

Hyperkalemia [1248]

The urgency of treatment of hyperkalemia varies with the presence or absence of the symptoms and signs associated with hyperkalemia, the severity of the potassium elevation, and the cause of hyperkalemia.

Order set suggested for use in patients

- With potassium level GREATER than or EQUAL to 6 mEq/L and/or
- Cardiac conduction abnormalities or arrhythmias

Cardiology

EKG

<input checked="" type="checkbox"/> ECG 12 lead	STAT, Once Clinical Indications: Other: Other: For Hyperkalemia Interpreting Physician:
<input checked="" type="checkbox"/> ECG 12 lead	Routine, Once For 1 Occurrences Clinical Indications: Other: Other: For Hyperkalemia Interpreting Physician: Repeat in one hour after initial STAT EKG
<input checked="" type="checkbox"/> Telemetry	"And" Linked Panel
<input checked="" type="checkbox"/> Telemetry monitoring	Routine, Continuous For 5 Days Order: Place in Centralized Telemetry Monitor: EKG Monitoring Only (Telemetry Box) Reason for telemetry: Electrolyte abnormality Can be off of Telemetry for tests and baths? Yes
<input checked="" type="checkbox"/> Telemetry Additional Setup Information	Routine, Continuous High Heart Rate (BPM): 120 Low Heart Rate(BPM): 50 High PVC's (per minute): 10 High SBP(mmHg): 175 Low SBP(mmHg): 100 High DBP(mmHg): 95 Low DBP(mmHg): 40 Low Mean BP: 60 High Mean BP: 120 Low SPO2(%): 94

EKG

<input checked="" type="checkbox"/> ECG 12 lead	STAT, Once Clinical Indications: Other: Other: For Hyperkalemia Interpreting Physician:
<input checked="" type="checkbox"/> ECG 12 lead	Routine, Once For 1 Occurrences Clinical Indications: Other: Other: For Hyperkalemia Interpreting Physician: Repeat in one hour after initial STAT EKG
<input checked="" type="checkbox"/> ED bedside monitoring	STAT, Continuous For Until specified

Medications

furosemide (LASIX) injection

furosemide (LASIX) injection intravenous, once, For 1 Doses

If EKG changes are present, give intravenous calcium gluconate or calcium chloride (Single Response)

Peripheral, Midline or Central Line (Single Response)

- IVPB - calcium gluconate - ONCE STAT
Administer over 30 minutes
- 1 g, intravenous, Administer over: 30 Minutes, once, For 1 Doses
May repeat x 1 dose after 5 minutes if ECG changes persists.
If a repeat dose is required a new order is needed.

<input type="checkbox"/> calcium gluconate injection - IV Push over 2-3 minutes	1 g, intravenous, once, For 1 Doses Administer IV Push over 2-3 minutes. May repeat x 1 dose after 5 minutes if ECG changes persists. If a repeat dose is required a new order is needed.
<input type="checkbox"/> Central Line ONLY (Single Response)	
<input type="checkbox"/> IVPB - calcium chloride 10 % - ONCE STAT Administer over 30-60 minutes	1 g, intravenous, Administer over: 60 Minutes, once, For 1 Doses Administer IVPB over 30-60 minutes ONCE STAT. May repeat X 1 dose after 5 minutes if ECG changes persists. If a repeat dose is required a new order is needed.
<input type="checkbox"/> IV Push - calcium chloride 100 mg/mL (10 %) injection -ONCE STAT Administer over 2-3 minutes	1 g, intravenous, once, For 1 Doses Administer IV Push over 2-3 minutes ONCE STAT. May repeat X 1 dose after 5 minutes if ECG changes persists. If a repeat dose is required a new order is needed.

If acidosis is present,

<input type="checkbox"/> sodium bicarbonate IV Bolus/Push	50 mEq, intravenous, once, For 1 Doses Administer over 15 minutes using syringe adapter if available. May be administered IV push in emergent situations.
<input type="checkbox"/> sodium bicarbonate 75 mEq in 1/2NS 1000 mL	100 mL/hr, intravenous, continuous
<input type="checkbox"/> sodium bicarbonate 150 mEq in sterile water 1,000 mL	100 mL/hr, intravenous, continuous

Dextrose and Regular Insulin (Single Response)

<input type="checkbox"/> If eGFR/CrCl GREATER than 20 mL/min:	
<input type="checkbox"/> POC Glucose STAT (Single Response)	
<input type="checkbox"/> Bedside glucose	STAT, Once For 1 Occurrences Check POC glucose every 30 minutes after insulin given for 2 occurrences, followed by hourly for 1 occurrence.
<input type="checkbox"/> For Non-ESRD Patients - Dextrose 50% (D50) Followed By Insulin regular (HUMULIN) for Hyperkalemia Treatment (HMH HMSL ONLY) "Followed by" Linked Panel	
<input type="checkbox"/> dextrose 50% solution	0-25 g, intravenous, once, For 1 Doses For HYPERKALEMIA treatment: Give PRIOR to administration of insulin: POC Glucose LESS than 70 mg/dL: DO NOT give insulin. Implement the Adult HYPOglycemia Standing Orders, STAT and notify provider. POC Glucose BETWEEN 71 - 300 mg/dL: Give Dextrose 50% 25 g. Document on MAR a discrete dose of 25 g was administered. POC Glucose GREATER than 300 mg/dL: OMIT Dextrose 50%. Document on MAR that 0 g was administered.
<input type="checkbox"/> insulin regular (HumuLIN-R, NovoLIN-R) injection	5-10 Units, intravenous, once, For 1 Doses For HYPERKALEMIA treatment: Give 5 OR 10 units AFTER dextrose 50% is administered, based on POC Glucose value.. POC Glucose LESS than 70 mg/dL: DO NOT give insulin. Implement the Adult HYPOglycemia Standing Orders, STAT and notify provider. For Non-ESRD Patients: POC Glucose BETWEEN 70-140 mg/dL: Give 5 units insulin regular. Document on MAR a discrete dose of 5 units was administered. POC Glucose GREATER than 141 mg/dL: Give 10 units insulin regular. Document on MAR a discrete dose of 10 units was administered. Check POC glucose every 30 minutes after insulin given for 2 occurrences, followed by hourly for 1 occurrence.
<input type="checkbox"/> For Non-ESRD Patients - Dextrose 50% (D50) Followed By Insulin regular (HUMULIN) for Hyperkalemia Treatment (NOT HMH HMSL) "Followed by" Linked Panel	

<input type="checkbox"/> dextrose 50% solution	<p>0-25 g, intravenous, once, For 1 Doses For HYPERKALEMIA treatment: Give PRIOR to administration of insulin:</p> <p>POC Glucose LESS than 70 mg/dL: DO NOT give insulin. Implement the Adult HYPOglycemia Standing Orders, STAT and notify provider. POC Glucose BETWEEN 71 - 300 mg/dL: Give Dextrose 50% 25 g. Document on MAR a discrete dose of 25 g was administered. POC Glucose GREATER than 300 mg/dL: OMIT Dextrose 50%. Document on MAR that 0 g was administered.</p>
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<input type="checkbox"/> POC Glucose Post Insulin Administration (Single Response) (Selection Required)	"And" Linked Panel
<input type="checkbox"/> POC Glucose	<p>Routine, Once, Starting H+30 Minutes For 1 Occurrences POC Glucose 1 of 3 after insulin is given:</p>
<input type="checkbox"/> Bedside glucose	<p>Check POC glucose every 30 minutes after insulin given for 2 occurrences, followed by hourly for 1 occurrence.</p>
<input type="checkbox"/> Bedside glucose	<p>Routine, Once, Starting H+60 Minutes For 1 Occurrences POC Glucose 2 of 3 after insulin is given:</p>
<input type="checkbox"/> Bedside glucose	<p>Check POC glucose every 30 minutes after insulin given for 2 occurrences, followed by hourly for 1 occurrence.</p>
<input type="checkbox"/> Bedside glucose	<p>Routine, Once, Starting H+120 Minutes For 1 Occurrences POC Glucose 3 of 3 after insulin is given:</p>
<input type="checkbox"/> Bedside glucose	<p>Check POC glucose every 30 minutes after insulin given for 2 occurrences, followed by hourly for 1 occurrence.</p>
<input type="checkbox"/> Adult Hypoglycemia Standing Orders (Selection Required)	<p>Routine, Per unit protocol CLICK REFERENCE LINK TO OPEN ALGORITHM:</p>
<input type="checkbox"/> Hypoglycemia management - Monitor patient for signs and symptoms of HYPOglycemia and follow standing orders	<p>12.5 g, intravenous, every 20 min PRN, low blood sugar, If blood glucose is between 41-69 mg/dL, For 2 Doses Give ½ cup juice if patient is able or 50% dextrose 12.5 g (25 mL) IV push ONCE. Contact the provider and recheck blood glucose in 20 minutes. DO NOT give further insulin until ordered by a provider</p>
<input type="checkbox"/> dextrose 50% intravenous syringe	<p>25 g, intravenous, every 20 min PRN, low blood sugar, If blood glucose is 40 mg/dL or LESS, For 2 Doses Give 50% dextrose 25 g (50 mL) IV push ONCE, contact the provider and recheck in 20 minutes. DO NOT give further insulin until ordered by a provider</p>

[] glucagon injection	1 mg, intramuscular, every 15 min PRN, low blood sugar, if patient NPO, unable to swallow safely with no IV access. If glucose remains LESS than 70 mg/dL, after 2 doses of D50 or Glucagon, send serum glucose level STAT. Initiate treatment immediately after lab drawn. Do NOT delay treatment waiting for lab result. Recheck blood sugar every 20 min until greater than 100 mg/dL. Notify Provider.
[] dextrose 10 % infusion	40 mL/hr, intravenous, continuous PRN, other, For bedside glucose LESS than 70 mg/dL Notify Provider, consider transfer to ICU. Check Glucose every hour while on D10 infusion. Titrate infusion by 10 mL per hour to keep glucose between 100 and 140 mg/dL. Notify provider when ANY/ALL of the following occur: -Dextrose 10% infusion is started -If glucose is less than 70 mg/dL while on dextrose 10% infusion -When dextrose 10% infusion rate is increased to greater than 100 mL/hr
() If ESRD, on Dialysis or eGFR/CrCl LESS than or equal to 20 mL/min	
[] POC Glucose STAT (Single Response)	
() Bedside glucose	STAT, Once For 1 Occurrences Check POC glucose every 30 minutes after insulin given for 2 occurrences, followed by hourly for 1 occurrence.
[] For ESRD Patients - Dextrose 50% (D50) Followed By Insulin regular (HUMULIN) for Hyperkalemia Treatment (HMH HMSL ONLY)	"Followed by" Linked Panel
[] dextrose 50% solution	0-25 g, intravenous, once, For 1 Doses For HYPERKALEMIA treatment: Give PRIOR to administration of insulin: POC Glucose LESS than 70 mg/dL: DO NOT give insulin. Implement the Adult HYPOglycemia Standing Orders, STAT and notify provider. POC Glucose BETWEEN 71 - 300 mg/dL: Give Dextrose 50% 25 g. Document on MAR a discrete dose of 25 g was administered. POC Glucose GREATER than 300 mg/dL: OMIT Dextrose 50%. Document on MAR that 0 g was administered.
[] insulin regular (HumuLIN-R, NovoLIN-R) injection	5 Units, intravenous, once, For 1 Doses For HYPERKALEMIA treatment: Give AFTER dextrose 50% is administered.. POC Glucose LESS than 70 mg/dL: DO NOT give insulin. Implement the Adult HYPOglycemia Standing Orders, STAT and notify provider. For ESRD Patients: POC Glucose GREATER than 70 mg/dL: Give 5 units insulin regular Check POC glucose every 30 minutes after insulin given for 2 occurrences, followed by hourly for 1 occurrence.
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<input type="checkbox"/> insulin regular (HumuLIN-R, NovoLIN-R) injection	<p>5 Units, intravenous, once, For 1 Doses For HYPERKALEMIA treatment: Give AFTER dextrose 50% is administered..</p> <p>POC Glucose LESS than 70 mg/dL: DO NOT give insulin. Implement the Adult HYPOglycemia Standing Orders, STAT and notify provider.</p> <p>For ESRD Patients: POC Glucose GREATER than 70 mg/dL: Give 5 units insulin regular</p> <p>Check POC glucose every 30 minutes after insulin given for 2 occurrences, followed by hourly for 1 occurrence.</p>
<input type="checkbox"/> POC Glucose Post Insulin Administration (Single Response) (Selection Required)	
() POC Glucose "And" Linked Panel	
<input type="checkbox"/> Bedside glucose	<p>Routine, Once, Starting H+30 Minutes For 1 Occurrences POC Glucose 1 of 3 after insulin is given:</p> <p>Check POC glucose every 30 minutes after insulin given for 2 occurrences, followed by hourly for 1 occurrence.</p>
<input type="checkbox"/> Bedside glucose	<p>Routine, Once, Starting H+60 Minutes For 1 Occurrences POC Glucose 2 of 3 after insulin is given:</p> <p>Check POC glucose every 30 minutes after insulin given for 2 occurrences, followed by hourly for 1 occurrence.</p>
<input type="checkbox"/> Bedside glucose	<p>Routine, Once, Starting H+120 Minutes For 1 Occurrences POC Glucose 3 of 3 after insulin is given:</p> <p>Check POC glucose every 30 minutes after insulin given for 2 occurrences, followed by hourly for 1 occurrence.</p>
<input type="checkbox"/> Adult Hypoglycemia Standing Orders (Selection Required)	
<input type="checkbox"/> Hypoglycemia management - Monitor patient for signs and symptoms of HYPOglycemia and follow standing orders	<p>Routine, Per unit protocol CLICK REFERENCE LINK TO OPEN ALGORITHM:</p>
<input type="checkbox"/> dextrose 50% intravenous syringe	<p>12.5 g, intravenous, every 20 min PRN, low blood sugar, If blood glucose is between 41-69 mg/dL For blood glucose between 41-69 mg/dL, give ½ cup juice if patient is able or dextrose 50% intravenous solution 12.5 g (25mL) IV push ONCE. Contact the provider and recheck blood glucose in 20 minutes until glucose is greater than 100 mg/dL. DO NOT give further insulin until ordered by a provider</p>
<input type="checkbox"/> dextrose 50% intravenous syringe	<p>25 g, intravenous, every 20 min PRN, low blood sugar, if blood glucose is less than or equal 40 mg/dL Recheck bedside glucose every 20 min until glucose greater than 100 mg/dL.</p>
<input type="checkbox"/> glucagon injection	<p>1 mg, intramuscular, every 15 min PRN, low blood sugar, if patient NPO, unable to swallow safely with no IV access. If glucose remains LESS than 70 mg/dL, after 2 doses of D50 or Glucagon, send serum glucose level STAT. Initiate treatment immediately after lab drawn. Do NOT delay treatment waiting for lab result. Recheck blood sugar every 20 min until greater than 100 mg/dL. Notify Provider.</p>
<input type="checkbox"/> dextrose 10 % infusion	<p>40 mL/hr, intravenous, continuous PRN, other, For bedside glucose LESS than 70 mg/dL Notify Provider, consider transfer to ICU. Check Glucose every hour while on D10 infusion. Titrate infusion by 10 mL per hour to keep glucose between 100 and 140 mg/dL. Notify provider when ANY/ALL of the following occur: -Dextrose 10% infusion is started -If glucose is less than 70 mg/dL while on dextrose 10% infusion -When dextrose 10% infusion rate is increased to greater than 100 mL/hr</p>

Other Medications

<input type="checkbox"/> albuterol sulfate (PROVENTIL) nebulizer solution	10 mg, nebulization, once, For 1 Doses Administer over 10 minutes. Consider other options if patient heart rate is GREATER than 120 beats per minute or if patient has history of coronary artery disease (CAD) or myocardial infarction (MI).
<input type="checkbox"/> sodium polystyrene sulfonate (KAYEXALATE) suspension	30 g, oral, once, For 1 Doses DO NOT GIVE for acute abdominal pain or abdominal issues. DO NOT GIVE if patient is going to dialysis in the next 2 hours.
<input type="checkbox"/> sodium zirconium cyclosilicate (LOKELMA) packet	10 g, oral, once, For 1 Doses

Labs

Labs

Recheck one hour after intervention

<input type="checkbox"/> Basic metabolic panel	STAT For 1 Occurrences Draw lab one hour after administration of ordered medications for treatment of HYPERkalemia.
<input type="checkbox"/> Potassium	STAT For 1 Occurrences Draw lab one hour after administration of ordered medications for treatment of HYPERkalemia.

Notify

Notify Admitting/Ordering Provider

<input checked="" type="checkbox"/> Notify Admitting/Ordering Provider	Routine, Until discontinued, Starting S, Notify Physician: If glucose is less than 70 mg/dL or greater than 300 mg/dL.
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Notify Physician for Potassium Level

<input checked="" type="checkbox"/> Notify Physician for Potassium Level	Routine, Until discontinued, Starting S, Notify physician at phone number: *** for potassium level GREATER than ***
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