

# IMPROVING ANTIBIOTIC USE TO HELP BABIES THRIVE

*Hospital teams across Illinois work to provide the right antibiotics to the right babies for the right length of time*



## The Challenge

*Antibiotics are essential in fighting infections in newborns. But wide variations in antibiotic prescribing for newborn infections can lead to unnecessary or prolonged antibiotic exposure resulting in short- and long-term adverse outcomes such as:*

- ▶ Antibiotic resistance making it more difficult to treat bacterial infections
- ▶ Mother-baby separation that can reduce breastfeeding and increase formula supplementation;
- ▶ Impaired development of intestinal microbiome leading to increased risk of necrotizing enterocolitis, a serious intestinal disease; and
- ▶ Chronic conditions, including asthma, allergies, and obesity.

## Preparing for Success

The Illinois Perinatal Quality Initiative (ILPQC) developed the statewide Babies Antibiotic Stewardship Improvement Collaborative (BASIC) initiative, with input from neonatal clinical experts, to support birthing & children's hospitals to implement Centers for Disease Control & Prevention (CDC) and American Academy of Pediatrics (AAP) guidelines to provide appropriate antibiotics, to appropriate newborns, for the appropriate length of time.



*The BASIC initiative will provide opportunities for collaborative learning, rapid-response data utilization, and quality improvement (QI) support to increase use of these standards by hospitals.*

## BASIC Initiative Aims:

- ▶ Decrease by 20% the number of newborns, born at  $\geq 35$  weeks who receive antibiotics
- ▶ Decrease by 20% the number of newborns with a negative blood culture who receive antibiotics for longer than 36 hours



## Antibiotic Stewardship: Optimizing the Use of Antibiotics to Improve the Health of Babies

*The CDC developed guidance in 2019 to measure and improve how antibiotics are prescribed by clinicians to better treat infections, protect patients from harms caused by unnecessary antibiotic use, and combat antibiotic resistance.*

*The AAP provides recommendations to protect infants at risk for infection by focusing on strategies to help clinicians:*

- ✓ Carefully weigh the risks and benefits before administering antibiotics
- ✓ Identify risk and response for neonatal early onset sepsis diagnosis
- ✓ Improve clinical practices to support decisions involving appropriate antibiotic administration

## BASIC Initiative Key Strategies

- ↑ Increase percentage of physicians and nurses educated about early-onset sepsis (EOS) risk factors, assessment tools, and guidelines;
- ↑ Increase percentage of newborns with documented use of EOS risk assessment tools at delivery;
- ↑ Increase percentage of newborns with a blood culture drawn prior to the initiation of antibiotics;
- ↑ Increase percentage of newborns with care team discussing and documenting plan for length of antibiotic course;
- ↓ Decrease percentage of newborns of any gestational age with a negative blood culture at 36 hours that receive additional antibiotics;
- ↑ Increase percentage of parents/families provided education about antibiotics and EOS

## AAP Resources to Manage Babies with Suspected Infections

- ▶ *Management of Infants at Risk for Group B Streptococcal Disease (2019)*
- ▶ *Management of Newborns Born at  $\geq 35$  0/7 Weeks' Gestation With Suspected or Proven Early-Onset Bacterial Sepsis (2018)*
- ▶ *Management of Newborns Born at  $\leq 34$  6/7 Weeks' Gestation With Suspected or Proven Early-Onset Bacterial Sepsis (2018)*

## Get Involved

You can achieve your hospital's antibiotic stewardship goals with the support of ILPQC's effective & proven effective QI model. Contact us at [info@ilpqc.org](mailto:info@ilpqc.org) for more information.



The Illinois Perinatal Quality Collaborative (ILPQC) is a statewide network of perinatal clinicians, nurses, hospitals, patients, public health leaders and policymakers that aims to improve outcomes for mothers and babies across Illinois.

Thank you to our sponsors: Centers for Disease Control and Prevention, Illinois Department of Public Health, Illinois Department of Human Services, J.B. and M.K. Pritzker Family Foundation, Alliance for Innovation on Maternal Health.

