



Progeny Newsletter

Iowa's Statewide Perinatal Care Program

DKA in Pregnancy

September 2021

COVID Vaccine Information

COVID-19 Vaccines and Pregnancy: Conversation Guide for Clinicians

ACOG recommends that pregnant individuals be vaccinated against COVID-19. Obstetrician-gynecologists and other obstetric care providers should routinely assess their pregnant patients' vaccination status. Based on the assessment, the clinical recommendation should be made for the pregnant patient. There is no evidence of adverse maternal or fetal effects from vaccinating pregnant individuals with COVID-19 vaccine, and a growing body of data demonstrates the safety of such use. Therefore, individuals who are able to be pregnant should receive the COVID-19 vaccine.

- The following talking points are intended to help guide conversations with pregnant patients:
- Risk of COVID-19 Infection During Pregnancy**
 - While the known absolute risk is low, pregnancy is associated with increased risk of maternal severe illness, ICU admission, mechanical ventilation and death.
 - There is a known increased risk of complications from COVID-19 in pregnant patients with underlying health conditions (eg, diabetes, obesity, increasing age, and cardiovascular disease).
 - There is increased risk for certain racial and ethnic populations.
 - Safety of COVID-19 Vaccines**
 - There is no evidence of adverse maternal or fetal effects from vaccinating pregnant individuals with COVID-19 vaccine, and a growing body of data demonstrate the safety of such use. Based on self-reported information, no specific safety signals have been observed in pregnant people enrolled in a safe and effective pregnancy registry and safety signals have been reported in MDRS or other safety monitoring systems.
 - Early data from CDC's safe pregnancy registry demonstrate that the side effects and adverse events observed among pregnant individuals in a safe did not indicate any safety concerns.

[covid19vaccine-conversationguide-121520-v2.pdf \(acog.org\)](https://www.acog.org/clinical/clinical-guidance/patient-education/2021/08/covid-19-vaccines-and-pregnancy-conversation-guide)

COVID-19 Vaccines and Pregnancy



- KNOW THE FACTS**
 - The American College of Obstetricians and Gynecologists recommends that pregnant individuals be vaccinated against COVID-19.
 - Pregnant people across the country have shown to get vaccinated. The evidence shows that the vaccines are safe during pregnancy.
 - Vaccination can help prevent severe illness from COVID-19, which can be dangerous for you and your fetus.
 - If you are vaccinated and breastfeeding, the antibodies made by your body may be passed through breast milk and may help protect your newborn from the virus.
- SLOW THE SPREAD**
 - Encourage your loved ones to get a COVID-19 vaccine so that they can help protect your family and community from infection.
 - If you are not yet fully vaccinated, wear a face mask in public, limit contact with people who might have COVID-19, and follow other recommendations from health officials to prevent infection. Find CDC guidance at <https://www.cdc.gov/covid19/people>.
 - Cover your mouth when you cough or sneeze.
 - Clean your hands often for 20 seconds with soap and water or hand sanitizer that contains at least 60% alcohol.
- TALK WITH YOUR OBSTETRICIAN-GYNECOLOGIST**
 - If you have questions about COVID-19 vaccination, talk with your obstetrician-gynecologist.
 - Before an in-person visit for prenatal and postpartum care, ask your obstetrician-gynecologist if you think you may have COVID-19 or have been in contact with someone who has it.

Learn more: [acog.org/COVID-Pregnancy](https://www.acog.org/COVID-Pregnancy)

[COVID-19 Vaccines and Pregnancy \(acog.org\)](https://www.acog.org/clinical/clinical-guidance/patient-education/2021/08/covid-19-vaccines-and-pregnancy)

Your COVID-19 Vaccination Choice

Getting vaccinated is one of the most important things you can do to help protect yourself, your loved ones, and your community from COVID-19. Vaccination can help you get back to the people and activities you miss. Everyone age 12 and older is eligible to get a COVID-19 vaccination.

PREPREGNANT?
The American College of Obstetricians and Gynecologists recommends that pregnant individuals be vaccinated against COVID-19.

THINKING ABOUT HAVING A BABY?
You can get a COVID-19 vaccine. COVID-19 vaccines do not affect your fertility. You do not need to delay getting pregnant after you get a vaccine.

TALK WITH YOUR OBSTETRICIAN-GYNECOLOGIST ABOUT ANY QUESTIONS OR CONCERNS.
Vaccination is a personal choice. We will listen and respond so that you can make an informed decision. This conversation is not required to get a vaccine, though it may be helpful.

GET YOUR FREE COVID-19 VACCINE
There are many places near you where you can get vaccinated. Visit www.acog.org or www.getmycovid19.com to find them.

[Your COVID-19 Vaccination Choice \(acog.org\)](https://www.acog.org/clinical/clinical-guidance/patient-education/2021/08/covid-19-vaccination-choice)

Diabetic ketoacidosis (DKA) is a rare, but an emergent complication of pregnant people with diabetes causing various complications for both the pregnant person or the fetus. DKA is most commonly seen in pregnant people with Type 1 diabetes mellitus (DM), but has also been identified in pregnant people with Type 2 DM^{1,2,3} and gestational DM.^{2,3} A concerning issue with DKA is that it can develop at an accelerated rate and at lower glucose levels than non-pregnant people.^{1,2,3} The challenge is that DKA may be missed in a patient with normal or slightly elevated blood glucose.

In most cases, pregnant people with DKA will have elevated serum glucose greater than 300mg/dL.² Some may have lower or even normal blood glucose levels.^{2,3,4} Criteria for diagnosing DKA is a low serum bicarbonate level (<15 mEq/L), an elevated anion gap (>12 mEq/L), a low arterial pH (<7.3), and positive serum ketones. Additional labs to consider are complete blood count with differential, liver function tests, electrolytes, blood urea nitrogen, creatinine, and urinalysis.^{1,2,3}

Due to the space allowed for this newsletter this is a very brief review of the pathophysiology. Please see the resources for a more in-depth review if you are interested in additional information. As pregnancy progresses there is an increased resistance to insulin and the incidence of DKA is increased.^{1,3} This decreased sensitivity allows glucose to be provided to the fetus.² In addition to insulin resistance, an inadequate amount of insulin limits blood glucose uptake by tissues. The perceived cellular starvation causes increased glucose and ketone production in the liver. The excessive hyperglycemia in the blood leads to significant diuresis and dehydration which also causes an alteration in electrolytes, namely potassium and sodium. The surplus ketone production caused from fat metabolism leads to metabolic acidosis.^{1,2,3,5} A cruel cycle is created as the blood sugar rises, people become more dehydrated, and acidosis worsens.

Patients may present with general malaise and weakness, nausea, vomiting, abdominal pain, uterine contractions, tachycardia, tachypnea, hypotension, polyuria, polydipsia, or mental status changes. In advanced disease, kussmaul breathing (fruity breath) may be noted.^{2,3,5} It is important to identify which factors lead to the DKA. Infection, like influenza or urinary tract infection, prolonged vomiting, insufficient access to food, poor control of blood glucose levels, poor treatment compliance, insulin pump malfunctions, administration of medications that increase blood glucose (terbutaline or corticosteroids) or undiagnosed diabetes are common causes.^{1,2,3} Correction of DKA calls for recognizing the cause and initiating treatment.

Fetal monitoring is recommended for all pregnant people who have suspected DKA and are 24 weeks or more gestation. It is not uncommon to have an indeterminate fetal heart rate tracing. Fetuses may exhibit minimal to absent variability, tachycardia, late or variable decelerations. DKA is not necessarily an indication for immediate delivery. As the maternal situation improves with treatment the fetal heart rate tracing usually recovers.^{1,2,3,5}



Progeny Newsletter

Iowa's Statewide Perinatal Care Program

Your COVID-19 Vaccination Choice while Breastfeeding

Getting vaccinated is one of the most important things you can do to help protect yourself, your loved ones, and your community from COVID-19. The American College of Obstetricians and Gynecologists recommends that lactating individuals be vaccinated against COVID-19. There is no need to stop breastfeeding when you get vaccinated. When you get vaccinated, the antibodies made by your body may be passed through breast milk and may help protect your child from COVID-19.



"When my patients ask me about the COVID-19 vaccines, I readily tell them I got the shots and I'm still breastfeeding at the time. In fact, I am still pumping and breastfeeding my baby. Getting the vaccine was the right choice for me!"

— Vanessa Marie Parnell, MD, MCHES, obstetrician, gynecologist and maternal fetal medicine specialist (Connecticut)

TALK WITH YOUR OBSTETRICIAN-GYNECOLOGIST IF YOU HAVE ANY QUESTIONS OR CONCERNS.

Vaccination is a personal choice. We will listen and respect all that you consider an informed decision. This vaccination is not required to get a vaccine, though it may be helpful.

GET YOUR FREE COVID-19 VACCINE

There are many places near you where you can get vaccinated. Visit www.acog.org or www.vaccines.gov to find them.



COVID-19 VACCINATION IS SAFE and protects you, your family, and your community.

[Your COVID-19 Vaccination Choice while Breastfeeding \(acog.org\)](https://www.acog.org)

COVID-19 Vaccination Considerations for Obstetric–Gynecologic Care Practice Advisory July 2021

[COVID-19 Vaccination Considerations for Obstetric–Gynecologic Care | ACOG](https://www.acog.org)



Interested in certification?

Learn more at

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

Check out these free tracing games

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

Prompt diagnosis and aggressive treatment is important to prevent adverse outcomes. Small facilities should discuss the case with your referral center to arrange transfer to a higher level of care. Management of DKA focuses on fluid replacement to reverse dehydration, intravenous insulin infusion, and correcting the acidosis and abnormal electrolyte balance.^{1,2,3,5}

Prevention is key, patients should be educated to the risks of DKA during pregnancy. Patients should understand the importance of diet and exercise, routine glucose measurements and treatments, and regular prenatal care. They should understand the signs and symptoms of DKA and know when to notify their provider, glucose greater than 200 mg/dL in spite of treatment, persistent vomiting, diarrhea, polyuria, lethargy, or signs of infection. Pregnant people should be encouraged to receive influenza vaccines.^{2,3}

For more information, please see the references below or the podcast from Clinical Concepts in Obstetrics “DKA Made Simple.” [Clinical Concepts in Obstetrics | The Critical Care Obstetrics Podcast](https://www.clinicalconcepts.com)

References

1. American College of Obstetricians and Gynecologists' Committee on Practice Bulletins—Obstetrics. ACOG Practice Bulletin No. 201: Pregestational Diabetes Mellitus. *Obstet Gynecol.* 2018;132(6):e228-e248. doi:10.1097/AOG.0000000000002960
2. Dalfrà MG, Burlina S, Sartore G, Lapolla A. Ketoacidosis in diabetic pregnancy. *J Matern Fetal Neonatal Med.* 2016;29(17):2889-2895. doi:10.3109/14767058.2015.1107903
3. Sibai BM, Viteri OA. Diabetic ketoacidosis in pregnancy. *Obstet Gynecol.* 2014;123(1):167-178. doi:10.1097/AOG.0000000000000060
4. de Alencar JCG, da Silva GW, Ribeiro SCDC, Marchini JFM, Neto RAB, de Souza HP. Euglycemic Diabetic Ketoacidosis in Pregnancy. *Clin Pract Cases Emerg Med.* 2019;4(1):26-28. Published 2019 Nov 15. doi:10.5811/cpcem.2019.9.43624
5. Roth, C. Diabetes in pregnancy. In: Simpson KR, Creehan, PA, O'Brien-Abel, N, Roth, C, Rohan, AJ, eds. *Perinatal Nursing.* 5th ed. Philadelphia: Wolters Kluwer; 2021: 182-199.

IMQCC Updates

Learning session 2 planned for September 24th has been changed to a virtual meeting due to the increased number of COVID cases around the state. The revised agenda will be sent soon. We want you to be able to attend all sessions, so we ask that you please plan for this day as if you were attending an off-site event. Please contact Nicole Anderson at nicole-anderson@uiowa.edu with questions or concerns. The website continues to have updates, check it out! <https://www.imqcc.org/>



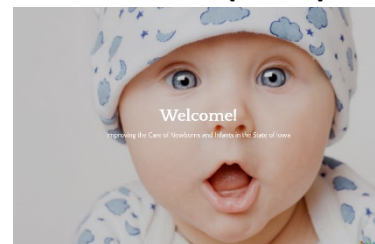


Progeny Newsletter

Iowa's Statewide Perinatal Care Program

Updates from Iowa Neonatal Quality Collaborative (INQC)

Twenty-two Iowa birthing hospitals are now engaged in the collaborative. Hospital teams have been busy collecting retrospective and prospective data for the **NAS QI project**. Dates for prospective data collection: April 1, 2021 to March 31, 2023. At the last INQC meeting on August 18, 2021, Dr. Lindower from UI Stead Family Children's Hospital provided an update on the **HIE QI project**, scheduled to begin on January 1, 2022. Two surveys using the REDCap platform will be used to assess the current management of newborns with HIE. The first survey will be sent to all birthing hospitals in Iowa. The second survey will be sent to any/all cooling centers or transport services that transfer Iowa newborns for cooling. We plan to expand the educational mission of INQC moving forward, to promote information and resource sharing within the collaborative and with the public via the website. The INQC website will potentially be used for collaboration, where neonatal providers can share policies, best practice guidelines, educational tools for families, podcasts and webinars. Public and provider spaces would be separate and some spaces may be password-protected. Visit the INQC 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 Dennis Rosenblum, MD, dennis.rosenblum@unitypoint.org.

IDPH Breastfeeding Strategic Plan

Maternal and infant health and nutrition is a high priority for the Iowa Department of Public Health, and we are excited to announce a new effort to improve breastfeeding support, and ultimately increase breastfeeding rates within the state. IDPH is in the process of putting together a strategic plan that includes steps to build collaborative partnerships and local coalitions that follow updated evidence-based best practices, policies, and procedures in supporting breastfeeding as the preferred infant feeding method. The first step in the strategic planning process is to gather information from individuals and organizations that have an impact on breastfeeding outcomes.

IDPH is collecting information from both state and local stakeholders to inform a landscape analysis report of the state that compiles information about existing initiatives, policies, practices, priorities, and needs. As a result of this process, there will be a better understanding of what Iowa's needs are and what existing policies and programming are available to inform the development of an Iowa Breastfeeding Strategic Plan.

We would like you to be a part of this process and provide information to help inform the strategic plan. Please complete this [survey](#) by **Thursday, September 30, 2021**. Here is the full link if needed, <https://airtable.com/shrSEKJHrnEQOthIU>.

For questions, please contact Amber France, MS, MPH, IBCLC, amber@coffective.com or Jane Stockton, RN, CLC, jane.stockton@idph.iowa.gov.

**The Statewide Perinatal Program is funded by the Iowa Department of Public Health.*



Children's and Women's Services Fall Nursing Conference

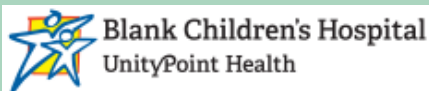
October 5, 2021

Register online at:

<https://uiowa.cloud-cme.com/Form.aspx?FormID=3297>

Brochure

[2021 CWS Conference - VIRTUAL ONLY - FINAL.pdf \(cloud-cme.com\)](#)



2021 COOPERATIVE CAREGIVING:

Maternal AND Newborn Essentials

CONFERENCE

TUESDAY, SEPTEMBER 28, 2021

Virtual - GoToWebinar
NURSING CONTACT HOURS

IBON Provider #31, UnityPoint Health - Des Moines, awards 7.25 contact hour(s) for full attendance.

ADDITIONAL INFORMATION:

Conference Format: This conference will be held virtually using GoToWebinar. Attendees will need access to their own computer, tablet, phone or other electronic device and internet connection. Attendees will receive an email with a link to join the conference the week of the conference. We recommend logging on early the day(s) of the conference in case of any technical problems.

Deadline to Register: 9/23/21 at noon

Register online at:

<https://blankchildrens.org/classes>

Click on, *Medical Education* category.

For questions regarding the conference, contact: Jessica Dinh, (515) 241-3537, jessica.dinh@unitypoint.org