

REFERENCE VALUES OF SELECTED TRACE ELEMENTS IN THE SERUM OF TERM NEWBORNS FROM THE URBAN AREA OF ROME

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Reference values for Al, Cd, Co, Cu, Li, Mn, Mo, Ni, Rb, Se and Zn and indicative intervals for Sb are proposed in the serum from cord blood of 143 term newborns of the urban area of Rome. On the basis of the eligibility criteria adopted, only the babies with gestational age >37 weeks and body weight at the delivery >2,500g, i.e. "normal" term infants, were included in this study. With the exception of Cd, Li, Ni and Sb, all other analytes results provided good approximation to the normal distribution. The experimental references values (in ng/ml) were the following: 1.12–6.79 (Al), 0.10–0.52 (Cd), 0.20–0.43 (Co), 140–691 (Cu), 0.31–2.23 (Li), 0.79–3.26 (Mn), 0.36–1.56 (Mo), 0.20–3.15 (Ni), 196–1,302 (Rb), 20.2–69.7 (Se) and 318–1,405 (Zn). For several elements, the present knowledge does not allow for a thorough comparison. This could be done only for Cu, Sb, Se and Zn. Possible correlations between elements concentrations and weights at birth or gestational ages were also attempted.