provide standardized education and anticipatory guidance with focus on equitable care to families on EOS and treatment plan
- Coordinate with IT to implement reporting system from EMR
- Review transparent data and debrief with providers
- Standardize risk assessment for early onset sepsis (EOS)
- Communicate with OBs to share maternal risk for EOS
- Implement protocols for serial assessment with response to worsening status
- Consistently obtain blood cultures
- Partner with inpatient lab to process blood culture results
- De-escalate therapy based on culture and sensitivity results
- Implement pharmacy protocols to assure appropriate use
- Standardize dosing guidelines and order sets
- Implement process to discuss antibiotic duration and course
- Implement automatic stop order processes
- Review health quality data stratified by race, ethnicity, and Medicaid status to identify disparities and address opportunities for improvement

2.12.2021

BASIC Key QI Strategies for Hospital teams

BASIC Key QI Strategies

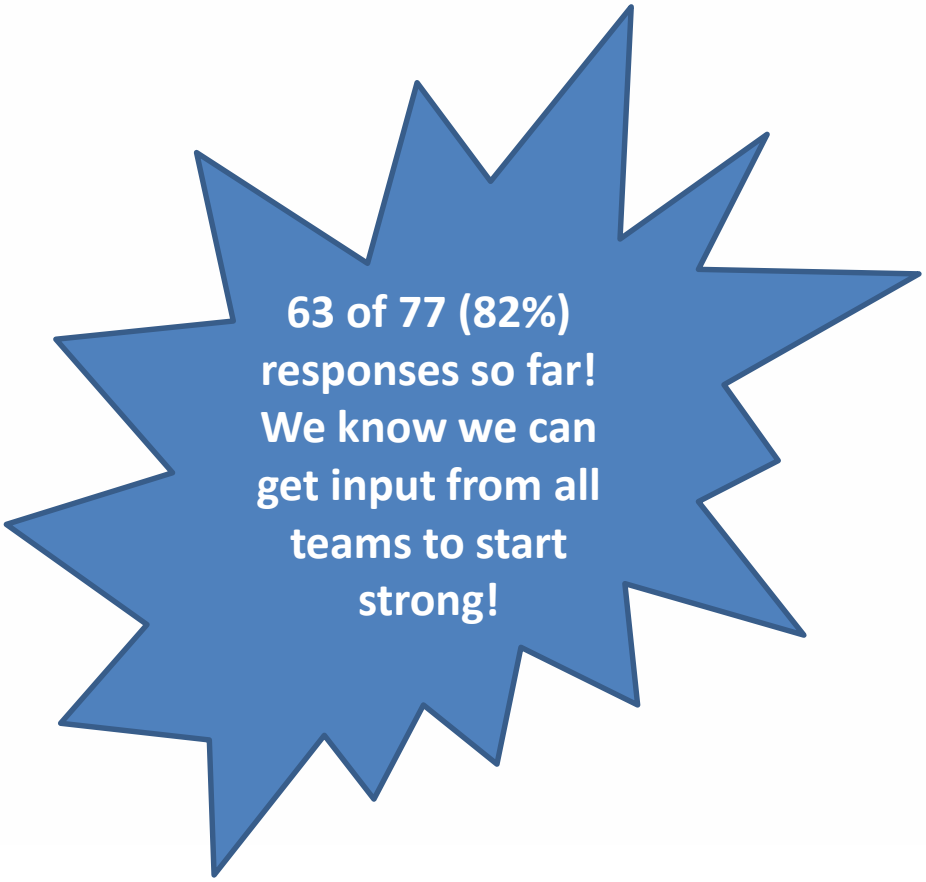
Facilitate clinical culture change that supports antibiotic stewardship (Driver 1)

Develop standardized processes and protocols for the identification and response to support antibiotic stewardship (Driver 2 &3)

Implement strategies and processes to provide equitable care for all newborns (Drive 4)

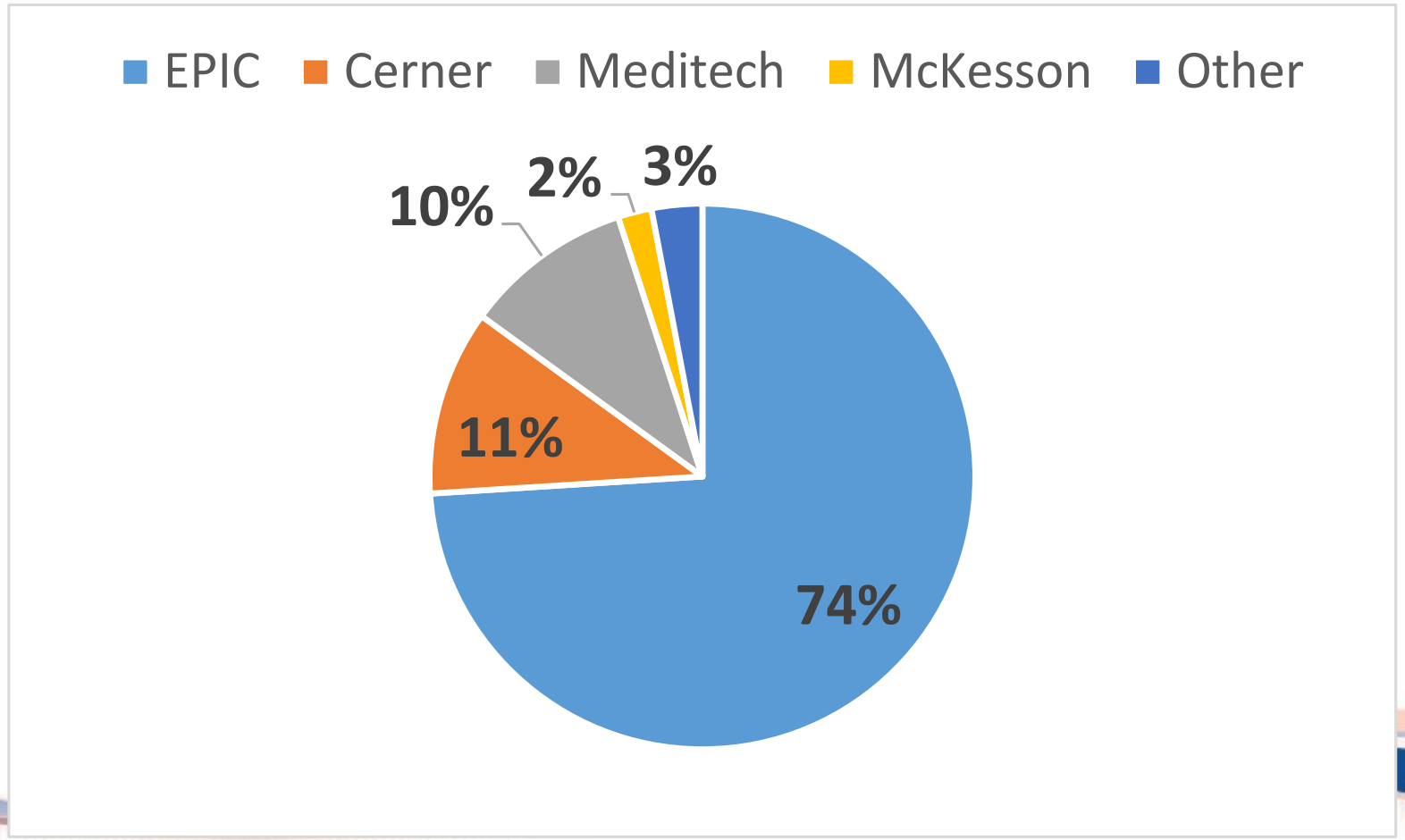
BASIC Readiness Survey

- Thank you to the teams who have submitted their Readiness Survey!
- Don't miss the opportunity to use this valuable QI process:
  - Helps you identify current barriers and opportunities
  - Helps ILPQC know how best to support you
  - Helps identify leaders in the various components of the BASIC initiative to help
- Link to complete here: https://redcap.healthlnk.org/surveys/?s=WNRAREP88P



Driver #1: Data Monitoring, Transparency, and Stewardship Infrastructure

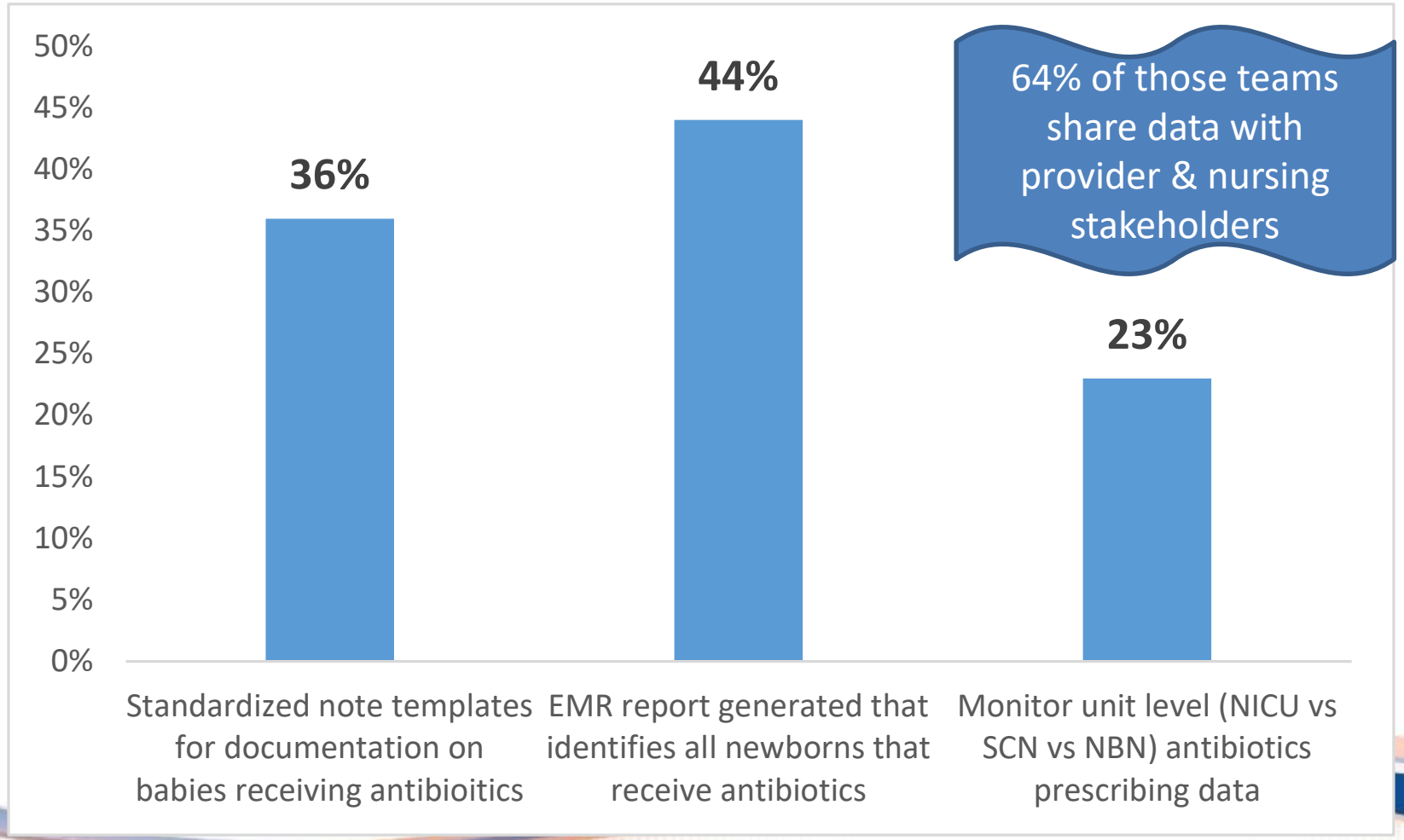
What **electronic health system** is your hospital currently using or will be using as of January 2021?



Driver #1: Data Monitoring, Transparency, and Stewardship Infrastructure

ILPQC Illinois Perinatal Quality Collaborative

Strategies to Optimize Antibiotic Use



Driver #2:
Timely and Appropriate Initiation of Antibiotics

- 75% of teams have a system for **communication between L&D and newborn care teams** regarding maternal & neonatal risk factors for sepsis
- 56% of teams have a protocol for **standardized serial monitoring** of well-appearing babies >= 35 weeks at increased risk of sepsis
- 66% of teams have a protocol for **identification and response** to newborns with a worsening clinical status
- 48% of teams have a **standardized guideline** to assess the risk of EOS and initiation of antibiotics for newborns **< 35 weeks**

But **64%** of those teams reported communication effectiveness of "neutral to somewhat effective"

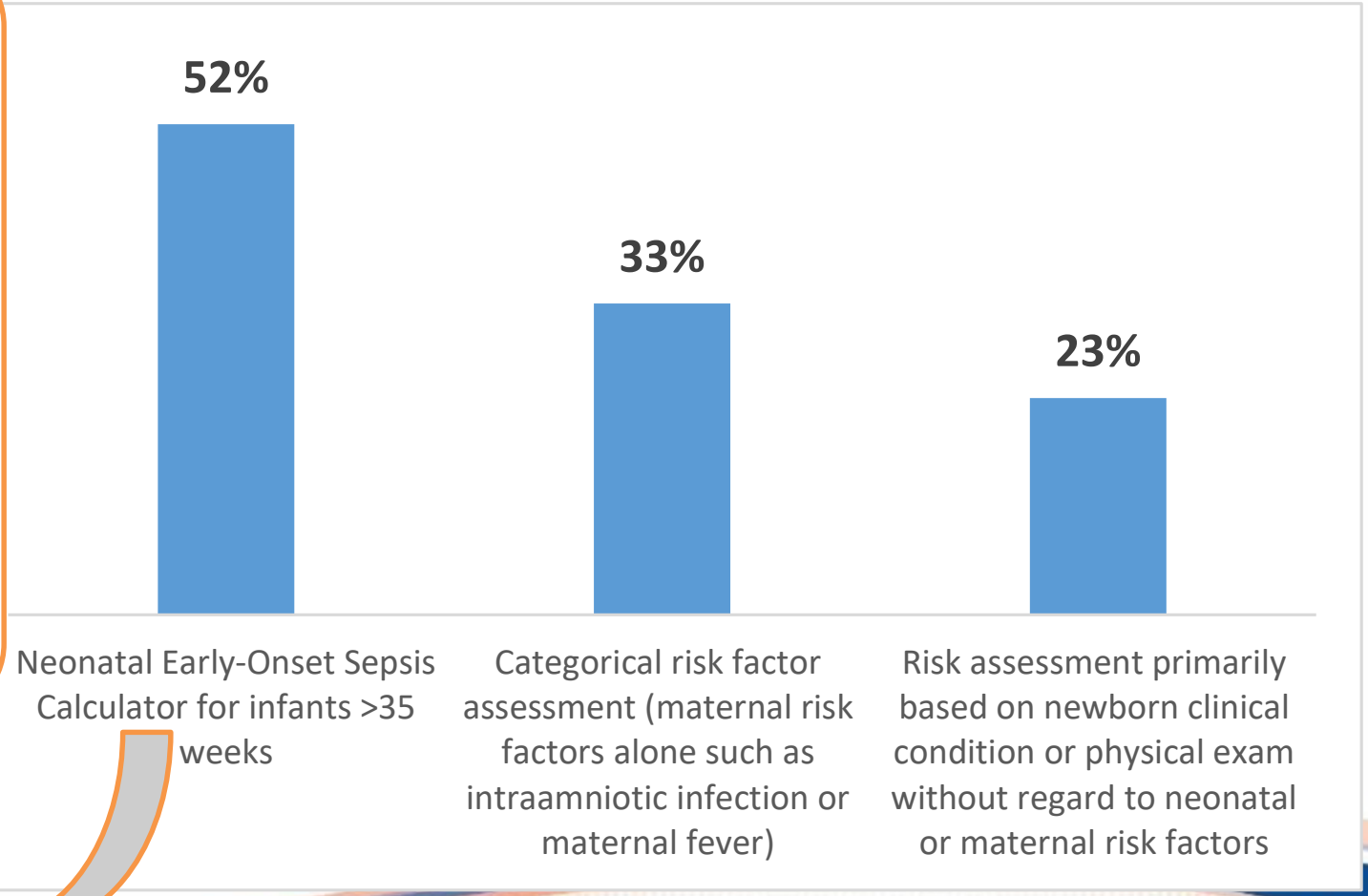
Driver #2:
Timely and Appropriate Initiation of Antibiotics

Risk Assessment Strategies for EOS

16% have NEOSC data automatically entered/populated in EMR

19% have data input into NEOSC by nurses

65% have data input into NEOSC by providers



Driver #2:
Timely and Appropriate Initiation of Antibiotics

How teams use the NEOSC:

- 52% uses **a consistent, standardized process** to use the Neonatal Early-Onset Sepsis Calculator for every infant
- 48% only uses the NEOSC when there are **known risk factors for early-onset sepsis**

Driver #2:
Timely and Appropriate Initiation of Antibiotics

For healthy appearing, term infants who are on antibiotics during a sepsis evaluation, **where are the infants admitted?**

- 52% Mother-baby unit, rooming in with mother - except for actual antibiotics administration
- 46% NICU, special care nursery, or other unit where infant cannot room in with mother

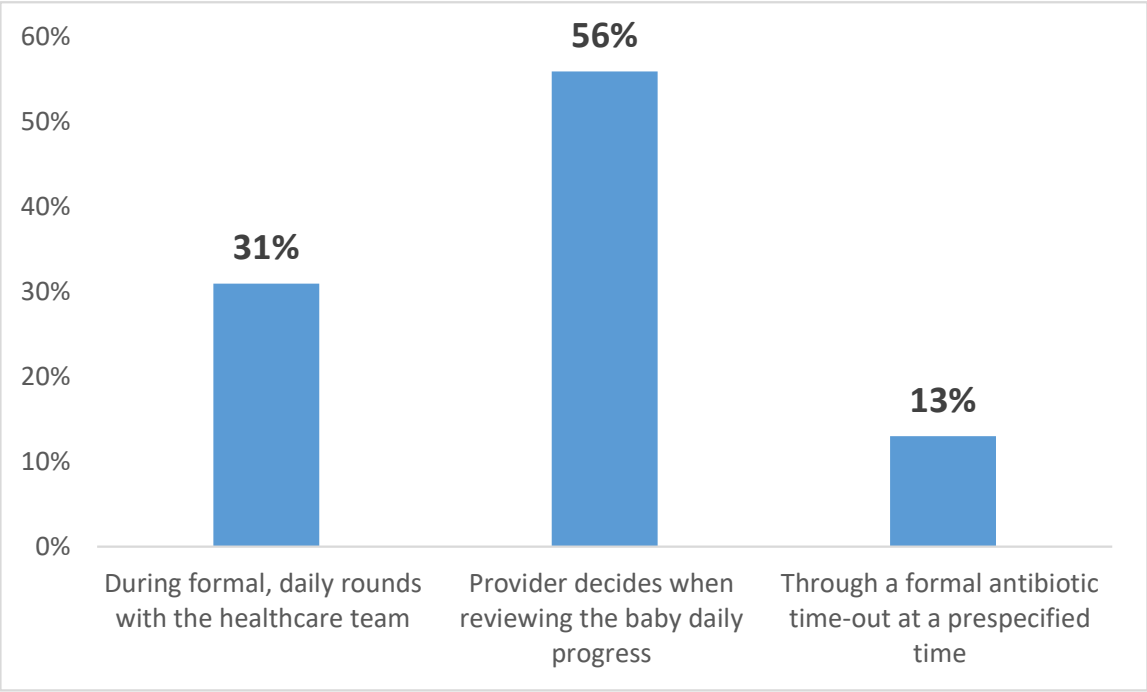
Driver #3:
Appropriate Administration & De-Escalation

Where are hospital blood cultures processed?

- 18% **within the hospital's system**
- 82% **sent out to a reference lab** such as Quest, LabCorp, or similar

Driver #3:
Appropriate Administration & De-Escalation

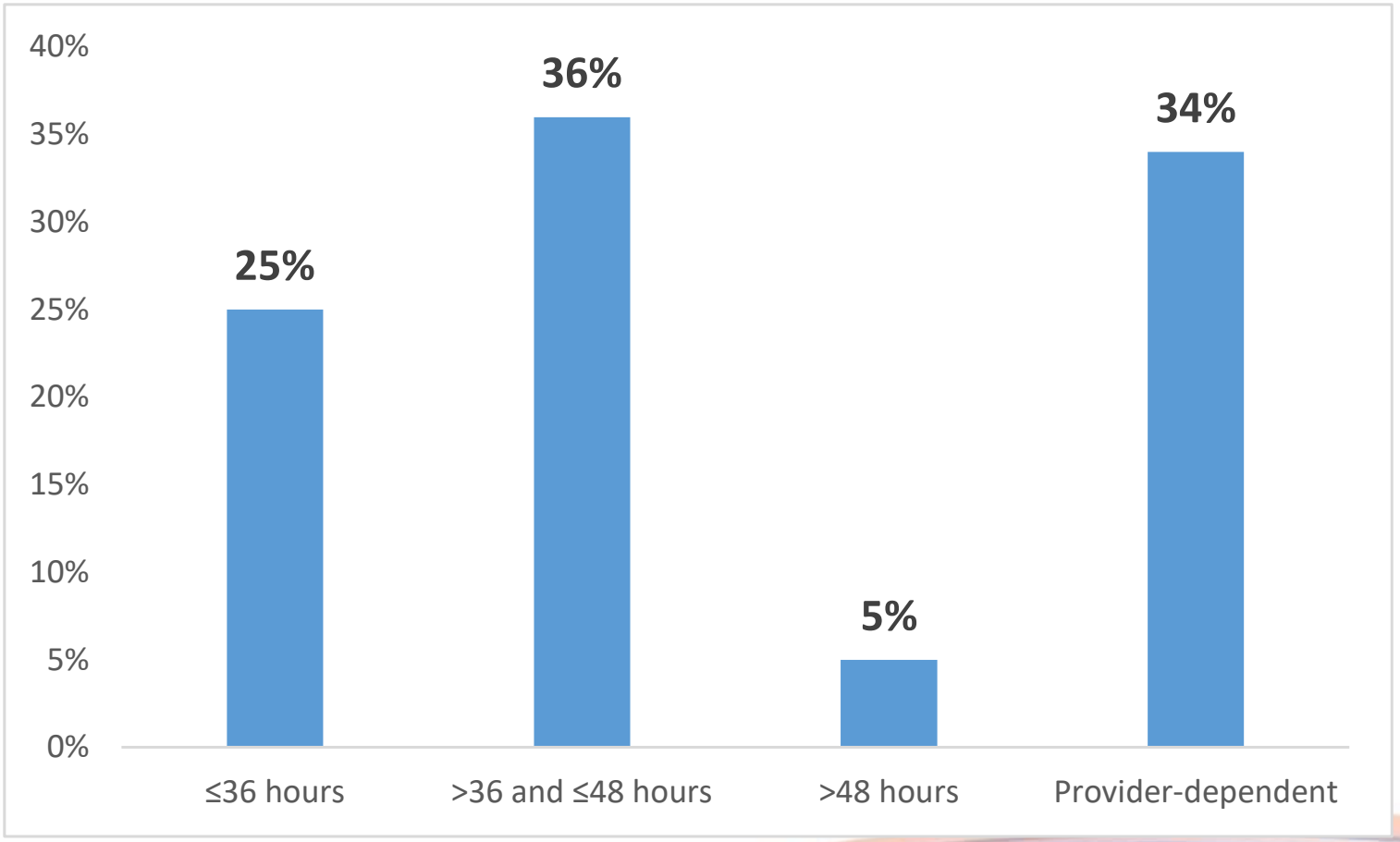
How do your healthcare teams decide the **duration of antibiotic course**?



- 59% of teams have **automatic antibiotic stop order** processes

Driver #3:
Appropriate Administration & De-Escalation

When do your teams stop antibiotics?



Driver #3:
Appropriate Administration & De-Escalation

- 84% of teams have a standardized antibiotic dosing guidelines and order sets for EOS

Driver #4: Equitable Care Delivery

- 75% of teams collect self-reported race and ethnicity as part of the admission process
  - Of those, 11% stratify QI data by race and ethnicity
- 100% of teams have interpreter services 7 days a week
- 62% of teams screen every admitted newborn for social determinants of health to coordinate connection to community resources and follow up

Readiness Survey Results: Next Steps

- ILPQC BASIC teams have reported lots of great strategies already in place for antibiotic stewardship opportunities and collaboration! ILPQC will be reaching out to teams who reported early progress on this initiative for sharing strategies on upcoming calls.

- ILPQC identified specific components of the BASIC initiative that the collaborative can work towards. These will help ILPQC determine QI support strategies and upcoming monthly call topics.

- ILPQC will ensure there are tools and resources in the BASIC online toolkit to help teams standardize care!

QI CORNER: USING READINESS SURVEY RESULTS + PRIORITIZATION MATRIX TO PLAN PDSA #1

Prioritization Matrix- What & Why?

- **What is a Prioritization Matrix?**
  - A QI tool to help your team determine what to focus on what to do first
- **Why use one?**
  - Helps determine your QI focus on what matters most when balancing multiple priorities with limited resources
  - Small wins = momentum

Driver #	Driver name	+or - Importance	+ or - Customer Value	+ or - Resource Intensity	+ or - Resistance	+ or - Total Score	# Priority Rank
	+ or -	+	+	-	-		
1							
2							
3							
4							

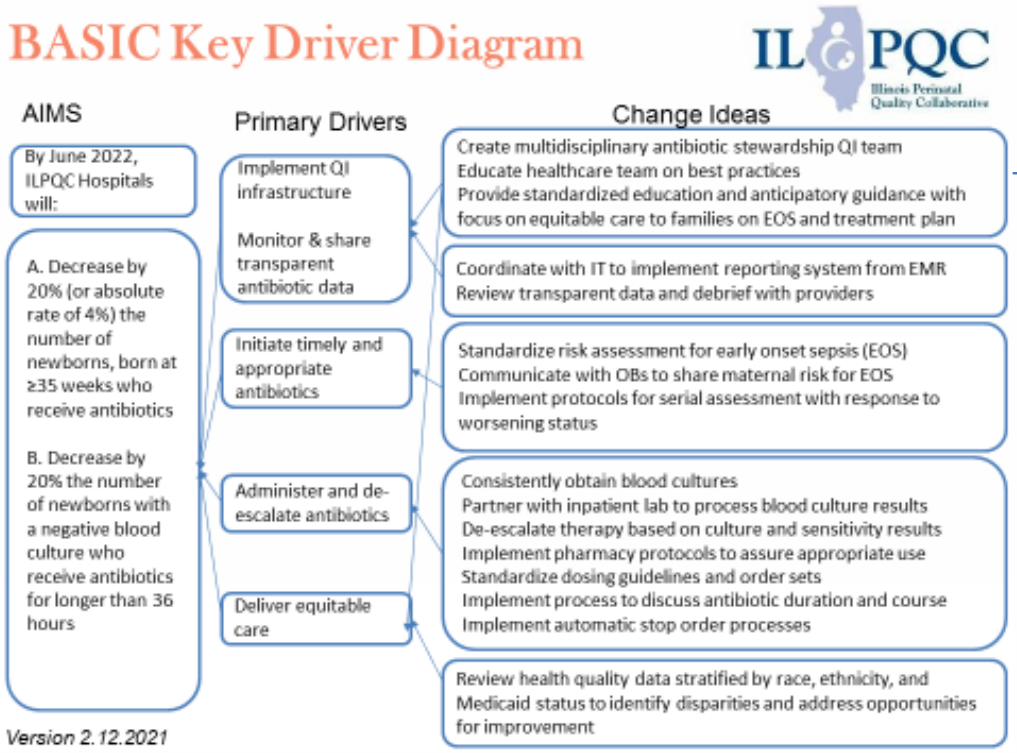
QI Team Meeting; Prioritization Matrix

- **"Quality Collaborative Hospital"**
  - Level 2 hospital
  - 80-90 births/month
  - QI Team Members:
    - Dan: Data Jedi-Master
    - Ellie: Curly Suse the Nurse Champion
    - Autumn: QI Dream Team Lead & Provider Champion
- **Accomplishments**
  - Readiness survey complete and reviewed
  - QI team has a regular meeting set-up
  - Attended data training calls, QI Leader calls and Dec/Jan team call
  - Has started baseline data collection (only halfway through)

BASIC Prioritization Matrix

	Change Ideas	Importance	Customer Value	Resource Intensity	Resistance	Total Score	Priority Rank
		+or -	+ or -	+ or -	+ or -	+ or -	#
	+ or -	+	+	-	-		
1	Provider buy-in around NEOSC Use	+5	+6	-6	-4	1	2
2	EMR report to assist with data entry	+10	+1	-9	0	2	1
3	Implementation of NEOSC ≥ 35 (PDSA)	+2	+7	-2	-8	-1	3
4	Nurse education (NEOSC use)	+5	+7	-8	-2	-2	4

Prioritization Matrix: Connecting the Dots



Driver 1

Provider buy-in around NEOSC Use

EMR report to assist with data entry

Nurse education (NEOSC use)

Driver 2

Implementation of NEOSC ≥ 35 (PDSA)

Prioritization Recap

- Creating this helped the team decide **where to start** and identify what they **wanted to accomplish** in the first 3 months
- Baseline data collection completion will help the team **recognize their current barriers and opportunities** for getting started with BASIC
- To obtain buy-in it is important to understand your team's clinical culture around antibiotics and how that culture can better promote and support antibiotic stewardship
- **Key QI strategies** for BASIC include:
  1. Facilitate clinical culture change that supports antibiotic stewardship (Drive 1)
  2. Develop standardized processes and protocols for the identification and response to support antibiotic stewardship (Driver 2 &3)
  3. Implement strategies and processes to assist with equitable care delivery for all newborns (Drive 4)

COMMON QUESTIONS AND ANSWERS

BASIC FAQS

Data Questions

- Highest maternal temperature-what are the parameters--which temperature?
- Can you add an option of not documented in infant's chart under if maternal antibiotics were administered?
- To answer yes to was a risk assessment tool used does the physician have to document which tool was used in their note?
- Location of initial admission- all babies are admitted to L&D and stay in L&D for the maternal recovery or if postpartum is full. At what point in time are they considered a level I admission vs a level III/IV admission if they go from L&D to the NICU? What if they go to NICU from L&D at 2 hours of life? Do they not have a "level" during those first 2 hours?
- For indications for initiation of antibiotics, "untreated maternal infection" is not an option.

BASIC FAQS

Clinical Questions

- Stop antibiotics if blood culture is negative for growth at 36 hours?
- Is there a recommended EOS assessment tool for infants <35 weeks?
- Transfers who are at the admitting hospital for more than 3 days
- Definition for an automatic stop date/time on abx
- General info on recommended treatment for chorio in mom without PCN allergy and with PCN allergy.
- Antibiotic dosing recommendations.

BASIC FAQS

Clinical Questions

- Variation among system between amp Q 8 and Q 12 and 50-100 kg/dose If we use the calculator on all admits we would give more antibitocs in our unit.. How can we be good stewards and implement this tool? We don't treat the term c-section ttn with antibiotics but if we used calculator it would tell us to treat
- In the absence of NEONATAL risk factors, how do we address EXPECTED respiratory distress of the premature infant as expected and NOT as a sign of infection? Do infants who are born purely due to maternal concerns, w/o any indication of infection, need 48hr of antibiotics only because they have a touch of respiratory distress that you would expect any premature infant to have because they have premature lungs?

Next Steps

- ✓ Work with your team to submit a BASIC Readiness Survey if you haven't yet
- ✓ Work with your team to submit Baseline (Q4 2020) newborn & hospital data if you haven't yet
- ✓ Continue collecting January 2021 newborn and hospital data (submit by 2/28/2021)
- ✓ Log into your REDCap account to view your hospital's structure measures and share with your team
- ✓ Work with your team to complete a Prioritization Matrix to make a 30-60-90 day plan and your first PDSA cycle

THANKS TO OUR

FUNDERS

IDPH Illinois Department of Public Health

CDC Centers for Disease Control and Prevention

IDHS

AIM Alliance for Innovation on Maternal Health

I PROMOTE-IL Innovations to Improve Maternal Outcomes in Illinois

JB & MK Pritzker Family Foundation

In Kind Support

Northwestern Medicine Feinberg School of Medicine

NorthShore University HealthSystem

Ann & Robert H. Lurie Children's Hospital of Chicago

Saint Louis University

APPENDIX

2021 BASIC Webinars

Date	Topic
January 18	≥35 Risk Assessment for EOS Overview
February 15	Finding and prioritizing your BASIC Opportunities
March 15	Physician Buy-In for Antibiotic Stewardship Change Ideas
April 19	Using EMR for Data & Clinical Support
May 29	Neonatal Face to Face Meeting (Virtual)
June 21	Topic TBD
July 19	Topic TBD
August 16	Topic TBD
September 20	Topic TBD
October	Annual Conference
November 15	Topic TBD

Register for all upcoming webinars here:

https://northwestern.zoom.us/meeting/register/tJcpc-qppjMpHdWBNEO8WJsLjfDDUz9ucmt2