

Appendix 1. Agreement Between Blind Ultrasound Volume Sweep Imaging and Reference Diagnostic Ultrasound (Stratified by Experience Level of the Health Care Professional Interpreting the Blind Sweep Images)

Variable	>5 years' experience (n=2)			<5 years' experience (n=3)		
	Mean			Mean		
	Agreement % (95% CI)	Cohen's κ (95% CI, p-value)	Fleiss' multirater κ (95% CI, p-value)	Agreement % (95% CI)	Cohen's κ (95% CI, p-value)	Fleiss' multirater κ (95% CI, p-value)
Presence of cardiac activity	100 (98.5-100)	*	-	99.6 (97.7-100)	*	-
Number of fetuses (% multiple gestations)	96.9 (93.4-98.9)	0.92 (0.86-0.98, p<0.001)	0.87 (0.83-0.9, p<0.001)	97.9 (94.8-99.4)	0.95 (0.9-1, p<0.001)	0.28 (0.26-0.3, p<0.001)
Number of fetuses	95.9 (92-98.2)	0.9 (0.83-0.97, p<0.001)	-	96.4 (92.7-98.5)	0.91 (0.85-0.98, p<0.001)	-
Fetal presentation (% non-cephalic)	80.5 (75-85.2)	0.62 (0.52-0.71, p<0.001)	0.66 (0.62-0.69, p<0.001)	86.9 (82.1-90.9)	0.74 (0.65-0.82, p<0.001)	0.78 (0.74-0.81, p<0.001)

Fetal presentation	69.9 (63.8-75.6)	0.51 (0.41-0.6, p<0.001)	0.51 (0.49-0.54, p<0.001)	75.9 (70.1-81.1)	0.59 (0.49-0.68, p<0.001)	0.62 (0.59-0.64, p<0.001)
Abnormal placenta (% previa or low lying)	73.6 (67.6-79)	0.31 (0.17-0.46, p=0.00035)	0.43 (0.4-0.47, p<0.001)	77.1 (71.4-82.2)	0.29 (0.13-0.45, p=0.00014)	0.29 (0.25-0.32, p<0.001)
Placental location	56.9 (50.5-63.2)	0.41 (0.32-0.49, p<0.001)	0.43 (0.41-0.45, p<0.001)	61.6 (55.2-67.8)	0.45 (0.37-0.54, p<0.001)	0.51 (0.49-0.53, p<0.001)
Amniotic fluid volume (% abnormal)	84.9 (79.8-89.1)	0.5 (0.35-0.65, p<0.001)	0.52 (0.48-0.55, p<0.001)	86.1 (81.1-90.2)	0.61 (0.49-0.73, p<0.001)	0.47 (0.44-0.51, p<0.001)
Amniotic fluid volume	83.3 (78-87.7)	0.48 (0.34-0.63, p<0.001)	0.53 (0.5-0.55, p<0.001)	79.9 (79.9-74.3)	0.49 (0.36-0.61, p<0.001)	0.5 (0.48-0.53, p<0.001)
Abnormal exam (% abnormal)	83.5 (77.5-88.4)	0.54 (0.39-0.68, p<0.001)	0.55 (0.51-0.59, p<0.001)	85 (79.1-89.7)	0.56 (0.41-0.71, p<0.001)	0.48 (0.44-0.52, p<0.001)
* Cohen's kappa undefined due to reference ultrasound rating all as live						

**Appendix 2. Agreement Between Blind Ultrasound Volume Sweep Imaging and Reference
Diagnostic Ultrasonography (Stratified by Participant Body Mass Index)**

Variable	Body mass index < 30 kg/m ² (N=75)		Body mass index < 35 kg/m ² (N=113)		Body mass index < 40 kg/m ² (N=145)	
	Mean		Mean		Mean	
	Agreement % (95% CI)	Cohen's κ (95% CI, p- value)	Agreement % (95% CI)	Cohen's κ (95% CI, p- value)	Agreement % (95% CI)	Cohen's κ (95% CI, p- value)
Presence of cardiac activity	100 (95.9- 100)	*	100 (97.4- 100)	*	100 (98- 100)	*
Number of fetuses (% multiple gestations)	98.7 (92.8- 100)	0.95 (0.87-1, p<0.001)	98.2 (93.8- 99.8)	0.95 (0.88-1, p<0.001)	97.9 (94.1- 99.6)	0.95 (0.89-1, p<0.001)
Number of fetuses	98.7 (92.8- 100)	0.95 (0.87-1, p<0.0001)	98.2 (93.8- 99.8)	0.95 (0.88-1, p<0.0001)	96.6 (92.1- 98.9)	0.91 (0.84-0.99, p<0.0001)
Fetal presentation (% non- cephalic)	88.6 (80.1- 94.4)	0.76 (0.63-0.9, p<0.001)	87.7 (81- 92.7)	0.75 (0.64-0.86, p<0.001)	88.5 (82.9- 92.7)	0.76 (0.67-0.86, p<0.001)
Fetal presentation	77.3 (67.1- 85.5)	0.6 (0.44-0.75, p<0.001)	79.7 (72- 86.1)	0.65 (0.53-0.76, p<0.001)	79.7 (73.1- 85.3)	0.64 (0.54-0.75, p<0.001)

Toscano M, Marini T, Lennon C, Erlick M, Silva H, Crofton K, et al. Diagnosis of pregnancy complications using blind ultrasound sweeps performed by individuals without prior formal ultrasound training. *Obstet Gynecol* 2023;141.

The authors provided this information as a supplement to their article.

Abnormal placenta (% previa or low lying)	83 (73.4-90.1)	0.57 (0.36-0.77, p<0.001)	85.5 (78.5-90.9)	0.56 (0.39-0.74, p<0.001)	86.8 (81-91.4)	0.55 (0.38-0.72, p<0.001)
Placental location	65.9 (55-75.7)	0.53 (0.4-0.67, p<0.001)	69.6 (61.2-77.1)	0.57 (0.47-0.68, p<0.001)	70.9 (63.7-77.4)	0.58 (0.49-0.68, p<0.001)
Amniotic fluid volume (% abnormal)	90.9 (82.9-96)	0.61 (0.36-0.87, p<0.001)	90.6 (84.4-94.9)	0.65 (0.48-0.83, p<0.001)	86.7 (80.9-91.3)	0.58 (0.42-0.74, p<0.001)
Amniotic fluid volume	89.8 (81.5-95.2)	0.58 (0.32-0.84, p<0.001)	89.1 (82.7-93.8)	0.62 (0.44-0.8, p<0.001)	85.1 (79-89.9)	0.55 (0.4-0.71, p<0.001)
Abnormal exam (% abnormal)	82.7 (72.2-90.4)	0.61 (0.41-0.8, p<0.001)	84.1 (76-90.3)	0.61 (0.44-0.77, p<0.001)	84.8 (77.9-90.2)	0.59 (0.44-0.75, p<0.001)

Toscano M, Marini T, Lennon C, Erlick M, Silva H, Crofton K, et al. Diagnosis of pregnancy complications using blind ultrasound sweeps performed by individuals without prior formal ultrasound training. *Obstet Gynecol* 2023;141.

The authors provided this information as a supplement to their article.

©2023 American College of Obstetricians and Gynecologists.

Page 4 of 8

Appendix 3. Comparison of Fetal Measurements Obtained by Blind Ultrasound Sweeps Compared With Reference Diagnostic Ultrasound (Stratified by Gestational Age)

Variable	Absolute value of mean error $\pm$ SD	Intraclass Correlation Coefficient* (95% CI, p-value)	Bland-Altman Bias[†] (95% CI, p-value)
Second trimester exams (n=84)			
Biparietal diameter (mm)	2.16 $\pm$ 2.06	0.95 (0.923-0.965, p<0.0001)	0.332 (-5.49-6.16, p=0.28)
Head circumference (mm)	9.11 $\pm$ 7.3	0.94 (0.91-0.962, p<0.0001)	-1.11 (-24-21.8, p=0.4)
Abdominal circumference (mm)	15.2 $\pm$ 13.5	0.83 (0.67-0.904, p<0.0001)	-9.54 (-44.8-25.7, p<0.0001)
Femur length (mm)	3.39 $\pm$ 2.29	0.88 (0.575-0.95, p=0.00016)	-2.57 (-8.84-3.69, p<0.0001)
Estimated fetal weight (grams)	83 $\pm$ 86.8	0.91 (0.848-0.943, p<0.0001)	-6.8 (-243-229, p=0.66)
Estimated gestational age (weeks)	1.19 $\pm$ 1.26	0.82 (0.751-0.872, p<0.0001)	-0.568 (-3.78-2.65, p<0.0001)
Third trimester exams (n= 110)			
Biparietal diameter (mm)	3.7 $\pm$ 5.14	0.72 (0.598-0.806, p<0.0001)	-0.869 (-13.2-11.4, p=0.2)
Head circumference (mm)	15.9 $\pm$ 19	0.59 (0.345-0.75, p<0.0001)	-11.2 (-54.6-32.2, p=0.00015)
Abdominal circumference	19.1 $\pm$ 15.4	0.76 (0.459-0.882, p<0.0001)	-14 (-53.6-25.7, p<0.0001)

Toscano M, Marini T, Lennon C, Erlick M, Silva H, Crofton K, et al. Diagnosis of pregnancy complications using blind ultrasound sweeps performed by individuals without prior formal ultrasound training. *Obstet Gynecol* 2023;141. The authors provided this information as a supplement to their article.

©2023 American College of Obstetricians and Gynecologists.

(mm)			
Femur length (mm)	6.5 ± 4.9	0.48 (0.0572-0.726, p=0.013)	-5.2 (-17.5-7.13, p<0.0001)
Estimated fetal weight (grams)	197 ± 256	0.61 (0.279-0.811, p=0.00071)	-22 (-659-615, p=0.74)
Estimated gestational age (weeks)	2.04 ± 1.8	0.65 (0.528-0.739, p<0.0001)	-0.963 (-5.95-4.02, p<0.0001)
* Two-way random model for absolute agreement, p value is testing against theoretical mean of 0			
† Bias is calculated as index-reference test, p value is testing against theoretical mean of 0			

Appendix 4. Stratified by Gestational Age (Stratified by Participant Body Mass Index)

Variable	Absolute value of mean error $\pm$ SD	Intraclass Correlation Coefficient* (95% CI, p-value)	Bland-Altman Bias [†] (95% CI, p-value)
Body mass index < 30 kg/m ² (N=75)			
Biparietal diameter (mm)	2.23 $\pm$ 1.85	0.98 (0.973-0.989, p<0.001)	0.185 (-5.5-5.87, p=0.59)
Head circumference (mm)	11 $\pm$ 7.78	0.97 (0.938-0.984, p<0.001)	-5.55 (-29.8-18.7, p=0.0012)
Abdominal circumference (mm)	15 $\pm$ 13.2	0.95 (0.87-0.977, p<0.001)	-10.5 (-43.9-23, p<0.001)
Femur length (mm)	4.73 $\pm$ 4.28	0.9 (0.712-0.957, p<0.001)	-3.58 (-14-6.81, p<0.001)
Estimated fetal weight (grams)	53.5 $\pm$ 40.8	0.99 (0.969-0.996, p<0.001)	-15.5 (-146-115, p=0.34)
Estimated gestational age (weeks)	1.42 $\pm$ 1.35	0.94 (0.895-0.967, p<0.001)	-0.862 (-4.31-2.58, p<0.001)
Body mass index < 35 kg/m ² (N=113)			
Biparietal diameter (mm)	2.18 $\pm$ 1.79	0.98 (0.976-0.989, p<0.001)	0.339 (-5.17-5.85, p=0.21)
Head circumference (mm)	10.9 $\pm$ 7.89	0.97 (0.948-0.983, p<0.001)	-5.2 (-29.6-19.2, p=0.00021)
Abdominal circumference (mm)	15.2 $\pm$ 12.4	0.95 (0.873-0.977, p<0.001)	-10.5 (-43.1-22.1, p<0.001)
Femur length (mm)	4.55 $\pm$ 3.98	0.9 (0.689-0.959, p<0.001)	-3.62 (-13.1-5.89, p<0.001)

Toscano M, Marini T, Lennon C, Erlick M, Silva H, Crofton K, et al. Diagnosis of pregnancy complications using blind ultrasound sweeps performed by individuals without prior formal ultrasound training. *Obstet Gynecol* 2023;141.

The authors provided this information as a supplement to their article.

©2023 American College of Obstetricians and Gynecologists.

Page 7 of 8

Estimated fetal weight (grams)	73.8 ± 78.7	0.97 (0.945-0.983, p<0.001)	2.07 (-210-215, p=0.9)
Estimated gestational age (weeks)	1.4 ± 1.28	0.95 (0.885-0.971, p<0.001)	-0.936 (-4.17-2.3, p<0.001)
Body mass index < 40 kg/m ² (N=145)			
Biparietal diameter (mm)	2.48 ± 2.23	0.98 (0.969-0.984, p<0.001)	0.0774 (-6.47-6.62, p=0.79)
Head circumference (mm)	11.1 ± 8.47	0.97 (0.946-0.98, p<0.001)	-5.01 (-30.6-20.6, p=0.00012)
Abdominal circumference (mm)	16.9 ± 15	0.94 (0.848-0.967, p<0.001)	-11.6 (-49.6-26.4, p<0.001)
Femur length (mm)	4.44 ± 3.87	0.91 (0.723-0.958, p<0.001)	-3.42 (-12.8-6.01, p<0.001)
Estimated fetal weight (grams)	96.5 ± 101	0.94 (0.901-0.963, p<0.001)	9.05 (-265-283, p=0.62)
Estimated gestational age (weeks)	1.48 ± 1.42	0.94 (0.911-0.957, p<0.001)	-0.706 (-4.47-3.06, p<0.001)
* Two-way random model for absolute agreement, p value is testing against theoretical mean of 0			
† Bias is calculated as index-reference test, p value is testing against theoretical mean of 0			