# Glyburide for women with gestational diabetes had similar neonatal developmental and delivery outcomes and fewer NICU admissions than insulin therapy

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| Challenge | **There is insufficient evidence to support use of glyburide versus insulin for patients with gestational diabetes (GDM) who require medication.** |
| Existing Evidence | Current evidence for GDM treatment using glyburide is conflicting. Some recent studies have suggested that glyburide is not an effective first-line treatment compared to insulin. In contrast, insulin requires more intensive training and more complicated administration. One study suggested it couldn’t be proven that glyburide compared with insulin does not result in a greater frequency of perinatal complications and raised questions regarding the use of glyburide as a first-line treatment. |
| Target Population | Women with gestational diabetes. |
| Intervention or Exposure | Cohorts defined by therapy regimens—insulin vs. glyburide. |
| Outcomes/Key Findings | **The children of women who use glyburide versus insulin for GDM have similar rates of macrosomia, hypoglycemia, hyperbilirubinemia, cesarean delivery; in addition, they had significantly lower rates of a NICU admission (risk difference -0.03[95%CI:-0.06;-0.002]) or respiratory distress syndrome (-0.02[-0.04;-0.001]) and a trend towards higher rates of an appropriately sized for gestational age infant (0.04[-0.002;0.08]).** |
| Resulting Action/Change | **This study informed initiation of a large-scale randomized NIH trial in 2019** that is currently ongoing and also, for appropriate patients, supports the ongoing use of both agents pending results from that trial. |
| Implementation Tools | None. |
| Additional recommendations | Pending clinical trial results, these results support the ongoing use of glyburide in appropriate women with gestational diabetes. Pending the results of a randomized trial, these results could be disseminated to clinicians to provide re-assurance regarding these therapies |
| Follow-Up Implementation Measurement | Utilization of glyburide and insulin and infant outcomes (macrosomia, hypoglycemia and hyperbilirubinemia and NICU admissions). |
| Reference(s) [Key Figure if applicable] | Internal Report |