



What Does An Urgent Care Provider Need To Know About COVID-19 And Children with Diabetes?

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DISCLOSURE

The following speaker of this accredited CE activity has no relevant financial relationships to disclose:

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Learning Objectives

- Identify at least one impact of COVID-19 on children with diabetes
- Identify at least one recommendation to consider in the management of diabetic ketoacidosis (DKA) with COVID-19
- Identify at least one COVID-19-related possibility in the future in children with diabetes

Session Overview

- Discussion on COVID-19 in children with diabetes
- Impact of COVID-19 on different aspects of diabetes care in children
- Urgent care management updates on DKA management in children
- What awaits in the future for diabetes in children?

COVID-19 in Children with Diabetes

Children with diabetes as compared to adults:

- have less severe clinical manifestations
- sometimes were asymptomatic
- have shown no change in disease pattern or susceptibility

What Data Do We Have So Far...?

- Data on new-onset and established type 1 diabetes
- COVID-19 and new pediatric type 1 diabetes diagnosis rates
- COVID-19 and angiotensin converting enzyme 2 (ACE2) receptor expression in pancreatic beta-cells

The Global Covidiab Registry

- Global registry of Covid-19–related diabetes
- Its aim is to establish the extent, natural history and longer term outcomes of new-onset diabetes in the context of the pandemic
- <http://covidiab.e-dendrite.com/>

Impact of COVID-19 on children with diabetes

- Delay in seeking diabetes-related care leading to more severe DKA
- Delayed diagnosis of new-onset type I diabetes
- Lack of access to diabetes care, daily health surveillance and adequate nutrition

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- What is the impact of COVID-19 on mental health of children with diabetes?
 - How can we support mental health in children with diabetes?

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- What is the impact of COVID-19-related financial stressors on families of children with diabetes?

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- How has COVID-19 impacted the management of DKA?

Urgent Care Management Updates For Diabetes in Children

Do not forget to add **diabetes** to your list of differential diagnoses!

Updates to DKA Management

- IV insulin-standard of care for DKA with ICU setting
- May also be used for management of moderate DKA outside the ICU setting
- Subcutaneous rapid acting insulin analogs can be used for treatment of mild to moderate DKA particularly outside the ICU setting
- Fluid and electrolyte management should be per standardized guidelines
- Medical monitoring of clinical and biochemical response to treatment is necessary

If patient tolerating oral fluids Or if IV insulin infusion is unavailable

- Subcutaneous rapid acting insulin 0.15 u/kg Q2 hrly
OR
- intramuscular regular insulin 0.15 u/kg Q4 hrly
(Q2-3 hrly if required)
- Prefer intra-intramuscular route if poor tissue perfusion

Monitor...

- Hourly blood glucose, fluid input and output
- Neurological status at least hourly
- Electrolytes to hourly after starting IV fluid therapy
- EKG for T wave changes
- Add 5% glucose if BG $<$ or $=$ 300 mg/dL or if blood glucose falls 90 mg/dL per hour
- Adjust sodium concentration in infusion if using IV fluids

If DKA Resolving....

- Yes: if DKA resolved, transition to subcutaneous insulin and add basal insulin
 - No: start IV insulin infusion, 0.05-0.1 units/kg/hour starting one hour after fluids initiated and monitor as previously discussed
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Discharge Planning

- Sick day management
- Maintenance of standard diabetes care

Resources for patients, families and providers

- Life for a Child (LFAC) <https://lifeforachild.org/>
- Beyond Type 1 <https://beyondtype1.org/>
- covid19childhooddiabetes.com
- ISPAD
- COVID and Diabetes Working Group
- FORUM ON COVID-19 ISPAD
- JDRF jdrf.org/costs
- JDRF educational webinars



Both COVID-19 and diabetes are NOT an
equal-opportunity disease



We Care....

How can we make this difficult time better for our children with diabetes?



Can COVID-19 change the future for diabetes in children?

Key Points

- No increased risk of COVID-19
- Increased risk of DKA in any illness
- Prevention of DKA in existing patients with type I diabetes
- Appropriate and prompt evaluation of symptoms of diabetes during COVID-19



THANK YOU FOR PARTICIPATING!

Q & A

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