Prescribing Tip No. 201 Date: 3rd May 2018

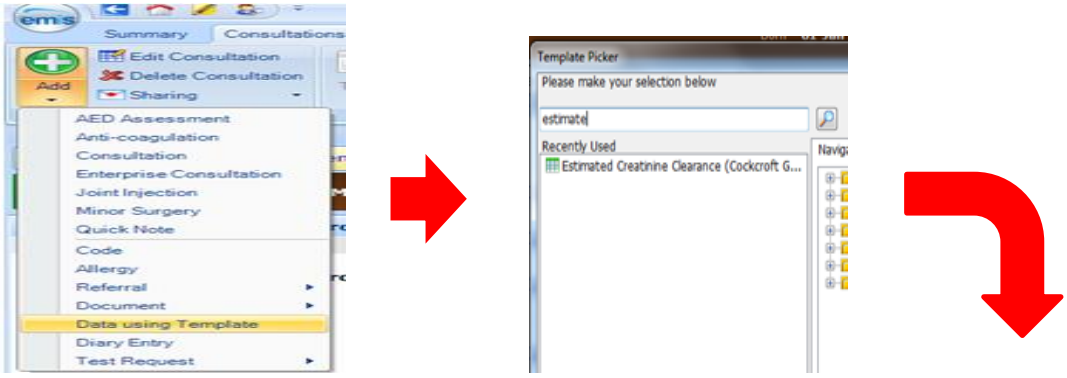
Calculating Creatinine Clearance (CrCl) in adults using EMIS

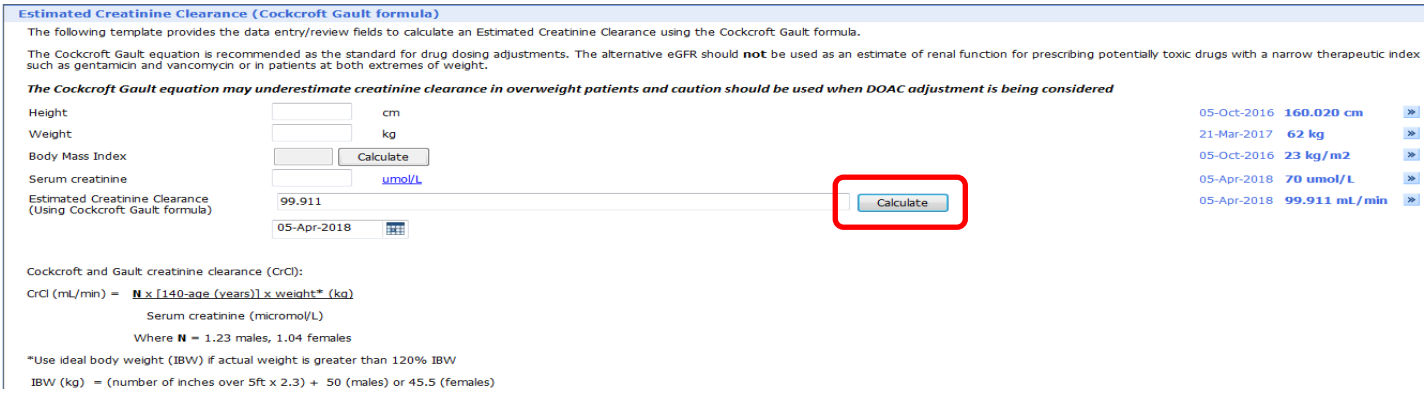
Estimated creatinine clearance using the Cockcroft and Gault formula is the preferred method for estimating renal function or calculating drug doses in patients with renal impairment who are elderly (aged 75 years and over) or at extremes of BMI (< 18kg/m^2 or > 40kg/m^2). It provides an estimate of CrCl (which is not equivalent to eGFR).[1] Creatinine clearance, rather than eGFR, must also be used when deciding upon the correct dose of novel oral anticoagulant (NOAC) to prescribe for stroke risk reduction in patients with non-valvular AF.

For further information on estimating renal function in patients at extremes of muscle mass see the **"Prescribing in renal impairment"** section within the BNF.

EMIS has created a template which allows prescribers to calculate CrCl (using the Cockcroft and Gault equation) and save this information in a patient's medical records. The template can be located in: **Template Manager/Templates and Protocols/EMIS Library/Primary Care Templates/History and Exam.**

Alternatively the template can be launched whilst in consultations as depicted below.





If the patient has a previously recorded height, weight and serum creatinine then Estimated Creatinine Clearance can be calculated and the result saved directly into the patient's consultation. To ensure the calculated CrCl is accurate please check that the patient's weight and serum creatinine are up to date.

For prescribers who prefer to use an online tool, **MDCalc** is a reliable source for medical equations, scores and algorithms and can be accessed at the following link https://www.mdcalc.com/creatinine-clearance-cockcroft-gault-equation

References: 1. BNF 74. Prescribing in renal impairment Pg 20

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