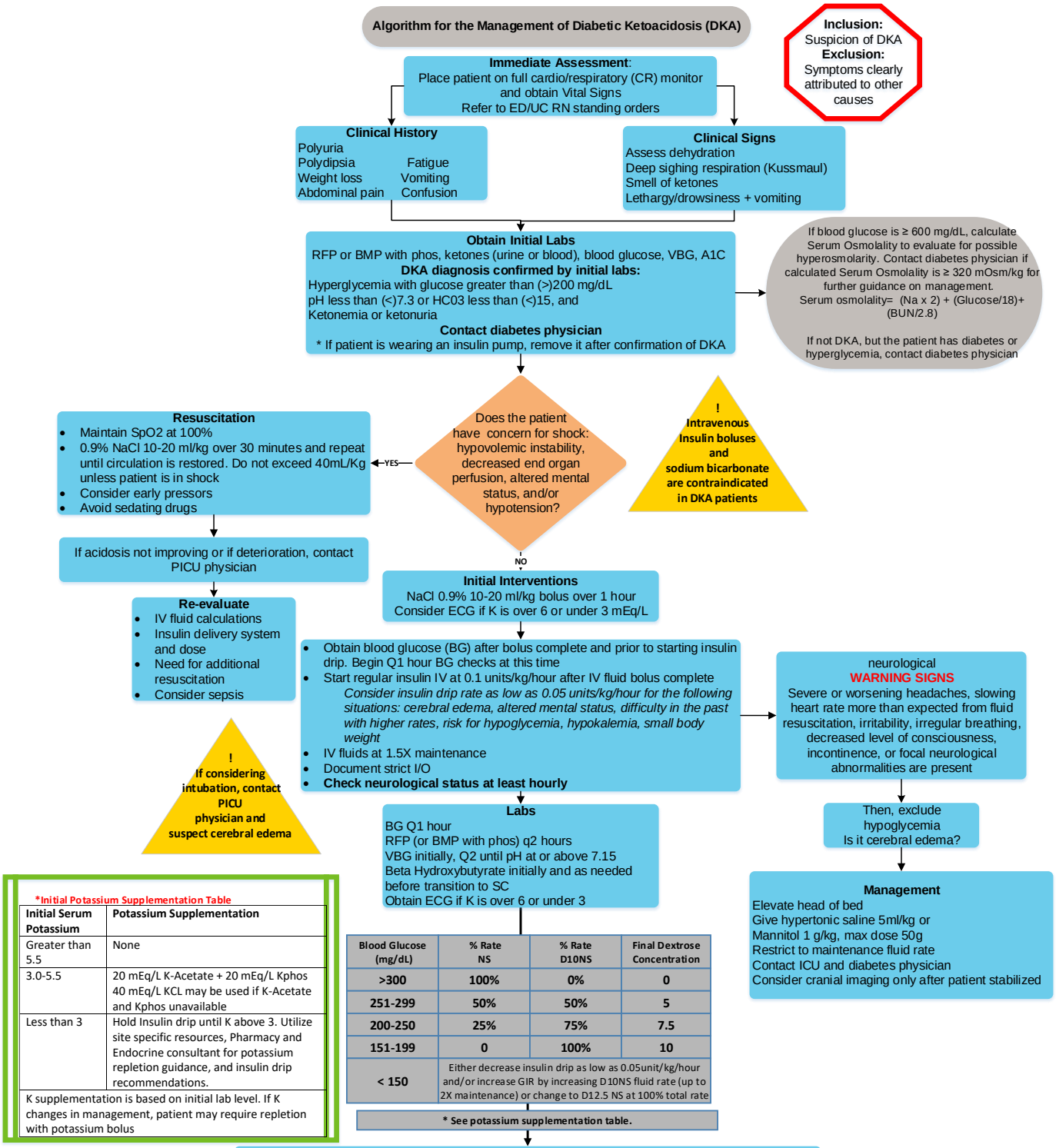
Diabetic Ketoacidosis (DKA) Treatment ALGORITHM



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TARGET POPULATION

Inclusion Criteria

Patients with suspected DKA

- Patients up to 21 years of age
- Patients referred for admission for diabetic ketoacidosis
- Patients admitted for evaluation and treatment of diabetic ketoacidosis
- Patients identified with diabetic ketoacidosis during their hospital stay

Exclusion Criteria

Patients with symptoms attributed to other causes

BACKGROUND | DEFINITIONS

Diabetic ketoacidosis (DKA) is a life-threatening medical emergency requiring immediate evaluation and treatment. Please notify the diabetes physician on call through One Call for all patients with known or suspected DKA.

Diabetic ketoacidosis (DKA) is a life-threatening condition. Almost 1 in 100 children with DKA will develop clinically significant cerebral edema, which has a mortality rate of 21-24%. Those with severe DKA have a much higher mortality and risk of complications. Meticulous attention to the details of therapy and the child's clinical course can decrease this risk. A patient who is unresponsive to vocal commands or presents with hypotension is rare and requires immediate critical care in a hospital. Urgent critical care and diabetes consultation should be obtained.

DKA is defined by:

- Hyperglycemia with glucose greater than 200 mg/dL, and
- pH less than 7.3 or HCO_3- less than 15 and
- Ketonemia or ketonuria

INITIAL EVALUATION

- ED/UC Triage ESI level 1 or 2
- Immediate clinical assessment and history regarding presentation
- Patients need full cardio respiratory (CR) monitoring
- Obtain weight, vital signs, Glasgow Coma Scale, and pupil assessment
- Check bedside glucose (point-of-care blood glucose or POC BG)
- Assess signs/symptoms of DKA, which may include (but may not necessarily be present): polyuria/polydipsia, weight loss, breath with "fruity" odor (smell of ketones), Kussmaul breathing, altered mental status, abdominal pain, vomiting, fatigue, or candidiasis.
- Initial labs: RFP (Renal Function Panel) or BMP (Basic Metabolic Panel) and Phosphorous, ketones (urine or blood), blood glucose, VBG. A1C.See Laboratory Study section for details
- Do a full exam to look for concurrent infection, including GU to assess for candidiasis/abscesses.
- **Suspect cerebral edema if** the patient has severe or worsening headaches, slowing heart rate, irritability, irregular breathing, decreased level of consciousness, incontinence, focal neurological abnormalities, persistent vomiting, mental status changes, GCS less than 13. Rapid changes in serum Na, in either direction, also increase risk and should prompt increased vigilance for other signs of edema.

Clinical Criteria for Cerebral edema include: 1 Diagnostic Criterion, 2 Major criteria, or 1 Major and 2 Minor criteria (92% sensitivity, 96% specificity).

Diagnostic Criterion for Cerebral Edema:
- Abnormal motor or verbal response to pain
- Decorticate or decerebrate posture
- Cranial nerve palsy (esp. III, IV, and VI)
- Abnormal neurogenic respiratory pattern (grunting, tachypnea, Cheyne-Stokes, apneusis)

Major Criteria
- Altered mentation, confusion, fluctuating level of consciousness
- Sustained HR deceleration (decrease 20 bpm or greater) not attributable to fluid resuscitation or sleep state
- Age-inappropriate incontinence

Minor Criteria:
- Vomiting
- Headache
- Lethargy or not easily arousable
- Diastolic blood pressure greater than 90mmHg
- Age less than 5yrs

If cerebral edema is suspected, consider the following:

- Notify attending physician
- If outside the ED/ICU, activate code team and simultaneously call the pharmacy alerting them of the need for STAT medications. Initiate transfer to higher level of care
- Elevate the head of the bed.
- Decrease fluid rate to 1x maintenance and ensure patient is running isotonic fluids.
- Hypertonic saline (3%) 5 mL/kg IV over 15 minutes or mannitol 1 g/kg IV (max 50g) over 15 minutes
- Consider endotracheal intubation for GCS less than 8. For intubation, use ICP precautions and target $ETCO_2$ matching the patient's pre-intubation pCO_2 or no higher than 30-35 mmHg – **CALL PICU FOR ASSISTANCE** with $ETCO_2$ targets and ventilator settings.
- Do NOT give dexamethasone or sodium bicarbonate.
- Do NOT delay treatment of cerebral edema to obtain imaging.

CLINICAL MANAGEMENT

Order set and initial clinical management

- If you suspect DKA, place orders using the DKA order set
    - NOTE: If the patient is on a study protocol, you will need to order medications per study protocol
- Obtain IV access
    - 2 PIV optimal
- Diet: NPO
- Monitors: place on cardio-respiratory monitors
- Neurological checks at least Q1 hour

Initial Fluids

- Administer sodium chloride 0.9% 10-20 ml/kg bolus over 1 hour. Repeat as necessary to maintain adequate circulation. Unless patient is in shock, do not give more than 40 mL/kg in bolus fluids in the first 4 hours.
- If patient is in shock (hypovolemic instability, decreased end organ perfusion, altered mental status, and/or hypotension), follow PALS guidelines and contact PICU physician

Following IV NS Bolus(es)

- Vitals and neurological assessment (nursing)
- Place a second PIV for frequent laboratory sampling

Insulin

- Disconnect insulin pump and infusion site if patient is currently on their home insulin pump.
- Start IV regular insulin at 0.1 units/kg/hr – do NOT give an IV bolus of insulin. Insulin therapy and DKA IV fluids should be started after the initial rehydration bolus is complete. Do NOT start while bolus is still running.
    - Consider insulin drip rate as low as 0.05 units/kg/hour for the following situations: cerebral edema, altered mental status, difficulty in the past with higher rates, risk for hypoglycemia, hypokalemia, small body weight
    - Insulin is compatible with DKA fluids

Refer to Insulin administration, subcutaneous and intravenous policy for additional information

Fluids

- Standard IV fluids are: NS + 20 mEq/L potassium acetate + 20 mEq/L potassium phosphate, or 40 mEq/L potassium chloride if potassium acetate and potassium phosphate unavailable, run at 1.5X maintenance. Also, order a bag of D10 NS + 20 mEq/L potassium acetate + 20 mEq/L potassium phosphate, or 40 mEq/L potassium chloride, to have at the bedside.
    - Order fluids per rate in orderset (refer to table below)
    - This may vary based on medication shortages or physician judgment.
    - Consider lower fluid rates if cerebral edema is suspected
    - Fluids may need to be adjusted based on serum potassium.
- Potassium supplementation
    - If hyperkalemia (K greater than 6) or hypokalemia (K less than 3), consider an ECG to assess T-waves.

Serum potassium	Potassium in the fluids
Greater than 5.5	None
3.0 – 5.5	20 mEq/L K-Acetate + 20 mEq/L Kphos or 40mEq/L KCl if K-Acetate and Kphos unavailable
Less than 3.0	Hold insulin drip until K above 3. Utilize site specific resources, Pharmacy and Endocrine consultant for potassium repletion guidance, and insulin drip recommendations.

K supplementation is based on initial lab level. If K changes during management, patient may require addition of potassium to the fluids or repletion with potassium bolus.

The goal is to keep total fluids at 1.5x maintenance

- Goal blood glucose range is 150-250 mg/dL.
- When the blood glucose is approaching or is less than 300 mg/dL, the dextrose containing bag will need to be Y-ed into NS fluid bag.
    - Goal for fall in blood glucose: should not exceed 100 mg/dL/hour (after initial normal saline bolus is given).
        - Titrate the two bags based on current blood glucose and rate of blood glucose fall to maintain the blood glucose within the goal.
        - If the blood glucose falls below 150 mg/dL, either decrease insulin drip as low as 0.05 units/kg/hour and/or increase Glucose Infusion Rate (GIR) by increasing D10 fluid rate not to exceed 2x maintenance, or change to D12.5 NS at 100% total rate.
        - If the blood glucose continues to drop, please contact attending. For persistent hypoglycemia consider contacting the on-call Diabetes team.

The chart below is a suggestion for rates: Anschutz, COS, North and South Campus

Blood glucose (mg/dL)	% of rate from NS ± electrolytes	% of rate from D10NS ± electrolytes	**Final dextrose concentration**
Greater than or = 300	100	0	0
251-299	50	50	5
200-250	25	75	7.5
151-199	0	100	10
Less than 150	Either decrease insulin drip as low as 0.05 units/kg/hour and/or increase GIR by increasing D10 fluid rate (up to 2X maintenance) or change to D12.5 NS at 100% total rate		

Alternative chart for PARKER or when the above fluids are not available:

The following chart is for reference only, consult the on-call diabetes provider for specific fluid recommendations and insulin drip rates:

Blood glucose (mg/dL)	% of rate from NS+40KCl	% of rate from D5NS+20KCl	% of rate from D10 1/2NS	Final dextrose concentration
Greater than or = 300	100	0	0	0
251-299	0	100	0	5
200-250	0	50	50	7.5
151-199	0	0	100	10
Less than 150	**Consult the on-call diabetes provider for dextrose concentration and insulin drip rate prior to transfer.**			

Please consider early transfer. Immediate transfer if BG below 200 mg/dL due to limited treatment options. D10W is contraindicated as maintenance fluid.

Admission Criteria:

All patients with suspected **Cerebral Edema** should be admitted to the PICU. See page 3 for diagnostic criteria and signs and symptoms of cerebral edema.

Anschutz and NOC:

- PICU admission for patients with initial pH less than (<) 7.15 and/or the initial HCO3- less than 5 mEq/L. The admit decision should be based on clinical judgement of the ED, PICU and diabetes providers.
- Inpatient floor admission for patients who have no evidence of cerebral edema AND have initial pH greater than 7.15 AND have an initial HCO3- greater than 5 mEq/L. The admit decision should be based on the clinical judgement of the ED, Hospitalist and diabetes providers. The ability of the medical unit to provide safe care through adequate staffing should also be considered and discussed with the medical unit Charge RN before patient transfer.
    - Please note: initial pH and HCO3- may drop after normal saline bolus and thus admission criteria is based on initial lab values.
    - Patients who initially meet PICU criteria, but improve throughout ED course and subsequently meet floor criteria, may be admitted to the inpatient floor unit.
- **Patients initially admitted to the PICU may be transferred to the inpatient floor when the following criteria have been met: pH is above 7.15, HCO3- is above 5 mEq/L AND there is no concern for cerebral edema.**
- Mental status changes may be difficult to assess in young children. Consider admission to the PICU for children under 5 years of age and any patients with impaired communication or developmental delay based on the clinical judgment of the ED, PICU, hospitalist and diabetes providers.

Colorado Springs:

- All COS patients will be admitted to the PICU

PICU-specific Hospital Management:

Given risk for cerebral edema perform Q1 hour Neuro checks and notify provider with any changes in mental status.

- Notify provider if BG drops greater than 50 mg/dL in 1 hour.
- Notify provider with change in fluid rates on two-bag system
- Notify provider when BG is less than 150 mg/dL
- Obtain RFP Q2 hour. Obtain VBG Q2 hour until pH >7.15 and with improving trend
- DKA pathway to determine all other management unless clinically indicated or requested by provider

LABORATORY STUDIES

Initial Labs:

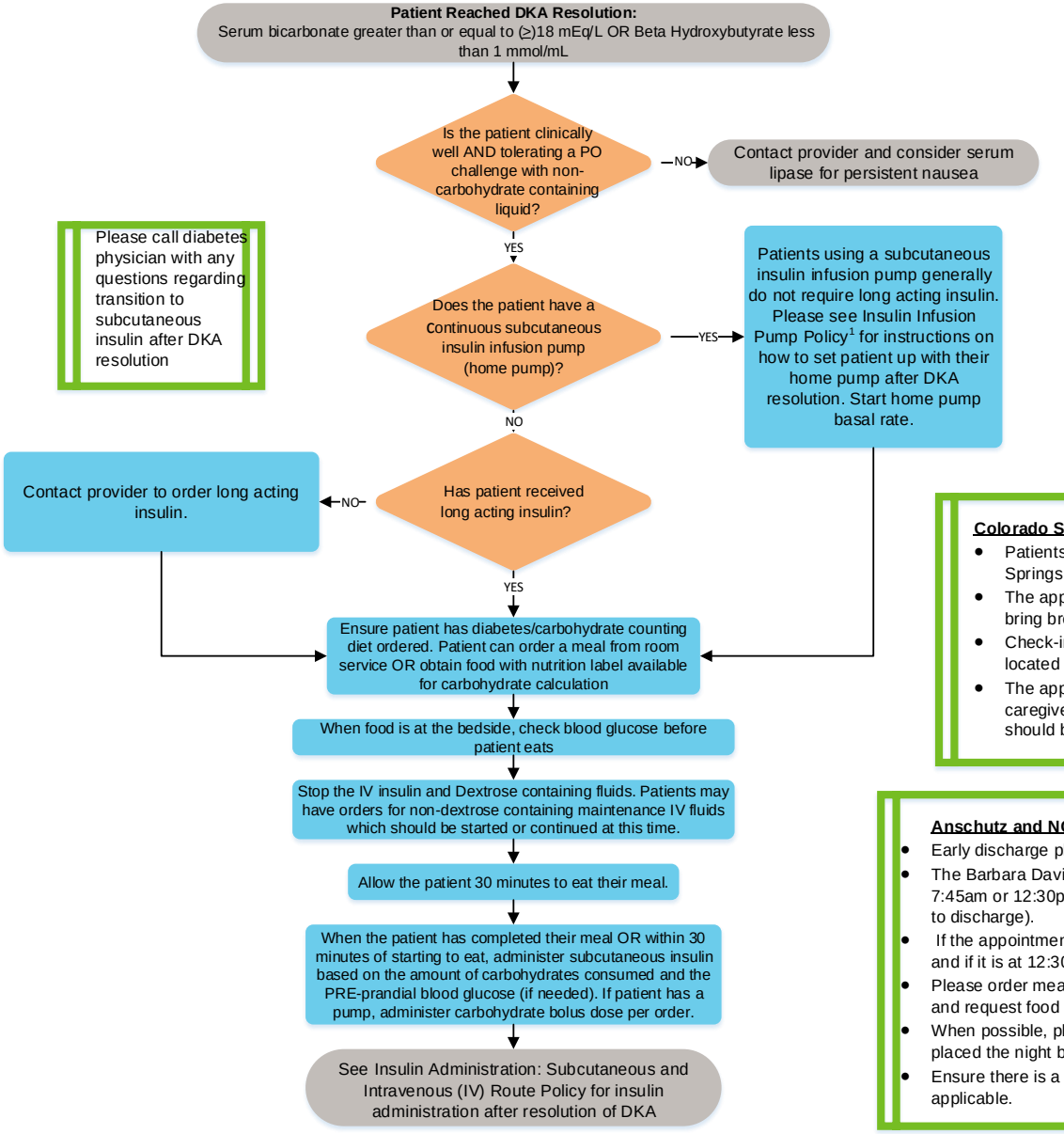
- Renal Function Panel (RFP) or Basic Metabolic Panel (BMP) with phos, ketones (urine or blood), blood glucose, VBG, A1C
- Any additional labs as warranted by clinical presentation
- Osmolality can be estimated by: $2(Na + K) + \frac{glucose}{18}$
- Na correction for elevated glucose $= \text{serum Na} + (1.6)\frac{\text{serum glucose}-100}{100}$
- Obtain a serum lipase if patient has persistent nausea, vomiting or abdominal pain
- **NOTE:** Contact the on-call diabetes physician once the initial labs have returned

Labs following IV bolus(es)

- BG Q1 hour while on insulin drip
    - POC BG every hour (POC BG must also be obtained after NS bolus(es) and prior to starting insulin drip)
    - If POC BG greater than 600 mg/dL, send sample to lab for serum glucose
- RFP or BMP with phos Q2 hours
- VBG initially, Q2 hours until pH greater than 7.15, and as needed
- Beta Hydroxybutyrate as needed before transition to subcutaneous (SC) insulin

TRANSITION TO SUBCUTANEOUS INSULIN

INSULIN INFUSION PUMP POLICY | **INSULIN ADMINISTRATION: SUBCUTANEOUS AND INTRAVENOUS (IV) ROUTE**



Colorado Springs Patients:

- Patients will follow up in the CHCO Colorado Springs Diabetes clinic
- The appointment will be at 8:00am, please bring breakfast.
- Check-in is on the 2nd floor; the clinic is NOT located in the same building as the hospital.
- The appointment will last about 4 hours, and all caregivers who help take care of the patient should be present.

Anschutz and NOC Patients:

- Early discharge planning is Crucial.
- The Barbara Davis Center education will either be at 7:45am or 12:30pm (this time should be determined prior to discharge).
- If the appointment is at 7:45am, please bring breakfast, and if it is at 12:30pm, please bring lunch.
- Please order meals ahead of time (or the night before) and request food be packaged in a "to-go" container.
- When possible, please ensure that discharge orders are placed the night before or early morning to avoid delay.
- Ensure there is a plan in place for an interpreter if applicable.

For patients on subcutaneous insulin injections

- Order their subcutaneous insulin using the "INSULIN SUBQ *INJECTION* + HYPOGLYCEMIA" order set, which includes orders for HYPOGLYCEMIA.
- **Timing of transition**:
    - DKA resolution is considered a serum bicarbonate greater than or equal to 18 mEq/L OR Beta Hydroxybutyrate less than 1 mmol/mL AND patient is clinically well and tolerates a PO challenge with non-carbohydrate containing liquid
    - Obtain a serum lipase if patient has persistent nausea, vomiting or abdominal pain.

Key points about long-acting subcutaneous insulin:

- The formulary in the hospital includes only Lantus (glargine) for the long-acting insulin. Some patients with known type 1 diabetes may use a different long-acting insulin at home, such as Levemir or Tresiba. If the family has these medications in the hospital and wishes to use them instead of Lantus, transition to subcutaneous insulin would follow the same recommendations as the ones below for Lantus.
- Lantus is generally given once every 24 hours but may be given either every 12 or 24 hours. Total daily dose of Lantus is generally around 0.2-0.6 units/kg/day in a regimen that includes a basal insulin (such as Lantus) and a bolus insulin (such as Humalog).
- There may be times when the endocrine/diabetes team will advise for administration of Lantus prior to resolution of DKA (such as the evening before).
    - This is often in patients with known type 1 diabetes who have a previously determined home insulin schedule (i.e. altering the time of their Lantus administration by giving it in the morning or during the day in the hospital when they normally do it at night may make it hard or confusing for some to transition back to their home schedule when they are discharged).
    - If Lantus is given early, then it should not be given again at the time of transition unless it has been 24 hours or more since the last dose of Lantus.
    - The early Lantus dose should be ordered to be administered every 24 hours to avoid missing a dose.
- If Lantus is given at the time of transitioning off the insulin drip to the subcutaneous regimen, the insulin drip should remain running for 45-60 minutes after the Lantus dose is given. This gives Lantus the appropriate amount of time to be absorbed and begin to take effect.
    - This Lantus dose should be ordered to be administered every 24 hours unless directed otherwise by the endocrine/diabetes team.
- Because of variability between patients, please ask the diabetes physician about the timing of the first dose of long-acting SC insulin during the day when possible.
- Recommendations will be documented in chart notes for reference.
- Types of insulin (NOTE: insulin in BOLD is available on the formulary)

Type	Insulin Name	Onset	Peak	Duration
Long-acting (provides basal coverage)	**Lantus® (insulin glargine)**	1-2 hours	No peak	22-24 hours
Long-acting (provides basal coverage)	Levemir® (insulin detemir)	1-2 hours	No peak	Less than 24 hours
Long-acting (provides basal coverage)	Tresiba® (insulin degludec)	1 hour	No peak	Up to 42 hours
Intermediate-acting	**NPH**	1 hour	4-6 hours	8-16 hours
Rapid-acting	**Humalog® (insulin lispro)**	15-30 minutes	1-1.5 hours	3-4 hours
Rapid-acting	Novolog® (insulin aspart) & Apidra® (insulin glulisine)	15-30 minutes	1-1.5 hours	3-4 hours

NOTE: the concentration of all the types of insulin listed above is 100 units/mL

General principles regarding subcutaneous (SC) insulin regimens

- Carbohydrate counting + blood glucose correction
  - Give rapid-acting (Humalog/lispro) insulin to cover the amount of carbohydrates the child is about to eat + additional rapid-acting insulin to bring the blood glucose down.
  - Example

1. Carbohydrate counting: If a child is on a 1:15 gram carbohydrate coverage (i.e. 1 unit of rapid-acting insulin for every 15g of carbohydrates consumed) and eats a 60g pancake breakfast, s/he needs 4 units of rapid-acting insulin before breakfast (60g/15g = 4 units).
2. Correction factor: If the child has a correction factor of "1 for every 100 mg/dL starting at 150 mg/dL," that means if the child's blood glucose is 130 mg/dL before a meal, s/he does not need any additional rapid-acting insulin on top of the insulin given to cover carbohydrates. However, if the blood glucose is 151-250 mg/dL prior to their meal, s/he needs 1 unit of rapid-acting insulin in addition to the insulin given to cover the carbohydrates. If her/his blood glucose is 251-350 mg/dL, s/he needs 2 units of rapid-acting insulin in addition to the insulin to cover carbohydrates, etc.

  - Ideally, rapid-acting insulin should be given 20-30 minutes before eating (to match onset of action), but for young children (especially younger than 3 years of age), children with newly diagnosed diabetes, or children who may not finish their meal or vomit, it is acceptable to give insulin immediately after the meal and within 20-30 minutes of STARTING to eat.
  - Do NOT give rapid-acting insulin injections for blood sugar correction more often than every 4 hours unless specified by endocrinology as this can cause "insulin stacking" and puts the child at risk for hypoglycemia (given the duration of rapid-acting insulins).
- Sliding scale
  - This is essentially carbohydrate counting + correction factor but written together to simplify calculations.
  - This is rarely used in the inpatient setting.
  - This works best for children who eat a fixed amount of carbohydrates at every meal (a "consistent carb" diet) and is often used for families who have a child with new onset diabetes or otherwise have not learned carbohydrate counting yet.

For patients on an insulin pump

- Order insulin pump orders using the "INSULIN SC *PUMP* + HYPOGLYCEMIA" order set, which includes orders for HYPOGLYCEMIA.
- Pumps use only rapid-acting insulin that is delivered continuously (basal rate) and as boluses that cover elevated glucose and carbohydrates.
- The CHCO Insulin Infusion Pump Policy Here

THERAPEUTICS

Cerebral Edema:

- Hypertonic Saline (HTS) 3% NaCl
  - Dose: 5 mL/kg
  - Route: IV - infuse over 15 minutes
- Mannitol
  - Dose: 1 g/kg, max dose 50g
  - Route: IV - infuse over 15 minutes
  - Administration requires 0.2 micron filter

- Fluids:
    - Initial 10-20 mL/kg 0.9% NaCl bolus over 1 hour
        - If shock, may give initial bolus over 30 minutes
        - May repeat bolus up to 40 mL/kg
    - Standard IV fluids are: NS + 20 mEq/L potassium acetate + 20 mEq/L potassium phosphate, (or 40 mEq/L KCl if Kacetate and Kphosphate are unavailable), run at 1.5X maintenance. Also, order a bag of D10 NS + 20 mEq/L potassium acetate + 20 mEq/L potassium phosphate, or D10W-1/2NS if potassium containing dextrose fluids unavailable to have at the bedside.
- IV Insulin boluses and sodium bicarbonate are **CONTRAINDICATED** for DKA

Insulin:

- Drip: start regular insulin IV at 0.1 units/kg/hour after the initial rehydration bolus is complete.
    - Consider insulin drip rate as low as 0.05 units/kg/hour for the following situations: cerebral edema, altered mental status, difficulty in the past with higher rates, risk for hypoglycemia, hypokalemia, small body weight
- Subcutaneous (SC): See General_Principles_SC_Insulin above

PARENT | CAREGIVER EDUCATION

The Barbara Davis Center (BDC) for Diabetes - http://www.barbaradaviscenter.org/
The Juvenile Diabetes Research Foundation (JDRF) – http://jdrf.org/

Patients with previously known Type 1 Diabetes:

Refer to individualized sick day protocol from your outpatient primary endocrinologist / diabetes health care provider.

- It is extremely important for patients to continue to hydrate, based on instructions from the sick day protocol. In general, if blood sugar is < 150 mg/dL, your child should be hydrating with sugar containing fluids such as diluted juice / Pedialyte. If blood sugar is >150 mg/dL, hydrate with non-sugar liquids.
- Blood sugar and ketones should continue to be checked every 2-3 hours, while acute illness symptoms continue and/or ketones remain present.
- In general, blood sugar corrections based on regular dosing to be given if ketones remain small or less (urine) or <1.0 mmol/mL (blood). If ketones moderate or greater (urine) or 1.0 mmol/mL or greater (blood), patients will require additional insulin; please refer to individualized sick day protocol plan for dosing. Give blood sugar corrections every 2-3 hours while ketones remain present.
- If patient is managed on insulin pump, please change insulin pump site/set immediately. Consider blood sugar corrections with injections if blood sugars are not decreasing or if ketones are not clearing.
- Call your primary diabetes care provider with questions or concerns about sick day management.
    - If your primary provider is at the Barbara Davis Center: 303-724-2323
    - If your primary provider is at CHCO Colorado Springs Diabetes: 719-305-9000

Depending on the underlying illness, the patient will possibly continue to have symptoms of acute illness for the next few days. It will be important to follow up with your primary care physician as instructed.

Seek medical care if patient has vomiting or refusing to hydrate with liquid, changes in mental status or behavior, has trouble breathing, or any other emergency symptoms.

Patients with newly diagnosed Type 1 Diabetes:

Patients will either be seen at the Barbara Davis Center (1775 Aurora Court, Aurora, CO, 80045) or at CHCO Colorado Springs Diabetes clinic (4125 Briargate Parkway, Colorado Springs, CO, 80920) for new onset diabetes education. Timing of this first appointment will be determined prior to the child discharging from the outpatient clinic office, emergency department or hospital admission.

- If the appointment is at the Barbara Davis Center: this appointment will either be at 7:45am or 12pm (this time should be determined for you prior to discharge). If the appointment is at 7:45am, please bring breakfast, and if it is at 12pm, please bring lunch. The appointment will last about 4 hours, and all caregivers who help take care of the patient should be present.

To print detailed information for BDC, with map:

If not within Children's Hospital Network Site: Go to Barbaradaviscenter.org --> Patient and Provider Resources --> Welcome to the BDC PDF: direct link here

If within Children's Hospital Network Site: (My Children's Colorado → Patient Handouts → Endocrinology → Welcome to BDC: English and Spanish – direct link here

- If the appointment is at CHCO Colorado Springs Diabetes clinic: the appointment will be at 8:00am, please bring breakfast. Check-in is on the 2nd floor; the clinic is NOT located in the same building as the hospital. The appointment will last about 4 hours, and all caregivers who help take care of the patient should be present.

- The next steps in caring for the patient are:
  - Continue to encourage plenty of water and sugar free liquids. Avoid juice, soda, Gatorade.
  - The patient can have their regular meals between now and the diabetes education appointment, but we do ask that you avoid high sugar items and liquid sugar (i.e. cake frosting, honey, syrup).

- Seek medical care if the patient has vomiting, changes in mental status, or any other emergency symptoms.

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Consensus Guidelines

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Insulin Treatment

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Clinical Pathways and Measures Review Committee – 5/19/2020
Pharmacy & Therapeutics Committee – 05/07/2020
Medication Safety Committee – September 2020

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COLORADO SPRINGS REVIEW BY	 Michael DiStefano, MD Chief Medical Officer, Colorado Springs
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REVIEW | REVISION SCHEDULE: Scheduled for full review May 2024

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Children's Hospital Colorado provides free aids and services to people with disabilities to communicate effectively with us, such as: Qualified sign language interpreters, written information in other formats (large print, audio, accessible electronic formats, other formats). Children's Hospital Colorado provides free language services to people whose primary language is not English, such as: Qualified interpreters, information written in other languages.

If you need these services, contact the Medical Interpreters Department at 720.777.9800.

If you believe that Children's Hospital Colorado has failed to provide these services or discriminated in another way on the basis of race, color, national origin, age, disability, or sex, you can file a grievance with: Corporate Compliance Officer, 13123 E 16th Avenue, B450, Aurora, Colorado 80045, Phone: 720.777.1234, Fax: 720.777.7257, corporate.compliance@childrenscolorado.org. You can file a grievance in person or by mail, fax, or email. If you need help filing a grievance, the Corporate Compliance Officer is available to help you.

You can also file a civil rights complaint with the U.S. Department of Health and Human Services, Office for Civil Rights, electronically through the Office for Civil Rights Complaint Portal, available at ocrportal.hhs.gov/ocr/portal/lobby.jsf, or by mail or phone at: U.S. Department of Health and Human Services 200 Independence Avenue, SW Room 509F, HHH Building Washington, D.C. 20201 1-800-368-1019, 800-537-7697 (TDD) Complaint forms are available at www.hhs.gov/ocr/office/file/index.html.

Children's Hospital Colorado complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex.

ATENCIÓN: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 1-720-777-9800.

CHÚ Ý: Nếu bạn nói Tiếng Việt, có các dịch vụ hỗ trợ ngôn ngữ miễn phí dành cho bạn. Gọi số 1-720-777-9800.

주의: 한국어를 사용하시는 경우, 언어 지원 서비스를 무료로 이용하실 수 있습니다. 1-720-777-9800 번으로 전화해 주십시오

注意：如果您使用繁體中文，您可以免費獲得語言援助服務。請致電1-720-777-9800。

ВНИМАНИЕ: Если вы говорите на русском языке, то вам доступны бесплатные услуги перевода. Звоните 1-720-777-9800.

ማስታወሻ: የሚናገሩት ቋንቋ አማርኛ ከሆነ የትርጉም እርዳታ ድርጅቶች፣ በነጻ ሊያግዝዎት ተዘጋጀተዋል፡ ወደ ሚከተለው ቁጥር ይደውሉ 1-720-777-9800 (መስማት ለተሳናቸው.

ملحوظة: إذا كنت تتحدث اذكر اللغة، فإن خدمات المساعدة اللغوية تتوافر لك بالمجان. اتصل برقم 1-720-777-9800 (رقم

ACHTUNG: Wenn Sie Deutsch sprechen, stehen Ihnen kostenlos sprachliche Hilfsdienstleistungen zur Verfügung. Rufnummer: 1-720-777-9800.

ATTENTION : Si vous parlez français, des services d'aide linguistique vous sont proposés gratuitement. Appelez le 1-720-777-9800.

ध्यान दनु होस्तपाइले नेपाल बोल्नहन्छ भन तपाइको निम्त भाषा सहायता सवाहरू नःशल्क रूपमा उपलब्ध छ । फोन गनु होसर् 1-720-777-9800 ।

PAUNAWA: Kung nagsasalita ka ng Tagalog, maaari kang gumamit ng mga serbisyo ng tulong sa wika nang walang bayad. Tumawag sa 1-720-777-9800.

注意事項：日本語を話される場合、無料の言語支援をご利用いただけます。1-720-777-9800 まで、お電話にてご連絡ください。

Ntị: Ọ bụrụ na asụ Ibo, asụsụ aka ọasụ n'efu, defu, aka. Call 1-720-777-9800.