Appropriate Usage of Antibiotics in Therapeutic Drug Monitoring

OHideya Kokubun, Toshimi Kimura, Yago Kazuo (Department of Pharmacy, Kitasato University Hospital)

Aminoglycosides are mainly distributed to the extracellular fluid. Therefore, neonates with many rates of the extracellular fluid distributes a lot of Aminoglycosides there.. In the data of our hospital, the volume of distribution (Vd) for Arbekacin in neonates was 0.54L/kg, and was about twice that of adults. Therefore, when prescribing Aminoglycosides for neonates, we must prescribe more dose per weight than the adult. Also, regarding the renal function of neonates, differentiation of the nephron is completed within 36 weeks of conception, but it is functionally immature. In our data, renal drug excretion rose rapidly in the post-conceptional ages (PCAs) of 34 - 35 weeks. Therefore, in our hospital, the prescribing schedule for Arbekacin is set from the PCAs. In this symposium, we present the TDM analysis result of the antibiotics in our hospital.