- Vancomycin pharmacokinetics are highly variable among neonates, which has made it challenging to identify therapeutic and safe dosing regimens.
- Population pharmacokinetic models are a powerful tool that offer the potential to aid clinicians and help inform dosing decisions.
- An evaluation of a recently published neonatal vancomycin population pharmacokinetic model in a large external dataset supported the predictive performance and generalizability of the model.
- The model yielded precise predictions across a wide range of weights, postmenstrual ages, and serum creatinine concentrations.
- This work lays the foundation for the development of model-based approaches that personalize neonatal vancomycin dosing regimens in the clinical setting.

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