



London Health Sciences Centre

CRITICAL CARE

INSULIN INFUSION PREPRINTED ORDER

KEY: R - REQUISITIONED P - PROCESSED (KARDEX)

NON-MEDICATION ORDERS	R	P	MEDICATION ORDERS	P																																				
<p>Reason for Exam / Clinical History and Contact # required for all Radiology / Nuclear Medicine orders.</p> <p><input type="checkbox"/> Target range for Glucose for all patients is 4.5 - 6.5 mmol/L.</p> <ul style="list-style-type: none"> If any Glucose measurement is greater than 7.5 mmol/L, repeat in 2 hours. If still greater than 7.5 mmol/L, initiate protocol with above target goal. This protocol is NOT to be used for patients with diabetic ketoacidosis (during the first 48 hours post admission) or fulminant hepatic failure. Send Blood Glucose to lab daily with am bloodwork and pm to verify glucometer readings of glucose less than 2.5 or greater than 20 mmol/L. Draw all Glucose measurements from arterial catheter. Obtain capillary sample only when no indwelling access available. Administer Insulin by dedicated line. Do not piggyback with other infusions or use line for intermittent medication administration. Maintenance IV must contain Dextrose when Insulin is administered in the absence of enteral or parenteral feeding [e.g.Dextrose 5% and Sodium Chloride 0.9%]. <p>GLUCOSE MONITORING AND ADJUSTMENT:</p> <ul style="list-style-type: none"> Measure Glucose and adjust Insulin per protocol q 2 hours until 3 Glucose levels within range, then q 4 hours. If Glucose decreases 50% or more, is less than 4.5 or decreases by 2 ranges or more, measure and adjust Insulin per protocol q1h until 3 Glucose levels within range. If neurological status decreases, suspect hypoglycemia and perform STAT glucose check. Increase Glucose monitoring frequency when sympathomimetic drug infusions are being titrated or intermittent steroid doses are administered. If TPN is abruptly discontinued (without enteral feeding being established), administer Dextrose 10% IV at the same rate as the TPN, repeat Blood Glucose in 1 hour and review orders with Physician. If enteral feeding is stopped or decreased, recheck Blood Glucose in 1 hour. If feeding is withheld during patient transport for test or procedure, stop Insulin infusion. Recheck Glucose upon return to unit and restart Insulin according to protocol. Review Insulin therapy with anaesthesia prior to transfer to Operating Room. Continue Insulin infusion protocol until patient is discharged. <ul style="list-style-type: none"> Continuous Insulin therapy may be discontinued when patient has transfer orders and is no longer receiving continuous feeding. For patients without a previous history of diabetes mellitus who have been stable for at least 48 hours on an infusion of less than 2 units/hour, attempt to wean Insulin off. Restart if Glucose increases above target range. 			<p><input type="checkbox"/> Regular Insulin infusion 1 unit/mL concentration in Sodium Chloride 0.9%. Start infusion at 2 units/hour (2 mL/hour). Start at 4 units/hour (4 mL/hour) if Glucose greater than 13. Nurses may use discretion when adjusting Insulin infusions +/- 3 units/hour, based on observed trends.</p> <p><input type="checkbox"/> Other _____</p> <hr/> <p>Glucose Level</p> <p>less than 2.5</p> <ul style="list-style-type: none"> HOLD Insulin infusion RECHECK Blood Glucose q 1 hour GIVE 25 mL of Dextrose 50% in Water (D50W) NOTIFY MD/NP If patient is an Insulin-dependent diabetic, leave Insulin infusion at 0.5 units/hour after giving Dextrose bolus <p>2.5 - 3</p> <ul style="list-style-type: none"> HOLD Insulin infusion RECHECK Blood Glucose q 1 hour GIVE 10 mL Dextrose 50%in Water (D50W) NOTIFY MD/NP if patient is symptomatic RESTART Insulin infusion at 2/3 the previous infusion rate when glucose greater than 6 * If patient is an Insulin-dependent diabetic, leave Insulin infusion at 0.5 units/hour after giving Dextrose bolus <p>If over 3 and decreased more than 50%, or Glucose decreases by greater than or equal to 2 ranges</p> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #e0e0e0;"> <th colspan="4">Change in Glucose since the last check:</th> </tr> <tr> <th></th> <th>Increased from a lower range</th> <th>Is within same range</th> <th>Decreased from a higher range</th> </tr> </thead> <tbody> <tr> <td>3.1 - 4.4</td> <td>No change</td> <td>Decrease infusion (Rate Change "A")*</td> <td>Decrease infusion (Rate Change "B")*</td> </tr> <tr> <td>4.5 - 7</td> <td>No change</td> <td>No change</td> <td>Decrease infusion (Rate Change "A")*</td> </tr> </tbody> </table> <hr/> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr style="background-color: #e0e0e0;"> <th colspan="4">Change in Glucose since the last check:</th> </tr> <tr> <th></th> <th>Decreased by less than 2 or increased</th> <th>Decreased by 2 - 4</th> <th>Decreased by more than 4</th> </tr> </thead> <tbody> <tr> <td>7.1 - 8.5</td> <td>Increase by 1 unit/hour</td> <td>No change</td> <td>Decrease infusion (Rate Change "A")*</td> </tr> <tr> <td>8.6 - 18</td> <td>Increase by 2 units/hour</td> <td>Increase by 1 unit/hour</td> <td>No Change</td> </tr> <tr> <td>18.1 - 24</td> <td>Increase by 3 units/hour</td> <td>Increase by 2 units/hour</td> <td>No Change</td> </tr> </tbody> </table> <p>Greater than 24 Call MD/NP</p> <p>* RATE CHANGE CHART IS ON BACK OF THIS PAGE.</p> <p>NOTE: Changes of Glucose readings less than 1 mmol/L may be within glucometer measurement error and should not be considered a significant change.</p>	Change in Glucose since the last check:					Increased from a lower range	Is within same range	Decreased from a higher range	3.1 - 4.4	No change	Decrease infusion (Rate Change "A")*	Decrease infusion (Rate Change "B")*	4.5 - 7	No change	No change	Decrease infusion (Rate Change "A")*	Change in Glucose since the last check:					Decreased by less than 2 or increased	Decreased by 2 - 4	Decreased by more than 4	7.1 - 8.5	Increase by 1 unit/hour	No change	Decrease infusion (Rate Change "A")*	8.6 - 18	Increase by 2 units/hour	Increase by 1 unit/hour	No Change	18.1 - 24	Increase by 3 units/hour	Increase by 2 units/hour	No Change	
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DECREASING INSULIN INFUSION		
CURRENT RATE OF INFUSION	RATE CHANGE "A"	RATE CHANGE "B"
Less than 5 units per hour	Reduce by 0.5 units per hour	Reduce by 1 unit per hour
5.5 - 8 units per hour	Reduce by 1 unit per hour	Reduce by 2 units per hour
Greater than 8 units per hour	Reduce by 2 units per hour	Reduce by 3 units per hour

NOTE: All patients with Insulin-dependent diabetes require a supply of insulin at all times. Do not abruptly discontinue Insulin infusions until reviewing with an ICU Physician.