



HURON PERTH HEALTHCARE ALLIANCE
MEDICAL DIRECTIVE

Medical Directive	Glucose Monitoring During Triage
Directive #	MD-ED-025 Old: AD-MED #13 or PED#8
Approval	Medical Advisory Committee
Date	October 26, 2017
Signature	
Review/Revision Date	Original – Dec/12, R – Apr/17
Specific to	HPHA Emergency Department

Clinical History that may be indicative of Diabetes:

- Polyuria
- Polydipsia
- Polyphagia
- Unintended weight loss
- Nocturia or bedwetting in a previously toilet-trained child
- Abdominal pain
- Vomiting in a paediatric patient
- Fatigue
- Altered Level of Consciousness
- Unexplained tachypnea
- Previously diagnosed with diabetes

<p>Clinical Signs of DKA</p> <ul style="list-style-type: none"> • Dehydration • Deep sighing respiration (Kussmaul) • Smell of ketones • Lethargy/drowsiness • ± Vomiting

Description of Procedure:

- Perform point of care capillary glucose testing during the triage process on patients listed under specific patient conditions.

Reference Blood Glucose Range (mmol/L)

Random: Newborn to 3 years of age: 2.6 - 6.1 mmol/L
 3 years and older: 3.6 – 7.8 mmol/L

Fasting: Newborn to 1 month: 2.5 -5.5 mmol/L
 1 month to 3 years: 2.2 – 5.0 mmol/L
 3 years and older: 4.2 - 6.1 mmol/L

- Blood is generally collected from neonates and infants less than 9 kg or 20 lb. (less than 1 year old) by capillary puncture of the heel. Taking the blood from the fingers of an infant may injure the bone which is close to the skin. Refer to Docushare Policy OSPEC/0007, Heel Stick Procedure (Infants and Neonates).
- Immediately notify the lab and obtain an order from the physician for a VENOUS blood sugar if a critical value is obtained.

CRITICAL BLOOD GLUCOSE VALUES		
	LOW	HIGH
Neonate to 3 yrs	less than 2.0	greater than 17
Greater than 3 yrs to ADULT	less than 2.5	greater than 25

Ref: M:\IHLP Manuals\IHLP POCT Manual\Whole Blood Glucose\OPOCTAppendix12 Glucose Result Form 5/03/2010

- Notify the ED physician of patient's condition and receive orders to treat hypoglycemia or hyperglycemia.

Signs and Symptoms of Hypoglycemia

- Cold, clammy or sweaty skin
- Difficulty Concentrating
- Irritability, hostility, and poor behavior
- Fatigue
- Excessive Hunger
- Blurred Vision
- Abdominal Pain
- Fainting
- Pallor
- Shakiness, Lack of coordination (e.g. deterioration in writing or printing skills)
- Gait Disturbance
- Nervousness
- Headache
- Dizziness
- Nausea
- Unconscious

Authorized To:

- RN/RPN who have completed an educational component specific to that particular medical directive to be eligible to implement the directive.
- Appropriately educated Registered Nurses and Registered Practical Nurses in HPHA Emergency Departments who have completed the required annual point of care glucometer certification

Specific Patient Conditions:

- Patient of any age who arrive to the ED with one or more of the following conditions:
 - Polyuria
 - Polydipsia
 - Polyphagia
 - Unintended weight loss
 - Nocturia or bedwetting in a previously toilet-trained child
 - Abdominal pain
 - Vomiting in a paediatric patient
 - Fatigue
 - Altered level of consciousness/Confusion
 - Unexplained tachypnea
- Pediatric and adult patients who have been previously diagnosed with Diabetes Mellitus

Contraindications:

- Lack of consent
-

Reasons to seek immediate medical consultation or discontinue procedure/treatment/intervention:

- Critical blood glucose values
 - Normal capillary glucose value in the presence of signs/symptoms of hypo/hyperglycemia
 - CTAS 1 and 2 patients if the Medical Directive delays their treatment
-

Documentation:

- Implementation of the Medical Directive including name and number of the directive, name, signature and credentials of the implementer and name of the attending physician in the order section of the ED chart.
 - Subjective and objective assessment
 - Manually document all results and times on ED chart, and critical values in EDM glucose assessment screen.
-

Quality Assurance

- The Medical Program Director, Emergency Medicine will approve the education component of the Medical Directive
 - The ED RN/RPN will have completed an education component specific to the particular Medical Directive and their annual recertification for point of care glucometer testing to be eligible to implement to directive.
 - The ED RN/RPN will demonstrate competence in the Medical Directive prior to initiating.
 - An annual review will be conducted at the discretion of the HPHA Emergency Care Team to review the appropriateness of the Medical Directive
-

Originator	HPHA Clinical Educator
Current Review/Revision	
Responsibility	HPHA Emergency Care Team
Distribution	HPHA Emergency Department Manuals HPHA My Alliance ED Medical Directives

Reference(s):

Blank, F., Miller, M., Nichols, J., Smithline, H., Crabb, G., & Pekow, P. (2009). Blood Glucose Measurement in Patients with Suspected Diabetic Ketoacidosis: A Comparison of Abbott Medisense PCx Point-of-Care Meter Values to Reference Laboratory Values, *Journal of Emergency Nursing*, 35(2).

Canadian Association of Emergency Physicians. (2012). Complaint Oriented Triage COT 2012. Retrieved from caep.ca/sites/caep.ca/files/caep/cot_2012_english_canada_v02.02_1_0.ppsx

IHLP Laboratory Clinical Manual, Docushare.Heel Stick – Pediatrics & Neonates. Retrieved: from HPHA, My Alliance, March 6, 2017 <http://www.ihlpdocs.on.ca/dsweb/Get/Document-620/OSPEC0007%20Heel%20Stick%20Procedure.pdf>

IHLP Laboratory Clinical Manual, Docushare. Patient Testing – Whole Blood Glucose.
Retrieved: from HPHA, My Alliance, March 6, 2017”
<http://www.ihlpdfdocs.on.ca/dsweb/Get/Document-809/OPOCT0012%20WBG%20Patient%20Analysis.pdf>