Phlebotomy

Writer’s name

Institution

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Diet is a vital element in any medical condition and can make significant differences. For diabetes, a proper diet plan can be very efficient in maintaining health. Carbohydrate intake for diabetics can be a tricky matter but the proper calculation of amount and type of carbs can help maintaining balance in blood sugar levels. Mediterranean diet, vegan diet, low-fat diet and dietary approach to stop hypertension (DASH) diet can help in the reduced risk of incidence of diabetes. Starches including processed grains and white flour, canned vegetables and fruits, jams, fruit rolls, fried meat, whole milk and beverages must be avoided.

The basic symptoms of diabetes are excessive urination, extreme thirst and hunger, fatigue, slow healing of wounds, hazy vision, weight loss in type I and numbness or pain in feet and hands in type II. The diagnosis criteria for diabetes is based on different testing. The random glucose test indicates diabetes if the blood sugar level is equal to or greater than 200mg/dl. The A1C test diagnoses diabetes at blood sugar level equal to or greater than 6.5%. The FPG test is conducted during fasting and diabetes is diagnosed at blood sugar level equal to or greater than 126mg/dl.

Gestational diabetes occurs at the time of pregnancy when the mother is unable to produce and utilize enough insulin and glucose cannot be excreted out of the blood and convert into energy. This results in glucose accumulation in the blood and thus hyperglycemia. It may also occur when the mother's body blocks the action of insulin and the body cannot use it. This insulin resistance can eventually result in diabetes.

Serum or Plasma?

It is very important for the phlebotomists to know the difference between plasma and serum for the extraction of the correct type of fluid for their designated testing. It affects the turnaround time, sample stability, analytical values and performance of laboratory testing.

Phlebotomists should understand that which tubes will generate which product as these collection tubes have additives in them for accelerating or preventing blood clotting. It depends on the type of test being performed that they require serum, plasma or anticoagulated whole blood.

New information from this article that I received is that platelets, leukocytes and erythrocytes still remain metabolically active on the gel barriers of the tubes and have the ability to lyse and alter the test results. Serum is cleaner, stable and a standard sample for several assays as compared to plasma.