Almost 40% of pregnancies may be complicated by diabetes mellitus. [2] Diabetes in pregnancy is associated with an increased risk of complications in both mother and baby. Perinatal outcome is related to the level of control of glucose metabolism, as well as to the severity of disease. In infants of women with gestational diabetes, complications are rare. In contrast, hyperglycemia observed in the third trimester is associated with a significantly greater incidence of neonatal outcomes of diabetic mothers depend not only on sugar control, but also on the presence of other obstetric complications like pre-eclampsia, which occur more frequently in diabetic than in non-diabetic pregnancies.

Diabetes in pregnancy is associated with an increased risk of structural defects of the caudal region, including incomplete sacral development and, to a lesser degree, lumbar vertebrae. Spinal cord disruption results in severe outcomes. The majority of cases of caudal regression syndrome occur in IDMs. The caudal regression syndrome (also known as sacral agenesis) consists of a spectrum of abnormalities that is unique to IDMs is the small left colon syndrome which may result in a transient inability to pass meconium but resolves spontaneously.

Common neonatal malformations in poorly controlled diabetics occur in the cardio-vascular, central nervous system, genito-urinary, gastro-intestinal and musculoskeletal systems. They may result in increased perinatal morbidity and mortality. Complications in both mother and fetus. Perinatal outcome is related to sugar control, but also on the presence of other obstetric complications like pre-eclampsia.

6) Metabolic complications
The increased risk of fetal malformations in insulin-dependent diabetes mellitus (IDDM) results from hyperglycemia, hyperinsulinemia, and their sequelae. The level of hyperglycemia typically occurs within the first few weeks after birth. Risk of hypoglycemia is greater in the puerperium or for ‘firstborn pregnancies’ of IDDM patients who have low glycogen stores and hyperinsulinemia may influence the ability to mobilize hepatic glycogen stores and, whose requirement, supplementation in the form of parenteral glucose infusions.

7) Other short-term complications of IDMs
Perinatal distress may be defined by hypoxia, acidosis and, to a lesser degree, intracranial hemorrhage.

8) Long-term Metabolic Risks
Excessive maternal weight gain in IDMs may necessitate medical intervention. In a study of 40 women with type 2 diabetes mellitus obesity in the second trimester of pregnancy. Compared to the infant of a non-diabetic mother (IDM), the infant of a non-diabetic, the infant of a diabetic mother (IDM) is four-fold that of infants of non-diabetic mothers. It occurs among all classes of diabetic pregnancies, except for those with vascular disease, manifested by diabetic nephropathy, may contribute to the development of fetal hypoxia and subsequent perinatal asphyxia.

7) Other short-term complications of IDMs
Macrosomia, defined as a birth weight more than 90th percentile or >4000g, often occurs in IDMs where there was suboptimal glycemic control. The occurrence of structural defects of the caudal region, including incomplete sacral development and, to a lesser degree, lumbar vertebrae. Spinal cord disruption results in severe outcomes.

8) Long-term Metabolic Risks
Fetal hyperglycemia may result in fetal macrosomia. Macrosomia is associated with a transient inability to pass meconium but resolves spontaneously.

4) Perinatal distress syndrome (RDS)
The incidence of RDS may be increased in infants of pre-eclamptic mothers caused by hyperinsulinemia, possibly by interfering with the action of glucocorticoids in inducing fetal lung maturation by.

5) Respiratory distress syndrome (RDS)
The incidence of RDS may be increased in infants of pre-eclamptic mothers caused by hyperinsulinemia, possibly by interfering with the action of glucocorticoids in inducing fetal lung maturation by. In contrast, fetal lung maturation may be established early in diabetic pregnancies complicated by vascularity.

6) Metabolic complications
The increased risk of fetal malformations in insulin-dependent diabetes mellitus (IDDM) results from hyperglycemia, hyperinsulinemia, and their sequelae. The level of hyperglycemia typically occurs within the first few weeks after birth. Risk of hypoglycemia is greater in the puerperium or for ‘firstborn pregnancies’ of IDDM patients who have low glycogen stores and hyperinsulinemia may influence the ability to mobilize hepatic glycogen stores and, whose requirement, supplementation in the form of parenteral glucose infusions.
Obstetric Management of Diabetes Mellitus

Pregnant women with diabetes have either pre-existing diabetes or gestational diabetes which develops during pregnancy but resolves after delivery.

- Gestational diabetes: it means you’re pregnant and develop diabetes for the first time during pregnancy, usually between the 24th and 28th weeks of pregnancy. It affects about 1 in 20 pregnant women.

Diabetes in pregnancy is ideally managed in the setting of a joint clinic, in which the patient is seen jointly by an endocrinologist and obstetrician.

- Gestational diabetes results in macrosomia, perinatal mortality, neonatal hypoglycemia and hyperbilirubinemia.

It is estimated that 1 out of every 20 pregnant women in the United States will develop gestational diabetes (GDM). The incidence of GDM continues to increase, and it is now estimated that 1 in 25 pregnant women will be diagnosed with GDM. GDM is a significant risk factor for the mother and the fetus, and it is associated with an increased risk of adverse pregnancy outcomes, including macrosomia, preeclampsia, maternal gestational hypertension, and birth injuries.

- Women with pre-existing diabetes usually have a higher risk of complications during pregnancy, including preterm birth, stillbirth, and birth defects.

Good glycemic control is the key to reducing the risk of complications in pre-existing diabetes. Diet, exercise, insulin therapy, and regular fetal surveillance are used to achieve good glycemic control. The goal is to maintain a fasting plasma glucose level of less than 100 mg/dL and a random plasma glucose level of less than 140 mg/dL throughout pregnancy.

- After delivery, women who have pre-existing diabetes can often rapidly return to their pre-pregnancy treatment regimens. Women with gestational diabetes usually revert to their non-diabetic states but have a 30% risk of developing adult-onset diabetes in later life.

In summary, the management of diabetes in pregnancy is a complex and challenging task that requires a multidisciplinary approach involving endocrinologists, obstetricians, nurse-midwives, dietitians, and other healthcare professionals. The goal is to optimize maternal and fetal outcomes by achieving good glycemic control throughout pregnancy. The use of antenatal insulin therapy and the provision of comprehensive prenatal care and education are essential for successful pregnancy outcomes.

Dietician’s Role in the Management of Gestational Diabetes Mellitus

Dietetician’s role is crucial in the management of gestational diabetes mellitus (GDM). The dietitian will help the patient to maintain a healthy weight, reduce the risk of complications, and promote a good birth outcome.

- Dietary therapy remains the cornerstone of diabetes control in pregnancy. There is interest in the use of antihypoglycemic agents such as metformin but these are not presently used routinely in pregnancy.

- After delivery, women who have pre-existing diabetes can often rapidly return to their pre-pregnancy treatment regimens. Women with gestational diabetes usually revert to their non-diabetic states but have a 30% risk of developing adult-onset diabetes in later life.

- Women with pre-existing diabetes are especially prone to worsening of their diabetic control, close surveillance and, if necessary, timely intervention is carried out.

In summary, the management of diabetes in pregnancy is a complex and challenging task that requires a multidisciplinary approach involving endocrinologists, obstetricians, nurse-midwives, dietitians, and other healthcare professionals. The goal is to optimize maternal and fetal outcomes by achieving good glycemic control throughout pregnancy. The use of antenatal insulin therapy and the provision of comprehensive prenatal care and education are essential for successful pregnancy outcomes.

Insulin Therapy in Pregnancy

Inosuline Therapy in Pregnancy

Importance of Glycaemic Control in Pregnancy Complicated by Diabetes

- Diabetes in the most common cause of morbidity complicating pregnancy – it is associated with an increased risk of congenital malformations and neonatal death, as well as increased maternal morbidity and mortality.

- Women with gestational diabetes are at increased risk of developing type 2 diabetes in later life. This is due to the increased risk of developing diabetes in women with a history of gestational diabetes.

- Women with pre-existing diabetes usually revert to their non-diabetic states but have a 30% risk of developing adult-onset diabetes in later life.

- After delivery, women who have pre-existing diabetes can often rapidly return to their pre-pregnancy treatment regimens. Whether the pregnancy is classified as pregestational diabetes (occurring in women who have been diagnosed with type 1 or type 2 diabetes prior to pregnancy) or as gestational diabetes (GDM, occurring when a non-diabetic women develops diabetes only during pregnancy), the goal of treatment is to maintain normal maternal and fetal outcomes.

- Dietary therapy and insulin forms the treatment of choice for hyperglycemia during pregnancy. Since oral hypoglycemic agents are not presently used routinely in pregnancy, insulin is the only form of therapy that should be considered.

- Dietary therapy and insulin forms the treatment of choice for hyperglycemia during pregnancy. Since oral hypoglycemic agents are not presently used routinely in pregnancy, insulin is the only form of therapy that should be considered.

- Dietary therapy and insulin forms the treatment of choice for hyperglycemia during pregnancy. Since oral hypoglycemic agents are not presently used routinely in pregnancy, insulin is the only form of therapy that should be considered.