


I'm not robot  reCAPTCHA

Continue

Insulin sliding scales protocols

The term mobile scale refers to the gradual increase in insulin dose before meal or night, based on preset blood glucose ranges. Mobile-scale insulin regimens are close to daily insulin requirements. Long-acting insulin (glargine/detemir or NPH), once or twice a day with short-acting insulin (aspart, glulisin, lispro, regular) before meals and at bedtime Long-acting insulin (glargine/detemir or NPH), administered once a daily regular and NPH, administered twice a day analogous to premetraite or short-acting or regular insulin and NPH, administered twice a day The amount of carbohydrates to be consumed at each meal is pre-depend. The dose of basal (bottom) insulin does not change. You take the same dose of long-acting insulin, regardless of blood glucose levels. Insulin bolus is based on blood sugar levels before meals or at bedtime Pre-mixed insulin doses are based on blood sugar levels before meal-to-eat Diet disadvantages at the sliding level: the sliding scale method does not take into account changes in insulin requirements related to snacks or stress and activity. You still need to count carbohydrates. Sliding scales are less effective at covering high blood sugar before meals, because high blood sugar correction and food bolus cannot be divided. Points to remember! Sliding scale diets may include a high blood sugar correction at bedtime. Since the night scale only takes into account the amount of insulin needed to bring your blood sugar back into the target range, it should not be used to cover a snack at bedtime. When using a mobile scale, eat the same amount of carbohydrates at each meal. In other words, although foods may change, the time and carbohydrate content of the meal should not vary. Engage in an equivalent level of activity from one day to the next. Try not to vary the timing, type or duration of the activity. The sliding scale method may seem easier because there are fewer calculations. However, to be successful, it requires strict adherence to a consistent schedule of meals and activities, and following your prescribed diet. Eat the pre-assigned amount of carbohydrates for each meal, and at a similar time of day. TO SUCCEED IN SLIDING-SCALE THERAPY, YOU NEED A CONSISTENT AND PREDICTABLE LIFESTYLE. There are many variations of these regimens. Talk to your diabetes provider and team to determine which one is right for you. Self-assessment Quiz Auto-assessment quiz are available topics covered on this site. To find out how much you learned about insulin therapy, take our self-assessment questionnaire when you finish this section. The quiz is a multiple choice. Please choose the best single answer to each question. At the end of the quiz, your score will appear. If your score is over 70%, you are doing very well. If your score is less than 70%, you can go back to this section and check the information. Basal insulin should be eliminatedApplies even to those who do not eat NotLantus should be continued at usual doseNPH InsulinAM dose: 50% of the usual dose PM dose: 100% of the usual dose Sensitivity estimate using rule of 1800BG change per unit Insulin '1800 / total daily insulinExample of 60 units per day: 1 unit drops BG 30 mg / dl Protocol (uses fast-acting insulin, for example Lispro)Goal Blood Glucose is '150Using sensitivity, how many units to drop 50 mg/dl Images: Related links to external sites (from Bing) Share on PinterestPixelsEffect/Getty ImagesInsulin is the foundation of treatment for many people with diabetes. If you have diabetes, your body cannot produce enough insulin or cannot use insulin effectively. People with type 1 diabetes, and some people with type 2 diabetes, should take several insulin injections per day. Insulin keeps blood sugar in a normal range and prevents high blood sugar levels. This can help prevent complications. The amount of insulin you should take can be determined in several different ways: Fixed-dose insulinWith this method, you take a certain set amount of insulin units at each meal. For example, you can take 6 units for breakfast and 8 for dinner. The numbers don't change based on your blood glucose readings or the amount of food you eat. While this may be easier for people who are starting insulin, it does not take into account blood sugar levels before meal. It also does not take into account the different amounts of carbohydrates in a given meal. Carbohydrate/insulin ratioIn this method, you take a certain amount of insulin for a certain amount of carbohydrates. For example, if your carb/insulin ratio for breakfast is 10:1 and you eat 30 grams of carbohydrates, you will take 3 units before breakfast to cover your meal. This method also includes a correction factor that explains your blood sugar before meal. For example, suppose you want your blood sugar to be below 150 mg/dL before meals, but that's at 170.If you were told to take 1 unit of insulin for every 50 you are over, you would take 1 additional unit of insulin before your meal. Although it requires a lot of practice and knowledge, people who can manage this method can keep better control of their blood sugar levels after meals. Mobile-scale Insulin Therapy (ISS) In the mobile scale method, the dose is based on your blood sugar level just before your meal. The higher your blood sugar the more insulin you take. SSI therapy has been around since the 1930s. It is most often used in hospitals and other health care facilities because it is easy and convenient for medical personnel to administer. SSI has become controversial in recent years because it does not control blood sugar very well. In most sliding insulin therapy regimens, your blood glucose is taken with a glucometer. This is done about four times a day (every 5 to 6 hours, or before meals and at bedtime). The amount of insulin you get mealtime is based on your blood glucose measurement. In most cases, fast-acting insulin is used. Experts have raised some concerns about the use of insulin therapy on a sliding scale. They include: Poor Blood Glucose Control An article in American Family Physician has reviewed nearly 40 years of mobile-scale insulin studies. He found that no studies clearly showed that SSI was effective in controlling blood sugar, even though most hospitalized patients received this method. Instead, SSI often leads to a roller coaster effect. In addition, SSI is not very effective at lowering high blood sugar. Sometimes it can cause blood sugar to soak too low. This may be why studies have shown that people using this method often have longer hospital stays than if they had been given fixed doses of insulin. No insulin therapy at the customization level takes into account personal factors that can affect your blood glucose and insulin needs. Personal factors include: Diet: What you eat may affect your insulin need. For example, if you are eating a high-carbohydrate meal, you will need a higher dose of insulin than if you ate a low-carb meal. Weight slump: A person who weighs more may need more insulin. If a 120-pound person and a 180-pound person each receive the same dose, the person weighing 180 pounds may not receive enough insulin to lower their blood sugar. Insulin history: The dose does not take into account the amount of insulin you have needed in the past. It also does not consider how sensitive you have been to the effects of insulin. The doses reflect the current insulin requirementsWith SSI, you get a dose of insulin that is based on how your previous dose of insulin worked. This means that the dose is not based on the amount of insulin you might actually need for this meal. If you received a dose of fast-acting insulin with lunch, he may have brought your blood glucose into his target range. But this can lead to too little insulin used for your next meal. Sometimes the doses are administered too close to each other or stacked, causing their effects to overlap. Many organizations, including the Society for Post-Acute and Long-Term Care Medicine and the American Geriatrics Society, do not recommend that hospitals, nursing homes and other health care facilities use insulin therapy on a mobile scale. Instead, they recommend using basal, with insulin at mealtime added as needed. Basal insulin involves long-acting insulin injections that help keep insulin levels stable throughout the day. In addition, there are rapid doses of insulin at mealtimes and correction to regulate blood sugar levels after meals. Hospitals and other health care facilities seem to be listening to these recommendations — today they are using ISS therapy less often than they used to. Some experts say that insulin therapy on a mobile scale should be completely eliminated. But a report from American Diabetes Diabetes says that more research still needs to be done. The report calls for more studies to compare insulin on a mobile scale with other insulin regimens before doctors give the final verdict. You will probably only experience insulin therapy on a mobile scale if you are admitted to a hospital or other health care facility. Ask your doctor how your insulin delivery will be planned while you are at it, and what options are available to you. Doctors often allow moderately high concentrations of blood glucose (200 mg/dL) in acute care patients. When high blood sugar is treated in a hospital setting, a mobile scale for regular insulin administered by subcutaneous injection is often used without a predicted long-acting insulin. The sliding-scale approach to maintaining euglycemia is considered inappropriate for a number of reasons. It only corrects blood glucose levels in the previous four to six hours, without anticipating future insulin requirements. [5] Depending on the glycemic threshold to initiate the sliding-scale diet and frequency of measurements, some patients are not given coverage for prolonged periods, resulting in blood glucose levels that may be in the hyperglycemic range. [5] In addition, the patient's previous drug regimen is not considered in determining mobile insulin coverage. [6] Finally, the patient's progress to an acceptable level of blood glucose is not monitored, and the doctor is often contacted only when the concentration is 400 mg/dL. [6] Two reports of a prospective, randomized, controlled study in 1,548 patients, mainly in the surgical unit, it,110 mg/dl with i.v.-insulin infusion, substantially reduces morbidity and mortality. [1.7] -the intensive glucose-glucose-control in-that-study-reduced overall mortality in the 8% sicu-to-4.6% and reduced mortality from 20.2% to 10.6% among patients in the unit for more than five-days-intensive glucose-control also decreased the number of 'bloodstream' infections by 46%, the 'frequency' of 'acute' renal-failure-requiring 'dialysis' or 'hemofiltration' by '41%', 'the'frequency' of 'critical' illness' and 'poly'-neuropathy' by '44%', and 'the' median number of's blood-transfusions by 50%. [1.7] -the 'diabetes' and 'insulin-glucose' infusion-in-acute- myocardial-infarction (digami) -study-found-found that, in's patients' with 'diabetes' undergoing'cardiac surgery, 'continuous' i.v.-insulin's infusion of blood-glucose-concentrations at Significantly reduced deep sternal wound infections. [8] In a recent meta-analysis of randomized, controlled trials found that insulin infusion therapy in critically ill patients had a beneficial effect on short-term mortality in the SICU, in patients with diabetes mellitus, and in patients with myocardial infarction who did not receive reperfusion therapy. [9] The mg/dl= significantly= reduced= deep= sternal= wound= infections. [8]= in= addition= a= recent= meta-analysis= of= randomized= controlled= trials= found= that= insulin= infusion= therapy= in= critically= ill= patients= had= a= beneficial= effect= on= short-term= mortality= in= the= sicu.= in= patients= with= diabetes= mellitus.= and= in= patients= with= myocardial= infarction= who= did= not= receive= reperfusion= therapy. [9]= the=></200 mg/dL significantly reduced deep sternal wound infections. [8] In addition, a recent meta-analysis of randomized, controlled trials found that insulin infusion therapy in critically ill patients had a beneficial effect on short-term mortality in the SICU, in patients with diabetes mellitus, and in patients with myocardial infarction who did not receive reperfusion therapy. [9] The &t; de soins intensifs (SICU)</60> ont montré que le contrôle glycémique strict à à évidence that aggressive glycemic control improves outcomes and decreases the length of stay in the intensive care unit[10] of those suffering from acute cardiovascular events such as a heart attack or stroke, as well as other critical illness comorbidities.[11] have challenged doctors, nurses, dietitians, and pharmacists in our facility to develop an insulin infusion protocol. Prior to the development of the protocol, high blood glucose levels were often not treated until they reached 200 mg/dL or more. When patients uniformly had blood glucose concentrations of ≥200 mg/dL, hair measurements of blood glucose and regular subcutaneous insulin on a sliding scale were controlled. Insulin infusions were underutilized and often did not begin at our facility until hair glucose concentrations were 350 mg/dL for 12 hours or more. When controls for an insulin infusion were written, they did not include directions for dosage adjustment, and the lens blood glucose range varied. A typical order was to adjust insulin to maintain blood sugar between 80 and 150 mg/dL. Orders of this type did not tell the nurse how much or when to increase or decrease insulin infusion; this resulted in treatment that varied depending on the nurse's experience and comfort level. Therefore, medical, pharmaceutical, nutritional and nursing staff decided that an insulin infusion protocol was needed to help standardize the treatment of hyperglycemia in intensive care patients. Am J Health Syst Pharm. 2005;62(21):2260-2264. © 2005 American Society of Health-System Pharmacists