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Does DoseMeRx support vancomycin dosing in patients with fluctuating renal function?

Learn how DoseMeRx can dose patients with fluctuating renal function when receiving renally-cleared drugs such as vancomycin.

Written by Sharmeen Roy, PharmD, BCPS
Updated over a week ago

DoseMeRx has a track record of successfully dosing patients with significantly varying renal function over the course of several weeks. It handles fluctuating renal function by allowing multiple serum creatinine entries. DoseMeRx will use the most recent entries to calculate any future doses and (for most models) use historical data to calculate eGFR/eCRCL – using a method such as Cockcroft-Gault (for adults) and Schwartz (for pediatrics) to determine the relationship between vancomycin clearance and creatinine clearance. This allows drug clearance to vary over time as eCRCL varies.

In addition, to improve the model fit, DoseMeRx will linearly interpolate between adjacent serum creatinine lab measurements.

However, since serum creatinine is a later marker of renal function, anuria can occur prior to a measurable rise in serum creatinine, This means that just like any other tool, scoring method, or alerting method that uses serum creatinine, the clinician needs to evaluate this information in the context of the overall patient's clinical status.

It's also important to note that serum creatinine is used differently in the various models in DoseMeRx. Unless otherwise noted, for any model using Cockcroft-Gault, DoseMeRx uses a

minimum serum creatinine of 0.68 mg/dL (60 µmol/L) and the lower of total body weight or ideal body weight as described by Duffull *et al.* (Br J Clin Pharmacol 1997; 43: 125–135) in order to avoid over-predicting creatinine clearance in outlier patients, such as obese. These details are available from the Drug Information section when you are logged into your DoseMeRx account.

Related articles:

Estimated Creatinine Clearance (eCrCl)

Questions?

If you have any questions about DoseMeRx and how we support patients with fluctuating renal function, please contact DoseMeRx Support.

Did this answer your question?

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