



KK Women's and
Children's Hospital
SingHealth

Experience and Outcomes of a Specialised Preterm Birth Clinic in Singapore

Hui Min Angela HO¹, Hester CQ LAU, Samantha M SM GOH¹, Ilka TAN¹, Tiong Ghee TEOH¹
¹: Division of Obstetrics and Gynecology, KKH Women's and Children's Hospital

Objective

Since July 2021, the Preterm Birth Clinic at KK Women's and Children's Hospital has aimed to provide comprehensive care for at-risk pregnant individuals. We evaluate the outcomes of the first consultant-led preterm birth (PTB) clinic in KK Women's and Children's Hospital (KKH), Singapore.

Methods

An audit of 156 patients who received care in the first year of the STORK PTB Clinic (July 2021 – July 2022), KKH was performed. Data on the gestational age (GA) at referral, indication for referral, risk factors for PTB, cervical length monitoring, instituted interventions, neonatal outcomes (GA of delivery, mode of delivery, birth weight, and admission to neonatal intensive care unit) were collected. Patients who had incomplete data, did not deliver in KKH and multiple pregnancies were excluded from this study.

Results

Among the 156 patients, 95% of patients had interventions, including vaginal progesterone or cervical cerclage insertion. 92 patients (59%) delivered at term while 53 (34%) delivered preterm. 11 of them (7%) had a miscarriage or mid-trimester termination of pregnancy. Median gestational age at delivery was 37.3 weeks.

There was a statistically significant higher rate of PTB (35.9% vs 33.3%) but lower rate of loss <24 weeks gestation (8.8% vs 4.3%) among patients without cerclage compared to those with cerclage (p-value 0.008). There was no statistically significant difference in NICU admission between the cerclage vs no cerclage groups (p-value 0.917).

Discussions

As this is a specialised clinic, there is no similar high-risk group without specialised care to allow for direct comparison. Despite being high-risk, majority had term delivery with good outcomes for their babies, similar to a New Zealand group.

Early identification of risk factors and individualised consultant-led intervention are critical in reducing PTB occurrences and improving neonatal outcomes. It also helps to reduce unnecessary interventions as surgical interventions like cervical cerclage are directed at those with the highest risk of PTB.

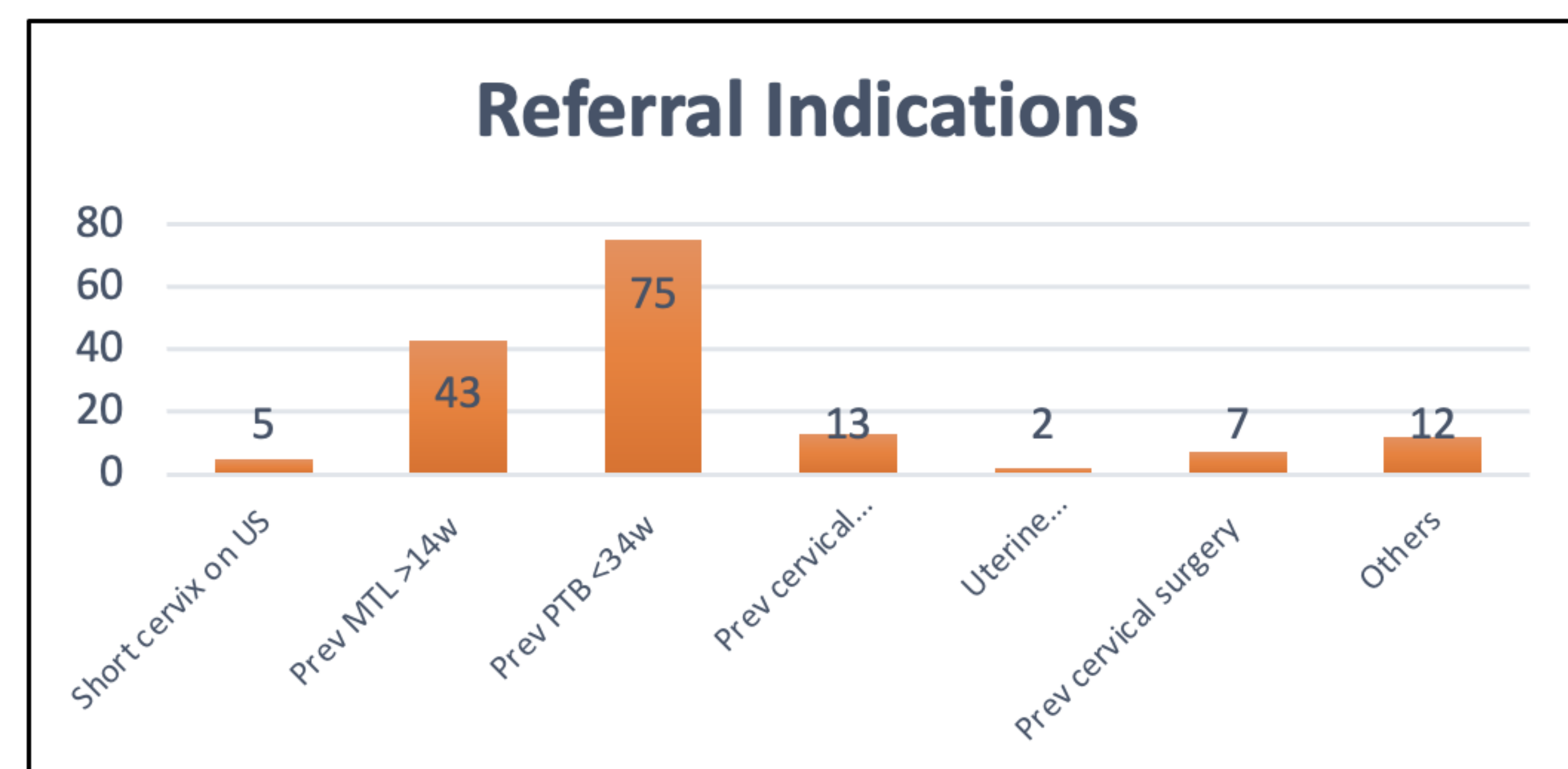


Figure 1. Referral indications to STORK PTB Clinic
US – Ultrasound scan, MTL – mid trimester loss, PTB – preterm birth, others include maternal request

Figure 2: Interventions

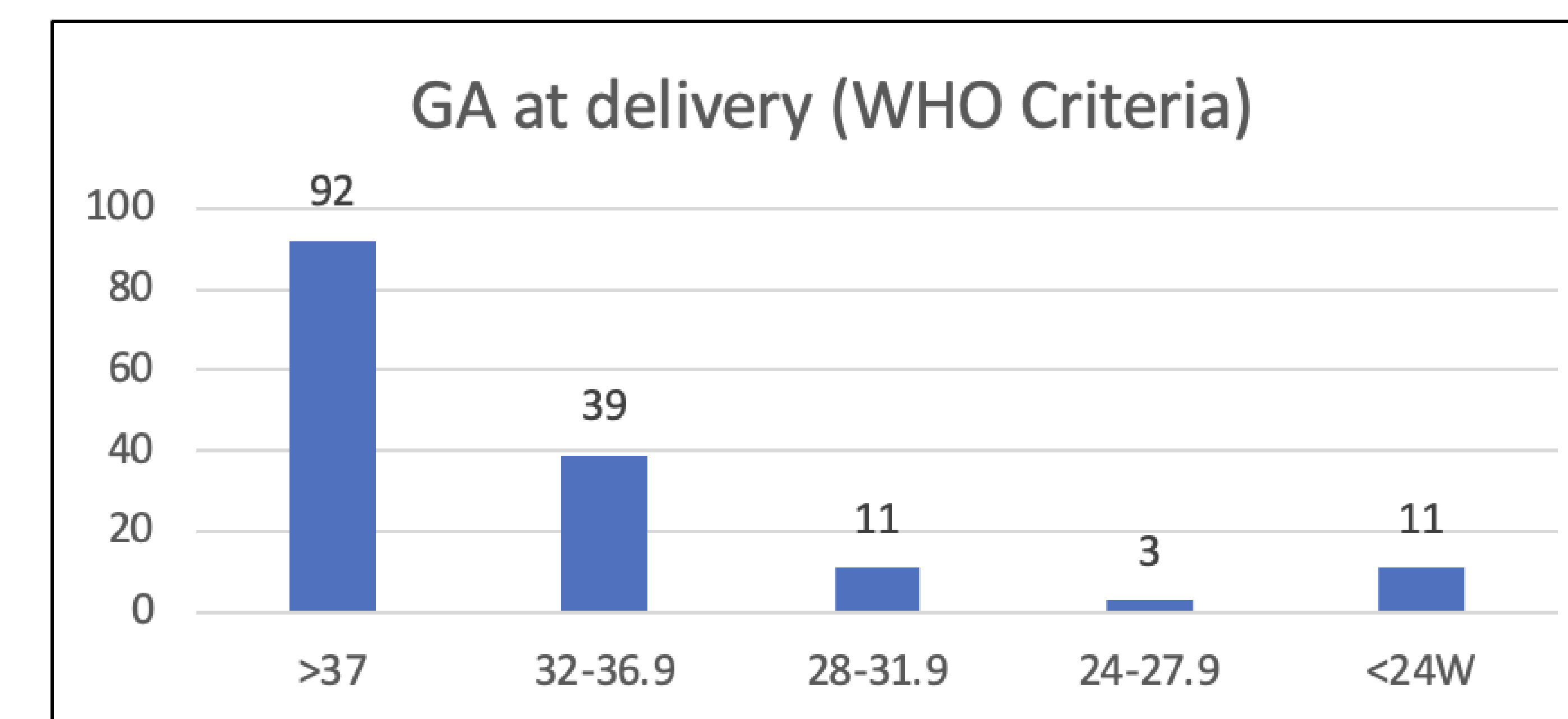
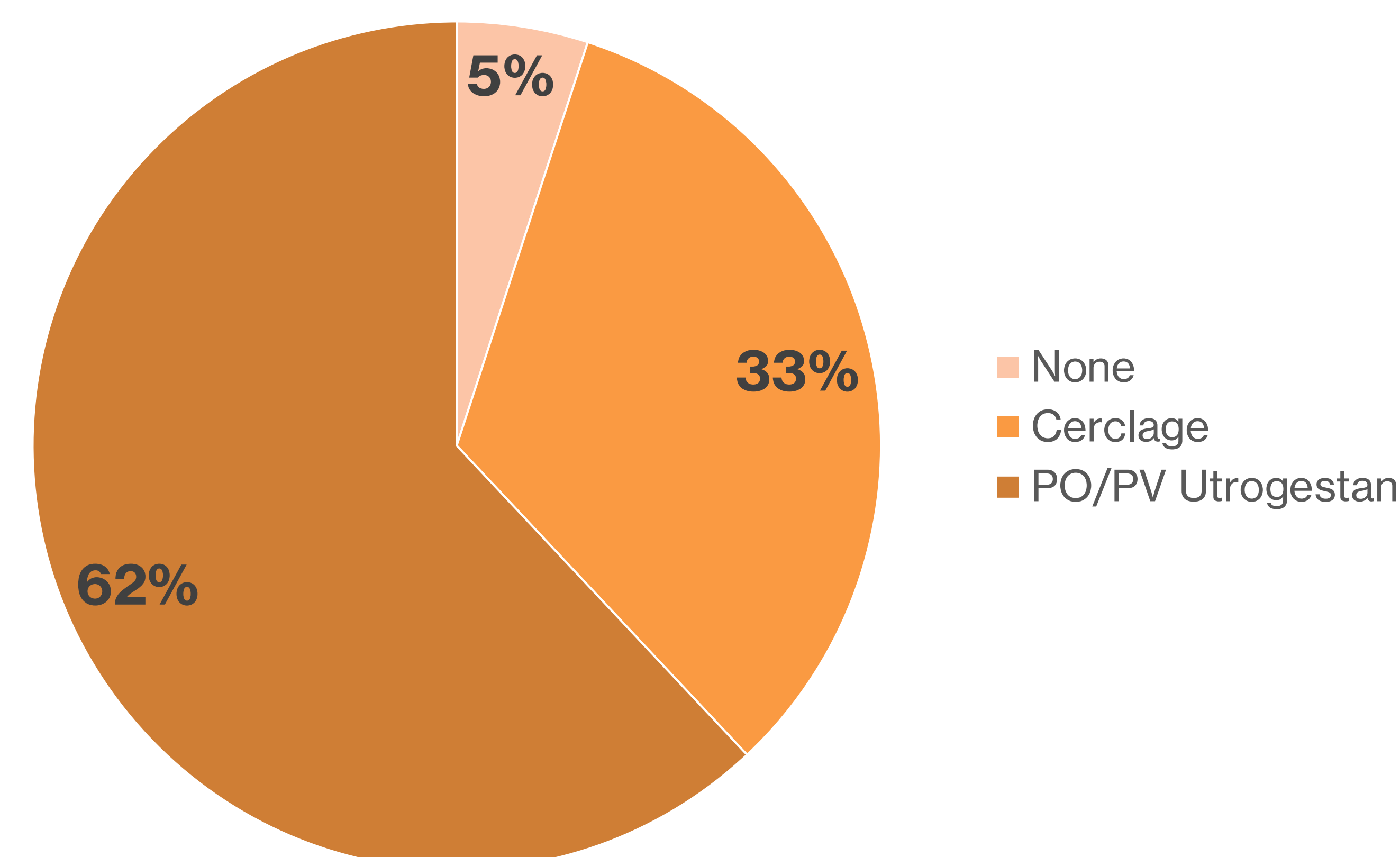


Figure 3. Gestational age (GA) at delivery based on the WHO criteria

Conclusions:

A specialized PTB clinic can lead to significant enhancements in both clinical practice and patient care and decrease the percentage of preterm births within the clinic population. Ongoing research and patient feedback will refine intervention strategies, ultimately enhancing maternal and neonatal health outcomes.