Ukuran lingkar betis sebagai penanda bblr studi validasi pada etnis Jawa di Kecamatan Bumiayu Kabupaten Brebes tahun 2014 = Calf circumference measurement as a marker of low birth weight infants a validation study on Javanese at sub district of Bumiayu Brebes regency 2014

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Abstrak

Latar belakang : Bayi berat lahir rendah adalah bayi dengan berat badan <2500. Bayi BBLR berkontribusi terhadap 60 ? 80% kematian neonatal. Berat lahir harus diukur dengan baik, namun menurut WHO dan UNICEF 2004 separuh bayi yang lahir di negara berkembang tidak ditimbang, karena alat timbang tidak ada, rusak, atau bahkan tidak pernah dikalibarasi, sehingga perlu ukuran pengganti yang dapat mengidentifikasi BBLR. Tujuan dari penelitian ini adalah didapatkannya ukuran antropometri (lingkar kepala, lingkar lengan atas, lingkar dada, lingkar paha dan lingkar betis) alternatif pengganti yang paling akurat untuk mengidentifikasi BBLR pada bayi yang lahir dari perempuan Etnis Jawa di Kecamatan Bumiayu Kabupaten Brebes tahun 2014.
Metode : Penelitian analitik dengan desain studi cross sectional. Variabel yang diukur adalah berat badan, lingkar kepala, lingkar lengan atas, lingkar dada, lingkar paha dan lingkar betis bayi baru lahir. Ukuran dilakukan dalam rentang waktu 0 hingga 24 jam setelah kelahiran bayi. Semua ukuran dilakukan pencatatan dengan ukuran 0,1 cm terdekat dan 0.1 gram untuk berat badan. Metode statistik standar diadopsi untuk kekuatan hubungan (r), penentuan nilai AUC, titik potong (cut of point) sensitivitas, spesifisitas, NDP dan NDN.
Hasil penelitian menunjukan bahwa lingkar betis memiliki tingkat sensitivitas tertinggi (88.9%) dibandingkan dengan ukuran lainnya. Dengan nilai duga positif (NDP) dan nilai duga negatif (NDP) yang juga paling tinggi. Dengan cut of point 9.75 cm, yaitu jika lingkar betis bayi <9.75 cm maka, bayi dikatakan BBLR.
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Background: Low birth weight infants are those with birth weight less than 2500 grams. LBW infant cases contribute to 60-80% of neonatal deaths. In fact, every birth weight should be measured accurately. Still, according to WHO and UNICEF in 2004, half of those infants born in the developing countries were not weighed because of some reasons: the scales did not exist, damaged, or even never been calibrated. Thus, it is necessary to identify surrogate measurement of LBW. The purpose of this research is to collect anthropometric measurements (head, upper-arm, chest, thigh, and calf circumference) as an accurate alternative to identify LBW infants born of women at Sub-district of Bumiayu, Brebes Regency in 2014.
Methods: This study was conducted through cross-sectional design. The variables measured were head, upper-arm, chest, thigh circumference, and calf circumference, and also weight of newborns. Measurements were made in a span of 0 to 24 hours after birth. All measurements were recorded to the nearest size of 0.1 cm and 0.1 gr for weight loss. The method of standard statistic was adopted for the strength of the relationship (r), the determination of the value of AUC, cut point (cut of point) sensitivity, specificity, NDP and NDN.

The results : Showed that the calf circumference had the highest level of sensitivity (88.9%) compared with other measurements. Having cut of point 9.75 cm, calf circumference showed the highest positive predictive value (NDP) and negative predictive value (NDP). In other words, infants with calf circumference less than 9.75 cm are those born with LBW.