

Table S6 List of the proposed and existing models based on clinical and ultrasonic variables

Authors	Variables	Formulas
Our recommended models		
	FH	Model (1): $EFW (g) = 150.293 \times FH - 1538.331$
	FH, GA	Model (2): $EFW (g) = 151.19 \times FH - 15.75 \times GA - 959$
Dewi, Mali & Kaye	FH, EHC	Model (3): $EFW (g) = 151.170 \times FH - 2.806 \times EHC - 634.288$
	FH, EAC	Model (4): $EFW (g) = 151.1889 \times FH - 1.6339 \times EAC - 996.7524$
Existing clinical models		
		Johnson and Toshach's formula: $EFW (g) = [FH - n] \times 155$
Johnson-Toshach (1954, 1957) [4, 5]	FH, n	[6]. "If a pregnant woman weighs more than 91 kg, 1 cm is subtracted from the fundal height" [7].
Siswosudarmo, H (1995) cited in [8]	FH	Risanto I Formula: $EFW (g) = 126.7 \times FH - 931.5$
Siswosudarmo, R & Titisari 2014 [9]	FH	Risanto II Formula: $EFW (g) = 125 \times FH - 880$
Niswander, Capraro & Van Coevering (1970) cited in [10]	FH	Niswander formula: $EFW (g) = ((FH - 13)/3) \times 453.6$
Farid & Sukarya (1999) cited in [10]	FH	Modified Niswander formula: $EFW (g) = (1.12 \times FH - 7.7) \times 100$
Mhaskar (2003) cited in [10]	FH	Mhaskar formula: $EFW (kg) = 0.18 \times FH - 2.89$
Gayatri-Afiyanti Formula (2006) [11]	FH	Gayatri-Afiyanti formula: $EFW (g) = (FH - 4) \times 100$
Buchmann and Tlale (2009) [12, 13]	FH	Buchmann-Tlale Formula: $EFW (g) = 100 \times ([FH] - 5)$
Santjaka & Handayani 2011 [14]	FH	Santjaka-Handayani Formula: $EFW (kg) = 1.876 + 0.119 \times FH$
Mongelli & Gardosi 2004 [15]	FH	Mongelli-Gardosi Formula: $\ln EFW (g) = 10.6857 - 100.25 / FH$
Yiheyis, Alemsegned & Segni 2016 [16]	FH	Yiheyis, Alemsegned & Segni formula: $EFW (g) = 2600 + 155 \times (FH - 30)$
Existing ultrasonic models		
Jordaan (1983)[17]	HC, AC	Jordaan formula: $\log_{10} EFW (g) = 0.9119 + 0.0488 \times HC + 0.0824 \times AC - 0.001599 \times (AC \times HC)$
Weiner II (1985) in [18]	HC, AC	Weiner II formula: $EFW (g) = 10^{(1.6575 + 0.04035 \times HC + 0.01285 \times AC)}$

		Hadlock formula:
Hadlock (1984) [19]	HC, AC	$\log_{10} \text{EFW (g)} = 1.182 + 0.0273 \times \text{HC} + 0.07057 \times \text{AC} - 0.00063 \times \text{AC}^2 - 0.0002184 \times (\text{HC} \times \text{AC})$
		Hadlock formula:
Hadlock (1991) [20]	GA	$\log (\text{EFW}) (\text{g}) = 0.578 + 0.332 \times \text{GA} - 0.00354 \times \text{GA}^2$
		The log function designates the natural logarithm
		International EFW standard formula:
Stirnemann et. al (2016) [21]	HC, AC	$\log (\text{EFW}) (\text{g}) = 5.084820 - 54.06633 \times (\text{AC}/100)^3 - 95.80076 \times (\text{AC}/100)^3 \times \log (\text{AC}/100) + 3.136370 \times (\text{HC}/100)$
		The log function designates the natural logarithm.
		Sotiriadis et. al formula:
Sotiriadis et. al (2017) [22]	GA	$\log_{10} \text{EFW (g)} = - 0.204661 + 0.173510 \times \text{GA} - 0.002016 \times \text{GA}^2$

*Where: EFW= estimated foetal weight, FH = fundal height (cm), HC = foetal head circumference (cm); AC = foetal abdominal circumference (cm); GA = gestational age (weeks); EHC = estimated foetal head circumference (cm); EAC = estimated foetal abdominal circumference (cm); n = 13 if vertex is **above** ischial spine, or when the station is minus or foetal head is unengaged, n = 12 if vertex is **at** ischial spine or when the station is 0, n = 11 if vertex is **below** ischial spine or when the station is plus or foetal head is engaged.

References:

- Johnson R, Toshach C. Estimation of fetal weight using longitudinal mensuration. *American Journal of Obstetrics and Gynecology* 1954; 68(3):891-896.
- Johnson RW. Calculations in estimating fetal weight. *American Journal of Obstetrics & Gynecology* 1957; 74(4):929.
- Chithra SC, Kumari LK, Sangeerani M. Comparative study of fetal weight estimation using Hadlock's and Johnson's formula and its correlation with actual birth weight. *International Journal of Scientific Study* 2014; 2(7):163-170.
- Khani S, Ahmad-Shirvani M, Mohseni-Bandpei MA, Mohammadpour-Tahmtan RA. Comparison of abdominal palpation, Johnson's technique and ultrasound in the estimation of fetal weight in Northern Iran. *Midwifery* 2011; 27(1):99-103.
- Titisari HI, Siswosudarmo R. Risanto's formulas is more accurate in determining estimated fetal weight based on maternal fundal height. *Indonesian Journal of Obstetrics and Gynecology* 2013; 1(3):149-151.
- Siswosudarmo R, Titisari I. Developing a new formula for estimating birth weight at term pregnancy. *Jurnal Kesehatan Reproduksi* 2014; 1(2).
- Gayatri D, Afiyanti Y. Comparison of some formulas for predicting birth weight based on height measurement of fundus uteri (Perbandingan beberapa rumus untuk memprediksi berat badan lahir berdasarkan pengukuran tinggi fundus uteri). *Jurnal Keperawatan Indonesia* 2004; 8(1):18-22.
- Gayatri D, Afiyanti Y. Validation of fetal weight estimation formula (TBJ) for prediction of birth weight based on uterine fundal height of pregnant women (Validasi rumus taksiran berat janin (TBJ) untuk prediksi berat badan lahir berdasarkan tinggi fundus uterus ibu hamil). *Jurnal Keperawatan Indonesia* 2006; 10(1):24-29.
- Buchmann E, Tlale K. A simple clinical formula for predicting fetal weight in labour at term: derivation and validation. *SAMJ: South African Medical Journal* 2009; 99(6):457-460.

13. Rusdy RS, Yasmin FA, Putri LA, Oktrian O, Pusponegoro A. Comparison of Johnson-Tohsach formula with South Africa formula in determining fetal weight estimation at Puskesmas Kecamatan Pasar Rebo, East Jakarta (Perbandingan rumus Johnson-Tohsach dengan rumus South Africa dalam menentukan taksiran berat janin di Puskesmas Kecamatan Pasar Rebo, Jakarta Timur). *eJurnal Kedokteran Indonesia* 2014; 2(1):33-36.
14. Santjaka HI, Handayani R. Study of the accuracy of fetal weight estimates based on statistics and fundal height (Studi ketepatan taksiran berat janin berdasarkan statistik dan tinggi fundus uteri). *Jurnal Bidan Prada* 2011; 2(01):21-34.
15. Mongelli M, Gardosi J. Estimation of fetal weight by symphysis–fundus height measurement. *International Journal of Gynecology and Obstetrics* 2004; 85(1):50-51.
16. Yiheyis A, Alemseged F, Segni H. Johnson’s formula for predicting birth weight in pregnant mothers at Jimma University Teaching Hospital, South West Ethiopia. *Medical Journal of Obstetrics and Gynecology* 2016; 4(3):1087-1093.
17. Jordaan HV. Estimation of fetal weight by ultrasound. *Journal of Clinical Ultrasound* 1983; 11(2):59-66.
18. Abele H, Hoopmann M, Wagner N, Hahn M, Wallwiener D, Kagan KO. Accuracy of sonographic fetal weight estimation of fetuses with a birth weight of 1500g or less. *European Journal of Obstetrics & Gynecology and Reproductive Biology* 2010; 153(2):131-137.
19. Hadlock F, Harrist R, Carpenter R, Deter R, Park S. Sonographic estimation of fetal weight. The value of femur length in addition to head and abdomen measurements. *Radiology* 1984; 150(2):535-540.
20. Hadlock FP, Harrist RB, Martinez-Poyer J. In utero analysis of fetal growth: a sonographic weight standard. *Radiology* 1991; 181(1):129-133.
21. Stirnemann J, Villar J, Salomon L, Ohuma E, Ruyan P, Altman D, Nosten F, Craik R, Munim S, Cheikh Ismail L. International estimated fetal weight standards of the INTERGROWTH-21st Project. *Ultrasound in obstetrics & gynecology* 2017; 49(4):478-486.
22. Sotiriadis A, Eleftheriades M, Papadopoulos V, Sarafidis K, Pervanidou P, Assimakopoulos E. Divergence of estimated fetal weight and birth weight in singleton fetuses. *The Journal of Maternal-Fetal & Neonatal Medicine* 2018; 31(6):761-769.