# Editorial

*Dear Readers,*

*Thank you for all your contributions to ijopp. I am happy to inform you all that ijopp is now indexed in Copernicus and we are trying to get it indexed in other bibliographical databases also*

*During our routine discussion with the clinicians, we invariably come across a few drug molecules which follow dose dependent kinetics what we call as "Non-Linear Pharmacokinetics."*

*Unlike linear pharmacokinetic models, which use simple first order kinetics to describe ADME, non-linear pharmacokinetic models require the application of more complicated saturation [Michaelis-Menten] kinetics. Although linear pharmacokinetics describes a large majority of drugs used in the hospital, few drugs follow saturation kinetics. Such drugs cause a disproportionate increase in serum levels when dosage is increased.*

*Drugs following non-linear kinetics also known as dose dependent kinetics, cause saturation of the metabolic carrier mediated system. This can occur in the glycine conjugation of salicylates, glucuronate conjugation of phenytoin and hydroxylation and subsequent glucuronate conjugation of theophylline to name a few. Another example is saturation of renal process with penicillin. As dosage increases renal clearance decreases.*

*For those drugs exhibiting non-linear kinetics, a small change in daily dose could result in a large change in plasma concentration. For instance, a 10% change in dose could yield a100% (or greater) change in concentration. This could lead to toxicity.*

*Understanding of drugs following non-linear pharmacokinetics is much more challenging and needs thorough understanding of Michaelis-Menten Kinetics.*

*This will help the clinicians to prevent the adverse reactions of many important drugs such as phenytoin by dose adjustment to achieve a target steady state concentration. Knowledge of $V_M$[Maximum elimination rate of a drug] and $K_M$[Michaelis-Menten constant] is required for the determination of new dose.*

*This area can be explored by pharmacy practice researchers to contribute to better patient care. Do share your views, expertise and work in this area through letter to editor, review and research articles respectively.*

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