Disclosure(s) Nothing to disclose.

P114 POPULATION PHARMACOKINETICS AND DOSING OPTIMIZATION OF CEFEPIME IN NEONATES
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Objective Cefepime, a fourth-generation cephalosporin, is used in the treatment of severe nosocomial infections in neonates. Pharmacokinetics of cefepime was limited. Therefore, we aimed to study the population pharmacokinetics of cefepime and optimize cefepime regimen in preterm and term neonates.

Methods Blood samples were obtained from neonates treated with cefepime using an opportunistic sampling design. Concentration of cefepime was determined by high performance liquid chromatography. Population pharmacokinetics analysis was conducted using NONMEM software.

Results Sparse pharmacokinetic samples (n=100) from 85 neonatal patients were available for analysis. A one-compartment model with first-order elimination was used to describe the pharmacokinetics of cefepime. Covariate analysis showed that current weight, postmenstrual age and serum creatinine concentration of cefepime was determined by high performance liquid chromatography. Population pharmacokinetics analysis was conducted using NONMEM software. Concentration of cefepime was determined by high performance liquid chromatography. Population pharmacokinetics analysis was conducted using NONMEM software.

Conclusion The population pharmacokinetics characteristics of cefepime were evaluated in neonates. Based on simulation, different dosage regimens were required depending on the postmenstrual age and pathogens.

Disclosure(s) Nothing to disclose.

P116 PROPHYLACTIC USE OF ENOXAPARIN DURING BARIATRIC SURGERY IN ADOLESCENTS WITH SEVERE OBESITY

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Background Severe obesity predisposes adults and youth to a higher risk of venous thromboembolism (VTE). Enoxaparin is frequently used for their VTE management. This study evaluates a BMI-stratified prophylactic dosing regimen of enoxaparin in severely obese adolescents undergoing bariatric surgery.

Methods This prospective study enrolled severely obese adolescents aged 12–20 years undergoing laparoscopic sleeve gastrectomy. Prophylactic enoxaparin was dosed at 40 mg SC (for a BMI less than 50 kg/m²) and 60 mg SC (for a BMI equal to or greater than or 50 kg/m²). Blood samples were drawn until 12 hrs post-dose. Plasma Anti-Factor Xa (Anti-FXa) activity was used as a surrogate marker for enoxaparin plasma concentration and pharmacokinetics were assessed using non-compartmental PK analysis. The primary efficacy outcome was the anti-FXa activity 4–6 hours after dosing, and the primary endpoint was the proportion of patients who reached prophylactic anti-FXa activity of 0.1–0.3 U/mL between 4–6 hours after dosing.