**Table S1.** Area under the receiver-operating characteristic curve and sensitivity analyses to predict large for gestational age newborns (LGAs) using estimate percentile weight by ultrasound at 35 weeks (range 34-36 weeks) for different false positive rate (FPR) percentages and differences between ultrasound and delivery date (1-6 weeks). MSUH, Miguel Servet University Hospital; WHO, World Health Organization.

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| --- | --- | --- | --- | --- | --- | --- |
| ***Prediction of LGAs by standard between ultrasound and delivery date*** | ***N*** | ***Area under the curve (95% C.I.)*** | ***Sensitivity (95% CI)*** | | | |
| ***FPR 5%*** | ***FPR 10%*** | ***FPR 15%*** | ***FPR 20%*** |
| **Non-customized MSUH** |  |  |  |  |  |  |
| 1 week (8-14 days) | 156 | 0.89 (0.80-0.98) | 50.0 (26.8-73.2) | 64.3 (35.6-86.0) | 71.4 (42.0-90.4) | 85.7 (56.2-97.5) |
| 2 weeks (15-21 days) | 767 | 0.87 (0.81-0.92) | 47.1 (35.3-59.4) | 62.9 (50.4-73.9) | 77.1 (65.3-86.0) | 84.3 (73.2-91.5) |
| 3 weeks (22-28 days) | 1725 | 0.88 (0.84-0.91) | 50.7 (42.4-58.9) | 64.2 (55.9-71.8) | 73.0 (64.9-79.8) | 77.0 (69.3-83.4) |
| 4 weeks (29-35 days) | 2965 | 0.86 (0.84-0.88) | 42.5 (36.6-48.6) | 59.3 (53.2-65.2) | 67.4 (61.4-72.9) | 77.3 (71.8-82.1) |
| 5 weeks (36- 42 days) | 2595 | 0.85 (0.83-0.87) | 39.1 (33.7-44.9) | 54.6 (48.8-60.3) | 63.5 (57.8-68.9) | 72.4 (66.9-77.2) |
| 6 weeks (43- 49 days) | 1276 | 0.82 (0.79-0.86) | 31.7 (24.4-40.0) | 46.9 (38.6-55.3) | 59.3 (50.8-67.3) | 66.9 (58.5-74.3) |
| **Customized MSUH** |  |  |  |  |  |  |
| 1 week (8-14 days) | 156 | 0.84 (0.72-0.96) | 50.0 (26.8-73.2) | 50.0 (26.8-73.2) | 57.1 (29.6-81.2) | 57.1 (29.6-81.2) |
| 2 weeks (15-21 days) | 767 | 0.82 (0.76-0.87) | 31.4 (21.1-43.8) | 50.0 (38.6-61.4) | 58.6 (46.2-70.0) | 70.0 (57.1-80.1) |
| 3 weeks (22-28 days) | 1725 | 0.84 (0.81-0.88) | 38.5 (30.7-46.9) | 56.8 (48.4-64.8) | 64.2 (55.9-71.8) | 73.6 (65.7-80.4) |
| 4 weeks (29-35 days) | 2965 | 0.81 (0.78-0.84) | 30.0 (24.7-35.9) | 46.5 (40.5-52.6) | 59.0 (52.9-64.8) | 65.2 (59.2-70.8) |
| 5 weeks (36-42 days) | 2596 | 0.79 (0.76-0.82) | 28.3 (23.4-33.8) | 40.1 (34.6-45.9) | 49.7 (43.9-55.4) | 60.5 (54.8-66.0) |
| 6 weeks (43-49 days) | 1276 | 0.76 (0.72-0.80) | 25.5 (18.8-33.5) | 36.6 (28.8-45.0) | 49.7 (41.3-58.0) | 55.9 (47.4-64.0) |
| **Figueras** |  |  |  |  |  |  |
| 1 week (8-14 days) | 156 | 0.82 (0.69-0.95) | 50.0 (26.8-73.2) | 50.0 (26.8-73.2) | 57.1 (29.6-81.2) | 64.3 (35.6-86.0) |
| 2 weeks (15-21 days) | 767 | 0.81 (0.76-0.87) | 31.4 (21.1-43.8) | 51.4 (39.3-63.4) | 61.4 (49.0-72.6) | 70.0 (57.7-80.1) |
| 3 weeks (22-28 days) | 1725 | 0.85 (0.81-0.88) | 43.9 (35.9-52.3) | 58.8 (50.4-66.7) | 68.9 (60.7-76.1) | 75.7 (67.8-82.2) |
| 4 weeks (29-35 days) | 2965 | 0.82 (0.80-0.85) | 33.3 (27.8-39.3) | 50.9 (44.8-57.0) | 62.6 (56.6-68.3) | 68.9 (63.0-74.2) |
| 5 weeks (36- 42 days) | 2596 | 0.79 (0.77-0.82) | 27.3 (22.4-32.7) | 45.1 (39.4-50.9) | 54.9 (49.1-60.6) | 61.5 (55.8-67.0) |
| 6 weeks (43- 49 days) | 1276 | 0.78 (0.74-0.81) | 25.5 (18.8-33.6) | 40.0 (32.1-48.5) | 49.0 (40.6-57.4) | 56.6 (48.1-64.7) |
| **INTERGROWTH-21st** |  |  |  |  |  |  |
| 1 week (8-14 days) | 156 | 0.87 (0.77-0.96) | 50.0 (26.8-73.2) | 57.1 (29.6-81.2) | 57.1 (29.6-81.2) | 78.6 (48.8-94.3) |
| 2 weeks (15-21 days) | 767 | 0.85 (0.80-0.90) | 40.0 (28.7-52.4) | 61.4 (49.0-72.6) | 75.7 (63.7-84.8) | 82.9 (71.6-90.4) |
| 3 weeks (22-28 days) | 1725 | 0.87 (0.83-0.90) | 50.0 (42.0-58.0) | 58.8 (50.4-66.7) | 68.9 (60.7-76.1) | 78.4 (70.7-84.6) |
| 4 weeks (29-35 days) | 2965 | 0.84 (0.82-0.87) | 32.2 (26.8-38.2) | 52.7 (46.6-58.8) | 63.4 (57.3-69.0) | 71.4 (65.6-76.6) |
| 5 weeks (36- 42 days) | 2596 | 0.84 (0.81-0.86) | 36.2 (30.8-41.9) | 51.3 (45.6-57.0) | 62.5 (56.8-67.9) | 70.4 (64.9-75.4) |
| 6 weeks (43- 49 days) | 1276 | 0.80 (0.76-0.84) | 30.3 (23.1-38.6) | 42.8 (34.7-51.2) | 52.4 (44.0-60.7) | 68.3 (60.0-75.6) |
| **WHO** |  |  |  |  |  |  |
| 1 week (8-14 days) | 156 | 0.83 (0.73-0.94) | 42.9 (18.8-70.4) | 42.9 (18.8-70.4) | 50.0 (26.8-73.2) | 57.1 (29.6-81.2) |
| 2 weeks (15-21 days) | 767 | 0.75 (0.70-0.80) | 20.0 (11.7-31.6) | 34.3 (23.6-46.7) | 35.7 (24.9-48.1) | 38.6 (27.4-51.0) |
| 3 weeks (22-28 days) | 1725 | 0.80 (0.76-0.83) | 32.4 (25.1-40.7) | 38.5 (30.7-46.9) | 42.6 (34.6-51.0) | 46.6 (38.4-55.0) |
| 4 weeks (29-35 days) | 2965 | 0.77 (0.75-0.79) | 22.7 (18.0-28.2) | 30.4 (25.1-36.3) | 34.4 (28.9-40.4) | 39.9 (34.1-46.0) |
| 5 weeks (36- 42 days) | 2596 | 0.78 (0.75-0.80) | 27.6 (22.8-33.1) | 30.9 (25.8-36.5) | 36.2 (30.8-41.9) | 45.7 (40.1-51.5) |
| 6 weeks (43- 49 days) | 1276 | 0.77 (0.74-0.81) | 22.1 (15.8-29.9) | 26.2 (19.4-34.3) | 31.7 (24.4-40.0) | 41.4 (33.4-49.9) |
| **Fetal Medicine Foundation** |  |  |  |  |  |  |
| 1 week (8-14 days) | 156 | 0.90 (0.81-0.98) | 50.0 (26.8-73.2) | 64.3 (35.6-86.0) | 71.4 (42.0-90.4) | 85.7 (56.2-97.5) |
| 2 weeks (15-21 days) | 767 | 0.86 (0.81-0.91) | 41.4 (30.0-53.8) | 64.3 (51.9-75.1) | 78.6 (66.8-87.1) | 82.3 (71.6-90.5) |
| 3 weeks (22-28 days) | 1725 | 0.87 (0.84-0.90) | 48.0 (39.8-56.3) | 61.5 (53.1-69.3) | 72.3 (64.2-79.2) | 79.7 (72.2-85.7) |
| 4 weeks (29-35 days) | 2965 | 0.86 (0.83-0.88) | 39.9 (34.1-46.0) | 59.3 (53.2-65.2) | 70.0 (64.1-75.3) | 74.4 (68.7-79.3) |
| 5 weeks (36- 42 days) | 2596 | 0.85 (0.83-0.87) | 36.5 (31.1-42.2) | 53.9 (48.2-59.6) | 64.5 (58.8-69.8) | 71.4 (65.9-76.3) |
| 6 weeks (43- 49 days) | 1276 | 0.82 (0.79-0.85) | 28.3 (21.3-36.4) | 47.6 (39.3-56.0) | 59.3 (50.8-67.3) | 68.3 (60.0-75.6) |

Table S2. Concordance between diagnosed LGA cases (n=961) by standards (EPW > 90)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | ***Non-customized MSUH*** | **Customized MSUH** | **Figueras** | **INTERGROWTH-21st** | **WHO** | **Fetal Medicine Foundation** |
| **Non-customized MSUH** | 516 | 398 | 435 | 379 | 170 | 426 |
| **Customized MSUH** |  | 424 | 396 | 335 | 165 | 357 |
| **Figueras** |  |  | 480 | 348 | 162 | 376 |
| **INTERGROWTH-21st** |  |  |  | 398 | 162 | 361 |
| **WHO** |  |  |  |  | 170 | 170 |
| **Fetal Medicine Foundation** |  |  |  |  |  | 426 |