GESTATIONAL AGE AT DELIVERY IN TWIN PREGNANCY: a systematic review with meta-analysis.
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OBJECTIVE. To review literature about the optimal gestational age of delivery (GAdel) in twin pregnancies.

MATERIALS. A search in PubMed, EMBASE, Medline, reference list was performed to find articles that described neonatal morbidity and mortality in twins according to GAdel. Key words were: dichorionic/monochorionic twins, delivery, gestational age, neonatal morbidity/mortality, chorionicity. Inclusion criteria were: both twins alive at labor, uncomplicated twin pregnancies, data reported as proportional rates. Exclusion criteria were: omitting >1 inclusion criteria, multiple order twins, monoamniotic twins, chorionicity unreported. From each articles the following data were selected: chorionicity, neonatal morbidity/mortality, GAdel. Neonatal mortality was defined as neonatal death within 28 days from birth. Neonatal morbidity was defined as the presence of at least 1 of the following conditions: umbilical artery pH<7, 5 minutes Apgar <5, respiratory distress syndrome, neonatal intensive care unit admission, intraventricular hemorrhage, sepsis, necrotizing enterocolitis, broncopulmonary dysplasia. Neonatal morbidity/mortality rates were analyzed according to GAdel as follow: Group 1: 34–35 weeks, Group 2: 36–37 weeks, Group 3: >37 weeks. Inter studies heterogeneity was tested and a random model was generated if I²>25%. Categorical variables were statistically significant if pooled Odds Ratio 95% CI did not encompass 1. PRISMA guidelines were followed.

RESULTS. In dichorionic twins, morbidity rate was significantly higher in Group 1 (291/704; 41%) compared with Group 2 (0/64; 0%; OR: 9.1; 95%CI: 5.6–14.7) and Group 3 (10/514; 2%; OR: 3.5; 95%CI: 1.8–6.7). No difference was noted between Group 2 and 3. Neonatal mortality did not differ between groups (Group 1: 1/704, 0.1%; Group 2: 0/644; 0%; Group 3: 0/514; 0%). Only 2 articles reported outcomes in monochorionic twins but they were so heterogeneous that it was not possible to pool them in a meta-analysis.

CONCLUSIONS. The optimal GAdel in dichorionic twins is after 36 weeks. Limitations of literature include paucity of data about monochorionic twins, prospective randomized studies, and lack of standard criteria as to whether induce labor or expectant management in term twin pregnancies.