

Pharmacy Dextrose 50% Drug Shortage Update



A drug shortage has occurred on the market for IV Dextrose 50% in all forms, this shortage has been ongoing since August of 2018 & is beginning to impact SVMC. The projected end of the shortage is September 2019. The current plan of action to relieve the strain on our supply of IV Dextrose 50% is outlined below. The proposed changes were reviewed with nursing managers & directors and will be effective immediately as of Thursday July 25th, 2019 (Item #5).

<https://www.accessdata.fda.gov/scripts/drugshortages/default.cfm>

Above article contains information from the FDA in regards to the shortage.

Plan of action for Dextrose management & strategies to avoid its overuse:

1. **Using fruit juice for hypoglycemic patients that remain conscious and can are not NPO**
2. Following ADA recommendations for glycemic targets in hospitalized patients
 - a. https://care.diabetesjournals.org/content/41/Supplement_1/S144

GLYCEMIC TARGETS IN HOSPITALIZED PATIENTS

Recommendations

- Insulin therapy should be initiated for treatment of persistent hyperglycemia starting at a threshold ≥ 180 mg/dL (10.0 mmol/L). Once insulin therapy is started, a target glucose range of 140–180 mg/dL (7.8–10.0 mmol/L) is recommended for the majority of critically ill patients and noncritically ill patients. **A**
 - More stringent goals, such as 110–140 mg/dL (6.1–7.8 mmol/L), may be appropriate for selected patients, if this can be achieved without significant hypoglycemia. **C**
3. Following Uptodate recommendations for management of type 2 diabetics
 - a. Careful consideration which type 2 diabetics will be treated with insulin, sulfonylureas, or meglitinide as they generally carry a higher risk of hypoglycemia.
 4. Utilize correct insulin sliding scales for the patients that need it. Remember there is now access to an **insulin sensitive** sliding scale in the sliding scale order set.
 5. IV Dextrose 50% will be batch prepared from 500mL bags procured by pharmacy and will be provided by pharmacy during operating hours. For emergencies and overnight we will continue to have pyxis stocked.
 6. Pharmacists will try to work closely with physicians in managing patients that have persistent hypoglycemia to possibly utilize a Dextrose 10% solution to maintain adequate BG levels.

We currently anticipate that this fill the gap for the projected remainder of the shortage. We have also spoke with our outside compounding pharmacy to supply us with Dextrose 50% compounded if we run out of our supply of bulk Dextrose 50%.

Finally we would like to thank you all for helping our patients receive the best care & collaborating with pharmacy in managing this ongoing shortage. We will continue to send information regarding our supply as it becomes available.

Pharmacy Dextrose 50% Drug Shortage Update

Preview Order Set					
Order	SCH	Start/Stop	View		
Sliding Scale Insulin					
General					
* This set is intended to be used as an extension to an admission order set. See attached link for evidence based information.					
Nursing					
Bedside Blood Glucose					
<input type="checkbox"/> Q1HR					
<input type="checkbox"/> Q6HR					
<input type="checkbox"/> ACHS					
<input type="checkbox"/> NOW		Today Now	🔍		I
Education, Diabetic					
<input type="checkbox"/> NOW					
Medications					
Insulin - Long Acting					
Insulin Glargine Inj [Lantus Inj]					
<input type="checkbox"/> DOSE unit SC QDAY	SCH	Today Now	🔍		M I
Sugg initial scale: Elderly, Low Wt, Poor Renal Fx.					
Sensitive Scale					
Insulin Regular [NovoLIN-R]					
<input type="checkbox"/> See Protocol SC ACHS	SCH	Today Now	🔍		P M I
Moderate Scale					
Insulin Regular [NovoLIN-R]					
<input type="checkbox"/> See Protocol SC ACHS	SCH	Today Now	🔍		P M R
Below scale not recommended for insulin naive Pt.					
Resistant Scale					
Insulin Regular [NovoLIN-R]					
<input type="checkbox"/> See Protocol SC ACHS	SCH	Today Now	🔍		P M R

Regular Insulin Sensitive Sliding Scale Last Ed

Facility	Active
/MC Blood Bank Unit Facility	Yes
/MC Lab Census Facility	Yes
Sierra View Medical Center	Yes

Protocol

Condition	Dose/Route	Instruction
Fingerstick Result	Reg Insulin (Sc)	
Less than 60	Hypoglycemic Management	See Below
61-130	No Coverage	
131-180	1 Unit Sc	
181-240	2 Units Sc	
241-300	3 Units Sc	
301-350	4 Units Sc	
351-400	5 Units Sc	
>401	8 Units Sc, and call MD	

Text

Protocol Text	<p>Hypoglycemic Management:</p> <ol style="list-style-type: none"> 1. For blood sugar less than 60mg/dl: <ol style="list-style-type: none"> a) If patient can eat or drink, give 15 grams of carbohydrate (4oz fruit juice/non diet soda OR 8oz non-fat milk) b) If patient cannot eat or drink: <ol style="list-style-type: none"> i) With IV access: give 25ml of D50W IV over 1 minute, recheck blood sugar and if no response in 3 minutes may repeat x1 ii) With no IV access: give glucagon 1 mg SC/IM then establish IV line and start D5W-1/2NS @100ml/hr 2. Check finger capillary glucose every 15 minutes and repeat above. If blood sugar is still less than 60 mg/dl follow 1.b 3. Obtain lab glucose for confirmation of initial values of less than 50 mg/dl
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