

Cesarean Delivery for Suspected Macrosomia: Agreement Between Prenatal Estimated Fetal Weight and Actual Birthweight in a Large Obstetric Cohort

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Objective

To evaluate agreement between prenatal ultrasound estimated fetal weight and actual birthweight among cesarean deliveries performed for suspected fetal macrosomia according to institutional clinical thresholds.

Methods

- Retrospective cohort at a university-affiliated tertiary center, 2012 to 2024.
- Institutional protocol recommends cesarean delivery at EFW 4250 g or above in non-diabetic pregnancies and 4000 g or above with gestational or pregestational diabetes.
- Accuracy was assessed by absolute percentage error, proportion within 10% of birthweight, and mean bias.

Results

879

Cesareans for suspected macrosomia with EFW within 14 days

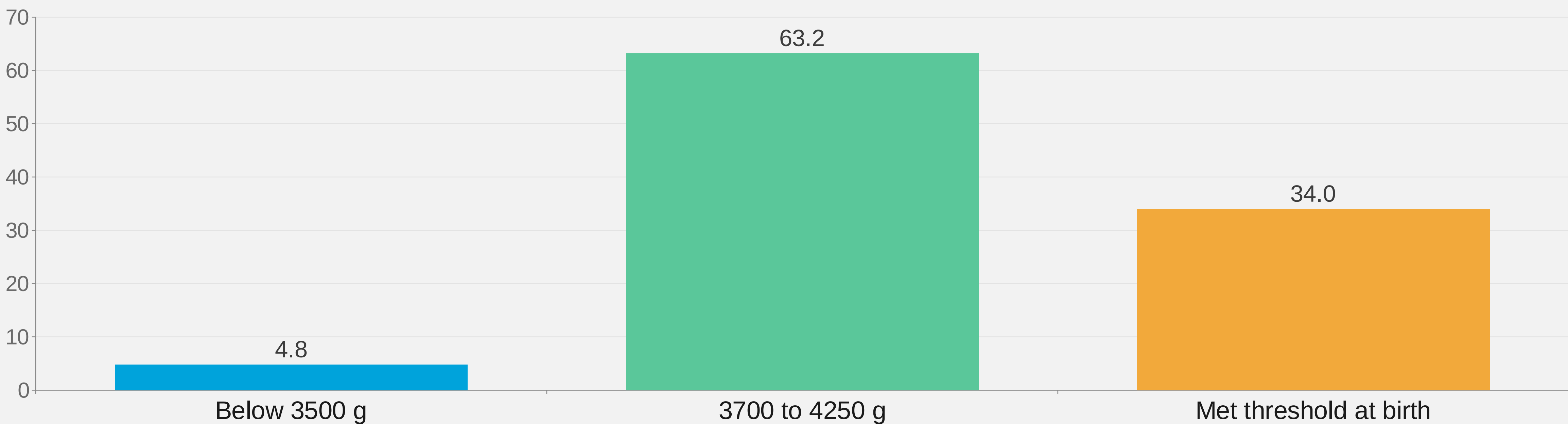
79.4%

Of estimates within 10% of actual birthweight

34.0%

Of neonates actually met the institutional birthweight threshold

Birthweight distribution among cesareans for suspected macrosomia (%)



Ultrasound accuracy in the suspected macrosomia cohort

Metric	Value
Cases with EFW within 14 days	879 of 1,365 (64.4%)
Median absolute percentage error	5.0% (IQR 2.4 to 9.0)
Estimates within 10% of birthweight	79.4%
Mean systematic bias	+23.9 g
Median birthweight	4,035 g

Conclusion Ultrasound estimation was accurate in pregnancies with suspected macrosomia, yet two-thirds of neonates did not reach the threshold that prompted the cesarean. Characterising overestimated cases is the next step toward reducing unnecessary intervention.