Table S1. Shock index detection of postpartum hemorrhage among 30,820 women

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Outcome | Sensitivity (95% CI) | Specificity (95% CI) | PPV (95% CI) | NPV (95% CI) | Prevalence |
| PPH (≥1,000 mL) |  |  |  |  | 3.62% |
|  Shock Index ≥0.70 | 84.2% (82.0–86.3) | 35.5% (35.0–36.1) | 4.7% (4.4–5.0) | 98.3% (98.1–98.6) |  |
|  Shock Index ≥0.80 | 64.9% (62.1–67.7) | 62.8% (62.3–63.4) | 6.2% (5.7–6.6) | 97.9% (97.7–98.1) |  |
|  Shock Index ≥0.90 | 45.6% (42.6–48.5) | 82.6% (82.1–83.0) | 8.9% (8.2–9.7) | 97.6% (97.4–97.8) |  |
|  Shock Index ≥1.0 | 29.9% (27.2–32.6) | 92.7% (92.4–93.0) | 13.4% (12.1–14.7) | 97.2% (97.0–97.4) |  |
|  Shock Index ≥1.1 | 19.2% (16.9–21.5) | 97.1% (96.9–97.2) | 19.7% (17.3–22.0) | 97.0% (96.8–97.2) |  |
|  Shock Index ≥1.2 | 10.3% (8.5–12.1) | 98.7% (98.6–98.8) | 23.1% (19.4–26.8) | 96.7% (96.5–96.9) |  |
|  Shock Index ≥1.3 | 5.6% (4.2–6.9) | 99.4% (99.3–99.5) | 26.8% (21.1–32.6) | 96.6% (96.3–96.8) |  |
|  Shock Index ≥1.4 | 3.5% (2.4–4.6) | 99.7% (99.7–99.8) | 32.5% (24.1–40.9) | 96.5% (96.3–96.7) |  |
|  Shock Index ≥1.5 | 2.2% (1.4–3.1) | 99.9% (99.8–99.9) | 39.7% (27.6–51.8) | 96.4% (96.2–96.7) | 　 |
| PPH (≥1,500 mL) |  |  |  |  | 0.95% |
|  Shock Index ≥0.70 | 88.8% (85.2–92.4) | 35.0% (34.5–35.6) | 1.3% (1.1–1.5) | 99.7% (99.6–99.8) |  |
|  Shock Index ≥0.80 | 74.1% (69.1–79.2) | 62.2% (61.6–62.7) | 1.9% (1.6–2.1) | 99.6% (99.5–99.7) |  |
|  Shock Index ≥0.90 | 55.4% (49.8–61.1) | 81.9% (81.5–82.3) | 2.9% (2.4–3.3) | 99.5% (99.4–99.6) |  |
|  Shock Index ≥1.0 | 40.5% (34.9–46.1) | 92.2% (91.9–92.5) | 4.8% (3.9–5.6) | 99.4% (99.3–99.5) |  |
|  Shock Index ≥1.1 | 27.9% (22.8–27.9) | 96.7% (96.5–96.9) | 7.5% (6.0–9.1) | 99.3% (99.2–99.4) |  |
|  Shock Index ≥1.2 | 13.6% (9.7–17.5) | 98.5% (98.4–98.6) | 8.0% (5.6–10.4) | 99.2% (99.1–99.3) |  |
|  Shock Index ≥1.3 | 8.5% (5.3–11.7) | 99.3% (99.2–99.4) | 10.8% (6.8–14.8) | 99.1% (99.0–99.2) |  |
|  Shock Index ≥1.4 | 4.8% (2.3–7.2) | 99.7% (99.6–99.7) | 11.7% (5.9–17.4) | 99.1% (99.0–99.2) |  |
|  Shock Index ≥1.5 | 3.1% (1.1–5.0) | 99.8% (99.8–99.8) | 14.3% (5.6–22.9) | 99.1% (99.0–99.2) | 　 |

PPV, positive predictive value; NPV, negative predictive value; CI, confidence interval; PPH, postpartum hemorrhage.

Table S2. AUROC values with 95% confidence interval of vital signs parameters to detect postpartum hemorrhage stratified by BMI category at delivery.

|  |  |  |
| --- | --- | --- |
| BMI category and vital sign | AUROC (95% CI) for PPH (≥1,000 mL) | AUROC (95% CI) for PPH (≥1,500 mL) |
| BMI< 25 kg/m2 |  |  |
|  Shock index | 0.686 (0.661–0.711) | 0.770 (0.727–0.814) |
|  Heart rate | 0.655 (0.630–0.679) | 0.732 (0.689–0.775) |
|  Pulse pressure | 0.646 (0.622–0.670) | 0.619 (0.565–0.673) |
|  Systolic blood pressure | 0.599 (0.574–0.625) | 0.636 (0.583–0.688) |
|  Diastolic blood pressure | 0.539 (0.514–0.564) | 0.548 (0.496–0.600) |
|  Mean arterial pressure | 0.514 (0.487–0.540) | 0.532 (0.477–0.587) |
| BMI 25–30 kg/m2 |  |  |
|  Shock index | 0.702 (0.676–0.727) | 0.736 (0.691–0.781) |
|  Heart rate | 0.685 (0.661–0.710) | 0.714 (0.670–0.757) |
|  Pulse pressure | 0.642 (0.617–0.667) | 0.675 (0.630–0.721) |
|  Systolic blood pressure | 0.580 (0.551–0.608) | 0.601 (0.547–0.654) |
|  Diastolic blood pressure | 0.541 (0.514–0.568) | 0.568 (0.518–0.619) |
|  Mean arterial pressure | 0.519 (0.490–0.547) | 0.525 (0.473–0.577) |
| BMI≥ 30 kg/m2 |  |  |
|  Shock index | 0.730 (0.677–0.783) | 0.782 (0.688–0.877) |
|  Heart rate | 0.721 (0.669–0.773) | 0.761 (0.660–0.863) |
|  Pulse pressure | 0.579 (0.521–0.636) | 0.674 (0.574–0.773) |
|  Systolic blood pressure | 0.586 (0.527–0.646) | 0.581 (0.480–0.681) |
|  Diastolic blood pressure | 0.504 (0.446–0.562) | 0.597 (0.477–0.716) |
|  Mean arterial pressure | 0.505 (0.445–0.565) | 0.600 (0.485–0.715) |

AUROC, area under the receiver operating characteristic curve; CI, confidence interval; PPH, postpartum hemorrhage; BMI, body mass index.