



Progeny Newsletter

Iowa's Statewide Perinatal Care Program

January 2024

Upcoming Education

SAVE THE DATE

49th Annual Iowa Conference
on Perinatal Medicine
April 2-3, 2024

****In-Person ONLY****



Stay tuned for updates on pre-conference course options & registration details...
Conference brochures will be mailed to all Iowa birthing hospitals and past conference attendees SOON!

Syphilis During Pregnancy

Sexually Transmitted Infections continue to persist as a significant public health concern as emphasized in *Sexually Transmitted Disease Surveillance, 2021* ([CDC, 04/23](#)). Rates of syphilis have increased yearly starting in 2013. There were 2,855 congenital syphilis cases in the U.S. during 2021, including 220 congenital syphilis-related stillbirth and infant deaths. Congenital syphilis rates during 2012-2019 increased from 8.4 to 48.5 cases per 100,000 births, a 477.4% increase. The incidence of syphilis is likewise increasing in women of reproductive age. As seen with the U.S. rates, the Iowa rates of syphilis have also increased. In 2012, there were no documented cases of congenital syphilis in Iowa. During 2021 Iowa had 16-30 cases of congenital syphilis per 100,000 live births, an alarming rate of 29.9 per 100,000 live births. The estimated cost to treat syphilis in the U.S. was \$174M in 2021 and this includes treatment for all stages of syphilis.

Syphilis is known as “the great imitator” because it causes symptoms similar to many other diseases. The **Primary Stage** classically presents with a single chancre, but there may be multiple sores. Sores are located where *Treponema pallidum*, the bacteria that causes syphilis entered the body. These areas usually occur in, on or around the penis, vagina, anus, rectum, and or the lips/mouth. The sores heal on their own after 3-6 weeks with or without treatment. In the **Secondary Stage** skin rashes usually appear when primary sores are healing or several weeks after they are fully healed. These rashes can be on the palms of hands and/or soles of the feet and look red, rough or reddish-brown. The infected person may also have sores in their mouth, vagina, or anus. Infected patients don't usually complain of itching with the rash and sometimes the rash is so faint that it isn't noticeable. Other symptoms during secondary syphilis may include fever, swollen lymph glands, sore throat, patchy hair loss, headaches, weight loss, muscle aches and fatigue. As with primary symptoms, symptoms in the secondary stage will also go away with or without treatment. But the infection will continue to progress to the next stage(s). The **Latent Stage** of syphilis is a time period when there are no visible signs or symptoms. Without the proper treatment syphilis can remain in the body for years. In the **Tertiary Stage** syphilis can affect many different organ systems including the heart and blood vessels, and the brain and nervous system. This stage is very serious and typically occurs 10-30 years after the initial infection. During this stage, the disease damages the internal organs and can result in death. Most patients are treated before they develop the final stage of tertiary syphilis. The primary and secondary (P&S) stages of syphilis are the most infectious stages of the disease.

The CDC recommends that all pregnant women should be screened for syphilis at the first prenatal visit. In Iowa, screening/testing for syphilis is mandated in Iowa Code chapter 641-1.18(3): “*The following examinations shall be performed by the state hygienic laboratory from sites approved by and submitted to the laboratory by the department: (g.) Syphilis. (2) All pregnant women at first prenatal visit. Tests that are initially reactive will*



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Interested in certification?

Learn more at:

[National Certification Corporation
\(nccwebsite.org\)](http://nccwebsite.org)

Check out these free tracing games

[EFM Tracing Game \(ncc-efm.org\)](http://ncc-efm.org)



1-833-TLC-MAMA (1-833-852-6262)

[National Maternal Mental Health Hotline |
MCHB \(hrsa.gov\)](http://mchb.hrsa.gov)

be followed up with a secondary test of different methodology to assist with diagnosis and staging of the infection.” For women who live in communities with high rates of syphilis and for women who are at risk of acquiring syphilis during pregnancy, the CDC recommends repeat testing in the third trimester: at 28 weeks' gestation and again at the time of delivery. Any woman who delivers a stillborn infant (after 20 weeks) should be tested. Any woman who had no prenatal care before delivery or is considered at risk for syphilis acquisition during pregnancy should have the results of a syphilis serologic test documented before she or her newborn is discharged from the hospital.

Penicillin G is the only known effective antimicrobial for treating fetal infection and preventing congenital syphilis. Treatment for syphilis should not be delayed. The penicillin regimen, dosage and length of treatment depends on the stage of syphilis. Pregnant women who have a history of penicillin allergy should be desensitized and treated with penicillin G. Skin testing or oral graded penicillin dose challenge might be helpful in identifying women at risk for acute allergic reactions. A link to the CDC guidelines for managing women with penicillin allergy is included below. Appropriate treatment with penicillin greater than or equal to 30 days prior to delivery is likely to prevent most cases of congenital syphilis. For more information regarding the evaluation and treatment of syphilis during pregnancy, visit the CDC website: [Syphilis During Pregnancy - STI Treatment Guidelines \(cdc.gov\)](http://cdc.gov).

Guidance from Iowa HHS

On July 24, 2023, Dr. Robert Kruse, Medical Director of the Iowa Department of Health and Human Services (Iowa HHS) sent a letter to providers and colleagues statewide in response to the recent and rapid increase of congenital syphilis cases in Iowa. These cases are not concentrated to a single geographic area but are dispersed throughout the state. The letter from Dr. Kruse is included for reference at the end of this newsletter. Dr. Kruse provides important information regarding testing and treatment of syphilis for pregnant women and contact information for local and regional resources.

Additional Resources:

[Congenital Syphilis - STI Treatment Guidelines \(cdc.gov\)](http://cdc.gov)

[STD Facts - Syphilis \(cdc.gov\)](http://cdc.gov)

[Penicillin Allergy - STI Treatment Guidelines \(cdc.gov\)](http://cdc.gov)

[CDC – Syphilis Treatment](http://iowa.gov)

[12-09-2015.641.1.18.pdf \(iowa.gov\)](http://iowa.gov)

Congenital Syphilis

Diagnosing congenital syphilis in the newborn can be difficult because maternal treponemal and nontreponemal immunoglobulin G (IgG) antibodies can cross the placenta to the fetus, making the infant's serologic tests hard to interpret. Treatment decisions are often made on the basis of several factors that include the following: identification of syphilis in the



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Blank Children's Hospital

UnityPoint Health

A department of UnityPoint Health - Des Moines - Iowa Methodist Medical Center

Please join us for this virtual CEU opportunity!

Hypoxic Ischemic Encephalopathy

Date:

Wednesday, January 31st | 10:00 - 11:00 AM

Speaker:

Barb Smith, MSN-Ed, RNC-NIC, TIP
Clinical Education Specialist: NICU
UnityPoint Health Des Moines

[CLICK HERE](#) to register via
GoToWebinar.

SAVE THE DATE



34th Annual

Iowa Breastfeeding Conference

Wednesday, May 15th &
Thursday, May 16th, 2024

FFA Enrichment Center
DMACC Ankeny Campus
1055 SW Prairie Trail Pkwy
Ankeny, IA 50023

For questions, please contact Talia Greve at
(515) 241-3537 or talia.greve@unitypoint.org.



Health and Human Services

[CLICK HERE](#) to register online.

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mother; adequacy of maternal treatment; presence of clinical, laboratory, or radiographic evidence of syphilis in the neonate. Comparing the infant's nontreponemal serologic titer to the mother's titer at the time of delivery is important in determining the course of treatment for the newborn. The CDC recommends that any neonate at risk for congenital syphilis should also receive a full evaluation and testing for HIV.

A serum quantitative nontreponemal serologic test (RPR or VDRL) should be performed on any neonate whose mother had reactive nontreponemal and treponemal test results during the pregnancy.

It is contraindicated to use umbilical cord blood for serologic testing of the newborn because cord blood can become contaminated with maternal blood and subsequently yield a false-positive result. Wharton's jelly within the umbilical cord can yield a false-negative result. Soon after birth, these infants should be examined thoroughly for evidence of congenital syphilis which could include the following: nonimmune hydrops; conjugated or direct hyperbilirubinemia; cholestatic jaundice or cholestasis; hepatosplenomegaly; rhinitis; skin rash; osseous (bone) lesions; severe anemia; or pseudoparalysis of an extremity. Microscopic examination or PCR testing of any suspicious lesions or body fluids should also be performed (e.g., bullous rash or nasal discharge). Pathologic examination of the placenta or umbilical cord should be considered.

The CDC guidelines for evaluation and treatment of neonates at risk for congenital syphilis are organized by the probability of neonatal infection and described in the following scenarios: Scenario 1: Confirmed Proven or Highly Probable Congenital Syphilis; Scenario 2: Possible Congenital Syphilis; Scenario 3: Congenital Syphilis Less Likely; and Scenario 4: Congenital Syphilis Unlikely. For specific recommendations regarding the clinical evaluation and penicillin treatment regimens for newborns in all four scenarios, visit the CDC website: [Congenital Syphilis - STI Treatment Guidelines \(cdc.gov\)](#). Neonates who have a history of penicillin allergy or develop an allergic reaction presumed secondary to penicillin should be desensitized and then treated with penicillin G, [Penicillin Allergy - STI Treatment Guidelines \(cdc.gov\)](#).

All newborns with reactive (positive) nontreponemal tests (treated or not treated) should receive thorough follow-up examinations and repeat serological testing (RPR or VDRL) every 2-3 months until the test becomes nonreactive (negative). **For treated newborns:** If positive nontreponemal titers persist at age 6-12 months, the infant should receive repeat CSF screening and be managed in consultation with an expert. Another 10-day course of a penicillin G regimen might be indicated. **For untreated newborns:** Nontreponemal antibody titers should decrease by age 3 months and be nonreactive by 6 months. If the test is nonreactive at 6 months, no further evaluation or treatment is needed. If the test is still reactive at 6 months, the infant is likely infected and should be treated for congenital syphilis at that time.

Additional Resources:

[STD Facts - Congenital Syphilis \(cdc.gov\)](#)



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Join us on Thursday, March 7, to hear Dr. Jonathan M. Klein discuss two cutting edge topics!

Register for this Conference Today!

Beyond Extreme Prematurity: Management of Periviable Infants Born at 22 to 23 Weeks Gestation from Birth to Discharge

Dr. Klein will review critical differences in culture and philosophy when caring for periviable infants born at 22–23 weeks' gestation. He will identify specific differences in management strategies for aspects of care including resuscitation, ventilation, fluid therapy, skin care, nutrition, infection, and cardiovascular compromise. Importantly, he will also examine how to balance competing outcomes when caring for these infants, with neuroprotection as the main priority.

Outcomes for Infants Born at the Limits of Viability Gestation, Managed with a Positive, Proactive Approach

Dr. Klein will identify global concepts for the care of periviable infants utilizing a positive, proactive, philosophical, standardized, and balanced approach. He will discuss survival for infants born at 22–23 weeks' gestation in a single center utilizing these strategies, and will describe short term morbidity and two year outcomes for these infants



Neonatologist from **University of Iowa Stead Family Children's Hospital** scheduled to speak at ANN Conference in San Diego!

[LEARN MORE](#)

*For more information, contact Penny Smith, BSN, RNC-NIC, penny-smith@uiowa.edu or Brenda Wolf, BSN, RNC-EFM, brenda-wolf@uiowa.edu.

Update from IMQCC

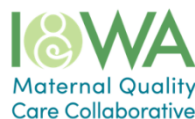
Earlier this month, Dr. Stephanie Radke and Stephanie Trusty (HHS) attended the annual meeting of the National Network of Perinatal Quality Collaboratives (NNPQC) in Denver, CO. They presented a poster highlighting the past and current QI initiatives in Iowa



supported by both IMQCC and INQC. Teams from 49 states and the District of Columbia attended the meeting where there were many opportunities for networking and collaboration around the common goals of improving the quality of care for obstetric and neonatal patients. NNPQC provides resources and expertise to nationwide state-based perinatal quality collaboratives (PQCs) with the goal of accelerating improvement efforts for maternal and infant health outcomes. Click [HERE](#) to learn more.

Check out the [IMQCC Events Page](#) for upcoming meetings, events, and training opportunities. Program times and links are included on the calendar. Virtual Learning Session 2 will be held on January 25, 2024. The next IMQCC Stakeholder Advisory Board Meeting will be held on February 2. The next Iowa AIM All-Team Call will be held on February 8. On Feb. 19, hospital teams should plan to attend the IMQCC Community Birth Collaborative overview. At this time, there is no All-Team Call scheduled in March (due to Spring Break). However, teams may have opportunity to attend one or two optional educational sessions or workshops...stay tuned for more information. The Trainings tab has a list of fetal monitoring workshops and Spinning Babies workshops sponsored by various facilities throughout the state. Please contact Nicole Anderson if you would like to have your educational opportunity added to the calendar.

For questions regarding the ongoing work of IMQCC and Iowa AIM, please contact one of the program leaders: Dr. Radke, stephanie-radke@uiowa.edu, Stephanie Trusty, stephanie.trusty@idph.iowa.gov, Kristal Graves, kristal-graves@uiowa.edu, or Nicole Anderson, Nicole-anderson@uiowa.edu.





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Update from INQC

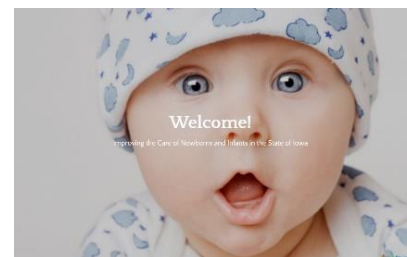
Twenty-four Iowa birthing hospitals are currently engaged in the Iowa Neonatal Quality Collaborative. At the last full collaborative meeting on Nov. 9, 2023, Dr. Julie Lindower officially took over as the new president of INQC. Many thanks to Dr. Rosenblum for his steadfast leadership in the collaborative since its inception in 2016 and we wish you all the best as you retire from clinical practice. Dr. Lindower reminded the group that plans are moving forward with the merger of INQC with IMQCC to form Iowa's first Perinatal Quality Collaborative (PQC). She reviewed a draft of the new organizational structure and defined several key roles in the PQC. We received notice in September that the department of HHS was awarded a CDC grant to support the development of a PQC in Iowa. Funding in the amount of \$1.1 million will be distributed to the PQC over 4 years, beginning on Sept. 30, 2023. The group agreed that our next neonatal QI project will be HIE/Neonatal Encephalopathy (NE) with the goals of standardizing the care of these patients statewide, from the initial evaluation to cooling and beyond. The QI will include a statewide HIE registry, the first of its kind in our state. Stay tuned for more to come on the PQC.

At the November meeting we also heard from Dr. John Dagle, neonatologist at UISFCH and director of Iowa's Statewide Perinatal Care Program. Dr. Dagle updated the group on the current recommendations from the American Academy of Pediatrics for RSV prophylaxis in preterm and term infants. He provided some specific guidelines for administration of nirsevimab-alip (Beyfortus™) versus palivizumab (Synagis®). Penny Smith shared some information on a new laryngeal mask airway for preterm infants. The product is the Air-Q3 intubating laryngeal mask airway by AirLife that is now available in Size 0 and 0.5, appropriate for infants <2Kg. Penny, Dr. Dagle and several others recently met with the AirLife representatives at UISFCH to learn more about this new, smaller LMA for VLBW infants. The AirLife representative for Iowa is Jody Knust, jknust@myarilife.com. For more information on the ongoing quality improvement work of INQC, visit the website [HERE](#).

If your hospital is not currently engaged in the collaborative and you would like more information, please contact Penny Smith, RNC-NIC, penny-smith@uiowa.edu or Julie Lindower, MD, MPH, julie-lindower@uiowa.edu.

Welcome to the Perinatal Team, Brenda Wolf!

We are pleased to announce that Brenda Wolf has accepted the job of obstetric nurse consultant for Iowa's Statewide Perinatal Care Program. Brenda brings to the team 16 years of experience as an obstetric nurse in the settings of labor & delivery and mother/baby care. Brenda has worked in labor & delivery at UIHC since April 2016 where she continues to serve on several unit-based committees, including OB Quality, OB Practice, CWS Retention and the AIM/IMQCC





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workgroup. Brenda has assisted with unit policy revision and several ongoing QI projects, including obstetric simulations. She has previously served as an OB clinical nursing instructor for Mount Mercy University. Brenda is a member of AWHONN and recently presented a poster at the national AWHONN convention on decreasing surgical site infections. Brenda will attend the AWHONN Intermediate Fetal Monitoring Instructor Workshop in January 2024. She hopes to become an instructor for the Obstetric Patient Safety (OPS) program, as well. Brenda will be a co-presenter with Amy Dunbar at the 49th Annual Iowa Conference on Perinatal Medicine in West Des Moines, April 2-3, 2024. So, make plans to attend the conference and come meet Brenda!

Please feel free to reach out to Brenda Wolf via email with questions regarding the care of obstetric patients.

Here is her contact information:

Brenda Wolf, BSN, C-EFM

Obstetric Nurse Consultant

Iowa's Statewide Perinatal Care Program

University of Iowa Stead Family Children's Hospital

200 Hawkins Drive

Iowa City, Iowa 52242

Email: brenda-wolf@uiowa.edu

Office Phone: 319-356-1854

**The Statewide Perinatal Care Program is funded by the Iowa Department of Health & Human Services.*



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Public Health

IOWA HHS

July 24, 2023

Dear Colleague:

Kim Reynolds
GOVERNOR

Adam Gregg
LT. GOVERNOR

Kelly Garcia
DIRECTOR

The Division of Public Health within the Iowa Department of Health and Human Services (Iowa HHS) requests your support in responding to a concerning increase in cases of congenital syphilis. Congenital syphilis is a preventable condition caused by untreated syphilis during pregnancy. In 2021, 11 congenital syphilis cases were reported in Iowa, more than in the previous 20 years combined. Additionally, there were eight cases in 2022, and already five cases have been identified in 2023. Four of these cases occurred within the last three months.

Although many states are experiencing increases in congenital syphilis cases, the rapid increase in Iowa is cause for heightened concern. The cases in Iowa are not concentrated to a single geographic area but are dispersed throughout the state. Although some populations in the state are disproportionately impacted, several population groups have been affected.

Considering the wide distribution of cases across the state and the rapid and sustained increases, Iowa HHS is **recommending** that medical providers conduct **serological testing for syphilis among pregnant women** at three intervals: during their **first prenatal visit, at 28-32 weeks gestation,** and again at **delivery**.

Serological testing for syphilis is non-invasive and can be done with routine venipuncture blood samples. Testing at multiple intervals during pregnancy is beneficial because pregnant women may initially test negative at their first prenatal visit and acquire the infection later in pregnancy. Signs and symptoms may not be obvious, and without serological testing, the infection can go undetected. Furthermore, neonates with congenital syphilis may appear normal at physical examination, particularly if the mother acquired the infection late in pregnancy. These infants may develop a rapid onset of signs and symptoms several months after birth.

Testing

Serologic testing for syphilis is widely available. Making a diagnosis of syphilis requires an assessment of current and recent clinical signs and symptoms, as well as 2-3 separate serological tests. Specific testing types may vary by individual laboratory. However, laboratory diagnosis of syphilis requires a minimum of two types of serologic tests. These types of tests are categorized as "treponemal" and "non-treponemal" tests.

- Treponemal tests detect antibodies to *Treponema pallidum*, the bacterium that is the causative agent of syphilis.
 - Treponemal tests are typically reactive sooner after infection than non-treponemal tests and may remain reactive for life, even after successful treatment. The antibodies



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detected with this treponemal tests may be transferred from mother to fetus, even if the mother is adequately treated and cured. Treponemal tests are insufficient on their own in assessing infection status.

- Non-treponemal tests (e.g., RPR or VDRL) detect cellular damage caused by *Treponema pallidum* and provide quantitative results that are crucial in evaluating treatment success, potential re-infection, and guide treatment decisions, especially in infants.

The “reverse” syphilis testing algorithm (a treponemal test followed by a non-treponemal test) is increasingly common because it has components that are more easily automated on laboratory instruments. Furthermore, use of the reverse sequence improves detection of very early and very late stages of infection. Regardless of what laboratory you use for syphilis testing, **we highly recommend that you select syphilis testing algorithms with reflex testing**, so that if the first test is reactive, the subsequent test(s) is automatically conducted. A description of the reverse and traditional syphilis testing algorithms can be found at the [Association of Public Health Laboratories \(APHL\) website](#).

Treatment

Specific treatment varies based on the patient's stage of infection and age. Complete treatment guidelines for syphilis are available at <https://www.cdc.gov/std/treatment-guidelines/syphilis.htm>. Although there is currently a nationwide shortage of the first line medication used to treat syphilis in adults, the medication is prioritized for pregnant women and should be available in Iowa. Please contact Iowa HHS if you have difficulty obtaining the medication.

Resources

There are a number of local and regional resources available to assist with syphilis. The Bureau of HIV, STI, and Hepatitis at Iowa HHS can provide support in interpreting laboratory results, discussing treatment guidelines, facilitating contact tracing, and addressing other syphilis-related concerns. The STD Clinical Consultation Network at the St. Louis Prevention and Treatment Center offers clinical consultation for complex syphilis cases. Contact information for these agencies is provided at the end of this letter.

Thank you for your efforts in syphilis prevention and control. Your partnership is essential in early diagnosis and treatment of individuals with syphilis, and ultimately reducing its impact on the health of our populations.

Sincerely,

Robert Kruse, M.D., M.P.H.
State Medical Director
Division of Public Health
Iowa Department of Health and Human Services



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Contact information for local and regional resources:

Bureau of HIV, STI, and Hepatitis at Iowa HHS:

George Walton, MPH, MLS(ASCP)^{CM} STI

Program Manager

(515) 240-1143

Contact information for additional STI Program staff, including the state's Disease Intervention Specialists, is available at: <https://hhs.iowa.gov/hivstihep/sti#>

STD Clinical Consultation Network (St. Louis Prevention and Training Center)

<https://stdccn.org/render/Public>