## **DRUG PROFILE**

# DOSAGE ADJUSTMENTS IN PATIENTS WITH RENAL IMPAIRMENT - ANTIVIRALS

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**Abstract:** Dosage calculation of medications for children with renal impairment is a challenge for pediatricians. The balance between risk of toxicity and the ability to achieve adequate levels in target organs is the key. This article, the first of three, will deal with doses of some antiviral drugs in renal failure.

**Keywords**: *Renal impairment, Dosage adjustment, Antivirals.* 

### **Points to Remember**

- Determining the dosage in children with renal failure is a challenging task in children because of drug toxicity and ineffectiveness of certain molecules. These problems could be overcome by either reducing the dose, increasing interval between doses or by administering alternative drugs.
- A reduced maintenance dose is recommended, because the plasma half-life of drugs excreted by the kidney is prolonged in renal impairment and therefore many doses at the reduced dosage may be required to achieve a therapeutic plasma concentration.
- Dose recommendations are based on the severity of renal impairment, which is expressed in terms of glomerular filtration rate.
- Dosage adjustments of common drugs like acyclovir, cidofovir, gancyclovir, valacyclovir, oseltamivir, zanamivir and foscarnet is described here.

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