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Estimated Creatinine Clearance (eCrCl)

How does DoseMeRx calculate estimated creatinine clearance?

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There are two key areas within DoseMeRx where eCrCl is calculated and used - 1) for display on the Dosing Calculation page and 2) within the drug model that determines medication dosing. The patient's actual laboratory-measured serum creatinine should be recorded. Rounding or altering the value is discouraged.

On the Dosing Calculation page, the method for calculating the eCrCl is indicated in parenthesis after the displayed value. Unless otherwise noted, for adults, eCrCl is calculated using Cockcroft-Gault, using the lower of ideal body weight (IBW) or total body weight (TBW), and a minimum serum creatinine of 0.68 mg/dL (60 µmol/L) as described by Duffull *et al.* (Br J Clin Pharmacol 1997; 43: 125–135) . We do this to avoid estimating unphysiologically high CrCl which could otherwise occur for outlier patients with low serum creatinine results. For pediatrics, we utilize Schwartz unless otherwise noted. If there is no serum creatinine entered for the patient, DoseMeRx will utilize an average population-based serum creatinine that is based on the patient's age and sex.

If enabled, the eCrCl will also be displayed in the pharmacokinetics section of the final dosing recommendation report, allowing for convenient comparison. Both the calculation using IBW and TBW will be displayed.

When used as part of the drug model calculation, we follow the approach that is outlined in the original study. However, if it is not available, the methodology described above is followed.

Additional information for these exceptions can be found in the Drug Information section when you are logged into your DoseMeRx account.

Related Articles:

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Questions?

If you have any questions about DoseMeRx and how the platform calculates estimated creatinine clearance, please contact DoseMeRx Support.

Did this answer your question?

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